

Volume 9, Issue 11(2), November 2020
**International Journal of Multidisciplinary
Educational Research**

**Published by
Sucharitha Publications
Visakhapatnam
Andhra Pradesh – India
Email: victorphilosophy@gmail.com
Website: www.ijmer.in**

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IJMER, Journal of Multidisciplinary Educational Research, concentrates on critical and creative research in multidisciplinary traditions. This journal seeks to promote original research and cultivate a fruitful dialogue between old and new thought.

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International Journal of Multidisciplinary
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Sucharitha: A Journal of Philosophy and
Religion
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ISSN : 2277 – 7881
Impact Factor :6.514(2020)
Index Copernicus Value: 5.16



Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

Dr.K.Victor Babu
Editor-in-Chief

SOCIAL SCIENCES, HUMANITIES, COMMERCE & MANAGEMENT, ENGINEERING &
TECHNOLOGY, MEDICINE, SCIENCES, ART & DEVELOPMENT STUDIES, LAW

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वेदाध्ययने शिष्यधर्माणां परिशीलनम्

डा.रा.सुब्रह्मण्य भिडे

सहायाचार्यः, श्रीवेङ्कटेश्वरवेदविश्वविद्यालयः, तिरुपति:

समे विद्वांसः जानन्ति यत् ब्रह्मचारिणा गुरुकुले उषित्वा वेदोऽध्येतव्य इति। अत्र आचार्येण उपेतः, शिष्यो भवति ब्रह्मचार्यपि। अतः शिष्यधर्मेषु आहोस्वित् नियमेषु ब्रह्मचर्यधर्मा अपि अन्तर्भवन्ति। शिष्यधर्मेषु ब्रह्मचर्यवर्षपरिगणनम्, भिक्षाचरणम्, अजिनादिधारणम्, आचार्यादीनां उपसङ्ग्रहणम्, अभिवादनम्, अग्निकार्यार्थं समिदाहरणम् इत्यादयो बहवो धर्मा भवन्ति। इमे विषयाः बहुत्र स्मृतिषु धर्मसूत्रेषु च विस्तरेण कथिता वर्तन्ते। सर्वस्मृतिभ्यः सर्वधर्मसूत्रेभ्यश्च एतत्सम्बद्धवचनानि यदि एकत्र समाहरामस्तर्हि एकः कोशो भवतीत्यतः, (भारतस्य दक्षिणदेशेषु आपस्तम्बसूत्रानुयायिनां बहुसङ्ख्याकत्वात्) अस्मिन् शोधलेखे उपलक्षणत्वेन आपस्तम्बधर्मसूत्रवचनान्याश्रित्य शिष्यधर्मा निरूप्यन्ते प्रसङ्गात् अन्यत्र वचनान्यपि।

ब्रह्मचर्यवर्षपरिगणनम्

तत्र प्रथमं – उपेतस्याचार्यकुले ब्रह्मचारिवासः(आ.ध.१.२.११)इति, आपस्तम्बः “उपनीतेन शिष्येण आचार्यकुलवासः कर्तव्य” इति निगद्य ततः परं सर्वान् शिष्यनियमान् वक्तुमारभते। तत्र मुख्यकल्पत्वेन प्रतिवेदं द्वादशवर्षरूपेण अष्टाचत्वारिंशद्वर्षाणि अध्ययनकालः इति कथयित्वा, अनुकल्पेन षट्त्रिंशत्, चतुर्विंशतिः, कनिष्ठतया द्वादशवर्षाणि वा गुरुकुलवासम् अध्ययनार्थं कुर्यादित्येभिः सूत्रैः कथयति – अष्टाचत्वारिंशद्वर्षाणि। पादूनम्। अर्धेन। त्रिभिर्वा। द्वादशवराध्यम्। (आ.ध.१.२.१२-१६) इति। मनुनापि “वेदत्रयस्य प्रत्येकस्य द्वादशवर्षाणि” इत्येवं मुख्यकल्प-अनुकल्पाभ्यां षट्त्रिंशत्, चतुर्विंशतिः, अथवा द्वादशवर्षाणि इति निगद्यते –

षट् त्रिंशदाब्दिकं चर्यं गुरौ त्रैवेद्यकं व्रतम्।

तदर्थिकं पादिकं वा ग्रहणान्तिकमेव वा॥ (म.स्मृ.३.१) इति।

याज्ञवल्क्येन तु (अनुग्रहेण) प्रतिवेदं द्वादश, पञ्च वा वर्षाणि इति कथितम्। यथा –

प्रतिवेदं ब्रह्मचर्यं द्वादशाब्दानि पञ्च वा। (या.स्मृ.१.३६) इति।

अत्र श्रुतिप्रमाणं एवं भवति गोपथब्राह्मणे – तस्मा एतत्प्रोवाच अष्टाचत्वारिंशद्वर्षं तच्चतुर्थां वेदेषु व्यूह्य द्वादशवर्षं ब्रह्मचर्यं द्वादशवर्षाण्यवार्धमपिस्तायंश्चरेद्यथाशक्त्यपरम् (गो.ब्रा.पू.२.५) इति।

आचार्याधीनता

शिष्यः आचार्यधीनो भवेदिति प्रधानधर्मः। तत्र विशेषः प्रदर्श्यते आपस्तम्बेन – आचार्याधीनः स्यादन्यत्र पतनीयेभ्यः (आ.ध.१.२.१९) इति। अर्थात् – “अमुमरातिं ब्राह्मणं इत्थं व्यापादय” इत्येवमादीनि पतनीयकर्माणि आचार्येण चोदितोऽपि न कुर्यादिति भावः।

तथा ब्रह्मचारिणः विद्यार्थस्य, आचार्यादन्यस्य समीपे “वासः” अथवा “उपवासो” वा नास्तीति अनेन सूत्रेणोच्यते – न ब्रह्मचारिणो विद्यार्थस्य परोपवासोऽस्ति (आ.ध.१.२.१७) इति।

भिक्षाचरणधर्माः



शिष्यधर्मेषु भिक्षाचरणमपि एको धर्मः। तत्प्रकारश्च एवं निर्दिष्टः- सर्वं लाभमाहरन् गुरवे सायं प्रातरमत्रेण भिक्षाचर्यं चरेद्भिक्षमाणोऽन्यत्रासपात्रेभ्योऽभिश्नस्ताच्च। भवत्पूर्वया ब्राह्मणो भिक्षेत। भवन्मध्यया राजन्यः। भवदन्त्यया वैश्यः(आ.ध.१.३.२५, २८-३०) इति।

अयं भावः - अपपात्रान् प्रतिलोमजादीन् रजकादीन्, अभिश्नस्तान् पतनीयकर्माणि कृतवतश्च विहाय सायं प्रातः पात्रेण भिक्षाचर्यं चरन् सर्वं लब्धं गुरवेदद्यादिति, ब्राह्मणादि-वर्णानुक्रमेण भिक्षाभ्यर्थनवाक्ये भवच्छब्दं आदौ, मध्ये अन्ते प्रयुज्यादिति।

ततश्च भैक्ष्यम् आचार्याय निवेद्य तेन प्रदिष्टं भुञ्जीत। गुरोः प्रवासे गुरुभार्यापुत्रादिभ्यः, तेऽपि न सन्ति चेत् श्रोत्रियेभ्यः निवेद्य, तत्प्रदिष्टं भुञ्जीत। कोऽपि नलभ्यते चेत् अग्नौ किञ्चित् प्रक्षिप्य स्वीकुर्यात्। नाम केवलं स्वप्रयोजनार्थं भिक्षां न चरेत्। भुक्त्वा च स्वयं पात्रं प्रक्षालयीत। भोजनपात्रे यावता भोक्तुं शक्यते तावतैव स्वीकुर्यात्। भोक्तुमशक्तश्चेत् भूमौ निखनेत्, अप्सु वा क्षिपेत्, अथवा त्रैवर्णिकेषु अनुपनीताय आचार्यदासाय वा दद्यादिति एभिः सूत्रैरुच्यते-तत्समाहृत्योपनिधायाचार्याय ब्रूयात्। तेन प्रदिष्टं भुञ्जीत। विप्रवासे गुरोराचार्यकुलाय। तैर्विप्रवासेऽन्येभ्योऽपि श्रोत्रियेभ्यः। नात्मप्रयोजनश्चेत्। भुक्त्वा स्वयममत्रं प्रक्षालयीत। न चोच्छिष्टं कुर्यात्। अशक्तौ भूमौ निखनेत्। अप्सु वा प्रवेशयेत्। आर्याय वा पर्यवदध्यात्। अन्तर्धिने वा श्लूयात्। प्रोषितो भैक्षादग्नौ कृत्वा भुञ्जीत। (आ.ध.१.३.३१-४२) इति।

यदा द्वितीयं तृतीयं वा वेदमधीयानस्य माणवकस्य बहवो गुरवः समवेता भवन्ति तदा तत्काले यस्मिन् गुरौ शिष्यः विद्यामधीते तद्वर्धनीना भवति भिक्षा इति वाक्येनानेन निर्दिष्टम्- गुरुसमवाये भिक्षायामुत्पन्नायां यमनुबद्धस्तदधीना भिक्षा (आ.ध.१.७.१४) इति।

उपसङ्ग्रहण-अभिवादनधर्माः

शिष्यः प्रत्यहम् आदित्योदयानन्तरं आचार्यं गत्वा “उपसङ्ग्रहणम्” अर्थात् स्वस्य दक्षिणपाणिना आचार्यस्य दक्षिणं पादं सगुल्फम् अधस्तादुपरिष्ठाच्च अभिमृशेत्। अन्यदा तु “अभिवादयीत” इति एभिः सूत्रैरुच्यते - उदिते त्वादित्य आचार्येण समेत्योपसङ्ग्रहणम्। सदैवाभिवादनम्। दक्षिणेनपाणिना दक्षिणं पादमधस्तादभ्यधिमुश्य सकुष्ठिकमुपसङ्गृहीयात्। (आ.ध.१.५.१८-२१) इति।

एवञ्च “आचार्यसकाशे आचार्यात् अवरस्थानिनां पित्रादिगुरुणाम् उपसङ्ग्रहणं न कुर्यात्, स्तुतिं च न कुर्यात्। आचार्यसमीपे आचार्यस्य पित्रादयः आगताश्चेदपि तान् प्रतिप्रत्युत्थानम् अनूत्थानं वा न कुर्यात्। किन्तु सम्मानार्थं तद्देशात् आसनाद्वा किञ्चिदिव संसर्पेत्। यस्मिन् पुरुषे शिष्याचार्यभावमन्तरेणापि विद्याचारित्र्यादिना लौकिकानां गौरवभावो वर्तते, तादृशे आचार्यादवरस्थानीयेऽपि आचार्यं या वृत्तिः सा कर्तव्या” इति एतैः सूत्रैः जायते - न चास्य सकाशेऽन्वक्स्थानिन उपसङ्गृहीयात्। गोत्रेण वा कीर्तयेत्। न चैनं प्रत्युतिष्ठेदन्तिष्ठेद्वापि चेतस्य गुरुः स्यात्। देशात्वासनाच्चसंसर्पेत्। यस्मिंस्त्वनाचार्यसम्बन्धाद्गौरववृत्तिस्तस्मिन्नन्वक्स्थानीयेऽप्याचार्यस्य। (आ.ध.१.६.२९-३४) इति।

एवञ्च गुरौ यां विद्यामधीते तद्विद्यायां गुरोः आचार्यः, तस्य आचार्यः इत्येतेऽपि, नाम विद्यावंशीयाः आचार्यवदुपचरितव्याः। तथा “माणवके पश्यति सति आचार्यः यानन्यान् उपसङ्गृह्णाति तेऽपि माणवकस्य उपसङ्ग्राह्याः” इति आभ्यां सूत्राभ्यां जायते - यां विद्यांकुरुते गुरौ तेऽप्यस्याचार्या ये तस्यां गुरोर्वंश्याः। यानन्यान् पश्यतोऽस्योपसङ्गृहीयात्तदा त्वेत उपसङ्ग्राह्याः (आ.ध.१.७.१२-१३) इति।



यदातु आचार्यस्य तदाचार्यस्य च मेलनं भवति तदा आचार्यस्य आचार्यं पूर्वमुपसङ्गृह्य पश्चात् स्वस्य आचार्यम् उपसङ्गृहीतुमिच्छेत्। तदा आचार्यः शिष्यं वारयेदिति विशेषः प्रादर्शि आपस्तम्बेन-
आचार्यप्राचार्यसन्निपातेप्राचार्यायोपसङ्गृह्योपसञ्जिघृक्षोदाचार्यम्(आ.ध.१.८.१९)इति।

अभिवादनधर्माः एवमुच्यन्ते – शिष्यः प्रत्यहं अपररात्रे उत्थाय “असावहं भो” इति तिष्ठन् गुर्वभिवादनं कुर्यात्। तथा समानग्रामे वसतः आचार्यतरवृद्धान् प्रातराशात्पूर्वम् अभिवादयति। स्वस्य आचार्यादीनां वा प्रवासादागमनानन्तरं तान् अभिवादयति इत्येतैः सूत्रैर्निर्दिश्यते –**सदामहान्तमपररात्रमुत्थाय गुरोस्तिष्ठन्प्रातरभिवादनमभिवादयितासावहं भो इति। समानग्रामे च वसतामन्येषामपि वृद्धतराणां प्राक्प्रातराशात्। प्रोष्य च समागमे।** (आ.ध.१.५.१२-१४) इति।

वर्णानुसारम् अभिवादनप्रकारः इत्थं वर्तते – ब्राह्मणः श्रोत्रसमं, राजन्यः हृदयसमं, वैश्यः उदरसमं, दक्षिणं बाहुं प्रसार्य अभिवादयति, अन्त्यवर्णस्तु पादसमम् अञ्जलिं कृत्वा अभिवादयति इति सूत्रेणानेन निर्दिश्यते – **दक्षिणं बाहुं श्रोत्रसमं प्रसार्य ब्राह्मणोऽभिवादयितो-रःसमं राजन्यो मध्यसमं वैश्यो नीचैः शूद्रः प्राञ्जलिः** (आ.ध.१.५.१६) इति।

अन्ये शिष्यधर्मा एव भवन्ति – “सर्वदा शिष्यः गुरोः हितमेव आचरेत्। वाचापि न विरुद्ध्यत्। भूमावेव तस्य आसनं शयनं च भवेताम्। श्राद्धार्थं देवतार्थं वा उद्धिष्टं, क्षार-लवण-मधु-मांसानि च न भुञ्जीत। दिवा न सुप्यात्। चन्दनादिकं न स्वीकुर्यात्। मैथुनस्य अष्टाङ्गमपि त्यजेत्। म्रक्षणादिना स्वमुखादीनि उज्ज्वलं न कुर्यात्। विना शिरः सुखार्थम् उष्णोदकादिना शरीरं न प्रक्षालयेत्। आचार्यदृष्टिर्न भवति तत्र अशुचिलिखानि अङ्गानिप्रक्षालयति। अप्सु मलापकर्षणद्रव्यं क्रीडां च विना स्नायात्” इत्येवमेभिः सूत्रैः कथ्यते – **हितकारी गुरोरप्रतिलोमयन् वाचा।अधासनशायी। नानुदेश्यं भुञ्जीत।तथा क्षारलवणमधु-मांसानीति। अदिवास्वापी। अगन्धसेवी। मैथुनं न चरेत्। उत्सन्नश्लाघः। अङ्गानि न प्रक्षालयति। प्रक्षालयति त्वशुचिलिखानि गुरोरसन्दर्शे। नाप्सु श्लाघमानः स्नायाद्यादि स्नायादण्डवत् प्लवेत् इति।** (आ.ध.१.२.२०-३०)

तथा च नृत्यं न पश्येत्। द्यूतादिस्थानं उत्सवादिसमूहं च न गच्छेत्। लोकवार्तादिषु भागी न भवेत्। सति सम्भवे एकान्तशीलः, स्त्रीभिः सह यावत्प्रयोजनं तावत्सम्भाषकः, क्षमावान्, शान्तः, दान्तः, लज्जावान्, दृढवैर्यः, उत्साहसम्पन्नः, अक्रोधनः,अनसूयुश्च भवेदिति शिष्यधर्मा निर्दिष्टा आपस्तम्बेन। यथा-**अनृतदर्शी। सभाः समाजांश्चागन्ता। अजनवादशीलः। रहसशीलः। स्त्रीभिर्यावदर्थसम्भाषी। मृदुः। शान्तः। दान्तः। ह्रीमान्। दृढधृतिः। अग्लांस्तुः। अक्रोधनः। अनसूयुः।** इति।(आ.ध.१.३.११-२४)

गुरुणापि स्वभुक्तानि गन्धमाल्यादीनि श्रुतिप्रतिषिद्धानि, शिष्याय न देयानीति विशेषो दर्शितः अनेन सूत्रेण – **न चास्मै श्रुतिविप्रतिषिद्धमुच्छिष्टं दद्यात्**इति। (आ.ध.१.४.५)

एवञ्च शिष्यः (ब्रह्मचारी) धर्मात् अवहिर्भूतयोः पितुःज्येष्ठभ्रातुश्च उच्छिष्टं भोक्तुं शक्नोति। सायं प्रातःआचार्यस्य स्नानार्थम् उदकुम्भमाहरेत्। प्रत्यहं पाकार्थानि काष्ठानि अरण्यादाहृत्य अधो निदध्यात्। अस्तमिते आदित्ये समिध आहर्तुं न गच्छेत्। सायं प्रातः अथवा सायं वा अग्निकार्यं कुर्यात्। अग्निपूजार्थेन उदकेन पादप्रक्षालनादीनि आचमनञ्च न कुर्यात्। तथा पाणिंक्षुब्धेन जलेन एकपाण्यावर्जितेन च नाचमेत्। आचार्यात्पूर्वम् उतिष्ठेत्। आचार्यात् परं सुप्यात्।धर्मयुक्तैः समित्कुशाद्याहरणादिभिः प्रयोजनयुक्तैः युग्यधासाहरणा-दिभिश्च कर्मभिः आचार्यं रक्षेत्।



तथा 'आचार्यस्य बुद्धिपूर्वं प्रमादाद्वा नियमतिक्रमं रहसि बोधयेत्। यदि गुरुः ततो न निवर्तते तदा तस्य कर्तव्यानि ब्रह्मयज्ञादीनि स्वयं कुर्यात् अथ वा अन्यैः ज्येष्ठैः गुरुं अपथा-न्निवर्तयेत्' इत्येवमेभिः सूत्रैः निर्दिश्यते आपस्तम्बेन- पितुर्ज्येष्ठस्य च भ्रातुरुच्छिष्टं भोक्तव्यम्। धर्मविप्रतिपत्तावभोज्यम्। सायं प्रातरुदकुम्भमाहरेत्। सदाऽऽरण्यादेधानाहृत्याऽधो निदध्यात्। नास्तमिते समिद्धारो न गच्छेत्। अग्निमिध्वा परिसमूह्य समिध आदध्यात्सायं प्रातर्यथोपदेशम्। सायमेवाग्निपूजेत्येके। नागन्युदकशेषेण वृथाकर्मणि कुर्वीताऽऽचामेद्वा। पाणिसंक्षुब्धेनोदके-नैकपाण्यावर्जितेन च नाचामेत्। अथाहरहराचार्यं गोपायेद्धर्मार्थयुक्तैः कर्मभिः। प्रमादादाचार्यस्य बुद्धिपूर्वं वा नियमातिक्रमं रहसि बोधयेत्। अनिवृत्तौ स्वयं कर्माप्यारभेत। निवर्तयेद्वा इति। (आ.ध.१.४.११-२७)

तथा च 'सर्वमहः अनन्यचित्तः स्वाध्ययनात् गुरुकर्मभिश्च विच्छेदितो न भवेत्। अनध्यायेषु च अध्ययनविषयामेवचिन्तां कुर्यात्। आचार्येण आहूतः सन् अध्ययने प्रवर्तते। प्रत्यहं रात्रौ आचार्यपादौ प्रक्षाल्य संवाह्य आचार्यं संवेशयेत्। तेन अनुज्ञातः स्वयं शयीत। आचार्यं प्रति पादौ न प्रसारयेत्। गुरोः सकाशे शयानो न भाषेत। आसीनेन शयानेन वा आचार्येण अभिभाषितश्चेत् आसीनः सन् प्रतिब्रूयात्।

यदा तिष्ठता आचार्येण अभिभाषितश्चेत् तदा उत्तिष्ठन् सम्भाषेत। गच्छन्तं धावन्तं वा गुरुं तत्प्रकारेणैवानुसरेत्। अध्वानं विना पादरक्षायुक्तः, वस्त्रवेष्टितशिराः, कर्म विना दात्रा दिहस्तो वा आचार्यसमीपे नाऽवसीदेत्। व्यर्था कथामकुर्वन्, अविक्षिप्तमनास्सन् देवमिव आचार्यमुपासीत। गुरोः समक्षं वामपादोपरि दक्षिणपादं संस्थाप्य नोपविशेत्' इत्येवमेभिः सूत्रैः निर्दिष्टमापस्तम्बेन -सर्वाहं सुयुक्तोऽध्ययनादनन्तरोऽध्याये। तथा गुरुकर्मसु। मनसा चाऽनध्याये। आहूताध्यायी च स्यात्। सदा निशायां गुरुं संवेशयेतस्य पादौ प्रक्षाल्य संवाह्य। अनुज्ञातः संविशेत्। न चैनमभिप्रसारयीत। न चाऽस्य सकाशे संविष्टो भाषेत। अभिभाषितस्त्वासीनः प्रतिब्रूयात्। अनूत्थाय तिष्ठन्तम्। गच्छन्तमनुगच्छेत्। धावन्तमनुधावेत्। न सोपानद्वेष्टितशिरा अवहितपाणिर्वाऽसीदेत्। अध्यापन्नस्तु कर्मयुक्तो वाऽसीदेत्।..... देव-मिवाचार्यमुपासीताऽविकथयन्नविमना वाचं शुश्रूषमाणोऽस्य। अनुपस्थितः इति। (आ.ध.१.५. २३-२६, १.६.१-१४)

एवञ्च प्रतिवाते अनुवाते च आचार्यस्य विपर्ययेण भवेत्। आचार्यसमीपे पाणितलं भूमौ कृत्वा, भित्त्यायाश्रितो वा नोपविशेत्। यदा वस्त्रद्वयं धरति तदा यज्ञोपवीती भवेत्। यदा तु एकवस्त्रः तदा अधस्तनवस्त्रेण उपरिभागं न वेष्टयेत्। अभिमुखः शिष्यः अनभिमुखमाचार्य-मुपासीत। अतिसमीपे अतिदूरे वा न स्यात्। अध्ययनकाले यावता आचार्येण बाहुभ्यां प्राप्तुं शक्यते तावति स्थले उपविशेत्। एकाध्यायी चेत् आचार्यस्य दक्षिणपार्श्वे उपसीदेत्। बहवश्चेत् यथावकाशं उपविशेयुः। गुरुः आसनं विना यदि तिष्ठति तदा शिष्यः नोपविशेत्। गुरुः शय्यां विना यदि आसीनः तदा न संविशेत्। गुरुः किमपि कर्म कुर्वन्नस्ति चेत् तदा स्वेन तत्कर्म कर्तुं शक्यते चेत् चिकीर्षन् भवेत्, इत्येवमिमानि सूत्राणि ज्ञापयन्ति - अनुवाति वाते वीतः। अप्रतिष्ठः पाणिना। अनपाश्रितोऽन्यत्र। यज्ञोपवीती द्विवस्त्रः। अधोनिवीत-स्त्वैकवस्त्रः। अभिमुखोऽनभिमुखम्। अत्यासन्नोऽनतिदूरे च। यावदासीनो बाहुभ्यां प्राप्नुयात्। अप्रतिवातम्। एकाध्यायी दक्षिणं बाहुं प्रत्युपसीदेत्। यथावकाशं बहवः। तिष्ठति च नाऽसीताऽनासनयोगविहिते। आसीने च न संवशेत्। चेष्टति च चिकीर्षस्तच्छक्तिविषये इति। (आ.ध.१.६.१५-२८)

तथा भिक्षाचरणे यत्नबन्धं तत्र भुक्तावशिष्टं आर्यायवा पर्यवदध्यात् (आ.ध.१.३.४०)



इति यद्विहितम् तस्य प्रदाने उत्थानो भवेत्। यत्र क्वचन स्वयं गच्छन् आचार्य स्वस्य दक्षिणतः कृत्वा गच्छेत्। नग्नस्त्रियं न पश्येत्। ओषधिवनस्पतीनां पत्रपुष्पाणि आच्छिद्य नोपजिघ्रेत्। उपानच्छत्रयानानि वर्जयेत्। न स्मयेत्। यदि स्मयेत् हस्तेन मुखं पिधायस्मयेत्। स्त्रियं स्नातामनुलिसां वा बालामपि मुखेन नोपजिघ्रेत्। हृदयेन न प्रार्थयेत्। अकारणात् न स्पृशेत्। मलिनगात्रः पङ्किलदन्तः सत्यवादी भवेत्, इत्येवमेभिः सूत्रैः निर्दिष्टम् – भुक्त्वा चास्य सकाशे नानृत्यायोच्छिष्टं प्रयच्छेत्। नापपर्यावर्तते गुरोः प्रदक्षिणीकृत्याऽपेयात्। न प्रेक्षते नग्नं स्त्रियम्। ओषधिवनस्पतीनामाच्छिद्य नोपजिघ्रेत्। उपानहौ छत्रं यानमिति वर्जयेत्। न स्मयेत्। यदि स्मयेताऽपिगृह्य स्मयेतेति हि ब्राह्मणम्। नोपजिघ्रेत् स्त्रियं मुखेन। न हृदयेन प्रार्थयेत्। नाऽकारणादुपस्पृशेत्। रजस्वलो रक्तदन्तसत्यवादी स्यादिति हि ब्राह्मणम् इति।

(आ.ध.१.६.३५/१.७.२-११)

अध्ययनं समाप्य यथाशक्ति गुरवे दक्षिणामाहरेत्। आचार्ये आपद्रते अथ वा सर्वदाऽपि आचार्यार्थं शूद्रतः उग्रतो वा आहर्तुं शक्नुयात्। दत्त्वा कृत्वा वा नानुकथयेत् नानुस्मरेच्च। आत्मप्रशंसां परगर्हं च वर्जयेत्। 'इदं कुरु' इति प्रेषितः सन् तदानीमेव तत्कर्तुमारभेत। आचार्यस्य शिष्यस्येष्टा विद्या सम्यङ्नाऽगच्छति तदा पुरुषान्तरे वृत्तिर्भवति। उपसङ्ग्रहणं उच्छिष्टाशनं च विना आचार्यपत्न्यौ आचार्यवद्वृत्तिं कुर्यात्। एवं गुरुणा पाठार्थं नियुक्ते पुरुषान्तरे, ज्ञानवयोभ्यां वृद्धतरे सब्रह्मचारिणि च आचार्यवद्वृत्तिं कुर्यात्। गुरुपुत्रे तु ज्ञानवयोभ्यां वृद्धतरे उच्छिष्टाशनवर्जं वृत्तिं कुर्यात्। ज्येष्ठो न भवति चेत् उपसङ्ग्रहणं न भवतीति एभिः सूत्रैः कथ्यते – कृत्वा विद्यां यावतीं शक्नुयात् वेददक्षिणामाहरेद्धर्मतो यथाशक्ति। विषमगते त्वाचार्य उग्रतः शूद्रतो वाऽऽहरेत्। सर्वदा शूद्रत उग्रतो वाऽऽचार्यार्थस्याहरणं धर्म्यमित्येके। दत्त्वा च नाऽनुकथयेत्। कृत्वा च नानुस्मरेत्। आत्मप्रशंसां परगर्हमिति च वर्जयेत्। प्रेषितस्तदैव प्रतिपद्येत। शास्तृणाऽनागमादुत्तरन्यत्र। अन्यत्रोपसङ्ग्रहणादुच्छिष्टाशनाच्चाऽऽचार्यवदाचार्यदारेवृत्तिः। तथा समादिष्टेऽध्यापयति। वृद्धतरे च सब्रह्मचारिणि। उच्छिष्टाशनवर्जमाचार्यवदाचार्यपुत्रे वृत्तिः। इति। (आ.ध.१.७.१९-३०)

तथा च आचार्यासनात् उच्चासने, नीचेऽपि बहुपादे आसने नोपविशेत्। आचार्येण पित्रादिगुरुणा वा उपभुक्ते शय्यासने नोपयुज्यात्। मार्गे गुरुणा उक्तस्सन् शकटादियानं सहासनादिकं आरोहेत्। प्रियवाक्यादन्यत् गुरुणा अनभिभाषितः सन् गुरुं नाभिभाषेत। अङ्गुल्यादिघट्टनं, श्रोत्रयोः मुहुर्मुहुर्जल्पनम् आभिमुख्येन हसनम्, उच्चैः सम्बोधनम्, नामग्रहणम्, आज्ञापनम्, इत्येवमादि आपदं विना न कुर्यादिति एभिः सूत्रवाक्यैरुच्यते – उच्चैस्तरां नाऽऽसीत्। तथा बहुपादे। सर्वतः प्रतिष्ठिते। शय्यासने चाऽऽचरिते नाविशेत्। यानमुक्तोऽध्वन्यन्वारोहेत्। सभानिकषकटस्वस्तरांश्च। नाऽनभिभाषितोगुरुमभिभाषेत प्रियादन्यत्। व्युपतोद-व्युपजाप-व्यभिहासोदामन्त्रण-नामधेयग्रहण-प्रेषणानीति गुरोर्वर्जयेत्। आपद्यर्थं ज्ञापयेत् इति।

(आ.ध.१.८.८-१६)

एवञ्च विस्तरशः शिष्यधर्मेषु उक्तेषु सत्स्वपि 'प्रधानधर्माः उपलक्षणत्वेन त्रिविधा' इति निर्दिष्टमेकत्र। यथा – गुरुप्रसादनीयानि कर्माणि स्वस्त्ययनमध्ययनसंवृत्तिरिति। अतोऽन्यानि निवर्तन्ते ब्रह्मचारिणः कर्माणि इति। (आ.ध.१.५.९-१०)

अर्थात् यैरनुष्ठितैः कर्मभिः गुरुः प्रसीदति तानि कर्माणि पादप्रक्षालनादीनि, तथा स्वस्तिप्राप्तिसाधनकर्माणि, यथा- दृष्टार्थानि - बाहुभ्यां नदीतरणादिनिषेधः। अदृष्टार्थानि- क्षारादिनिषेधः। उभयार्थानि - भिक्षाचरणादीनि इति। एवम् अधीतस्य वेदस्य अभ्यासः। ततोऽन्यानि कर्माणि ब्रह्मचारिणः निवर्तन्ते इति।



एवञ्च वेदात् बहिर्भूते काव्यनाटकाद्यध्ययने गुरुशुश्रूषा नास्तीति विशेषो दर्शितः आपस्तम्बेन – न बहिर्वेदे गतिर्विद्यते इति।(आ.ध.१.१३.१२)

नियमानुसरणफलम्

एवं प्रकारेण बहवः शिष्यधर्माः अथ वा शिष्यनियमा उक्ताः। एतेषां नियमानाम् अनुष्ठानमेव तपः इत्युच्यते। तथा नियमातिक्रमेण विद्याग्रहणं कुर्वतः पुरुषात्, तस्य सन्ततेश्च वेदविद्या अकिञ्चित्करा भवति। नरकाय अनायुष्याय च भवति। नियमातिक्रमेणैवकलियुगवर्तिषु अवरेषु जनेषु ऋषयो न जायन्ते। नियमानुष्ठानात् पुनर्जन्मनि च अल्पेन यत्नेन अल्पकालेन च गृहीतसकलविद्यश्च भवतीति नियमानुष्ठानफलं वर्णितम्, एतैः सूत्रैः -नियमेषु तपःशब्दः। तदतिक्रमे विद्याकर्म निःस्रवति ब्रह्म सहापत्यादेतस्मात्। कर्तव्यमनायुष्यं च। तस्माद्विषयोऽवरेषु न जायन्ते नियमातिक्रमात्। श्रुतार्थस्तु भवन्ति केचित्कर्मफलशेषेण पुनः सम्भवे इति। (आ.ध.१.५.१-५)

तथा नियमानुष्ठानेन वेदव्यतिरिक्तां विद्यामपि आचार्यात् गृह्यतः पुरुषस्य, सा विषमन्त्रादिविद्या अपि वेदवत् अवश्यं फलं ददाति। तथैव परेषां विषये यत्किमपि मनसा सङ्कल्पयति, वाचावदति, चक्षुषा पश्यति, इत्येतत्सर्वमपि तथैव भवतीति ब्रह्मचारिणः निग्रहानुग्रहशक्तिरपि भविष्यतीति सूत्रद्वयेन प्रदर्शितम् -यत्किञ्च समाहितोऽब्रह्म (ह्मा) प्याचार्यादुपयुङ्क्ते ब्रह्मवदेवतस्मिन् फलं भवति। अथो यत्किञ्च मनसा वाचा चक्षुषा वा सङ्कल्पयन् ध्यायत्याहाऽभिविपश्यति वा तद्भवतीत्युपदिशन्ति इति। (आ.ध.१.५.७,८)

तथा नियमानुष्ठानं कुर्वन् ब्रह्मचारी, (नैष्ठिकोऽपि) 'गृहस्थेन ज्योतिष्टोमाद्याचरणेन यद्यत्फलं प्राप्यते तत्सर्वमपि प्राप्नोतीति' अनेन सूत्रेण ज्ञायते - स य एवं प्रणिहितात्मा ब्रह्मचार्यत्रैवास्य सर्वाणि कर्माणि फलवन्त्यवासानि भवन्ति यान्यपि गृहमेधे इति।(आ.ध.१.४.२९)

एवञ्च भिक्षां प्रष्टुमागतो ब्रह्मचारी यदि स्त्रीभिः प्रत्याख्यायते, तदा ताभिः स्त्रीभिरार्जितं इष्टा-पूर्त-दत्तफलानि सन्तति-पश्चादिसम्पच्च, प्रत्याख्यातो नियमपालको ब्रह्मचारी नाशयतीति ब्रह्मचारिणः तपःशक्तिविषये महत्त्वप्रतिपादिकाश्रुतिरनूयते अनेन सूत्रेण – स्त्रीणां प्रत्याचक्षणाणां समाहितो ब्रह्मचारीष्टं दत्तं हुतं प्रजां पशून् ब्रह्मवर्चसमन्नाद्यं वृङ्क्ते। तस्मादुहवै ब्रह्मचारिसङ्घं चरन्तं न प्रत्याचक्षीतापि हैष्येवंविध एवंगतः स्यादिति हि ब्राह्मणम् इति।(आ.ध.१.३.२६)

तथा अभिवादनप्रकरणे स्वर्गमायुष्येप्सन्(आ.ध.१.५.१५)इति सूत्रेण अभिवादानेन ऐहिकं दीर्घायुष्यम् आमुष्मिकं स्वर्गफलं च विन्दतीति ज्ञायते।ब्रह्मचारिणः लक्षणतः त्रिविधाः प्रधानधर्मा इत्युक्तम्।अत्र कथंभूतो ब्रह्मचारी सिद्धिं प्राप्नोतीत्यत्र उपलक्षणत्वेन सूत्रेणानेन कथ्यते – स्वाध्यायधर्मरुचिस्तपस्वर्जुमृदुःसिद्ध्यति ब्रह्मचारी। (आ.ध.१.५.११)इति। अर्थात् अधीतवेदस्य धारयिता, धर्मरुचिः शिष्यधर्मपालकः (तपस्वी), अमायावी (सरलः), क्षमावान् एवंभूतो ब्रह्मचारी, सिद्धिं निग्रहानुग्रहशक्तिं प्राप्नोतीति भावः।

एवमेतावताऽस्मिन् प्रबन्धे ब्रह्मचर्यवर्षपरिगणनम्, शिष्यस्य आचार्याधीनतायां विशेषः, भिक्षाचरणधर्माः, उपसङ्ग्रहण-अभिवादनधर्माः अन्ये च शिष्यधर्माः, नियमानुष्ठानफलम्, ब्रह्मचारिणः महिमा, इत्येवमादयः शिष्यधर्माः विस्तरेण विमृष्टाः। तथा चाऽस्मिन् वर्णाश्रमधर्मानाचारितुं दुःशके कालेऽपि भगवत्कृपया भगवत्प्रेरणया च सर्वैः स्वे स्वे धर्मा आचर्यन्तामिति भगवति सम्प्रार्थ्य विरम्यते विस्तरात्।



STUDY OF SOCIAL SKILLS FOR PROMOTING INCLUSION IN CLASS

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Various multi-disciplinary study and researches have shown that having social skills is essential for success in life. Inclusive teachers have a important responsibilities like to teach, provide and reinforce the use of good social skills in the class. The key motto of Inclusive education is “to leave no one behind” i.e. to include and accommodate wide range of students in the class. The inclusive classrooms are essentially representation of the real world where individuals of all backgrounds and abilities co-exist.

Students with disabilities who exhibit appropriate social behaviour experience positive relationship with their peer and teachers. They experience increased involvement and success in inclusive educational settings, and success in post-school work, educational, and social environments (McIntyre, 2003; Miller, Fenty, Scott, Park, 2010). For the students to acquire, practice and training, and sustain anticipated social behaviour, the educators have to teach social skills within the context of the various school settings that students encounter each day.

For normal individuals, skills needed for social interaction comes naturally in their behaviour during the process of growth and development. They learn to read nonverbal cues in everyday conversations, through observing the interaction of family and friends. However, for some individuals this process may not come naturally and also may not be so effortless and direct social skills instruction may be required. (Canney and Byrne, 2006; DeGeorge, 1998).

Importance of Social Skills for Inclusion

Educators endeavour to reach every student in an environment that is least restrictive and most conducive to their learning. This means that most children with disabilities spend part of their day in normal education classroom. Though, these students are physically present and included in the classroom with their peers but students who have difficulty in interacting appropriately with their peers cannot be said to be fully included (Waltz, 1999). Students with Learning Difficulties may find themselves socially isolated or ostracized by their peers in these inappropriate situations of social interaction. For example, students with learning disabilities may face difficulty in controlling physical or verbal impulses - they may shout out answers without being asked for or unintentionally say something insensitive or rude to a classmate (Hayes, 1994; Lavoie, 2005). Students with learning disabilities may also have trouble ascertaining personal space and appropriate levels of physical contact (Hayes, 1994). These kinds of difficulties or other social skills shortfalls can serve to isolate students with learning disabilities, resulting in lost social opportunities and prospects.



When students miss out on various social opportunities present in a normal classroom they are typically missing out on-

- opportunities and prospects for academic enrichment e.g. collaborating on projects, working in groups, participating in class discussions, as well as
- personal and social enrichment i.e. making new friends, playing games, etc.

Benefits of Developing Social Competence

There are a numerous benefits-both academic and interpersonal for developing social competence such as -

- Acceptance by peers;
- Positive self—concept;
- Academic achievement; and
- Successful employment

(De George, 1998; Elksnin and Elksnin, 2000; Fussell, Macias and Saylor, 2005).

Social Skill Instruction

Several students both - with and without disabilities – often struggle with reading nonverbal cues and engaging in social interactions. Some individuals are more likely than their peers to have trouble with thesesuchinteractions (Canney and Byrne, 2006; DeGeorge, 1998; Elksnin and Elksnin, 2000; Fussell, Macias and Saylor, 2005; Parsons, Leonard and Mitchell, 2006). For example -

- Students expected of school failure;
- Students with Foetal Alcohol Spectrum Disorders (FASD);
- Students experiencing Learning Disabilities (LD), particularly those having nonverbal Learning Disabilities (NLD or NVLD); and
- Students experiencing Attention Deficit Hyperactivity Disorder (ADHD).

The ability to steer social interactions on daily basis can repeatedly present substantial challenges for such students. Although, there are variations in the way these difficulties present themselves but most students who exhibit difficulties in social interactions alsostruggle in similar situations. For example, students facing learning disabilities may interact easilywith peers on an informal level, but when it comes to engaging in more formal interactionsthey may have less experience and competence and thereby express difficulty in communication. (Schumaker and Deshler, 1995).

Students with disabilities, who feel difficulty in social situations,can range from fairly simple situations like-engaging in conversation with a peer to an extremely complex situation like determining whether someone who seems quite friendly is actually harming you (De Bildt et al., 2005).

Research has established that social skills can be taught to students with disabilities — mainly those with nonverbal deficits — as long as educators teach skills directly and use a structured approach to teaching (DeGeorge, 1998; Elksnin&Elksnin, 2000; Peterson et



al., 2006). A structured approach would comprise "identifying critical social skills and then teaching them through modelling, role—playing and performance feedback" (Peterson et al., p. 2, 2006).

Social skills can be integrated into a special or general education curriculum using diverse methods. To teach this, the social skills are broken down into categories, or types of skill according to the level of complexity and interaction.

Categorizing Social Skills -

CLASSIFICATION OF SKILLS	CATEGORIZATION OF SOCIAL SKILLS	ASSOCIATED BEHAVIOUR PATTERNS
Foundation skills	Elementary social interaction	Able to maintain eye contact, manage appropriate personal space, comprehend gestures and facial expressions
Interaction skills	Skills required to interact with others	Learn how to start and finish conversation, resolve conflicts, manage taking turns, format relevant topics for conversation, able to interact with authority figures.
Affective skills	Skills required to understand self and others	Able to identify one's own feelings, be aware of the feelings of others, show empathy, ability to decode body language and facial gestures, ascertain whether a person is reliable and trustworthy.
Cognitive skills	Skills required to maintain higher complex social interactions	Self -monitoring, making choices, social perception, understanding community norms, ascertaining appropriate behaviour for varied social situations. (Canney and Byrne, 2006; Waltz, 1999)

Strategies to Generalize social skills to novel situations

A major hurdle with social skills instruction is that many students with disabilities often struggle to generalize new skills to different situations (Elksnin and Elksnin, 2000). Some strategies to help students generalize social skills are:



- Teach students new skills in settings where they are most likely to be encountered e.g. on a bus, in restaurant, in classroom, etc. (Elksnin and Elksnin, 2000; NCLD, 2005); if this is not feasible, role playing is also an effective substitute (Hayes, 1994);
- Teach social skills that are appreciated by the student's community i.e. parents, peers, teachers, family members, etc.; these skills are more likely to be reinforced (Elksnin and Elksnin); and
- Teach social skills using diverse methodology like the use of videos, books, games, software, etc. through a range of settings and situations (Elksnin and Elksnin, 2000).

Steps for Teaching Social Skills

After the identification of the social skills that will benefit the student, following instructional sequence should be followed as a guide to facilitate learning:

- **Step 1: Provide a rationale** – Facilitate the student to understand what the skill is and why it is useful.
- **Step 2: Provide Example to Exhibit the Skill** – Provide verbal description of people involved in the situation and detail about their actions and reactions. Inspire student to contemplate social cues. For example, lots of information can be provided about how someone feels by listening to variations in voice volume, pitch and rhythm. Through such dialogue, the student not only listens and/or views the content, but also responds to questions, share observations, express ideas and opinions. Boosting reflection is a significant element for transforming an experience into a genuine learning experience and will promote deeper understanding (Markus, Howard & King, 1993).
- **Step 3: Provide guided practice** – Offer student with opportunities to practice or rehearse skills in arranged situations that simulate the actual situation. Provide student with multiple opportunities to practice and train the skill in small, structured groups with same-age peers in a supportive environment.
- **Step 4: Teach self-regulation** – Self-regulation is the knack to gauge one's own emotions and behaviours in terms of their appropriateness and suitability to regulate them accordingly. Self-regulation includes skills like –
 - Self-monitoring,
 - Evaluating,
 - Managing, and
 - Reinforcing oneself.

Self-monitoring encompasses conducting an assessment of one's own behaviour as appropriate or inappropriate (Conroy & Sellers, 2001). Often children with vision impairment have difficulty in interpreting body language and monitoring their own behaviour in social situations (Erwin, 1993). Initially, the educator may need to prompt them to increase awareness of their own behaviour. It is important to encourage student to self-evaluate skill performance and consider strategies for doing things in a different way. This process helps the student with the promotion



of both skill maintenance and growth through self-monitoring. Various strategies like the use of multimedia such as audio- taping, video- taping, role-playing social situations and using individualised stories that promote thinking, self-evaluation and planning by the student (Bloom & Bhargava, 2004; Sacks & Silberman, 2000).

- **Step 5: Promote generalisation** – Generalisation is a type of critical yardstick through which the effectiveness of the skills and strategies can be informally assessed in terms of how well students can familiarize and adjust to the skills taught into their daily life settings. In-fact generalisation programming should be deliberated from the start and become a part of the social skills instruction program. It is important to provide opportunities for the student to use newly learnt social skills in a diverse settings, and with different people. Assistance from parents is priceless to ensure generalisation, as they can set up and/or observe home- and community-based events in which the student is expected to use these skills.

Strategies for teaching social skills

Since students use social skills in almost every aspect of their daily life, therefore, every moment has the potential to be a 'teaching and learning moment'. To take benefit of this, the teacher should try to teach social skills all through the school hours in different ways.

Some techniques for introducing social skills are:

- Incidental teaching — using a natural interface between a student and an adult to rehearse and train a skill (Elksnin and Elksnin, 2000);
- Reading and reflecting children's literature and videos — several stories of children are on topics related to social skills such as making new friends, dealing with bullying classmates, or coming across new situations (DeGeorge, 1998);
- Social skill analyses — after encounter of a social interaction deliberate what the child did, what ensued, whether the consequence was positive or negative and what the child will do in an identical situation in the future (Elksnin and Elksnin, 2000; Lavoie, 2005); and
- Use of social stories — stories dealing with social issues are a successful way of educating social skills to students with PDD/ASD (Waltz, 1999) because they offer students with a narrative or script about a diverse situations and required suitable behaviour.

Developing Social Skills Profile

Teaching social skills can be paralleled to teaching academics. The principal step encompasses knowing where to begin with. Various relationships of the child e.g. parents, siblings, peers, the concerned teachers and the child themselves can provide information about social skills that are required to be addressed. These discussions are



vital because they can contribute ideas and suggestions for the child and as teachers, we need to be sensitive to the social,cultural and religious beliefs of the family (Wolffe, Sacks & Thomas, 2000).

Some of the useful tools for the assessment can be direct observation, checklists, social skills scales, functional behaviour assessment, identifying solutions to problem scenarios and reports. Therefore, it is important to work out what skills need to be taught to the student.

Social Skills Profile to Assess the Student's Abilities -

Social Skills Profile

Social Skill	Behaviours to be Studied
Non-verbal Communication	<ul style="list-style-type: none">➤ Gestures viz. whether the student expresses through gestures to convey the given message like nodding/shaking head to point out 'yes' or 'no',shrugging of shoulder,hand shake and covering the mouth while yawning➤ Eye Contact - Does the student turn their body towards the person with whom the conversation is taking place?➤ Facial Expression -Whether the facial expression of the student match with the communication taking place e.g. has an excited look when talking about a competition just won➤ Posture - whether the posture of the student shows interest or disinterest in the person who is talking➤ Proximity: ascertain how close is the student to the person while speaking➤ Listening –whether the student is giving full attention to the speaker? Whether the student keeps interrupting the speaker? Does the student ask for explanations about what the speaker is saying e.g. asking various questions, repeating words,etc.?➤ Grooming and hygiene – Does the student wear appropriate dresses? Is the student suitably groomed? Whether the student's looks suit the situation?➤ Voice – Is the voice clear or is it too soft or too loud? <p>(Sacks & Wolffe, 2000; Wolffe, Sacks & Thomas, 2000)</p>
Emotions	<ul style="list-style-type: none">• Identifying emotions – whether the student is able to notice and identify emotions by reading the other person's body language or tone of the voice? Is able to tag emotions that others are experiencing by sensing when the person is angry by the tone of voice?• Identifying one's own emotions – whether the student is<ul style="list-style-type: none">➤ Able to describe personal feelings?➤ Label feelings?➤ Discuss emotions like saying- I feel angry?• Understanding the triggers – can the student identify reasons that trigger emotions in oneself and in others like - I feel angry when someone takes my things without asking or someone unexpectedly touches me?• Suitable Expression of Emotions – does the student express emotions in appropriate ways? Identify and understand other person's perception, views, ideas, feelings and frame of mind, and is able to express that understanding through right response? (E.g.at first when the student becomes angry, would hit the person instigating anger. However, after receiving specific instruction on effective dealing of their emotion, they would then- (1) Stop;



	<p>(2) Take a deep breath; (3) Relax; and (4) Deal with the issue when quieter.</p> <ul style="list-style-type: none"> Dealing with varied situations – does the student make decisions about situations in an effective way. For example, when uncertain about how to tackle a situation, the student should stay calm and relaxed and find the teacher or some friend to help him find an effective solution. <p>Bloom and Bhargava (2004b)</p>
Conversational skills	<ul style="list-style-type: none"> Issue or Subject Management – whether the student is able to initiate a topic? Is able to maintain, elaborate, and extend topics properly? Can change the topics appropriately? Also end the topic appropriately? Content – whether the content is appropriate and relevant according to the situation? Does the student converse with others to know about them or only talk about themselves? Does the student have understanding of the social boundaries, or does the student repeatedly discuss inappropriate topics? Turn-taking skills – Is the student able to take turns as a listener and as a Speaker? Clarification Requests – Does the student ask for clarification of information when it is not clear? <p>Freeman and Dake (1997)</p>
Social Etiquettes	<ul style="list-style-type: none"> Social Courtesies - Does the student use social courtesies and considerations suitably i.e. use of basic etiquette courtesies like Please, Thank you, and Excuse me? Situation specific – Does the student make use of suitable language according to time, place and person? Are actions and behaviours appropriate to a particular situation i.e. a visit to restaurant or a religious place? Does the student know how to differentiate between behaviours i.e. private and personal behaviour like scratching, twitching, rocking or swaying? <p>Bishop (1996)</p>
Playing	<p>Playground – Does the student have the knowledge to ascertain where and which games to play outside the school? How to use playground equipment and tools? Does the student play collectively or plays alone?</p> <p>Games – Can the student discern how and when to play? Knows the use of required equipment for the game? Has knowledge of the rules of the game? Where and with whom to play?</p> <p>Bloom & Bhargava, 2004a</p>
Friendship skills	<p>Whether the student knows how to approach peers? How to make friends and contacts? Maintain friends? Remain a good friend or change friends?</p> <p>Sacks & Wolffe, (2000)</p>
Relationships	<ul style="list-style-type: none"> Types - Does the student comprehend and understand the different types of relationships like the family, friendships, or employer/employee? Exhibit appropriate levels of affection and fondness according to the relationship with the other person? Dating – Does the student know how to select a date? Where to go? What to talk about in that situation? Suitable public dating action and behaviours? Sexuality – does the student know what are the socially acceptable appropriate and inappropriate public sexual behaviours? Does the student have the information in an understandable manner regarding sex, sexual relationships, reproduction and birth control measures, menstruation, managing periods, sexually-transmitted diseases, and sexual abuse? <p>Bishop, (1996); Wolffe, Thomas & Sacks, (2000)</p>
Telephone skills	<ul style="list-style-type: none"> Is the student familiar with the use of telephone and mobile? Knows how to answer the telephone and take messages? Whom to



	contact in case of emergency? How to proceed with the conversation on a phone?
Leisure time	<ul style="list-style-type: none"> • Within school – is the student aware about the available leisure activities for free time? Which games and equipment can be used and where are they located or stored? How to use the items appropriately in a suitable manner and also use it independently? Does the student require having organized activities for leisure time? • Outside of school - Does the student have hobbies and pastimes or creative interests at home? Get to know where to get information about the potential leisure activities like facility of local library, associations for vision impairment, local colleges, etc.? Know what details can be asked for when contacting recreational centres like guide rails in bowling alleys, audio descriptions for sporting and cultural events, etc.?
Independent Travel	<ul style="list-style-type: none"> • Is the student capable of telling the address of their destination to the driver? Is able to communicate to the driver to indicate, when they arrive at the destination? • Does the student know how to seek assistance for address or directions? • Knows how to pay for the conveyance taken? • Whether the student is able to access the environment independently? Able to ask friends and acquaintances to use 'sighted guide' technique correctly and suitably?
Conflict Resolution Skills	<p>Is the student able to identify situations that may cause conflict? Can the student discern with whom to discuss about the conflict? Can the student furnish relevant information about the conflict-causing situation like - Who? Whom? What? Where? When? How? Why? Contemplate on solutions and identify the best one? Have the required skills to resolve the conflict? Knows how to avert the situation from arising again?</p> <p>Bloom & Bhargava, (2004 b)</p>
Cafeteria Skills	<p>In school – is the student able to seek assistance for -</p> <ul style="list-style-type: none"> • Tracing the cafeteria? Finding the line? Inquiring about what is available? Placing an order? Doing the payment? Balancing the food tray while walking with a cane? • Pinpointing the available table to sit? Locating foodstuff on the plate? Able to use condiments? Is able to drink from cup or glass? • Has proper eating etiquette? <p>Outside school – is the student able to seek assistance for -</p> <ul style="list-style-type: none"> • Going through the menu? Can place an order? Pay for their food? Is able to balance the tray (if at a food court) while walking with a cane? • Locating a table to sit? Finding food on their plate? Use condiments? Drink from cup/glass? Can do self - service i.e. serve from bowl or platter? • Able to use appropriate eating etiquettes? <p>Kelley & Smith, (2000)</p>

Methods to Teach Social Skills in Classroom

Methods to create a more inclusive classroom and support social skill development in the students are –

Model Manners

If the teacher anticipates the student to learn and exhibit good social skills, then they should themselves lead by example. A teacher's warm and affirmative attitude sets the



tone of behaviour between students. They pick up how to interact with one another and value individuals.

Ascribe Classroom Jobs

Handing over classroom jobs to students provides ample opportunities to demonstrate responsibility, teamwork and leadership. Various activities like handing out papers, taking attendance, and being a class leader can focus a student's strengths and in turn, build confidence. The teacher can rotate class jobs on a weekly or monthly basis, to ensure that every student has an opportunity to participate.

Provide practice Sessions/Role Playing

The teacher needs to provide students with opportunities to learn and practice the social skills. An effective method of practice is through role-playing. Teachers can provide structured situations where the learners can act out and offer instant feedback.

Group Activities

Other than academic benefits, group activities provide students with opportunities to develop social skills such as teamwork, goal-setting and taking up responsibilities. Used appropriately, group work can also help quieter students to connect with others, attracts the extroverts, and strengthens respectful behaviour.

Big Buddy System

Learning to interact with peers is one of the very important part of social skill development. The student learns to intermingle with others who may be younger or older. The Big Buddy system is a great approach for students to learn to communicate with different age group students. Often a senior class is paired up with a junior class for some project, reading time or games. These types of activities should be planned well in advance and carefully designed keeping the student's strengths and interests in cognizance. The teachers meet ahead of time for pairing of students and to prepare structured activity. Time is set aside for the teacher to set guidelines for interaction and topics for conversation.

Class Meetings

Class Meetings are a great way to teach students how to be diplomatic, showcase leadership, solve problems and undertake responsibilities. During the class meetings students discuss current classroom events and issues. Successful and productive meetings involve all the students to solve problems and discuss issues that need to be addressed. Prior to the meeting, teachers provide students with group guidelines for



appropriate behaviour, prompts, and sentence frames to facilitate and expedite meaningful conversation.

Explicit Instruction for Social Skills

The teachers can plan out time in their curriculum to directly teach social skills to their students. Various research-based programs are available to provide teachers and schools with explicit lessons for development of social skills. These programs provide schools and classrooms with a common language, fixed set of behaviour expectations, and goals for the future.

Multimedia for Social Skills Instruction

There are several reasons to consider using multimedia technologies to boost social skills instruction. Many kinds of multimedia technologies and know-hows can be an excellent match for the specific learning styles and preferences of students with disabilities (virtual environments, simulations, videos, etc.) and new technologies are emerging rapidly.

Students with learning disabilities like those who are visual learners, videos, simulations, virtual environments, pictures and other multimedia can be effective teaching tools (Parsons, 2006; Parsons, Leonard and Mitchell, 2006). Students seem to acquire social skills best when they are taught in authentic situations using a variety of mediums. All the activities listed above like role playing, group activities, observing peer behaviour, etc. can be augmented with the use of multimedia tools.

Conclusion –

The role of a teacher in helping students acquire social skills is critically important. In conjunction with visiting special education teacher and related professionals (e.g. Orientation and Mobility Specialist; Speech and Language Pathologist; School Psychologist), the classroom teacher has an important and central role in providing social skills support. In collaboration with other professionals, the teacher can carry out assessments of the student's social skills and provide strategies to promote these skills in interacting with others. The students can be encouraged to be assertive in expressing their needs and preferences to ensure the development of positive self-esteem, self-confidence and sense of identity. Teachers and parents can work in collaboration to encourage, foster and nurture development of social skills in children. This collective and collaborative approach will stimulate growth of effective social skills by providing the student with an array of learning experiences inside and outside the classroom.

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A REVIEW OF BNEI EPHRAIM: EMERGENCE AND SELF-IDENTIFICATION

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Abstract

In the context of religious conversion movements of low castes in India, many Dalit groups have embraced Christianity, Islam, Buddhism, and even Jainism to restore egalitarian traditions. However, their conversion to Judaism is relatively unheard of in academia. This essay throws light on these conversions' nature by looking at a section of Dalit population in the coastal Andhra, who embraced Judaism two decades ago by declaring their community to be the descendants of the Children of Ephraim –one of the Ten Lost Tribes of Israel. This essay discusses the emergence and self-identification of the Bnei Ephraim, as well as the influence of their (re)discovered Jewishness on their socio-economic and hierarchical status among the local community in connection with the governments' politics of reservation, which is applied to them as a 'scheduled caste.' In other words, the paper will look at the history of Bnei Ephraim, an untouchable community claiming the status and rights that characterize other Jewish communities of India, but at the same time being a subject of reservation caste politics.

Keywords: Judaism, tribes, Bnei Ephraim

Introduction

Since the Ambedkar movement, conversion to another religion became one of the traditional ways for untouchables in contemporary India to leap out of the confines of caste discrimination. This, however, complicated the narrative of India's caste politics, as according to the Constitution (Scheduled Castes) Order of 1950, the reservation system, created for the betterment of the socio-economic status of the untouchables, was originally designed for Hindus to ameliorate the condition of so-called 'schedule castes' and Adivasis referred to as 'scheduled tribes.'

Later amendments included Sikhs (in 1956) and Buddhists (in 1990) within the provisions mentioned above. With the Mandal Commission report in 1990 greatly extending the reservation limits, other religious communities also claimed their right for reservation. The 2007 Ranganath Misra Commission Report as well as another National Commission for Minorities Report published a year after that "found that there was a strong case for according Scheduled Caste status to Dalit Muslims and Christians," which was de facto implemented in certain states like Andhra Pradesh, West Bengal and Tamil Nadu*. Thus, the only religious community that remained untouched by the reservation politics were Indian Jews** that numbered approximately 33,000 at India's Independence.

However, Jews – Malabari, Paradesi, Bnei Israel, or Baghdadi – never claimed reservation rights. This trend changed with the emergence of so-called Judaizing



movements*** in the country, largely inspired by the success of the Ethiopian community of Beta Israel's (also known as Falash Mura) migration to Israel in the late 1970s. They used the common way of Judaizing, Baal teshuva, or embracement of Jewish culture and observance of orthodox religious traditions. New 'returnees' seek incorporation into Judaism in general and Israeli society.

The success of the "black Jews" migration to Israel encouraged other groups in Africa and other countries to reinforce their claims of Jewish identity. In India, the late 1970s marked the activities of Bnei Menashe, a community currently consisting of about 9,000 that is primarily comprised of three tribes: Kuki, Mizo, or Chin, most of whom reside in the states of Mizoram and Manipur in the Indian north-east and fall under the constitutional category of 'scheduled tribes.' They claimed that their ancestral roots could be traced to Manasseh, son of Joseph, one of the Jewish patriarchs, whose people, a part of 'the ten lost tribes' was expelled from Israel in 721 B.C.E. Then through Assyria, Persia, Afghanistan, and Tibet reached China, from where they had to flee in 100 C.E. and eventually settled in Malaysia, Philippines, Thailand, and Burma, they ended up at their current destination.

Although in 1979, Bnei Menashe's Jewish identity was studied and eventually supported by Israeli organization Amishav (Shavei Israel) led by rabbi Eliyahu Avichail, a driving force behind arranging giyur or formal conversion ceremonies and later funding the aliyah. However, general opinion remained skeptical about the possibility of their acknowledgment as Jews until April 2005 when chief Sephardic Rabbi of Israel, Shlomo Amar, decided to accept Indian group Bnei Menashe for their Jewish descent, which opened their way to make aliyah to Israel. The Indian government resisted this move and restricted Bnei Menashe's migration for seven years, but eventually acknowledged their claim for Jewishness and allowed their departure to Israel in 2012.

The example of successful Jewishness claims by Bnei Menashe gave inspiration to Bnei Ephraim, the community of untouchables in Guntur district of Andhra Pradesh that claims kinship ties with the Bnei Menashe, like Ephraim, according to Judaic tradition was Manasseh's brother, also the son of Joseph. The Bnei Ephraim, numbering just around 40 families, are primarily concentrated in the village of Kothareddypalem near the town of Chabrol. Being members of the Madiga Dalit caste, they are a subject of the state government's reservation policies. Although the Israeli rabbinate shows no sign of recognizing Bnei Ephraim as Jews, their 'rediscovery' of Jewish identity possesses a dilemma before Indian authorities: if following the Bnei Menashe case, Israel agrees with the Judaic descent of Bnei Ephraim, and should India accept their right to migration, this will put in question the existing caste politics that do not recognize Indian Jews as a subject of reservation.

Bnei Ephraim: Emergence and Self-identification

By and large, the Bnei Ephraim community belongs to the Madiga caste, one of the two major Dalit caste clusters of linked endogamous groups of this region. Their main traditional occupations have been skinning of dead animals, leather dressing, the making of leather ropes, making leather buckets for hauling water from wells, and other leather articles used in farming as well as agricultural labor, such as making chappal or open



sandals and taking care of the village cattle owned by the upper castes. At the beginning of the twentieth century, Briggs wrote about Madigas as those who

"live on the outskirts of the village, [are] described as coarse and filthy, as an eaters of unclean food, and as a user of obscene language, who work in leather, and serve as a menial and as a scavenger."

According to Briggs, "Madigas are practically serfs. Most of them are field labourers". Most of my correspondents (both elders and middle-aged) in Kothareddypalem village confirm this professional description. According to Egorova and Perwez, "Madigas constitute 46.94 per cent of the total scheduled caste population of the state [Andhra Pradesh - A.Z.]" 18 or 6 million in absolute figures. The conversion of Telugu untouchable castes from Hinduism to Christianity started in the late 19th century, and by "1902, ten per cent of the Madigas were returned as Christians". The exact percentage of Christians, however, started dropping after India's Independence. While in 1951, its share in the state's population was 3.94 percent (more than 12 million) and reached its peak in 1971 (4.19 percent or more than 18 million), by 1981, it plunged to 2.68 percent (around 14 million). Senftleben suggests that the major reason for this "was that many Christians of Scheduled Caste origin have declared themselves as Scheduled Caste members, which they can be only if they do not belong to the Christian community... [whereas] the government does not continue to give the benefits and reservations, which are provided for the Scheduled Castes, to those Scheduled Caste members who embraced Christianity". However, in 1970, the Andhra Pradesh government adopted the Anantharaman Commission recommendations and introduced – though just 1 percent – reservations for Dalit converts to Christianity under 'Group C' of the scheduled castes category.

Judaization and Untouchability

The new Jewish status of Bnei Ephraim helped them elevate their social status in their neighbors' eyes. An Important role in this process is played by the rise of community leadership's authority in the village through the re-establishment of its place in the village hierarchy. One way to do so is break the traditional patterns of behavior and even change their living area. The house loan taken by Sadok Yacobi helped him in 1991 to build his new home, which now serves as a synagogue in Kothareddypalem. The temple is located 62 The Journal of Indo-Judaic Studies in the central part of the village, which contradicts the traditional lower caste apartheid towards Madigas. Egorova and Perwez note that "the Yacobi brothers managed to build the synagogue in the central part of the village, on a site surrounded by land belonging to caste Hindus... [Escapin village's g] the untou, which are traditionally situated on the outskirts of the main village".

Thus, according to the scholars, "the synagogue... may be seen as a symbol not just of the new religious identity of the Bnei Ephraim, but also of their claim to a new status".

Sadok's blessings are also believed to bring fertility to families, disregarding their caste background:

"they [childless villagers – A.Z.] come to me and say: 'We have been to many religions, many temples and [have] no children... and we came to you because you can also say something so we can follow and can pray'... I say: 'I will introduce you to God, whom you did not know until now... He is the man who gave birth to you all, that's why we



don't bother about your religious beliefs, the God of Hebrews..., [so] you pray and see, and we also pray, the whole congregation will pray for you".

The village's upper castes seem to be less problematic with coming to Sadok's synagogue, asking for spiritual services, rather than entering Madiga Christian churches or other holy places. However, for some Bnei Ephraims, religious beliefs are still believed to be some sect's Christian cult.

The acceptance of Judaism for Bnei Ephraim helped them elevate their social status in Kothareddypalem and attracted upper castes, particularly Reddy and Kama, that dominate the socio-economic and political scene in Andhra Pradesh*. Shiv Ram Reddy, 49, a lawyer at the High Court of Hyderabad, heard about the movement through a newspaper article in 1999 and went to stay with Sadok and Shmuel, celebrating Shabbat and other holidays with Madiga community members:

"... last Rosh haShana [Jewish New Year – A.Z.] I was there, some people from Reddy community also visited [the Bnei Ephraim with me – A.Z.]. There we had food and water also".

Now he considers himself a part of Bnei Ephraim and recently had a D.N.A. test conducted to prove his Middle Eastern ancestry. Answering a direct question about caste that may be an issue as far as his incorporation in the Bnei Ephraim community is concerned, Shiv Ram Reddy states that it is Judaism that makes the caste question irrelevant for him:

"... for us the haShem [one of God's names in Judaism – A.Z.] is the only thing that measures the power, we don't consider the question of caste. The caste consciousness is totally vanished... Judaism is a catalyst in developing society."

Christianity, unlike Judaism, according to Reddy, practices caste and untouchability. Reddy goes even further accepting the potential possibility of intermarriages between Bnei Ephraim Madigas and upper castes within the Jewish community (he as well as his son are circumcised and consider themselves as Jewish - he overtly claims his Semite rather than Dravidian origin), a possibility categorically denied by the majority of Bnei Ephraim themselves.

Bnei Ephraim managed to draw international attention to their religious and, consequently, socio-economic issues. American Rabbi Marvin Tokayer visited Kothareddypalem in 2007 and made a financial contribution. A few years ago, an Israeli T.V. channel made a documentary on the community. In 2012, a performer Irene Orleansky visited the city to record a CD of music of the Hebrew tribes.' Bnei Ephraim attracted significant scholarly attention with Dr. Yulia Egorova and Shahid Perwez of SOAS/Durham conducting several months of fieldwork with the commuting city. On December 30, 2012, Shmuel Yacobi and his sons managed to organize an international conference on Bnei Ephraim in Vijaywada. One of his sons, Dan Yacobi, 36, through Rabbi Tokayer's sponsorship, was admitted to study in a yeshiva in New York for a year. In 1999, he traveled to Israel to continue his yeshiva studies for another two years. Yeshua Yacobi, Shmuel's eldest son, even managed to do aliyah and now resides in Ramat Gan, where he married a Ukrainian origin⁴⁹. Another community member Kyla Coniah (her previous Hindu name - Samyuktha Kooniah), moved to Canada, where she, according to our correspondence, completed a Ph.D. comparing the rituals of her native Kamakura Village with Jewish customs and concluding that.



"most of us [untouchables – A.Z.] in Andhra Pradesh are of true Jewish blood – to prove that we have our surnames, which have been handed down to us from generations after generations for more than 2500 years".

In 2010, she was in correspondence with Ashkenazi Chief Rabbi of Israel Yona Metzger.

(Egorova & Perwez, 2012) "Telugu Jews: Are the Dalits of coastal Andhra going caste-awry? With reference to Bnei Ephraim," In seeking ways to rediscover the lost tradition, the Bene Ephraim thus both deploy the tropes of 'Jewish difference' borrowed from Western discourses. In the Bene Ephraim discourse –which emerged in the writings of Shmuel Yacobi but rapidly spread in and outside the village –being Jewish, amongst other things, means being Madiga. It means eating beef, bury one's dead, denouncing inequality, and fighting caste discrimination Acknowledgements. This essay is part of the recently concluded project titled, 'the Children of Ephraim: Constructing Jewish identity in Andhra Pradesh,' funded by the Arts and Humanities Research Council, United Kingdom. We are grateful to them for their support.

Finally, Judaization helped at least some Bnei Ephraim members acquire an identity that helped them overcome the stigma attached to their caste for centuries. Charsley, who particularly looks at the case of Madigas, speaks of them as victims.

"of an iniquitous social order, exclusively victims with absolutely nothing of which they could be proud of."

He opines that Judaization came as an important intervention in their lives as,

"the castes so reduced were able to distinguish their identities with pride... presenting [untouchables] with an embraceable identity."

Most of my correspondents among Bnei Ephraim also accepted the possibility of matrimonial relations⁵³ with the other Judaizing Indian movement of Bnei Menashe, which could hardly be possible without embracing a common religious identity.

Conclusion

As we have seen, Bnei Ephraim's (re)discovered Jewish status has helped them gain a new sense of communal self-identification, which has increased their social and hierarchical rate amongst the local population. Unlike their former Christian and Hindu religious identity, the Jewish one helped them acquire recognition among upper castes and break certain restrictions linked with their untouchable origins, such as inter-dining, sharing of water, and common access to prayer places, et cetera. As we have mentioned in the beginning, the Indian authorities' de facto recognition of Bnei Menashe as Jews created a paradox in the country's caste politics, since the Mizo, Kuki, and Chin tribal group, as members of the 'scheduled tribes' de jure considered as Adivasis, continue to be entitled to the reservation, but at the same time acquire a right of immigration to Israel acknowledged by the Indian government about 'traditional' Jewish groups in the country. It must be kept in mind that these 'conventional' Indian Jewish groups never enjoyed any reservation form. The possible acknowledgment of Bnei Ephraim, who are covered by reservations as members of the Madiga Dalit caste, as Jews will lead to even larger controversy in the nation's caste politics, since unlike 'scheduled tribes' the 'scheduled caste' category's definition is legally linked to Hinduism, making untouchability a 'Hindu phenomenon.'



We could sometimes observe Bene Ephraim refusing to eat in other villagers' houses because the food prepared in their homes was not kosher. Just like caste Hindus refuse food prepared by the Madiga, the Bene Ephraim now have dietary prohibitions of their own to which they subject their non-Jewish neighbors. Towards the end of his fieldwork, Shahid observed another example of the Bene Ephraim trying to gradually distance themselves from other villagers. Sadok Yacobi arranged for a separate building to be constructed in the synagogue courtyard –the building was supposed to serve as an office where non-Jewish visitors would report upon arrival. Sadok Yacobi explained to Shahid that it was not appropriate for the 'outsiders' to enter the synagogue if they wanted to see him. He needed to have a specially dedicated structure to accommodate such visits. He thus constructed a new spatial boundary to separate his house of worship from the rest of the village, which allowed him to grant entry rights to some villagers and deny them to others, just like the Hindus would refuse to let him into their temples. In seeking ways to rediscover the lost tradition, the Bene Ephraim thus both deploy the tropes of 'Jewish difference' borrowed from Western discourses. In the Bene Ephraim discourse –which emerged in the writings of Shmuel Yacobi but rapidly spread in and outside the village –being Jewish, amongst other things, means being Madiga. It means to eat beef, bury one's dead, denounce inequality, and fight caste discrimination. On the one hand, as the essay demonstrates, the changed religious narrative of Bnei Ephraim contributed to uplifting their social and hierarchical status amongst the local population, which correlates with the very purpose of the reservation policies aimed at "raising the status of hitherto underprivileged peoples so that they can compete as equals and indeed be able to fight effectively for right guaranteed in the Constitution." Thus, the Jewish status of Bnei Ephraim should be recognized and supported within the framework of the Indian government's politics of caste. At the same time, this recognition should give them the right of aliyah to Israel that the Indian government has traditionally given to its historic Jewish communities and recently granted to Bnei Menashe. On the other hand, recognizing a group belonging to 'scheduled castes' as Jews will contradict the constitutional law itself that does not include Jews in the definition of 'scheduled castes.' Thus, the religious rights claimed by Bnei Ephraim create a dilemma in the country's caste politics, making the clash between the spirit of India's constitution and its word.

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PRINT vs ONLINE ADVERTISING: IMPACT ON BUYING BEHAVIOUR OF YOUTH

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ABSTRACT

The study focuses on comparing print and online advertising with reference to impact on buying behaviour of youth. The study will help to decide on the effective way to advertise products and services is one of the most difficult challenges small businesses face. Each advertising medium has its own set of challenges and limitations. Many brands focus on both print and online medium to diversify their marketing mix. One of the important fact here is the growing usage of online medium by today's youth. A single online advertisement can potentially reach customers in a geographically diversified market. The circulation of newspapers limits the number of youths that print advertisements can reach. The kind of exposure today youth have towards Internet, Television, print and other medias forces one to re think on the effects that these advertisements have on the minds of the young generation. Advertisements must aim to connect with customers and convince them to make a purchase decision. Online users often spend a few less time on a Web page which can make it difficult for an advertisement to grab their attention. Moreover, online users have option of installing ad-blocking software to prevent ads from appearing on websites. Readers may spend several minutes reading each page of a newspaper or magazine, which gives advertisements more time to connect with customers and influence decisions. The study will use survey methodology to find effectiveness of both forms of advertising to find impact on buying behaviour of youth.

INTRODUCTION

The study would help the advertisers to understand to what extent the preference of youth is towards print and online advertising. This study will bring facts that how advertiser's use these mediums to make their products popular. This study will also be beneficial to analyze as to how consumers perceive the online advertisements and print advertisements and what are their parameters for making buying decisions.

Youth are exposed to many images and commercials for various Products and Services each

day. This excessive amount of media in our day to day lives cannot be side lined and impacts all those surrounded by it. It is an expression of the society of which we are a part, and is a mirror-image for all practical purposes and has a tremendous influence on the social, cultural and moral values of the youth.



Advertisements start with persuading the customer due to the new benefits that the Product promises to deliver to the customer, according to (Douglas Kellner, 1920).

Many marketers have either increased their spending on the digital media, or have switched from the print media as they online media is more promising in terms of revenue generation. However, such a shift does not necessarily mean that print advertising would decline away soon. Many studies have indicated that digital advertising works in conjunction with TV, print, and other traditional media to generate the greater increase in marketing effectiveness (Koetsier, 2014).

Youth today are far more armed with suitable information than they had a couple of years back. The evolution of Technology has brought in this change in the lifestyle of youth. The kind of experience these youths have towards online media forces one to re think on the effects that these advertisements have on the minds of the young generation. Online media proves to be one of the best ways of persuasive communication. In today's time frame, youth spend maximum of their time, surfing information online. The experience that one gets from Internet, Television or any other media through advertisements depicts the knowhow of different cultures, lifestyles and fashion.

OBJECTIVES

- To compare print and online advertising with reference to buying behaviour of youth.
- To decide on the effective way to advertise products and services to youth.
- To find which medium is more persuasive among youth.
- To explore the credibility of both the mediums among youth.

REVIEW OF LITERATURE

There are several media advertisements which are influencing Generation Y customers in making a purchase decision. Almost everyone grows up in the world which is flooded with the mass media e.g. television, advertising, films, videos, billboards, magazines, movies, music, newspapers, and internet (Latif, Abdul., Saleem, Salman and Abideen, Zain Ul2011). Advertising, in all its forms, plays an important role in informing people's choices of products and services. New media, predominantly the internet, has apparently become an indispensable source of information today. Advertisers all over the world eye covetously at the expanding opportunities provided by the webs, seeking more effective communication channels with their target markets (Vijaya Chitra and Dr S Kothai, 2014). Online advertising spending, including web ads, is constantly on the rise, especially due to its power of synergy with television and print advertisements.

With the increased adoption of ad fission of the internet, world wide web is becoming gradually a standard advertisement platform. The web is offering business advertisements world with rich media tool, interactive series and global reach. (Dr



Surender Kumar Gupta, 2013). It is interesting to study that where so much of research has been conducted regarding future of online advertising and the consumer behaviour towards it, less focussed has been given to internet advertisements and their layouts that are carried on the homepages of different websites. Though people enjoy looking at internet advertisements, its formativeness and utility for making behavioural purchasing decisions also plays a key role (Ann.E. Schlosser, Sharon Shavit&Alaina(2002).

PRINT ADVERTISING

one of the traditional newspaper's strengths, the particular suitability for carrying informative advertising (Boyer 1974; Telser 1964), upholds despite the presence of online competition. Printed newspapers in particular remain attractive for informative advertising for four reasons: (i) informative environment, (ii) reputation for trustworthiness, (iii) fit with presentation limitations, and (iv) comparatively low intrusiveness.

ONLINE ADVERTISING

The internet is like no other communication medium because of its skill to combine several of the exclusive qualities of each medium (that is, print, sound, and visual) into one, while allowing for interactive communication between advertiser and customer. This vast array of traits makes the internet attractive as the new communication tool of the future and one that seems already to be catching the eyes of youth and advertisers alike.

Consumers' attitudes toward advertising have been considered important to track because they likely influence consumers' exposure, attention, and reaction to individual ads (cf. Alwitt and Prabhakar, 1992) through a variety of cognitive and affective processes (Lutz, 1985). One fundamental difference between Internet and traditional advertising is the degree to which the consumer versus the company has control over advertising exposure. With traditional advertising, consumers play a relatively inactive role in exposure. Advertisements interrupt or intercept consumers' attention to other information (e.g., a television program, a radio show, or traffic signs). In reality, advertisements are "pushed" at them. With many forms of internet advertising, however, the consumer has a great deal of control over advertising exposure. The company may request the consumers' attention (e.g., through banner ads on others' Web sites or through hyperlinks), but it is up to the consumer to seek additional commercial content. Consumers can select whether, when, and how much commercial content they wish to view.

PRINT VS ONLINE ADVERTISING

In comparisons with the effectiveness of print advertising, however, results have not been unequivocal. According to Sundar et al. (1998) the print medium is superior to the online medium in memory measures, ascribing the effect to the novelty of online advertisement, the delivery mechanism and users' expectations. On the other hand Gallagher, Foster, and Parsons (2001) and Gallagher, Parsons, and Foster (2001) use advertising hyper-linked to a related text and state that both media are equally effective.



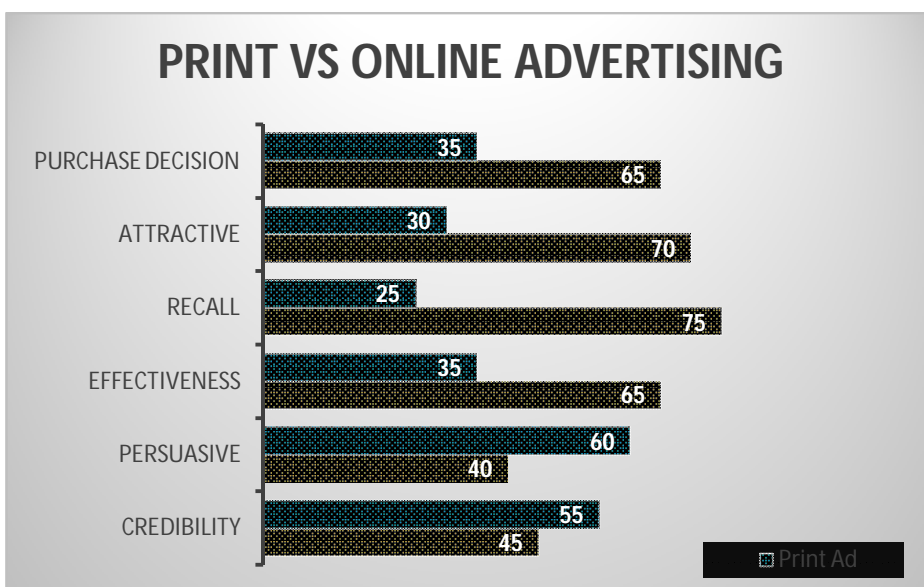
Advertising effectiveness depends on users' receptiveness towards an ad and on their attitude towards advertising. For print advertisement Metha (2000) found out, that „respondents with more favorable attitudes towards advertising recalled a higher number of advertisements the day after exposure“. In the internet, it is frequent that advertising is used with higher levels of forced exposure than only static banners (Cho, Lee, Tharp 2001), who's level would compare to print advertising. Since higher intrusiveness leads to ad avoidance and irritation (Edwards, Li, and Lee 2002), a less favorable attitude among consumers vis-à-vis internet advertising can be supposed.

RESEARCH METHODOLOGY

To compare the print and online advertising and study the objectives, survey was conducted on college going student as they are the once who are exposed to both forms of mediums. Sample size of 100 was taken comprising on 50 male and female students each. Questionnaire was administered to them which comprised of close ended questions. The options in the questionnaire are based on the data collected from content analysis to study the response of the youth towards them.

DATA ANALYSIS

The data collected is presented in the form of graph given below.



Following analysis has been done on the basis of data collected.

- When the respondents were asked about the effectiveness of both forms of advertisements, they found online to be more effective.
- When respondents were asked which form of advertising is more persuasive they favoured print media advertising.



- When respondents were asked about interactive nature of advertisements, they found online advertisements to be more interactive.
When asked about recall value of the advertisement, they remembered more of online advertisements.
- When respondents were asked about attractive nature of advertisements, they opine print to be more attractive.
- When respondents were asked about purchase decision, they opine that they made purchase decision after getting influenced by online ads.

The study highlights the fact that online advertising is indeed the most effective medium of advertising when the focus is on the youth. The advertisers should fully explore the potential of online as a effective advertising medium. The advertisers should use the new technology in such a way that two or more media can be combined. This prospect will offer great new avenues to be exploited. Since the credibility and persuasive nature of print media is high so advertisers should come up with a marketing mix which focus on both print and online media.

CONCLUSION

Advertisers should use the most effective and impactful medium, but also must focus efforts on those media that youth are using most. Even if we believe print ads are potentially more credible, we must acknowledge the massive shift to online medium for many daily activities. Especially in case of youth, they are more driven by online advertisements as compared to print advertising. In most of the cases, a mix of media will be the best solution. We can conclude that effective print ads will drive online purchases. Advertisers should face this challenge. They should take a more active role in building their online as well as print media platform to meet the needs and desires of the youth they have targeted.

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A STUDY TO FIND OUT EFFICACY OF ULTRASOUND WITH MAITLAND'S MOBILISATION VERSUS LOW LEVEL LASER WITH MAITLAND'S MOBILISATION IN MANAGEMENT OF ADHESIVE CAPSULITIS

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Abstract:

This study is done to compare the effectiveness of Ultrasound therapy along with Maitland's mobilisation therapy versus Low level LASER therapy along with Maitland mobilisation therapy in Adhesive capsulitis. 30 subjects were diagnosed with Adhesive capsulitis are taken and divided into two groups. Group A: 15 subjects received Ultrasound therapy along with Maitland mobilisation therapy. Group B: 15 subjects received Low level LASER therapy along with Maitland mobilisation therapy. The total duration of study was 4 weeks. The patients were treated in Physiotherapy department for 12 sessions, 3 sessions weekly. The subjects were assessed before the treatment (Pre), and at the end of 4th week (Post) by VAS scale for pain assessment and Range of motion with Universal goniometer. The result showed that Low level Laser therapy along with Maitland mobilisation therapy (group-B) is effective than Ultrasound therapy along with Maitland mobilisation therapy (group-A) in decreasing pain, and improving range motion in patients with Adhesive capsulitis.

Keywords: Adhesive capsulitis, Ultrasound, Maitland mobilisation, LASER therapy, Pain, Range of motion.

Introduction:

The shoulder is considered as the most mobile joint in the human body. The shoulder complex is composed of the three bones namely clavicle, scapula and humerus and the joints that links these bones in to a functional entity. It is an intricately designed combination of three independent joints; the sternoclavicular joint, acromioclavicular joint, scapulothoracic joint linking the upper extremity to the thorax. The articular structures of the shoulder complex are designed primarily for mobility allowing to move and position the hand through a wide range of space. The primary goal of the shoulder complex is to position the hand in space for activities of daily living. Secondly during overhead athletic activities such as throwing and serving, the shoulder function as the funnel through which the forces from the larger and stronger muscles of the leg and trunk are passed to the muscles of the arm, forearm and hand which have finer motor skills. Muscles of shoulder joint, the rotator cuff are a group of four muscles that surround the shoulder joint and contribute to the shoulder stability. The muscles of the rotator cuff are supraspinatus, infraspinatus, subscapularis and teres minor. The cuff adheres to the glenohumeral capsule and attaches to the humeral head. Adhesive



capsulitis is a condition characterized by stiffness, pain and inflammation in the shoulder joint, it is also known as frozen shoulder. Adhesive capsulitis is typically experience insidious shoulder stiffness, severe pain that usually worsens at night and complete loss of passive and active shoulder movements. Symptoms are commonly mild pain is the most common complaint, restricted range of motion of the joint (flexion, abduction, external rotation and internal rotation), functional limitation of the joint (inability to reach overhead, behind head). It is often progressive in three stages 1. The freezing (painful) stage; gradual onset of diffuse, severe shoulder pain that typically worsens at night, it lasts about 2-9 months. 2. The frozen (adhesive) stage; pain begin during the frozen stage with a characteristic progressive loss of Glenohumeral flexion, external rotation, internal rotation and abduction, it lasts about 4-12 months The thawing stage; gradual return of range of motion that about 5-26 months. Adhesive capsulitis is estimated to affect 2% - 5% of the general population and can be significantly painful and disabling. A significant incidence amongst diabetes in order of 10-20%. Most commonly effects in fourth to sixth decades of life, and more often occurs in women than the men 4:1. Adhesive capsulitis has been divided into 2 types primary adhesive capsulitis it is idiopathic, secondary adhesive occurs after shoulder injury (eg: humerus fracture, shoulder dislocation, avascular necrosis). The fibrotic capsule adheres to itself and to the anatomic neck of the humerus. There is minimal synovial fluid in the joint and overall joint volume is diminished. Normal shoulder joint volumetric capacity is 20-35 ml of fluid, whereas in adhesive capsulitis the joint accepts only 5-10 ml. Adhesive capsulitis was first Duplay in 1872. Functional limitations seen in adhesive capsulitis are: 1. Inability to reach overhead, behind head, out to the side and behind back thus having difficulty in dressing (such as putting on a jacket or coat or women fastening under garments behind their back), reaching hand in to back pocket of pant, self grooming (such as combing hair, brushing teeth, washing face). 2. Difficulty in lifting weighted objects . 3. Limited ability to sustain repetitive activities. Diagnosis is plays a crucial role in assessing the Adhesive capsulitis, radiographs of patients with early adhesive capsulitis are normal. Later changes sometimes show Osteopenia, cyst like changes in the humeral head and joint space narrowing. A variety of treatments have been recommended for adhesive capsulitis. Non steroidal anti-inflammatory drugs, local anaesthetics and corticosteroid injections into the glenohumeral joint, calcitonin and antidepressants, distension arthrography, closed manipulation, physical therapy modalities and stretching exercises can be listed most common non-surgical approaches to treatment to adhesive capsulitis. Therapeutic Ultrasound is a method of applying deep heat to connective tissue which plays an important role in relieving plantar heel pain by both thermal and mechanical effect on target tissue resulting in increased local metabolism, circulation and extensibility of connective tissue and tissue regeneration³. To obtain increase in the viscoelastic properties of collagen, an elevation in tissue temperature³. Laser therapy increases white blood cells and white blood cell activity which helps modulate the inflammatory process by increasing the anti-inflammatory mediators. Maitland mobilization techniques are primarily used for treating joints limited by pain. The oscillations may have an inhibitory effect on the perception of painful stimuli by repetitively stimulating mechanoreceptors that block nociceptive pathways at the spinal cord or brain stem level. The Maitland mobilisation



treatment started with inferior glide of the humeral head with the aimed at improvement of the extensibility of the Axillary recess and enhancing the movement of shoulder joint in the direction of abduction.

Materials and Methods:

1. Study design:

The study is a Comparative study, comparing two interventions i.e. Ultrasound along with Maitland mobilisation and laser along with Maitland mobilisation is for decreasing the pain and inflammation of adhesive capsulitis to increase the Range of shoulder flexion and abduction.

2. Sampling procedure:

Simple Random Sampling.

3. Selection of sample:

Patients with adhesive capsulitis were selected from the outpatient department of Vaagdevi Physiotherapy Clinic and Rehabilitation Centre, 30 subjects were selected and divided them into 2 groups each group having 15 subjects who fulfilled the inclusion criteria.

Group A: - 15 subjects Ultrasound along with Maitland mobilisation

Group B: - 15 subjects with Laser along with Maitland mobilisation

Inclusion Criteria:

Age group of 40-60 years.

Patients with diabetes mellitus (adhesive capsulitis).

Painful condition of at least 3months with 50% restriction in passive shoulder movements.

Exclusion criteria:

Previous manipulation under anaesthesia of the affected shoulder or injection with corticosteroids in the affected shoulder in the receding 4 weeks.

History of humerus fracture.

Neurological deficits affecting shoulder dysfunction in the normal daily activities.

Pain or disorders of the cervical spine, elbow and wrist.

4. Duration of treatment:

15 subjects received a Ultrasound dosage of 1.3 wcm^2 with a frequency 1 MHz, time for treatment session includes about to 5minutes^{6,7} for single session, 3times per week for 4weeks along with LASER dosage of 3min, 3times per week for 4weeks.Maitland mobilisation Grade 1 and Grade 2.

Outcome measures:

- Shoulder Range of Motion (Universal Goniometer)
- Pain (Visual analogue scale)

Materials:

360° Goniometer

Therapeutic gel

Ultrasound machine 1MHz Biotech-Calibrated

Cotton

Universal Goniometer

LASER



Procedure:

Subjects who satisfied the Inclusion criteria and Exclusion criteria were given individual consent forms to fill up and were divided into two groups. Group A and Group B with each 15 subjects.

Group A – 15 Patients (Ultrasound along with Maitland mobilisation)

Group B – 15 Patients (Low level Laser along with Maitland mobilisation)

Application:

Ultrasound Application:

Group - A

- 15 subjects were treated with Ultrasound.
- Direct coupling method is used because of its efficacy¹².
Patient is made to sit in a chair or on a bed, therapist is in standing position in front of the patient, transducer head is moved in circular motion.
- Treatment duration lasts for 5min⁴ a day, 3 sessions per week for 4 weeks with frequency of 1MHZ & intensity of 1.3 w/cm².

Instrument Calibration:

Frequency	–	1MHZ ²
Intensity	–	1.3w/cm ²
Mode	–	continuous mode ²
Treatment time	–	5 min

Maitland mobilisation techniques:

Postero-anterior glide for gleno humeral joint: The patient positioned in supine lying with elbow flexed and forearm was positioned against a pillow on his trunk. The Physiotherapist kneeled laterally and superiorly to the patient shoulder and positioned that 2thumbs, back to back, with the tips in contact with the posterior surface of the head of the humerus adjacent to acromion process and pointing towards the ceiling. The fingers of the one hand were spread over the clavicular area and those of the hand spread over the deltoid.

The oscillatory movements was produced by the arm,not through the wrist flexors.

Anterio posterior movement for gleno humeral joint: patients were positioned in supine lying the physiotherapist stood by the patients upper arm facing across his body and supported the lower end of the patients humerus posteriorly from the medial side with one hand and then rested his forearm on the therapist forearm.The therapist raised the patients upper arm approximately 20degrees anteriorly to the coronal plane to the trunk so that the head of the humerus would not limping against the inferior surface of the acromion process posteriorly. The therapist placed the cupped heel of another hand anteriorly over the head of the humerus with the fingers extending superiorly and posteriorly over the acromion process and anterioposterior oscillation was performed. The therapist fingers were cupped loosely the acromion process; and did not apply pressure at all, but assisted in feeling the movement.

Low level LASER therapy: Infrared diode laser (904nm), with following parameters-maximum power-60w,

Peak power per pulse- 27W,

Pulse frequency- 120Hz,



Total energy density-24J/cm²

The Scanning method is used over tender areas of shoulder with appropriate amplitude, frequency and position of beam. Duration of treatment -5min/session for 9 sessions for 3 weeks.

Position of the patient: sitting on a table (couch) or in a chair with hand rest on a pillow

Therapist position: standing in front of the patient.

Application of laser:

RESULTS:

Means & Standard Deviation of Group –A (ROM)

ULTRA SOUND & MAITLAND MOBILISATION

Table for Mean & SD of ROM Scale – Group – A (Week Wise)

Group - A	Pre-Treatment	Week 1	Week 2	Week 3	Week 4
Mean	34.67	34.67	40.33	49.67	65.33
SD	10.43	10.43	6.94	7.90	4.42

Chart for Pre & Post value of ROM Scale (Week Wise)

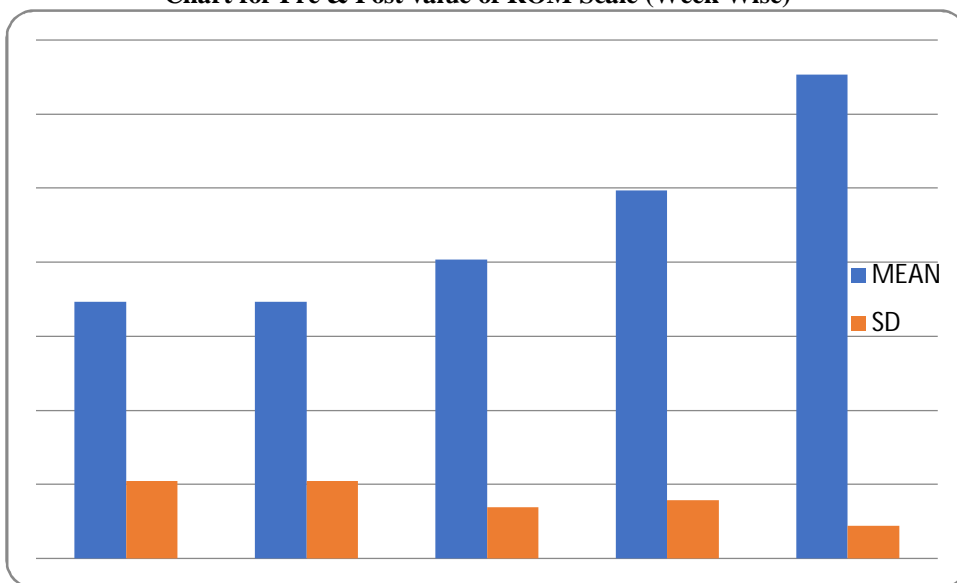


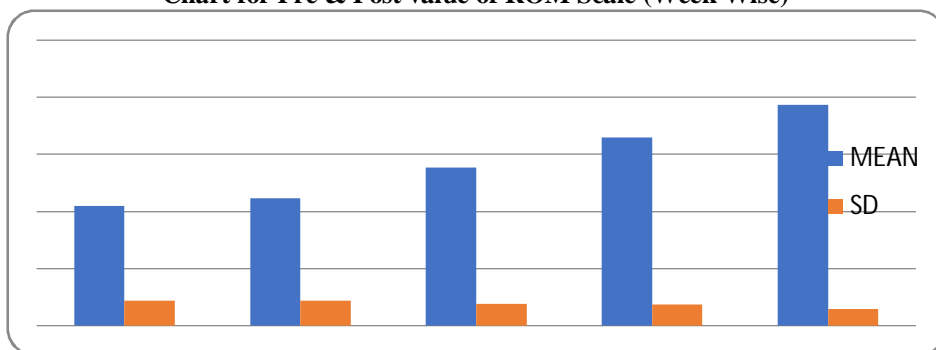
Table for Mean & SD of ROM – Group- B (Week Wise)

LASER ALONG WITH MAITLAND MOBILISATION

Table for Mean & SD of ROM Scale – Group – B (Week Wise)

Group - B	Pre-Treatment	Week 1	Week 2	Week 3	Week 4
Mean	42.00	44.67	55.33	66.00	77.33
SD	8.82	8.76	7.67	7.37	5.94

Chart for Pre & Post value of ROM Scale (Week Wise)



ROM Scale

ANOVA table for Group – A – Patients

Result Details

Source	SS	df	MS	
Between-treatments	10058	4	2514.5	$F = 36.16747$
Within-treatments	4866.6667	70	69.5238	
Total	14924.6667	74		

The f -ratio value is 36.16747. The p -value is $< .00001$. The result is significant at $p < .05$.

ANOVA table for Group – B – Patients

Result Details

Result Details				
Source	SS	df	MS	
Between-treatments	13114.6667	4	3278.6667	$F = 54.12893$
Within-treatments	4240	70	60.5714	
Total	17354.6667	74		

The f -ratio value is 54.12893. The p -value is $< .00001$. The result is significant at $p < .05$.



RESULTS

Means & Standard Deviation of Group –A

SHOULDER ABDUCTION

ULTRA SOUND & MAITLAND MOBILISATION

Table for Mean & SD of ROM Scale – Group – A (Week Wise)

Group - A	Pre-Treatment	Week 1	Week 2	Week 3	Week 4
Mean	65.33	65.33	77.67	88.33	108.67
SD	14.82	14.82	16.46	16.00	13.43

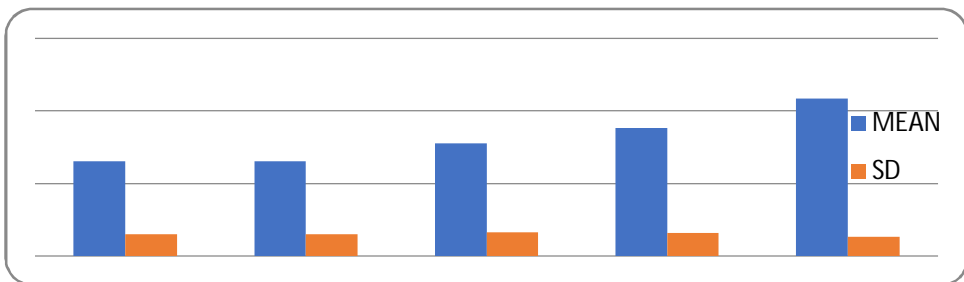
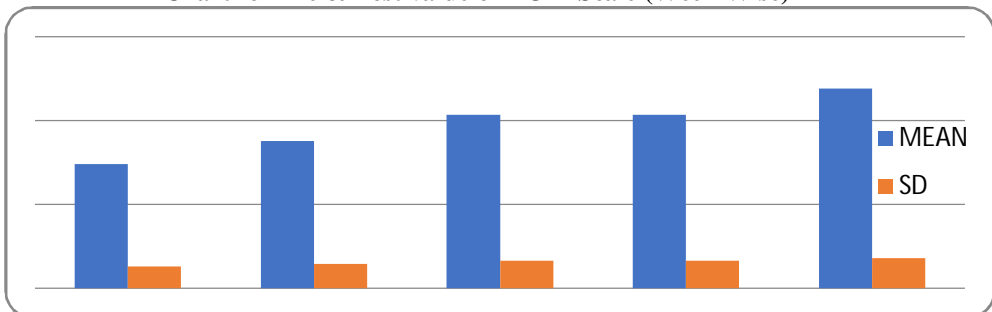


Table for Mean & SD– Group- B (Week Wise)

SHOULDER ABDUCTION

Group – B	Pre-Treatment	Week 1	Week 2	Week 3	Week 4
Mean	74.00	87.67	103.33	103.33	119.00
SD	13.12	14.50	16.33	16.33	17.95

Chart for Pre & Post value of ROM Scale (Week Wise)



ANOVA table for Group – A – Patients

Result Details				
Source	SS	df	MS	
Between-treatments	19818	4	4954.5	$F = 21.6129$
Within-	16046.6667	70	229.2381	



treatments				
Total	35864.6667	74		

The f -ratio value is 21.6129. The p -value is $< .00001$. The result is significant at $p < .05$.

ANOVA table for Group – B – Patients

Result Details				
Source	SS	df	MS	
Between-treatments	17688.6667	4	4422.1667	$F = 17.86219$
Within-treatments	17330	70	247.5714	
Total	35018.6667	74		

The f -ratio value is 17.86219. The p -value is $< .00001$. The result is significant at $p < .05$.

Discussion:

Aim of this study was to examine the effectiveness of Ultrasound therapy along with Maitland mobilisation therapy versus Low level laser therapy along with Maitland mobilisation therapy to improve the glenohumeral range of motion (flexion and abduction) and reducing the VAS and disability(shoulder pain and disability index) patients with Adhesive capsulitis. In this study both the groups underwent 12 sessions of treatment in 4weeks. Both treatment groups obtained successful outcomes, as measures by considerable changes in Range of motion and VAS values. The procedure carried out after obtaining a proper consent form from the patient. Group A: 15 subjects received Ultrasound therapy along with Maitland mobilisation therapy.Group B: 15 subjects received Low level laser therapy along with Maitland mobilisation therapy.The total duration was 4weeks. The patients were treated in Physiotherapy department for 12 sessions.The subjects were assessed before the treatment (pre), and at the end of 4th week (post).The statistical analysis is done by using ANOVA, independent t test and Mann-whitney ‘ U’ test.The results showed that Low level laser therapy along with Maitland mobilisation therapy(Group B) is effective than Ultrasound therapy along with Maitland mobilisation therapy (Group A) increasing the Glenohumeral range of



motion(abduction and external rotaio) and reducing VAS and disability(shoulder pain and disability index)in patients with Adhesive capsulitis.

Conclusion:

Ultrasound therapy along with Maitland mobilisation therapy(Group-A)produced highly significant improvement in increasing the glenohumeral range of motion and reducing VAS and disability (shoulder pain and disability Index)scores at 4th week (post intervention) when compared to pre intervention values in patients with Adhesive capsulitis.

Low level laser therapy along with Maitland's mobilisation therapy (Group-B) had significant improvement in increasing the glenohumeral range of motion and reducing VAS and disability(shoulder pain and Disability Index) scores at 4th week (post intervention) when compared to pre intervention values in patients with Adhesive capsulitis.

However, Low level laser therapy along with Maitland mobilisation was found to be more beneficial when compare to the ultrasound therapy along with the Maitland mobilisation therapy in increasing the glenohumeral range of motion and reducingVAS and disability (shoulder pain and Disability index) scores at 4th week (post intervention)when compared to pre intervention values in patients with Adhesive capsulitis.

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PILOT STUDY OF SANDHIS OF MAJJASARAPURUSHA WITH RESPECT TO PRAMAN SHARIR AND ANTHROPOMETRY

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Abstract -

Basic facts of ayurved concern with Rachana Sharir (Anatomy). It gives information about the fundamental Rachana (Structure) of human body which is very significant with respect to Diagnosis and Treatment. In Rachana Sharir the topic of PramanSharir (dimensions of human body) is also stated. In this subject matter, vital parameters of human body are explained by acharyas. In pramanasharir, swa-angulipraman (Individual finger breadth measurement) is explained in Charak-Samhita Vimansthan, Sushrut-Sutrasthan and Ashtang-sangraha. In ayurved the notion of sarataparikshan is also mentioned. In this laxanas of Majjasara purusha are explained by various acharyas. Sara is nothing but most potent part interms of dhatu in that particular person. Sara means best, real, strong etc. In case of Majjasarapurusha, acharyas specially Charakacharya in Vimansthan 8th adhyaya and 108thsootra, have used the words sthool (big), deergha (long) and vritta (round) while explaining the sandhis (Joints) of majjasarapurusha. So, it is imperative to understand these words in terms of dimensions. So, the study of pramanasharir and majjasarapurusha is needed to comprehend and compare the hypothesis about the sandhis of majjasarapurusha using angulipraman and anthropometric measurements.

Key Words - Pramanasharir, Sarata, Majjasarapurushasandhis, Anthropometry

INTRODUCTION –

Sarata-

Sara is nothing but sarvotkrishta-ansha (most potent part) interms of dhatu in individual. Sara is used to indicate the excellence of some particular tissue or quality in the person, on account of which he or she is said to possess the best of that thing. This sarata is present in the body by birth. There are eight sara purushas are mentioned in ayurved as Twachasara, Raktasara, Mansa sara, Medasara, Majjasara, Asthisara, Shukrasara and satwasara purusha. In sara-dhatu also, some are uttam-sara (Best), some are madhyam-sara (Moderate), alpa-sara (Minimum) and asara (Absence), these four types are found.

Again, every dhatu is sarawan in two ways as,

(1) Pramantaha. (Quantity wise)

(2) Gunataha. (Quality wise)

In a society, one can find many such cases in which, the body development i.e. the body parts (pratyangas) are phenomenal i.e. the Pramantaha-sarata. But in such cases, there may be lacking of manasik-bhava-lananas (mentally not tough) i.e. (Gunataha). In Majjadhatu-praman-saratwa, there should be sthoola (big, bulky), vritta (round) and deergha (long) sandhis (Big Joints) should be present. Also, one should posse's qualities like Balawanta (physically strong), Shastra dnyansampanna (Knowledgeful) then only one can asses as majjasara-purusha. That's why, it is necessary to look in both ways as Pramantaha and Gunataha while assessing the dhatu-saratwa. Some persons may be pramantaha-sara but not gunataha-sara and viceversa. But also, some may be both lacking (Pramantaha and Gunataha) they are termed as asara.



SARASARATWA-PARIKSHAN

In the garbhavastha, when there is formation of avayavas (Body parts), they are transformed by shonita (ovum) and shukra (sperm). The sarata is totally dependent on the sara-bhag of mother and father itself. If there is lack of any saratwa in the parents, then ultimately their offspring will also lacking the same. Hence, dhatus of parents are more sarawan then, their child will good sarayukta dhatus and avayavas. Hence, it is clear that, for the assessment of sarata one should look beeja-saratwa, diet of mother and father, particularly of mother during pregnancy. In normal healthy person for not occurring diseases and if it takes place then for combating it and to get complete relief from it, which dhatus are balawan(strong) and which are less, this should be noated. Hence it is necessary to do sarasaratwa-parikshan.^{1&2}

PRAMAN-SHARIRA-

Praman means measurements and sharira means deha (body). Pramansharir includes the basic parameters or measurements of the body. According to Ayurved, it includes Swa-anguli-praman. Mostly, Swa-angulipraman is taken by measuring the breadth of middle interphalangeal joint of middle finger of a hand of a particular individual as explained in SushrutSutrasthan 35th adhyaya and commented by Adhamalla. It varies from person to person. According to Charakacharya, explained in CharakVimansthan 8th adhyaya and 117th shloka, human body is 84 angula. According to Sushrutacharya, explained in CharakVimansthan 35th adhyaya and 16th shloka, by raising both the hands upwards and by standing on the padagra (heel), the length of sharira is 120 angula by Swa-anguli-praman. The standard measurements in terms of angulipraman are explained by various acharyas. In case of Majjasarapurusha, related to the sandhis means big joints of our body like Shoulder joint (kaksha sandhi), Wrist joint (manibandha sandhi), Knee joint (Janu sandhi), Ankle joint (gulpha sandhi) and Shira (Head as it is the union site of skull bones) interms of length, breadth or circumference, acharyas have mentioned the words like sthoola (big, bulky), vritta (round) and deergha (long). Means these joints are more distingwishly present in majjasarapurusha. These joints are selected because their measurements are mentioned in various samhitas. Their measurements are explained in various samhitas are as follows,

Gulpha - Paridhi- 14 angula (Su.) **Janu** - Paridhi- 16 angula (Cha), 14 angula (Su)

Manibandha - Paridhi - 12 angula (Su.)

Shira - Paridhi: - 32 angula (Cha.)

Skandha - Vistara; - 8 angula (Cha.)^{3&4}

ANTHROPOMETRY -

The word anthropometry literally means measurements of humans.

Anthro:-Man and Pometry:-Measure.

The study of anthropometry is the study of human body measurements to assist in understanding human physical variations. The study of physical dimensions in people including the measurement of human body characteristics such as size, breadth, girth and distance is termed as anthropometry.

The term anthropometry refers to comparative measurements commonly used as indices of growth and development include length, weight, breadth, etc.

Anthropometry plays an important role in the field of individuals design, clothing and architecture where statistical data about the distribution of body dimensions in the population are used to optimix products. Changes in life styles, nutrition and composition of populations lead to changes in the distribution of body measurements (dimensions).⁵

AIM AND OBJECTIVES -

Aim:-

To study majjasarapurusha using angulipraman and anthropometric measurements with respect to selected sandhis.

Objectives:-



1. To evaluate the laxanas of Majjasarapurusha with respect to selected sandhis.
2. To understand the notion of Angulipraman in Ayurved and Anthropometry.
3. To validate the effectiveness of PramanSharir.
4. To study the sarata and dhatusaralaxanani.

MATERIAL AND METHODS -

Material:-

- (1) Ayurvedic samhitas as Brihatrayee and Sharangdhar Samhita.
- (2) Rachana Sharir text books as Dristant-Sharir, Sharir Rachana Vigyan and Sushrut Samhita Sharirsthan.
- (3) Kriya Sharir textbooks as Sharir-Kriya-Vijnan, Dhatusarata and Human-Physiology.
- (4) Randomly selected 20 male healthy individuals (Majjasara-purusha) by using Sarata-parikshan-proforma by C-DAC.
- (5) Textbooks on Anthropometry.
- (6) Instrument: Micrometer and Metertape.

Inclusion-Criteria:-

1. Randomly selected 20 healthy male individuals (Majjasarapurusha) by using Sarata-parikshan-proforma by CDAC (according to highest percentage of respective saratalaxanas).
2. Age: - 25years to 50 years.

Exclusion-Criteria:-

- (1) The other sara purushas except the Majjasara-Purusha.
- (2) Individuals below 25 years and above 50 years.
- (3) Individuals which are suffering from major illness and which are physically handicapped.

METHODOLOGY –

- (1) Majjasara-purusha was selected according to sarata-parikshan-proforma by C-DAC.
- (2) Then, Swa-anguli-praman of each individual was measured by micrometer. (Breadth of first interphalangeal joint of middle finger of hand.). It was finalized after taking the above said measurements of right and left hand's (Breadth of first interphalangeal joint of middle finger) and divided by 2.
- (3) Micrometer was touched to the skin of finger and does not kept too tight or too loose while measuring anguli-praman. Average measurement of breadth first interphalangeal joint of middle finger of hand was taken and after that this measurement was used as Swaanguli-Praman as reference by Adhamalla.
- (4) The measurements (length, breadth and circumference with respect to hypothesis) of Gulpha (ankle-joint), Janu (Knee-joint), Skandha (Shoulder joint), Manibandha (Wrist joint) and Shira (Head, as it is union of skull bones with suture type of joint) were taken by measuring-tape (in centimetres) and then it was converted in to angulipraman by dividing the measuring tape value with the swaangulipraman which was already taken.
- (5) The range of observations and results are prepared for majjasarapurusha.
- (6) The comparative results correlated with the measurements which are given by various acharyas of above mentioned parts of majjasarapurusha.
- (7) Informed consent of each participant is taken before the study.



PHOTOGRAPHS –

(1) Photo – 1 - Micrometer



Photo – 2 – SwaanguliPraman



Photo -3 – Gulpha sandhi



Photo – 4 – Janu sandhi



Photo – 5 – Manibandha sandhi



Photo -6 –Shira





OBSERVATIONS AND RESULTS –

Final range of observations achieved after assessing twenty cases of Majjasarapurusha -

SR NO	NAME OF PRATYANGA	PRAMAN
1	GULPHA (ANKLE JOINT)	C- 14-15.5 A, 26.5-30.5cm
2	JANU (KNEE JOINT)	C-15-18A, 27.5-35.4cm
3	MANIBANDHA (WRIST JOINT)	C- 11-14 A, 21.2-27.5cm
4	SKANDHA (SHOULDER JOINT)	B- 8-9.5A, 15.1-18.7 cm
5	SHIRA (HEAD)	C- 29-33A, 55-65.1cm

Abbreviations -

A- AnguliPraman

C- Circumference

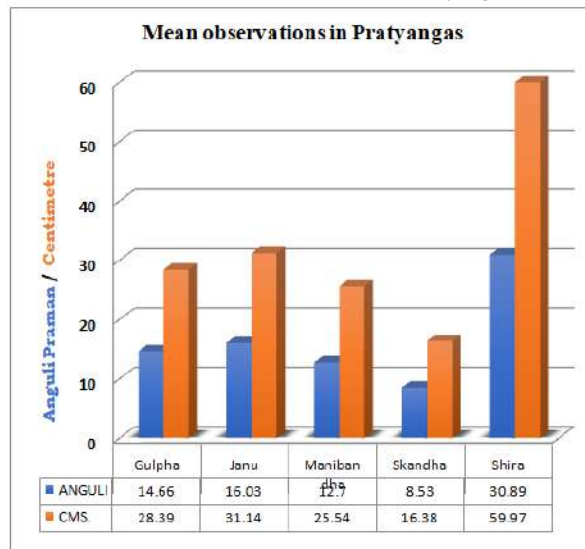
B- Breadth

Cm- Centimetres

STATISTICAL ANALYSIS -

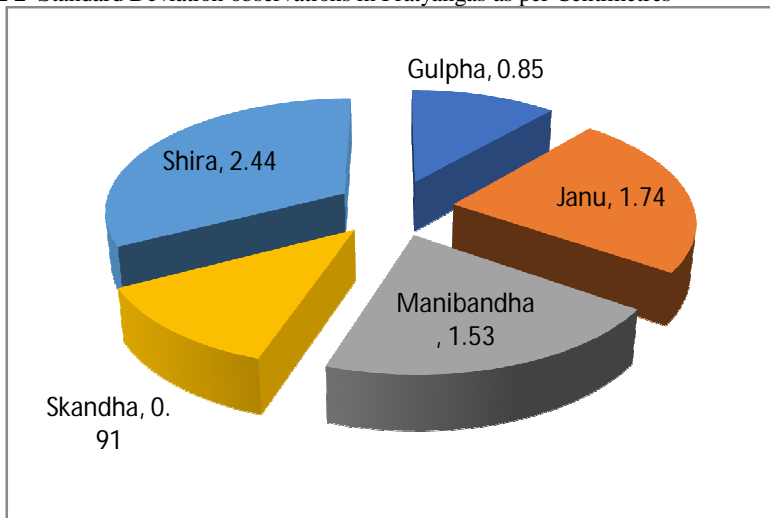
The data is collected and mean and standard deviation is calculated of measurement of every pratyang, both in terms of angulipraman and centimetres. These results are presented by the graphs.

GRAPH 1–Mean observations in Pratyangas

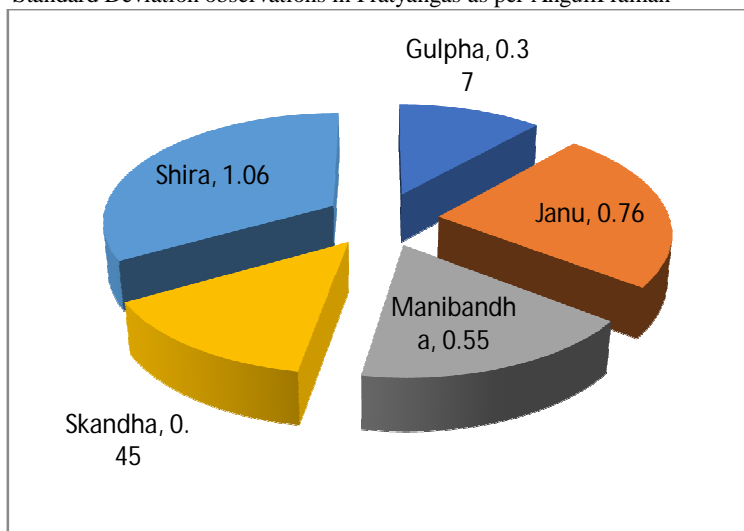




GRAPH 2–Standard Deviation observations in Pratyangas as per Centimetres



GRAPH –Standard Deviation observations in Pratyangas as per AnguliPraman



DISCUSSION -

After case study, I found the mostly positive relation between the hypothesis given by Charakacharya about the laxanas of Majjasara-purusha and the results (observations) obtained. As Charakacharya has stated the word sthoola, vrutta, deergha about the sandhis of Majjasara-purusha, it is necessary to see the meaning of sthoola, i.e. Big, Huge, Large, Massive, Bulky, Stout etc. Deergha means long and Vrutta means round. So, it is obligatory to construe these meanings in terms of exact measurements of selected sandhis of Majjasara-purusha. So I have taken above mentioned five sandhis for the measurements, both by Swanguli-praman and by meter tape (in centimeters). I studied 20 male Majjasara-purusha cases, by taking their swanguli-



praman. As the swaanguli-praman is different from one another, the measurements also differ from individual to individual. Also other factors which may affect the measurements such as sex and religion. Sex affects it, due to the different anatomical stature or build-up in males and females. Religion may affect the, measurements i.e. in Pathan, Punjabi and English (Catholic) communities; generally we found more cases of heavily built individuals. I have taken the cases of males and mixed religions. So the observations or results obtained in this study are related to above mentioned criterias. The range of each and every body part, I have found is concerned with that particular age, sex etc. factors. Means, measurements which I found are the measurements of Majjasara-purusha which I have got or selected. This range of measurements is variable or differs according to person to person and according to different conditions. So from above it is clear that, the word sthoola, vrutta, deergha means huge, large, long and round i.e. more than dictated anguli measurements indicated. The observations I have found mostly justifies above sentence. The sandhis I have taken of Majjasara-purusha are equal or more in terms breadth and circumference, both by anguli-praman and by centimetres. The exception is of Shira (head) i.e. I have found the circumference of head ranges from 29 to 33 angula, which is less or equal to that of samhita. 05 Majjasarapurusha are having the head circumference between 32 to 33 angula and rest 15 between 29 to 31.5 angula. But it does not mean that head circumference of Majjasara-purusha is less or equal to it. In other region or person this may be more in measurement. Also, in case of Janu sandhi, Sushrutacharya and Charakacharya have mentioned different pramanas related to circumference. In Janumadhyaparinaha, Charakacharya mentioned 2 angula more (16 angula) than Sushrutacharya (14 angula). But the range of observation which I found during this study is between 15 angula to 18 angula. So, it can be stated that, it justifies the hypothesis. In case of Manibandhaparinaha, I have got 1 result as 11 angula (12 angula is mentioned) and 2 observations as 11.5 angula. But remaining 17 individuals are having range as 12 to 14 angula which again predominantly justify the hypothesis. So, from the above discussion it is obvious that, the observations and results that I have got during this study is largely either equal or more than the angulipraman which are given by acharyas related to selected sandhis. The percentage wise exception is of Shira and Manibandha. The Majjasara-purusha is having more often than not more distinguished selected five sandhis from others.

CONCLUSION -

Reviewing sarata, pramansharir and anthropometry, in case of joints of majjasarapurusha, the big joints like shoulder joint (kaksha sandhi), wrist joint (manibandha sandhi), knee joint (Janu sandhi), ankle joint (gulpha sandhi) and Shira (Head as it is the union site of skull bones) are selected as their standard measurements in terms of length, breadth or circumference are mentioned by different acharyas. These measurements can be calculated by swangulipraman and by using other anthropometrical method in terms of centimeters like units. To conclude, one thing is clear that, the measurements of Majjasara-purusha which I have got during my research work are for the most part justifying the hypothesis. The range of each measurement can vary from person to person. So, these measurements may differ in other Majjasara-purusha.

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AN INVESTIGATION INTO THE LINGUISTICS OF FALSEHOOD

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ABSTRACT

The paper tries to argue that the language used by liars are distinct and distinguishable from the language used by truthful people. Linguists have managed to arrive at ready-made, user friendly key indicators of falsehood in the language that can help to detect deception. Just as every individual has a unique fingerprint, we leave linguistic "fingerprints" behind as we write, and stylometrics helps in the authorship identification. Similarly, detecting the deception is also possible, because the liars 'leak' cues of their deceit not just through facial expressions, body movements and voice changes, but by their verbal choices as well.

Introduction:

Falsehood, deception or plainly lying, has been in existence ever since man began to speak. A lie is a deliberate misrepresentation of a fact to cause malice intentionally. A lie is an assertion that is believed to be false, typically used with the purpose of deceiving someone.

Lies come in all colours and shapes. You have bald faced lie, bold faced lie, white lie, blue lie, big lie, an honest lie, bullshit, cover up, etc.. we all have lied at some point of time or the other. Some are expert liars while others are bald faced liars.

Scope:

But I consider language in the context of falsehood. The paper tries to argue that the language used by liars are distinct and distinguishable from the language used by truthful people. Linguists have managed to arrive at ready-made, user friendly key indicators of falsehood in the language that can help to detect deception. Though this paper focuses on the linguistic aspects like the lexis and syntax, the psycholinguistic contribution to this is also brought into focus, time and again.

Why people lie?

People, by and large, resort to falsehood in order to circumvent the law, to attain recognition, popularity and accolades which they cannot glean by truthful means, to save themselves from any possible physical harm, or to avoid a scandal or humiliation in the society. The intention of telling a lie could range from a very inconsequential reason to a very substantially solemn reason.

Detection of Falsehood in olden days:

There have been several attempts made to detect falsehood in the history of humankind. During the medieval period, they used the third degree methods through torture devices during interrogation to extract information.

In later period, many electrical and electronic lie detecting devices were invented. A **polygraph**, popularly referred to as a lie detector test, is a device or procedure that measures and records several physiological indicators such as blood pressure, pulse,



respiration, and skin conductivity while a person is asked and answers a series of questions.

Eye tracking, voice stress analysis, infra red brain scanners, narco analysis and even EEG,(Electro encephalogram) have also been used to detect falsehood. Association between lying and increased pupil size and compressed lips has been established. Liars may stay still more, use fewer hand gestures, and make less eye contact. Liars may take more time to answer questions but on the other hand, if they have had time to prepare, they may answer more quickly than people telling the truth would, and talk less, and repeat phrases more. Though all these observations have been made none of these has been a reliable fool-proof tests to catch the perpetrator.

Non Linguistic modes of detection:

The protagonist of the children's novel written by An Italian novelist Carlo Collodi, is Pinocchio. He is an animated puppet who is punished for each lie that he tells by undergoing further growth of his nose. Unfortunately it doesn't happen to us in the real world. So we should find other methods of detecting lies.

An average person on a given day, lies about ten to 200 times. Many of them could be harmless white lies, told to avoid hurting some one's feeling for politeness. Strangers lie three times within the first ten minutes of their meeting each other. We lie more to strangers than to co-workers. Extraverts lie more than introverts. A Man lies eight times more about himself than women. Women lie mostly to protect other people. There are good liars and bad liars. But we all use the same techniques.

Mind reading is real. When we act in a certain way, certain things in our bio chemistry take place on which we have no control. When we are lying to people, deception is a very taxing process to the human mind and this makes them speak in a strange way. With a bit of training it will be easy for us to make out whether a person is being truthful to you or he is cooking up a story.

Here are a few non-linguistic cues:

- a. **Referral** : When you ask a person a question, if he starts referring to others like, “ you can ask my friends, you can ask Mohan, you can ask Raju, they say everything.... The moment they start referring to others it means they are going out of their way to convince you.
- b. **use of bolstering statements:** liars try to do this to increase their credibility, words like, you know, to tell you the truth, that did seem weird.
You know something, it is a good thing that you brought this up to me, because I was thinking exactly the same thing... with this they try to give you an impression they are in the same position as you. Their thinking is exactly the same as yours— innocent.
- c. **anger and Protest statement:** The moment they realize they are being cornered, they show anger and protest. This is a defence mechanism. “ why are you treating me like a criminal? This is just to deviate from the question you are asking.
- d. **guilt trip.** : closely associated with the above type of reaction, creating a guilt trip in another person may be considered a psychological manipulation in the form of a punishment for a perceived transgression. It is a form of passive aggression..guilty



people will ask questions like: why are you interrogating me? Why aren't you questioning others? Why have you singled me out?

- e. **Water down the issue:** Who really cares about all this? Why is this so very important? It is a great joke! With such statements they are trying to water down the importance of the issue to distract you.
- f. **Gas lighting or brain scrambling:** this is a term coined after an American Psychological thriller film *gaslight* produced in 1944.

Gas lighting is a method of brainwashing a person and making them doubt their own faculties and judgment. It creates inconsistent thoughts relating to their decisions and attitudes. It can create a sense of low self esteem also. One starts suspecting his own rationality: Ex: ' you surprise me honey! How can you ever suspect your own wife? Shame!'

- g. **Being over polite:** using excessively polite terms is a key indicator that he is lying.
- h. **Self depreciation:** (criticism of oneself)Liars purposefully downplay themselves to make them look weak . ex: "Hei! You are the person who hacked into the computer and stole the money?".. "come on!, I am not that smart". This is to make himself look less intelligent.
- i. **Personal removal:** truthful people when answering a question use 'I' . I went there, I did this, I did that, ... When some one is lying, subconsciously, they try to avoid associating themselves. They use third person words like they, them, their..etc..
- j. **Thin slicing:** We can receive bits of information sub-consciously within 1/25 th of a second before it reaches our conscious mind. Sub-conscious processes data way before the conscious mind can logically justify it.
- k. **Charishma (karishma)** The masters of deception are usually charismatic. They use their charishma to blind you.
- l. **Tell details:** A deceptive person tells his story with a lot of details. Under the assumption that more details he gives, the more realistic it appears and people trust him.
- m. **Gestures:** They smile at the delight in getting away with that, when they are convinced that they have lied successfully. Such smile is called **duplicating delight**. They increase their blinking rate, unconsciously point their feet towards the exit, they make their vocal tone much lower.



However, they are all just behaviour, but not any proof of deception. Though such tools have worked under certain circumstances, they can be fooled with enough preparation. So, we can take a more direct approach. That is using communication science to analyse lies.

How can linguistics be used as a tool?

Disciplines like clinical laboratory science, ballistic science, dentistry, engineering and chemistry help in providing authentic evidences that can be produced before the court as evidences to solve legal proceedings. Similarly the methods and insights of Linguistic knowledge can also be used to sort out certain word crimes. Such a science is called Forensic Linguistics.

Just as every individual has a unique fingerprint, we leave linguistic “fingerprints” behind as we write, and stylometrics helps in the authorship identification. Similarly, detecting the deception is also possible, because the liars ‘leak’ cues of their deceit not just through facial expressions, body movements and voice changes, but by their verbal choices as well.

Key Indicators:

A corpus of criminal statements and police interrogations were gathered to arrive at these cue indicators that I’m going to present before you.

The indicators fall into three classes;

- I. The Liar has a lack of commitment to the statement or declaration. The speaker uses linguistic devices to avoid making a direct statement of fact.

There are five sub indicators in this class:

- a) **Linguistic hedges:** This is called the linguistic hedges which include non factive verbs and nominals like : *may be, I think, to the best of my knowledge..etc.*
- b) He makes **qualified assertions** which leave open whether an act was performed: example: I needed to get my inhaler..(not mentioning whether he got it or not)
- c) He uses **Un-explained lapses of time:** example: later that day,
- d) The use of Overzealous expressions: like I swear to God...
- e) He tries to make a **rationalization of an action:** ex: I was unfamiliar with the road.

2.We find the liar give Preference for negative expressions in word choice, syntactic structure and semantics.

a. Negative forms either complete with words such as never or negative morphemes as in inconceivable.

b. **Adjective Overuse:** In the normal basic communication we use nouns and verbs. When you find a person start using adjectives they are using fillers to distract you from the fact. The person, place or the thing or the event is all that we expect in an answer in a situation. Anything beyond that is an attempt to distract.

c. Negative emotions like – I was a nervous wreck..

d. Memory loss - I forget..



3. Inconsistencies with respect to Verbs and noun forms:

a. The tense of the verb changes.: When you ask a person a question, and they answer in future tense vs past tense they are subconsciously trying to disconnect from the lie they are telling. When you ask them: Did you steal the money? They will answer you: I would never do that (future) whereas a truthful man would say I did not do that. Or they may speak sentences like: I just feel helpless, I can't do enough, my children wanted me, they needed me, and now I can't help them....

b. Thematic role change: Changing the thematic role of a noun phrase from agent in one sentence to the patient in another. (subjective case and Objective case).

c. Noun phrase changes: Where different Noun Phrase forms are used for the same referent: for example: In the narrative of Dr. Mc Donald, he describes 'My wife', 'my daughter' but he refers to them as '**Some people**' when he reports to the police about their stabbing.

They use distancing language. They unconsciously distance themselves from the subject. (Bill Clinton)

d. Pronoun changes: Pronouns change the referent or omit the pronoun entirely. Example: Scott Pearson's description of his activities during the time of his wife's murder have no first person reference:

drove to the warehouse, dropped off the boat...---

The correlation between the occurrence of each cue type and the ground truth is to be looked at while deciding whether the person is lying. Fabricated statements have higher occurrence of negative forms. When the criminal becomes conscious of his language, he becomes unable to concentrate on both the message and the mode of presentation. This is due to the cognitive overload. Then the deceiver will leak a lot of cues of guilt. I conclude this paper with this remark. Now that I have told what features mark the liar, what if a person lies a fool-proof lie taking precautions not to use those terms mentioned here? I quote from Chinua Achebe, as a reply to this: "Eenke, the bird says that since men have learned to shoot without missing, he has learned to fly without perching." If liars become smart, linguists must become smarter. There is always scope for further specialization.

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GROWTH AND DEVELOPMENT OF ARABIC JOURNALISM IN INDIA: A CRITICAL STUDY

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Abstract:

In this paper, an attempt has been made to focus on the growth and development of Arabic Journalism in India. In this regard, we can say that when printing presses were invented and newspapers and magazines in different languages were published in the four corners of the world, then Indian journalists played a very vital role in journalism. It was started by the **British, James Augustus Hickey** was the first Englishman who published the first journal in India in 1780. It was called “**The Bengal Gazette**”. Then various journals were being published one after another in Calcutta, Mumbai and Madras respectively. In India, Arabic Journalism evolved abt late in comparison to other languages like English, Persian and Urdu. But within a very short period of time, various Arabic Journals like Al- Nafa al- Azeem Li Ahli Hadha al- Iqlim, Al- Bayan, Al- Dhiya, Al- Jamia, Thaqafah al- Hind, Al- Bass El- Islami, Al- Raid, Al-Daaei, Dawah al- Haqq, Saut al- Ummah, Al- Sahwah al- Islamiyyah, Al- Arab etc. came to be published by the prominent Indian Arabic journalists who had made every effort to Promote and develop Arabic journalism in India. Now a- days, **Arabic journalism** (الصحافة العربية) has been playing a significant role in the growth and development of Arabic language and literature in India. Today, India has produced a great number of outstanding Arabic scholars who have got wide acceptance in Arabic journalism in the Arab world and whose journalistic noble work can be compared to any work of any great Arab scholars.

Keywords:,Arabic Journalism, , British, , Journalism, Persian, Urdu.

Introduction:

The world JOURNALIST; JOURNAL’ and JOURNALISM’ is derived from the French word JOURNAL and it is evolved from the Latin term ‘DIURNALIS’ or DAILY’.ⁱ The Arabic equivalent of journalism is al sahafah. The Arabic term “al- sihafah (الصحافة)” is derived from “Sahifa (صحيفة)” which is a verbal noun. In the linguistic sense, writing in any magazine or booklet is generally called Sahafahi.e journalism. The Arabs also do use this term to deliver the same sense. Regarding this term, The Arabs lexicographers have attempted to define it. The author of Lisan al- Arab writes, “the plural form of Sahifah is Suhuf and it refers to a scripture with divine words and this word (Suhuf) has also been used in the Qur’an in the same connotation”.ⁱⁱ Mention may be made here that Almighty Allah says:

إِنَّ هَذَا لَفِي الصُّحُفِ الْأُولَى ، صُحُفِ إِبْرَاهِيمَ وَمُوسَى

(This is surely in the earlier books, the books of Abraham and Moses)ⁱⁱⁱ



Here, the word “ Suhuf (صَف) refers to the Books of Heavens revealed upon prophet Ibrahim and Moses (PBUH).

The author of “Journalism” N. Jayapalan’ defines in this way: “Journalism is that part of social activity which is concerned with the dissemination of news and views about society”. In short Journalism is gathering and disseminating news. Modern Journalism feeds five essential departments of mass communication, such as, newspaper and Periodicals, Radio, Television, Films and Advertising”^{iv}

In fact, today, journalism is at heart of our society. Our daily life is fully overwhelmed by journalism and it became an indispensable factor of life. It is the only medium to deliver an elaborate account of daily events, news, occurrences, and important updates about the critical issues. It also keeps readers updated about the advancements in the academic and cultural fields. In short, Journalism has a great significant in the modern human society and that’s why it considers as the “fourth pillar” of the democracy.

Discussion: Before diving depth into the growth and development of Arabic Journalism in India in detail, it is necessary to mention some of the outstanding and prominent Arabic scholars who pioneered the art of journalism in India with their significant role in the growth and development of Arabic Journalism in India and acted as the torch-bearer of Arabic Journalism in the country. Among them, Syed Muhammad el- Hasani was the most eminent Indian Arabic scholar by whom the most popular Arabic Journal named “ Al- Baas El- Islami” was brought out in 1955 from Lucknow. Among The Other prominent Arabic scholars, Islamic thinkers and writers like Sayed Abdullah Al- Amadi, Sayed Sulaiman Nadwi, Sheikh Taquddin Hilali, Abdur Razzaq al- malihabadi, Moulana Abul Kalam Azad, Mas’ud Alam Nadwi, Sayed Abul Hasan Ali Nawwi, Dr. Sayeedur Rahman Al- Azmi Nadwi, Muhammad Ijtiba Nadwi, Wahiduzzaman Kiranvi, sayed Muhammad Rabey Hyasani Nadwi and Sayed Muhammad Wadheh Rashid Hasani Nadwi also had made their sincere effort to develop it. Among the aforesaid scholars, special mention must be made to three notable great scholars namely Sayed Abul Hasan Ali Nadwi, Moulana Abul Kalam Azad and Sayed Muhammad Rabey Hasani Nadwi. As far Abul Hasan Ali Nadwi is concerned, he wrote many books in Arabic language literature and Islamic culture. Besides, he had also contributed a lot in Arabic specially in Urdu Journalism. Under his editorship, “Al- Nadwa” journal was being published which was considered as the mouthpiece of Darul Uloom Nadwatul Ulema. Moreover, another two famous Urdu journals under the name and title of “ Tamir-e Hayat” and “ Nida-e Millat” were brought out by him. In regards to Moulana Abul Kalam Azad, as an efficient and a skillful journalist, he edited at least half a dozen newspapers, journals and magazines published in Urdu and Arabic in the first half of the 20th century. Among these “Al- Hillal” ; “Al- Balagh” and “Al- Jamia” (Arabic) are the symbols of his animated journalism. As far Sayed Muhammad Rabeyhasani is concerned, he also wrote many books in Arabic and Urdu languages literatures and Islamic culture. Moreover, he published the famous journal “ al- Raid” which till now published under his editorship from Lucknow.

Description of the Topic: Arabic journalism came into light in the Indian sub-continent after English, Persian and Urdu Journalism had its firm footing in this field.



There are several reasons behind it. The dominant among the other remarkable reasons are as follows:

Indian Muslims were continuously taking Arabic as a sacred language because, it is the language of Holy Quran and Hadith and they paid most of their attention and adherence to understand the Qur'an, Hadith and Fiqh (Islamic jurisprudence) and others Islamic sciences and arts. Although only a small number of religious scholars gained mastery in this language but most of them thought that it is the language of Qur'an and Hadith only and is not a leading living language through which human being can exchange their views and thoughts and or as a means of communication like other modern leading living languages of the world. Furthermore, in India, Arabic language had been used for religious purposes and was not used to fulfill the human necessity in day to day life of modern society. One of the main reasons in this regard is that Arabic language remained continuously as one of the foreign languages throughout the Islamic rule in India. It never occupied as an official language in any region of the Indian subcontinent except the provinces of Sind and never could be the language of common people. Besides, most of the emperors and kings belonged to Persian language and as such, they never took keen interest to patronize the growth and development of Arabic language. Even the Indian Muslim scholars and writers did not make any effort to publish Arabic newspapers and magazines. That is why, no one did introduce any Arabic newspaper or magazine in that period. Resultantly, , Arabic Journalism evolved very late and grew at a slower pace in comparison to other languages like English, Persian and Urdu.^v

After the establishment of various Printing Press and publishing newspapers and magazines in different languages in the four corners of the country, Sheikh Sham al-Din associated with some of his distinguished contemporary Indian Muslim scholars published a weekly newspaper in Arabic under the name and title of “*al- Nafa al- Azim Li Ahli Hadha al- Iqlim* (*النفع العظيم لأهل هذا الإقليم*)”. This was the first step towards Indo-Arab journalism. Dr. Muhammad Ayyub Tajuddin Nadwi says about this newspaper, “*al- Nafa al- Azim Li Ahli Hadha al- Iqlim*” is considered to be first weekly Arabic newspaper in Indian subcontinent that published from Lahore. The newspaper had a great impact on the promotion and development of Arabic language in areas of Lahore. Sheikh Shamsuddin could introduce it due to his father's ownership of a printing press and its first edition was issued on 17 October 1871 A.D. under the editorship of Muqraab Ali and the guidance of a well -known orientalist, registrar of Punjab University namely Gottlieb William Leitner (1840- 1899 A.D.)”. ^{vi}**(1) Dalil al-Zaraid Wa al- Mazallah al- Arabia Fi al- Hind by Dr.A.T . Nadwi p. 29)**

It was being published continuously until the year of 1885 A.D. but unfortunately, when Munshi Muhammad Azim who was the owner of the printing press i.e. founder breathed his last, the newspaper came to be published irregularly. At passage of time subsequent thereto, the publication of the newspaper came to be closed permanently.

At that time, Lahore city became the most popular centre for learning Arabic language and literature as such, Arabic journalism became one of the most notable factors to spread and develop Arabic language among Muslim youths who were interested in it. For the reason being that, several Arabic printing presses were established there which started publishing some of the earlier popular Arabic newspapers and magazines from that city. These journals played a very vital role in

promoting Arabic language and literature in different parts of Lahore. Therefore, it was seen that the second Arabic-language monthly magazine was also published under the title of “*AkhbarShifa al- Sudur* (أخبار شفاء الصدور)” from Punjab University, Lahore (which was commonly known as Oriental College). The magazine is considered to be one of the most significant outlines in field of Indo- Arab journalism. Its first issue was published on 1 January 1875 A.D. under the editorship of Sheikh Faizul Hasan of Saharanpur, who was one of the eminent scholars and prolific writers of the nineteenth century in the field of Arabic language and literature. Initially, the magazine contained only 5 pages later on increased to number of its pages and it was published in **Anjuman Printing Press, Punjab, Lahore**. It was being published regularly till 1887 A.D.^{vii}

In the mean time, an another quarterly magazine entitled “*al- Haqa- Iq* (الحقائق)” came into existence which was published from Hyderabad (Deccan) . Its first issue was published on July 1889 A.D. under the editorship of three famous scholars namely Sayyid Ali al- Bilgrami, Khalil Afnadi and Moulawi Muhammad Abd al- Jabbar Khan. It is to be noted here that the orientalist Gottlieb William Leitner who had been working in Oriental College in Lahore was one of the guides of this scholarly magazine. Likewise, an important monthly magazine entitled “*Akhbar Naseem al- Saba* (أخبار نسيم الصبا)” was appeared. Its first issue was published on 15th January 1893 A.D. from Lahore under the editorship of Qazi Zafar al- Din Ahmed and ownership of Munshi Mahbub Alam. It was printed in “*Kahdim al- Talim* printing press, Lahore. Munshi Mahbub Alam encouraged Qazi Zafar al- Din to publish it continuously. Through this magazine, so many scientific, literary and religious articles were published. Thus, the magazine played a great role in the promotion and development of Arabic language in Northwest region of the Indian subcontinent.

After all, in the nineteenth century, Indian subcontinent produced a large number of eminent scholars and journalists who have contributed a lot to the development of Indo - Arab journalism. The existence of these newspapers and magazines in the last half of nineteenth century indicates that the Muslims of India and Sind had enriched Arabic language and various sciences to greater extent through the art of Arabic journalism. India even surpassed many other Arab countries in the field of Arabic journalism.

After advent of twentieth century, the first Arabic monthly magazine was introduced in India and its first issue was published on 2 April 1902 A.D. from Lucknow under the title of “*al- Bayan* (البيان). It was established by Abdullah al- Amadi who was the first chief editor of this magazine. The magazine played a remarkable role in creating a suitable environment for writing Arabic in India and got wide acceptance in the cultural circles of Arab world particularly Islamic world.. In regards to this, there are so many opinions. Sayyid Sulaiman Nadwi claims that there was an Arabic language newspaper which was published under the title of “*al- Riyadh* (الرياض)” before *al-Bayan* but after a few days its publication was discontinued (stopped) due to poor financial conditions.^{viii}

The magazine *al-Bayan* is said to the most popular one having widespread circulation at that time and it contributed a lot in the development of Arabic language and literature. It served the people for near about twenty years. Of course, its publication also came to be stopped subsequently and there was no other Arabic magazine and newspaper during that time. A long period of twenty years, another important magazine named “*al-*



Jamia (الجامعة) came into existence in 1923 A.D. which was first published in the month of April 1923 A.D. under the supervision of **Moulana Abul Kalam Azad**. It was through this magazine, Moulana Azad raised his voice against British colonialism and other policies which interfered the affairs of the Islamic world including Hejaject. Moulana Azad also published many articles regarding existing world politics and political affairs. Further he also opposed the British policy and oppression by writing some articles with sharp tongued voices. After passing nine years of **al-Jamia**, one of the most famous magazines in the history of Indo- Arab Journalism was founded by some outstanding Nadwi scholars who had perfect command over Arabic. The magazine was published under the title of “**al- Dhiya (الضيء)**” from DarulUloomNadwatul Ulama, Lucknow. Its first issue was published from Lucknow on May 1932 A.D. under the editorship of Mas’udAlam Nadwi and the guidance of two great Islamic thinkers and world- famous writers namely Sayed Sulaiman Nadwi and Sheikh Taqi al- Din. It played a very vital role in strengthening the relations between the Arab countries and the Muslims of India and worked to awaken Islamism in the hearts of Muslim world. The magazine is regarded as one of the major magazines in the Indian subcontinent. At the time when it came into existence Arabic language was prey to stagnation. In true sense, the magazine was a collection of vast knowledge, a masterpiece work of Arabic literature, an extensive and valuable information, an eloquence of the phrase, clear approach and a title of rising Arabism. Then “**al- Ridhwan (الرضوان)**”, the monthly magazine was founded by Sheikh Muhammad Askari al- Naqwi. It was published first on DhulHajjah 1353 A.H. from Lucknow. Its publication was published ten times in a year. There in so many religious and literary articles were published and the magazine dealt with social issues as well.

Likewise, an important weekly Arabic newspaper came into existence in West India. The paper was published under the title of **AL- ARAB (العرب)** in 1937 A.D. It was founded by an Egyptian man named Sheikh Abdul Moon’em bin Hasan al- Adawi and he was belonged to the Adawi Tribe who lives in Upper Egypt. Sheikh Moon’em travelled to Mumbai as a newsman of the widely circulated Egyptian newspaper named **AL- BALAGH**. Dr.Sayeedur Rahman al- Azmi Nadwi says that this newspaper was first published in 1358 A.H.^{ix})

After the division of British India into two independent countries namely India and Pakistan, Moulana Abul Kalam Azad, the first education Minister of independent India, set up the Indian Council for Cultural relations with the object of establishing and improving cultural relations with the world. Moulana Azad felt requirement of a Govt. magazine to spread Indian culture across the world and he decided to establish an Arabic magazine for strengthening Indo- Arab relations. So that, an quarterly magazine entitled “**Thaqafah al- Hind (ثقافة الهند)**” was published by the Indian Council for Cultural relations under the editorship of MoulanaAbdur Razzak Malihabadi in 1950 A.D.. It was issued with a view to introducing the people of Arab world to Indian culture, civilization and literature. The magazine paid a special attention to introduce those Indian greatest personalities who had an outstanding position not only in the hearts of Indian people but also in the hearts of rest people of all over the world and impressed the human mind like Moulana Abul Kalam Azad, Sayed Sulaiman Nadwi,



M.K. Gandhi, Muhammad Iqbal, Jawahar Lal Nehru, Rabindra Nath Tagore and many others.^x

It is worth mentioning here that, *DarulUloomNadwatul Ulama* located at Lucknow, has played a leading and key role in promoting and developing Arabic language and literature specially in the field of Indo- Arab journalism in the Indian subcontinent from its foundation day. This world famous higher educational Indian Islamic institution has succeeded to create a suitable environment for teaching and learning of Arabic in this country which is located far from the cradle of Arabic language and Islam. It is undeniable that this environment has a great impact on the production of outstanding literary figures in Arabic literature. that is why we can see that *Nadwatul Ulama* has given birth to a large number of world famous Islamic thinkers, prolific writers, outstanding journalists, orators, biographers of Prophet Muhammad (SM)and also efficient Arabic poets such as Sayed Abul Hasan Ali Al- Hasani Nadwi, Sayed Sulaiman Nadwi, Mas'udAlam Nadwi, Sayed RabeyHasani Nadwi(existing chancellor of Nadwatul Ulama, President of All India Muslim Personal Law Board), Sayed Wadheh Rashid Hasani, Sayed Muhammad al- Hasani, Sayed Salman Husseini Nadwi, Dr.Sayeedur Rahman al- Azmi Nadwi (existing principal of Nadwatul Ulama), MuhammdNazeem Nadwi, Prof. Sayed Muhammad Ijtiba Nadwi and so on.

Among Nadwi scholars Sayed Muhammad al- Hasani was one of the most world famous Indian Arabic journalists who had an outstanding position in the Arab world. He established a “**Literary Forum** (المنتدى الأدبي)” in 1954 A.D and then through this forum he associated with of his two close colleagues namely Dr.Sayeedur Rahman al- Azmi Nadwi and Prof. Sayed Muhammad Ijtiba Nadwi founded the most popular and existing Arabic magazine namely “**AL -BAAS EL- ISLAMI** (البعث الإسلامي)”in 1955 A.D. Its first issue was published under the editorship of Sayed Muhammad al- Hasani in the last week of September 1955 and circulated on 1 October 1955.^{xi} Thus, the most prominent Arabic magazine of modern Muslim world was started to be issued and till now it is being issued simultaneously and regularly due to its effective impact on the scientific and literary circles. The magazine deals with publishing articles on different kinds of topic that related to literature, sociology, history, politics, advocacy of Islam and true Islamic thought.

Likewise, an another well- known fortnightly magazine entitled “ **AL- RAID** (الرائد)”was published from DarulUloomNadwatulUlam in 1959 A.D. Sayed Muhammad RabeyHasaniNadwi founded this magazine associated with some outstanding Nadwi scholars namely Dr.Sayeedur Rahman al- Azmi Nadwi and Sayed Wadheh Rashid Hasani Nadwi and he was also the first editor- in- chief.

In 1963 A.D. the first Arabic magazine under the title of “ **AL- BUSHRA** (البشرى)”appeared in South India in Malabar coast of Kerala. Its first issue was published on January 15, 1963 under the editorship of Prof. Muhammad bin Ahmed and it was printed in *Jamalia Printing Press* in Malappuram.

In regards to the growth and development of Arabic Journalism, like DarulUloomNadwatul Ulama, some other Indian higher educational Islamic institutions have played a very vital role in growing and nurturing of Arabic journalism in India. Among these institutions DarulUloom Deoband which is called mother of Indian Islamic institutions (Umm al- Madaris al- Islamiyyah al- Hindiyyah) is one of the most

notable institutions from where several Arabic magazines have been published in different years. The most prominent Arabic journals that published from DarulUloom Deoband are “*DAWAT AL- HAQ (دعوة الحق)*”, “*AL- KIFAH (الكفاح)*” and *AL- DAEE (الداعي)*”.

On the same way, the role of **Al- Jamia al- Salafia, Banaras** and the **Department of Arabic**, Osmania University, Hyderabad in promoting and developing Arabic language and literature particularly Indo- Arab journalism cannot be denied. In 1963 A.D. a literary and cultural yearly magazine was published under the title of “*AL-TANWEER (التنوير)*” by the Department of Arabic. The magazine was founded by Dr. Muhammad Abd al- Matin Khan and he was also the first editor of this magazine. Since the establishment of the Department of Arabic at Osmania University (1917), has played an important role in spreading and promoting Arabic in India. As well as the magazine “*SAUT AL- UMMAH (صوت الأمة)*” came into existence in Banaras. It had an outstanding and unique position in Indo- Arab journalism. The magazine was first issued in November 1960 A.D. from al- Madrasa al- Markajiyya (Central Islamic School), Banaras under the title of “*SAUT AL- JAMIA (صوت الجامعة)*”. Dr.Muktadi Hasan al- Ajhari associated with his two friends namely Abd al- Samad Sharaf al- Din and Abd al- Wahid al- Rahmani founded this prominent magazine. About this magazine Dr.Muktadi Hasan al- Ajhari says: “At first step, al-Jamia published a magazine in 1397 A.H. named *SAUT AL- JAMIA* and it was issued in every three months. The name of the magazine remained same till to the month of Shaban 1396 A.H.”^{xii}

Now-a days, great number of Arabic newspapers, Journals and magazines have been issued by different Islamic and Arabic Study centres, different departments of Central and State Universities and different Islamic Institutions in the four corners of country. But unfortunately, the publication of some newspapers and magazines are discontinued due to financial and other crisis and the publication of some are being continued in regular basis.

Conclusion: In India, Although Arabic Journalism was evolved so late than other languages but after appearing it, Prominent Arabic scholars have made their sincere effort to develop it. Today Arabic journalism in India being an essential and most influential branch of Arabic language and literature has been playing an important role to promote and develop the language.

Foot Notes:

ⁱ . Shipra Kandra , Fundamentals of Journalism, p-1

ⁱⁱ Ibn Manzur, Lisan Arab, vl- 9, p- 186

ⁱⁱⁱ . The Holy Qur'an, Chapter-86, verse- 17-18

^{iv} .N.Jayapalan, Journalism, p- 1

^v .Ashfaq Ahmad, Al- Nathr al- Arabi al- Mu'athir Fi al- Hind, p 231

^{vi} . Dalil al- zaraidwa al- Majallat al- Arabia Fi al- Hind, p- 29

^{vii} , Dr. Khan, Subhan Alam, Zadid Arabi Sahafatkelrtiqa may Madaris-e Arabiyyah ka Hissah, p- 36-37

^{viii} . Mjalla al- Dhiya, issue-1, vl- 1, 1932, p-8



^{ix} Nadwi, Ayyub Tazuddin, al- Sahafah al- Arabiyyah Fi al-Hind:

Nash'atuhawaTatau'uraha, p-103

^x.DalilZaraidwa al- Mjallat al- Arabia Fi al- Hind, p- 32

^{xi} Nadwi, Salimur Rahman Khan, Al- sahafa al- Islamiyyah Fi al- Hind Tarikhuhawa Tatau 'uraha, p- 298

^{xii} MajallahAaut al- Ummah, March,1988, p- 3

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- 9 Inn Manzur, Lisan al- Arab , Dar al- Ma'arif, Egypt.



TRIBAL SOCIAL LIFE OF ARUNACHAL AS REFLECTED IN THE NOVEL 'KOINAR MULYA' BY LUMMER DAI

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Abstract:

Assam and Arunachal Pradesh are two states of North Eastern part of India. Assamese is the connecting language between the two states. Assamese literature is highly rich and developed. Assamese fiction literature is also of no exception. Written and published in Assamese language on the background of Adi society of Arunachal in 1975, the significance of "Koinar Mulya" by novelist Lummer Dai is still infinite. Relevance of this novel as social fiction is still on track. The subject matter of this novel, by the novelist who built the bridge between Assam and Arunachal Pradesh by literature is, Adi Tribal Society. The chief aim of our study is to focus analytically and illustratively the prevailing system of selling out the girl-child in her childhood with a mortgage money in the contemporary time and later on emerging with the system of marriage and absorbing superstition, prejudices, in human behavior, etc in the society. Moreover, socio-cultural system, apparel, ornaments, food-habit, folk-beliefs, socio-environmental conditions and language are also incorporated within the arena of the study. The role of this novel in refinement and reconstruction of the tribal society is undeniable.

Keywords: Child Marriage, Koinar Mulya Novel, Lummer Dai, Socio - cultural System, Tribal Society of Arunachal.

1. INTRODUCTION:

In Assamese fictional literature, the number of tribal novels based on tribal lives by various literary figures is very less, yet the few it has are all remarkable. The flow of Assamese tribal novels is still unstoppable centering around 'Miri Jiyari' of Rajanikanta Bordoloi. Historical, Social, imaginative, realistic, romantic, etc.—almost all sorts of novel exist in Assamese literature. However, the significance of social novel is in the highest rank in Assamese novel literature. And in case of social novel, the name of Lummer Dai is mentionable so far as the creation of tribal social novel is concerned. His novel 'Koinar Mulya' (1975-76) is remarkable in this regard.

The prevalent tradition of selling the girl-child in her childhood in Adi Society of Arunachal Pradesh and, in the later phase, in the cases of the tradition of getting them married along with socially misappropriate condition of girls, exploitation, distress, social prejudices, superstition, and not giving adequately equal respect to the girls, etc, the abominable conventions are still existing in the society. Moreover because of lack of cultural reformation, human emotion and feelings are also seen to be denied and contradicted. The novelist has presented in the novel the strife in between two generations emerged out of remonstrance how and what kind of heavy burdens are loaded on a woman against her will. However, in our discussion, light would be thrown on the social life of Adi tribal as referred in the novel.



1.01 THE OBJECTIVES AND SIGNIFICANCE OF THE STUDY:

The novel gives some clear glimpses on certain issues as follows:--

- 1) The novel bears inevitable significance in familiarizing the tradition, rituals, folk-belief, ornaments, status, language, culture, etc of Adi Society.
- 2) Importance on reincarnation of the novel is given as discussion on the social aspects cited in the novel has not been done extensively. It is felt that in the process of accepting the new trend, this novel has gone into oblivion.
- 3) The novel has significance as social novel adequately representing the Adi Tribal Society of Arunachal Pradesh.
- 4) The novel has importance in reconstruction and changing of the contemporary society.
- 5) It has significance in bringing awareness and realization against the prejudices existed in the Adi Tribal Society with respect to status and condition of woman folks.
- 6) The chief aim of our discussion is to represent the Adi Tribal Society from different perspectives and making it worthy of reading for the readers.

1.02 THE SCOPE AND METHOD OF THE STUDY

Within the scope of studying KOINAR MULYA by Lummer Dai, the tribal social life would be discussed extensively from different perspectives. Moreover, nurturing of the Adi society and culture in the novel is also incorporated within its scope. For the convenience of discussion, descriptive and analytical methods are used here.

1.03 SOURCES OF DATA COLLECTION:

The primary source of data collection for the study is the novel, 'KoinarMulya' itself. In addition to that, some books of various critics having its thematic interpretation and some essays on the book are taken as helping sources for its discussion.

2.00 THE SOCIAL LIFE AS REFLECTED IN THE NOVEL, 'KOINAR MULYA' BY LUMMER DAI:

2.01: SUBJECT MATTER OF THE STUDY:

The chief subject matter of the novel, 'KoinarMulya' by LummerDai, is the prevalent tradition of child marriage with money-mortgage in Arunachal Pradesh. The novelist challenges the society through a woman character named Gumba who had fallen prey of the child marriage system and its inherent abominable criminal social tradition. Moreover, the mental conflict of the character 'Kargum' as well as the social tussle between old and new generations, protest against injustice, inflictions, oppression,



exploitation, distress, etc. towards women of the educated groups are its main subject matter. In present scenario, the subject matter of the story is sufficiently contextual.

2.02: SOCIAL SYSTEM:

The social system and customs-rituals of the simple rural agricultural people living in the dense forest of Arunachal hills are much lenient. Although expert in cultivation of rice, jackfruit cultivation and in jhum cultivation, yet almost all are deprived of formal education because of poverty. The condition of the women is more abject and they have to be deprived of formal education because along with their children they have to rear hens, pigs, cattle, etc and have to take the total responsibilities of their houses.

There is a system of marrying the girl-child in their childhood selling them with a mortgage of money according to Adi tradition. A girl is considered as a property. Yak, cattle, cash, utensils, etc are taken as mortgage. A yak is considered as a valuable property. In Adi society, to identify easily, every yak of each house is pierced in its ear and sent to graze in the forest. This helps to find out a particular yak very easily.

In Adi society, every house keeps its valuable stuffs (eg. Utensils, money, ornaments, swords, etc) building storehouses in rows aside from their houses. They have their livelihood by hunting and cultivating necessary crops.

Traditionally they live in 'Chang' house having a veranda in front of it. Separate doors are maintained for males and females. Pigs are reared down at the Chang house made of bamboo and thatch.

To manage the Adi Society, there is a village headman who is termed as 'Gaam' in the society. Moreover, to administer justice of several nearby villages, there is a chief village-headman among them. 'Kebang' is organized as meeting for justice whenever needed. In this meeting seniors and heads of villages are invited to take part in discussion of justice related problematic matters and to resolve the matters peacefully.

In Adi Society, the post-phoneme of father's name is used to name the pre-phoneme of child's name. For example, Tumkar-Kargum, Kargum-Gumba, etc. Stretcher is used to carry dead body. Traditionally it comes as a ritual to their society from the incidence of carrying the weak body of Gumba to his house in a stretcher when he once sat for a hunger strike.

In Adi society, as a salutation to the guest, 'Jai Hind' is used instead of 'Namaskar'. Moreover, chicken, fish, Aapong (a kind of tribal drink) etc. are served to the guests as respect. As a means of communication, letters are exchanged/ passed as we can see in the novel.



2.03 FOOD HABIT:

Rice is the chief food of Adi society. Despite, they take aapong, meats, etc as their main foods. They domesticate duck, hen, goat, pig, yak, etc. for meat. Eggs are also presented to the guests as gifts. As per requirement, they also go to rivers for fishing and also hunt wild boar, deer, etc. for food. Whenever they go for hunting, they carry rice and curry wrapped in banana leaf.

Since aapong or traditional wine is a respectable beverage in Adi society, they use it in their society very extensively. In the novel 'KoinarMulya', the use of aapong can be seen in their 'Kebang' (meeting), wedding ceremony and in different festivities. Aapong stored in bamboo cone is consumed very respectfully by both males and females. Moreover, there are references of eating bamboo shoots, fruits of the hill, chewing of betel nut, etc in the novel. Use of addictive stuffs, eg. Tobacco, hukkahs, etc are also seen in Adi Society. For example, in 'Bang Kebang' held for Gumba, people gathered in groups and were discussing the matter which is narrated by the writer, as--- "some are chewing tobacco, some others chewing betel nuts and some others are smoking 'Biri' (as kind of local cigarette). Some of them are using hookah too." (KoinarMulya, page-104)

2.04 APPAREL-ORNAMENTS:

A picture of wearing of special apparels and ornaments by both males and females can be seen in the narration of the writer. Traditionally the males wear thick chest-open shirt and gee-string (lengti) although boys of new generation wear chest-open thin shirt and Long-pant or trouser. On the other hand, the females wear shirt, Galey, Mekhela, petticoat, etc. For example, in the words of Borgaam Gekan--- "We wear gee-string but boys of today wear 'lonpan' or something like that. We wear chest-open thick shirt, boys wear chest-covering thin shirts." (KoinarMulya, page-114)

Again, "At the time of dragging Gumba by Joken's group her loose cloth shrinks towards her shoulder for which her belly becomes bare and her brassiere could be seen. Moreover, in her struggle to free her from the clutch of the young boys her Galey falls down and the petticoat comes out." (KoinarMulya, page-49)

In the novel, wearing of ornaments in Adi society is not seen yet to make it understood about gems, necklace of pearls (necklace those are made of marble having different colours) is referred.

2.05 MYTHS AND BELIEFS:

In the heart of myths, the cultural features and thoughts process of a community lay hidden. The originality and cultural standard of folk-life depend upon its depth and honesty. In the novel 'KoinarMulya' of Lummer Dai, a portrait of folk beliefs can be seen. Adi people believe in luck; Doni-Polo are their gods. Moreover, they have beliefs on the gods and goddesses also. Reflection of such myths can be observed when Kargum



went to the forest in search of his yak and unwrapped his food-packet to eat rice—“Kargum opened the cane and gulped apong after pouring a little of it down for the forest-god. Again, while putting the rice and curry packets in the container, he thought, if he did not eat he would not get energy and still he had to walk a long. So he unwrapped the packet and threw some food for the forest-god and started eating.”

In Adi society, horoscope is calculated with the heart of hen. They believe and obey in an existence named ‘Abatani’ as the first man in the earth. Thus, a mythical world of Adi can be seen in the novel.

2.06 STATUS OF WOMEN:

According to the novel, ‘KoinarMulya’, the position and status of females is pathetically insecure in Adi society as because in the society females are considered to be a daily-used product. If we go for the title of the novel, ‘KoinarMulya’ (Value of Bride), it brings a positive impression and the novel seems to be centred around the problems of females/girls. Like in other society of the world, in Adi society too, females are transformed into raw materials because of lack of self-position. In Adi society, a girl-child is married by selling forcibly to a boy for some money. Even, there is a tradition of selling girl-child before she takes birth. Girls are treated as commodity for trade.

The chief character or the protagonist of the novel is Gumba. She could find the solution of her catastrophic situation with courage and patience only because she was educated with formal education. On the other hand, Gumba’s mother and wife of Kargum is a simple guileless woman drowned in the conventional cruelty. She accepted personally all the rituals and conventions of the society without any protest or rationality. Females of Adi Society are prejudiced. Adi society are prejudiced with the presupposition that they are destined to that behavior by males and are born to tolerate those passively. But, in the conversation of the next generation, for example, friends of Gumba—Jameye, Yabum, Libom, Yetebey, etc—a protesting and rebellious voice can be heard. They are bound to think that in a patriarchal society, the value of girls like them is very meager. The writer is able to create and evince a pathetic situational picture of the oppressed and exploited class of girls like Gumba. As for example,

“What class do you read in ?”—Jomeye asked.

“Class twelve.”---Gumba replied.

“We have been rotting in the village”—Yabem said with a long sigh.

“Why would you rot ?”—Gumba protested. “Every person has his separate duties, wherever he is, whether educated or not.”

“These thoughts make me infuriated towards parents.”—Jamaye said.

“Had I not been sold by my parents, I would have been studying.”

“Really, it turns furious.”—Yetire supported.

“Although I am not sold in childhood, but I don’t like these rituals.” ---Libon said.

“It’s really disgusting bad.”—Gumba commented. “These rituals in our society are really worse.”



"If we hail these to be wrong, we are scolded with a threat of breaking our teeth."--- Yeteb said.

"The males consider the woman as their property."

Gumba told in a grave tone,---"If a girl takes birth, they rejoice at adding up of a property. This tradition of girl-trade must be abolished soon." (Koinar Mulya, page-15,16)

Here, in the novel, the novelist tries to establish the fact that females too have their own separate world of emotions and feelings. Females have personal aspirations and dreams of being a good and responsible citizen by being educated. Moreover, they are not devoid of deep expectation of keeping alive their emotions-feelings in company of their kith and kins. For example, Gumba felt an unknown compassion in company of her friend Sartum. Another female in the novel, Dakbi (sister of Dakot) stands with Gumba to protect her against the cruelty of her brothers. She realized that---

"Someday she will also be sold. Her husband might be an ugly person or a mad man or may be an aged person. I will flee if I am sold without my will.... If I am married to an aged person or to a person whom I do not love, I will definitely flee, she whispers in her mind." (Koinar Mulya, page-54,55)

Again, in the cultural programmes organized by a club named "Yuva Samaj" (Youth Society), a voice of protest against the tradition of girl-trading is explicitly reverberated. Among the literates, the protesting utterances of the people like Minzum represent the changing sentiment and situation of female society. Here, the viewpoint of the novelist is very explicit.

2.07 SOCIAL-ENVIRONMENTAL CONDITION:

In the novel, Koinar Mulya by Lummer Dai, a picture of environmental condition of Adi society can be seen. The writer has portrayed a very picturesque sketch of agricultural rural society far from the modern urban civilization with hills, rivers, narrow paths, store houses built in rows, trees, houses built of bamboo and thatch, animals, birds, fruits, etc. For example:--

- 1) "Gumba kept on moving. Passing some distance down, she gathered her Galey up to her knees and crossed the brook. In the hot summer day also she felt the brook-water as ice. Advancing a little more distance, she climbed the hills up. Small birds fled away chirping high at her sight and came back again to sit on the branches of the surrounding trees the next moment. She replied with genuine smile. She got firewood nowhere." (Koinar Mulya, page-26).
- 2) "Mother, today I am really feeling great. Those green jack fruits trees, green orange bushes, blue hill—all are still same. The clouds those fly over the heads of the mountains also look same." (Koinar Mulya, page-87).

Apart from these, eating of nuts by the squirrels, deer hunting, crowing of the rooster at the day break, etc have created a beautiful rural environment in the novel.



2.08 LANGUAGE :

In case of language, the writer has used simple, easy and appropriate language in his novel. Like the simplicity in the thoughts of the rural people, the language of Adi society is also very simple and attractive. For example---to make understand about twelve class Gumba's father said "Yaba has read twelve books."

Moreover, the use of Assamese proverbs in the novel is also worth referring. For example--

2.08.1 ASSAMESE PROVERBS:

- 1) "Makor petorporauluwanai" (He has not come out of his mother's womb) [Ill-lucked]
- 2) "Botahoturabologiya" (To be flown in the air) [Insignificant matter]
- 3) "Tirutajatiholbotahaturifurakhorapaat" (Woman folks are fallen leaves that fly in the air)
- 4) "Peluwathooakounukhumai" (Spitten spittle never comes back in again)

3.00 FINDINGS :

- 1) The novelist stressed on the significance for establishing the respect of females in the society protesting against the heinous tradition of child marriage.
- 2) The novelist was able to bring social reformation and the novel was really helpful in reshaping the traditional rituals and customs of the tribal society of Arunachal Pradesh (North East) in a justified way.
- 3) The novelist beautifully portrayed the social, natural, geographical and environmental set up in an exquisite way.
- 4) Although the novel is able to grab some regional awards yet in international platform the novel has not got adequate status and response of the readers in various languages.
- 5) There is a keen necessity of analysis of this novel in the trend of translation studies and comparative literature.

4.00 CONCLUSION:

From the above discussion we can sum up comprehensively that in the novel, 'KoinarMulya' by LummerDai, the writer wanted robustly to reform the tribal Adi Society of Arunachal Pradesh that had been under the spell of abominable child marriage system and such other prejudices. The writer, more or less, is able to keep alive all the aspects of Adi Society intact. The novelist was awarded 'SitanathBrahmaChoudhury Award' by Assam Sahitya Sabha in 1985 for this novel. Moreover, a movie was produced based on the story of this novel. The role of this novel, 'KoinarMulya' and the novelist are really unbound to bring some changes and reformations in Adi Society on which this novel is based. After all, it can be said that this



is a successful social novel;significance of it cannot be denied among the interested readers.

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A CASE STUDY ON BHARTI AIRTEL: HOW IT BECAME A LEADING TELECOM OPERATOR IN THE WORLD

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Abstract:

Bharti Airtel is synonymous with the advent and spectacular growth of private mobile telecom operators in India. It also features amongst the top three operators in the world (by subscribers) through successfully implementing the concept of 'minutes factory' (through network outsourcing), tower and fibre sharing, creating a digital platform through partnerships & alliances (instead of acquisitions), extremely lean organisation and executional excellence. This paper explores the various factors which have contributed to Bharti Airtel's success as well as the learnings it holds for other telecom operators esp. in the developing world.

Keywords: Bharti Airtel; telecommunications; cellular mobile; telecom; data; mobile operator; mobile revenue; tower; spectrum

1.0 Introduction

Bharti Airtel Ltd ranks as number 3 mobile telecom operator in the world by number of subscribers. It has presence in 18 countries across Asia and Africa. It was established on July 7, 1995 as a public limited company [1] and first launched its mobile phone services in Delhi circle under the Airtel brand name.

Since then it has been expanding rapidly and some of the key milestones of its journey are as under:

Table 1.1 Year wise major milestones of Bharti Airtel

Year	Milestone
1998	Launch in Delhi & HP Circles
2004	Pan India footprint; India's largest telecom operator
2008	Launch of Direct to Home Services (DTH)
2010	Acquired Zain Africa; Presence extended to 20 countries
2011	Launch of 3G
2012	Launch of Airtel Money
2013	First operator to launch 4G
2014	>300 million subs; No.3 operator in the world
2015	Pan India data operator
2016	First operator to have pan India 3G & 4G
2019	IPO of Airtel Africa
2020	Largest ever QIP by a private issuer in India

Source: Airtel website & media reports

In its 25 year journey which started from launch of mobile phone services in Delhi and Himachal Pradesh circles, it has now transformed into a global telecom company.

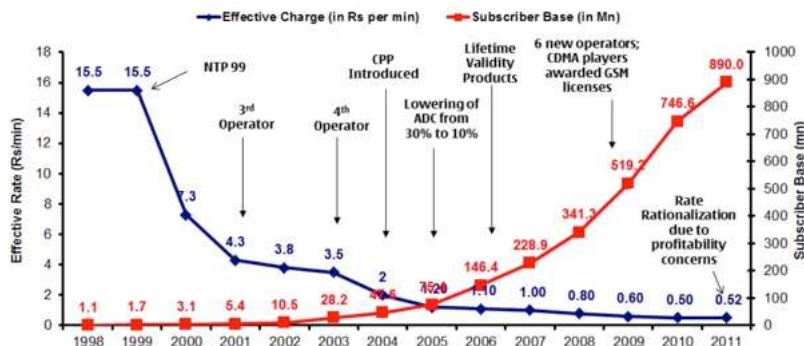
2.0 Journey towards leadership

Airtel's journey in India can be summarised in the following 4 phases:

2.1 Start Up Phase (1995-2001) - From a two telecom circle operator, Airtel expanded its operations to Andhra Pradesh and Karnataka circles by acquiring control of JT Holdings in 1999. This was followed by expanding into Chennai circle in 2000 (post acquisition of control in Skycell Communications) and into Kolkata circle in 2001 (post acquisition of control of Spice Cell). [2]

2.2 Land Grab (2002-2010) – This was the time when mobile telecom industry growth really took off. Reliance Infocomm launch brought the tariffs down significantly and it led to immediate spike in tele density.

Fig 1.1 Relationship between effective charge (Rs per min) and subscriber base (in million) in India for the period 1998 to 2011



Source: TRAI & Telecom Circle Analysis

In this period of boom, most important factor for the growth of a telecom operator was how fast it could roll out network in its circle. Hence this phase is termed as the 'Land Grab' phase. Airtel was the biggest gainer due to its execution excellence. With the roll out of mobile phone network in Andaman islands in 2005, it became the first private pan India telecom operator.

2.3 Leadership in a Multi-Player Market (2011-2015) - This was the period when ~ 14 telecom players were present in the Indian market (one of the highest in the world). Each telecom circle had a different set of competitors. Being a pan India operator, Airtel had to evolve a different strategy for each telecom circle depending on the local strategies of unique set of competitors. This also led to creation of



hundreds of unique customer tariff plans. Airtel did well to manage this complexity and retain its undisputed market leadership.

2.4 Post Jio (2016 – Present) – Airtel got a rude shock with the entry of Reliance Jio in 2016. Jio changed the rules of the game by setting up a greenfield 4G network which could support unheard levels of data traffic at the lowest cost in the world. Voice became free and business case of all small operators became unviable. This research paper is about how Airtel lost the crown, how it has now become a storied comeback story and its impact on the Indian telecom industry.

3.0 Disruption & loss of leadership

Airtel's juggernaut faced its biggest challenge with the launch of Reliance Jio. Jio disrupted the telecom market with a 100% 4G network which made voice, SMS & roaming free as well as offered rock bottom data rates. A big regulatory shock for Airtel was that the regulator did not object to Jio offering its services absolutely free for the first 6 months.

Jio's onslaught also forced no.2 operator (Vodafone) and no.3 operator (Idea Cellular Ltd) to merge. Consequently the new entity, Vodafone Idea Ltd (VIL) briefly became the no.1 telecom operator in India both in terms of revenue as well as subscribers. Rapid decline in industry revenues also led to market consolidation. Reliance Communication and Aircel were forced to shut down their operations. Norway's Telenor and India's Tata Teleservices Ltd were acquired by Bharti Airtel.

Consequent to loss of leadership Bharti Airtel reformulated its complete strategy and execution. Details are in the next section.

3.1 Network

Taking a leaf out of Jio's book, Airtel pivoted from a 2G/3G/4G voice + data network to a 4G focussed data network. While 2G technology will be continued to cater to its existing 2G subscriber base, 3G technology has been shut off and the entire focus is on growth through 4G. The key elements of the revamped network are as under:

3.1.1 Spectrum Strategy

As a result of participation in all spectrum auctions as well as acquisition of Telenor and Tata Teleservices Ltd, Bharti Airtel now has ~ 30% share of telecom industry spectrum in India. Band wise spectrum details are as under:

Table 1.2 Band wise spectrum (MHz) held by Bharti Airtel in India

Spectrum Band	Spectrum MHz
800 & 900 MHz	255.3
1800 MHz	566.1
2100 MHz	340.0
2300 MHz	570.0

Source: Airtel Investor Presentation, Feb 2020

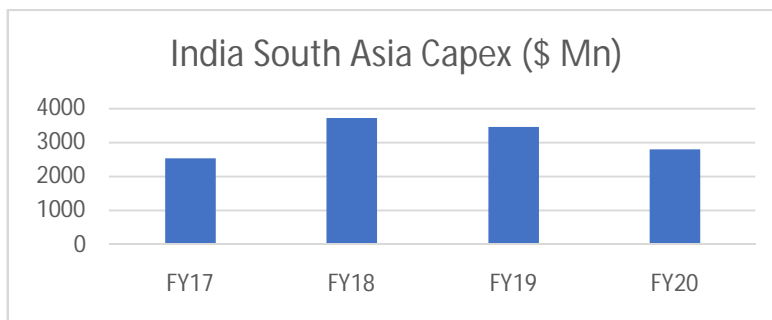
Drawing lessons from the Jio success story as well as global data trends, Airtel started deploying maximum spectrum for 4G. It was the first telecom operator in India which started phase wise shutting down of 3G services and started utilising its spectrum for 4G services.

Despite ~ 30% spectrum share it's CEO has stated that gaps remain in challenger markets of Haryana, Kerala and UP West circles. Bharti Airtel plans to participate in next spectrum auctions to address these gaps as well as acquire pan India sub-GHz spectrum. [3]

3.1.2 Network Strategy

Despite loss of revenue and profitability Bharti Airtel kept on investing in network by raising funds from the market. This ensured that Jio did not get a walkover in the key circles of Bharti Airtel. With bulk of Network expansion done, FY 21 capex is expected to be slightly lower than FY 20 [4]

Fig 1.2 India South Asia capex (in \$ mn) of Bharti Airtel in India for the period FY17 to FY20



Source: Airtel Quarterly Report (June 30,2020) &Airtel Investor Presentation (Feb 2020)



As a result of constant investment in network capex, the count of mobile broadband base stations (BTS) has been going up. This has picked up pace post launch of Reliance Jio with 220K BTS getting added from 2017 to 2019. To ensure that BTS operate at maximum possible capacity, it is important that they have backhaul on optic fibre instead of microwave links. Airtel has stepped up deployment of fibre. It's fibre route count increased 230,000 kilometres in FY17 to 281,000 kilometres in FY19. Out of this additional 51,000 kilometres of fibre, 43,000 kilometres of fibre was added in FY19 alone. This roll out was backed with suitable investment in electronics to carry higher amount of data. More than 70% of the sites are equipped for 200+ Mbps data.[5]

To further accelerate deployment of fibre esp. for the last mile, it has started tying up (revenue share model) with local cable operators who already have access to local homes in their area of operation. It enables Airtel to not only save capex but deployment time as well. Such tie-ups have been done in 13 circles which include the top 10 cities of India.[6]

The results of smart network capex has started reflecting in the broadband download data speed which has become the number one factor for customer network experience. Bharti Airtel was shown as the network with the highest median download speed by analytics firm Tutela for the period of August 2019 to January 2020. In upload speed it was marginally behind VIL by 0.2 Mbps [7]

Table 1.3 Download speed (Mbps) telecom operator wise for the period August 2019 to January 2020

Telecom Operator	Download Speed (Mbps)
Airtel	7.4
VIL	6.5
Jio	5.3
BSNL	2.9

Source: Tutela State of Mobile Networks, India Annual Report 2019

3.2 Micro Markets Strategy

Post-merger of Vodafone and Idea, VIL had announced that it will focus on 303 districts which were contributing to bulk of its revenue (86%) and EBITDA (138%) [8]

Airtel picked this part of VIL strategy and identified 244 focus districts. These districts were identified on the following 3 parameters: [9]

- Economic Potential (4G market size)
- Capital Efficiency (Revenue per BTS)
- Brand Strength (Airtel 4G share)

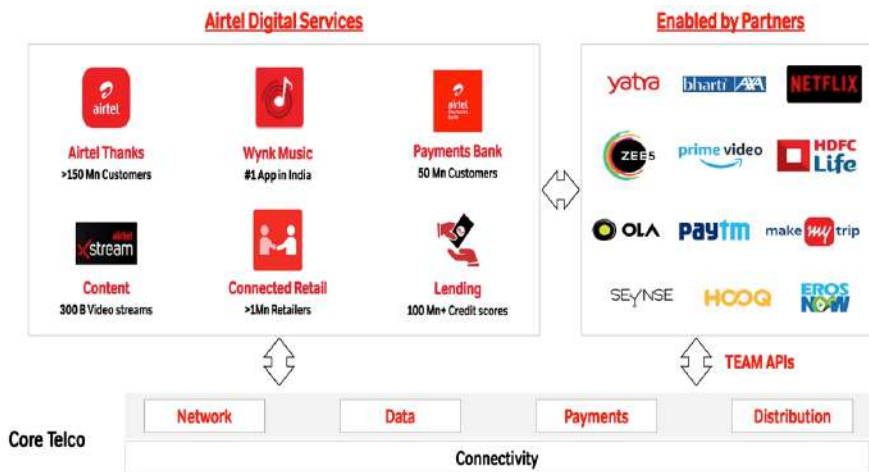
Rather than taking on Jio (which is backed by a far stronger parent) all across India, Airtel focussed on highest potential 244 districts where it had the highest chance of

winning. Maximum network, sales and marketing resources were deployed in these districts to ensure quick and sustainable market share gains.

3.3 Digital Ecosystem & Alliances

While Airtel has acquired some companies (mainly start-ups) in areas where it does not have capabilities but unlike Jio it has focussed more on alliances and partnerships. The telco connectivity is the common thread between its own digital services and partners (please see the chart below):

Fig 1.3 Airtel digital services and partnerships powered by the core telecom connectivity



Source: Airtel Investor Presentation, Dec 2019

Airtel also has the highest number of OTT partnerships for content amongst all the telecom operators in India. It has partnerships with Zee, Star, Sony, Hotstar, Sony Liv, Zee5, Hooq, Eros Now and Alt Balaji. These partnerships enable Airtel to increase data usage, build user engagement and reduce churn.[10] On the other hand for OTTs there is a substantial reduction in customer acquisition costs as well as they get revenue share from the telco.

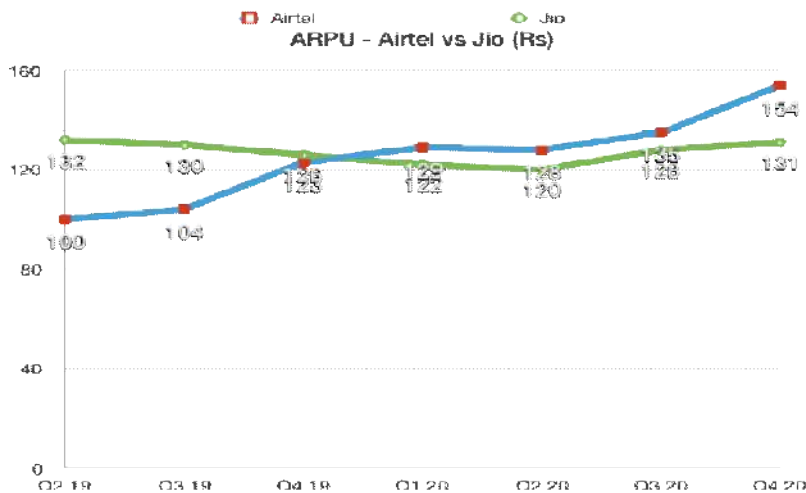
3.4 Focus on Quality Customers

Airtel as part of its drive to acquire quality customers, started **Airtel Thanks** which offers rewards to its each customer basis her ARPU and loyalty. This helps Airtel in ARPU improvement as well as in reducing churn.

It has created three tiers for its customers: Platinum, Gold and Silver. The rewards vary from content (example Amazon Prime free for one year) to device care (example free screen replacement) to financial services (example life insurance of Rs 4 lakh free with pre-paid pack of Rs 249) to assured network (example router or signal booster at your office). Airtel also launched **Airtel Home** which offers three services (mobile post-paid, broadband & DTH) with facility of one bill. In addition customer gets bundled premium content, strong network and option of surveillance. [11]

At the same time Airtel launched a massive drive to let go of very low ARPU customers. An analysis indicated that there were millions of low value customers who were using Airtel as a secondary SIM for largely receiving incoming calls without contributing to any significant revenue. In November 2018 Airtel and VIL introduced validity recharges which would force every subscriber to recharge with a minimum amount to keep receiving incoming calls. As a result Airtel lost 49 million low value customers. However, this created more space in the network for higher profitability customers esp. for post-paid and 4G smartphone customers. Consequently Airtel could reverse the falling ARPU trend after 9 consecutive quarters of decline. ARPU went up from Rs 100 to Rs 104 as on quarter ended Dec 2018.[12]

Fig 1.4 Quarter wise ARPU (Rs) movement of Airtel and Jio for the period Q2 19 to Q4 20



Source: Airtel & Jio websites & media reports

Airtel has continued to focus on ARPU growth by focussing on acquisition and retention of quality customers. As a result it moved from no.3 to no.2 position in revenue market share. Airtel now has the highest ARPU in the industry. As on Q4 FY20, Airtel ARPU

has increased to Rs 154 which is a 14% growth last quarter. In comparison Jio ARPU grew by only 1.7% [13]

3.5 Brand Strategy

From the time of its launch, Airtel has been able to sharply differentiate it's brand in the fiercely competitive Indian telecom market.

In 2010 Airtel launched a new brand logo. This was done essentially to have a common identity and brand positioning across various markets. Brand was earlier known as Airtel in India, Zain in Africa and Warid in Bangladesh. The new logo was designed by The Brand Union which is a England based brand agency. The logo type is meant to be modern, vibrant and friendly which signals company's resolution to be accessible to its customers and stakeholders. The lowercase is recognition for humility. The red colour signifies heritage, energy and passion. [14]

Fig 1.5 Old and new logo of Airtel



Post entry of Jio, it positioned Airtel as 4G smartphone network. Unlike VIL which did diffused campaigns on brand, international roaming, post-paid etc., Airtel kept laser sharp focus on 4G customers. Post sharp improvement in 4G network, it's campaign is solely focussed on highest 4G download speeds in the country to attract new profitable 4G customers.

Today Airtel is the 5th most valuable Indian brand as per BrandZ Kantar survey. Despite Jio becoming no.1 in revenue market share, Airtel brand is still ahead of Jio brand (rank 5 vs rank 10) in BrandZ Kantar survey. Airtel is not only among the top 5 most valuable Indian brands but it also scores high on purpose (helps make people's lives better) as well as on corporate responsibility (combined social, ethical & environmental responsibility measures). [15]

4.0 Financials

While Airtel has focussed on ARPU growth it has also created a lean and agile organisation which is cost efficient. It has been steadily working towards a simpler organisation. Unlike in the past when there were different set of competitors in each circle, now there are the same 3 competitors (Jio, VIL & BSNL/MTNL) in each circle. Also entire industry has moved to 10-15 customer plans as compared to hundreds of plans which existed before entry of Jio. Due to higher centralisation, simplification and automation, Airtel has been able to create larger but fewer roles both in circles as well as in the corporate office. As a result of control on manpower count as well as increasing revenues, it's gross revenue per employee per month has been growing every quarter. It has risen from Rs 3,153,819 in June 2019 to Rs 3,653,738 i.e. an improvement of 15.85% in 4 quarters. [16]

Airtel has also been running a very successful campaign called 'War on Waste' (WoW) through which it has been to largely contain opex despite a massive increase in network as well as inflation. In its India operations alone it has reduced \$ 1.5 billion of waste and as a result it's India opex has risen by a mere 9.2% over 4 financial years i.e. from Rs 260 billion in FY16 to Rs 284 billion in FY19. [17]

With the 4G coverage achieved to a large extent, Airtel has to now essentially spend on capacity addition. Mr Sunil Mittal, Chairman of Bharti Airtel has said - The cost of data is not linear. You can add lots more data on the existing spectrum that you have, thanks to technology. So if I have 2000 terra bits of capacity and I have to move to 5000 terra bits, I have to double my investments? No, it's probably 20% more.' [18] Airtel tracks it's performance on the now famous, three-line graph (total revenues, opex productivity and capex productivity) [19] It also highlights how efficiently Airtel is leveraging economies of scale.

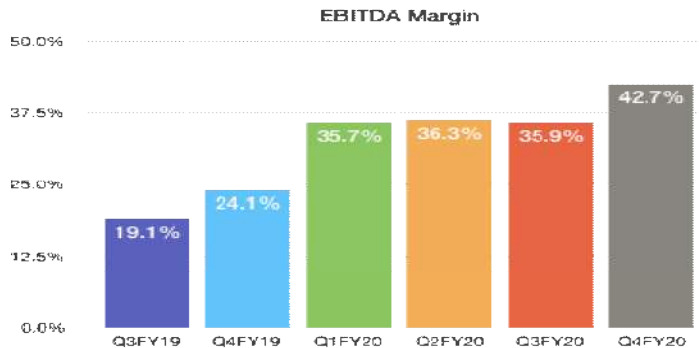
Fig 1.6 Quarter wise movement of Bharti Airtel's total revenue (Rs mn), opex productivity (%) and capex productivity (%) in India for the period Q1 FY20 to Q1 FY21



Source: Bharti Airtel Quarterly Report (June 30,2020)

As a result of steady increase in high ARPU customer base as well as creation of a lean and agile organisation, Airtel is showing steady improvement in EBITDA margins as seen in the chart given below:

Fig 1.7 Quarter wise movement of Bharti Airtel's EBITDA margin (%) in India for the period Q3 FY19 to Q4 FY20

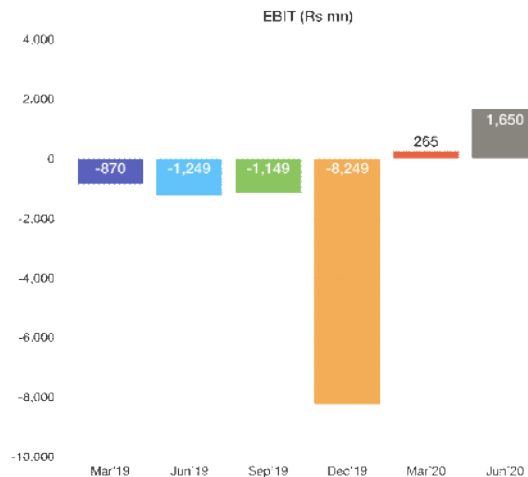


Source: Airtel Investor Presentations

Airtel has also been steadily raising money to strengthen its balance sheet and reduce debt. Net debt has come down from a level of \$ 15.6 billion in FY19 to \$ 11.9 billion. [20]

Airtel EBIT has shown a marked turnaround in the last one year. From an EBIT loss of Rs 0.87 billion in March 2019 [21], it has rebounded to a positive EBIT of Rs 1.65 billion in June 2020 as captured in the table below: [22]

Fig 1.8 Quarter wise movement of Bharti Airtel's EBIT (Rs mn) in India mobile services for the period Q3 FY19 to Q1 FY21



Source: Mint and Bharti Airtel Quarterly Report (June 30, 2020)



Airtel CEO Vittal though said tariffs remained unsustainable low, and called on the Telecom Regulatory Authority of India (TRAI) to swiftly ring in a floor price for data services. “The submissions have been made, but Trai is yet to take a decision, and this needs to be corrected soon as tariffs remain totally unsustainable.” [23]

5.0 Impact on Telecom Industry

1. Strong No.2 in India

Airtel has emerged as a strong no.2 in Indian telecom industry. The most creditable part is that it has achieved the highest ARPU in the industry through laser sharp focus on high quality data customers.

According to Gopal Vittal, CEO of Airtel, ARPUs are further expected to go up to Rs 200 in the short term and up to Rs 300 in the long term. In addition Airtel and VIL have given a joint representation to Telecom Regulatory Authority of India (TRAI) for introducing floor price for data services. [23] As per Goldman Sachs, Airtel may have closed the gap with Reliance Jio on revenue trends, and market share between the two players should not diverge from here on. Revenue at Airtel jumped 14% in the quarter ended March 2020, the highest since Jio introduced commercial services in September 2016. While Jio leads in overall customer numbers, Airtel is ahead in terms of high-value customers. [24]

The results of revamped strategy is now reflecting in strong business results:

	Unit	Q4 2019	Q4 2020	YoY Growth
Revenue	Rs Billion	152.43	174.38	14.4%
ARPU	Rs	123	154	25.2%
Mobile Data Traffic	PB	3,451	6,010	74.2%
Mobile 4G Data Customers	Mn	86.8	136.3	57%
EBITDA	Rs Billion	46.47	74.48	60.3%
EBITDA Margin	%	30.5	42.7	40%
EBIT	Rs Billion	(-) 0.90	15.05	15.95

Source: Bharti Airtel Limited – Media Release May 18, 2020

Stock market has noted the excellent performance of Airtel and it's stock has been one of the best performing stock in the Indian stock market in 2020. As a result Bharti Airtel market valuation has touched \$40 billion and it has become the 5th most valuable company in India after displacing HDFC. [25]



It has shown that discounting alone does not lead to market share gains and one can still win in the market even if your nearest competitor has the backing of India's largest market capitalisation company i.e. Reliance Industries Ltd.

2. India's first global telecom MNC

Bharti Airtel has not only posted a strong performance in the Indian market but it has also become India's first global telecom MNC with operation in 18 countries. Airtel is now the 2nd largest telecom operator of Africa. It is either no.1 or no.2 operator in 12 out of 14 countries it operates in Africa.[26]

Airtel successfully pioneered the model of 'minutes factory' (through network outsourcing), tower sharing (through creation of world's largest tower company, Indus Towers, by sharing sites with competitors Vodafone and Idea), fibre sharing, creating digital platform through partnerships & alliances (instead of acquisitions), focus on high quality customers (by shedding 49 million low value customers and curating Airtel Thanks program for high quality customers), laser sharp focus on network (first Indian operator to shut down 3G network to focus on 4G, inviting customers to give online feedback on network improvement), extremely lean organisation (steadily increasing revenue per employee), brand building (singular focus on 4G smartphone network positioning to emerge as India's 5th most valuable brand), constantly improving efficiency (through war on waste) and clear focus on financial metrics (through 3 line graph). Airtel has demonstrated how an Indian telecom operator can be amongst the top 3 operators in the world (by subscribers) due to bold vision, clear strategy and executional excellence.

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THE SOILS IN NORTH-EASTERN HARYANA: AGRONOMIC CLASSIFICATION, PROBLEMS AND SOLUTIONS

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Abstract

Soils have always been pivotal to the sustainable growth and development of agricultural crops. The physical characteristics of soil not only allow to understand the crop distribution but also aid in soil selection for specific crops. Therefore, modern agriculture scientists have accepted the soil type as one of the most important factors affecting crop cultivation and growth. This article is an attempt to study the agronomic classification of soils in North-Eastern region of Haryana. An effort has also been made to explore the factors affecting soil quality and thereby, suggesting solutions to tackle soil erosion in the region. The data has been collected from various secondary sources, published studies and articles. This study found that the soil type of the region is a combination of loam and sandy soils, intermixed with clay soil. The major proportion of the soil considered is fertile and has potential for growing the majority of crops. The upper areas of the region constitute an excessive drainage system, whereas the lower regions lack such availability, resulting in soil degradation and crop damage. Keeping in view the soil erosion caused due to the distribution of water resources over the region, the importance of soil treatment and water conservation for the prospective improvement of soil productivity has been stated.

Key words- Soil and its types, Agronomic classification, Alluvial Plains, Piedmont plains, Fluvial, Aeolian

Introduction

The word 'soil' refers to all the unconsolidated material occupying the earth's surface which nourishes and supports growing plants. According to S.S. Khanna¹, Soil is a natural body, synthesized in profile form, from a variable mixture of broken and weathered minerals and decaying organic matter, which covers the earth in a thin layer, and which supplies, when containing the proper amounts of air and water, mechanical support and sustenance for plants. Therefore, there are three important characteristics of soil: (i) natural Formation, (ii) differentiation into horizons, and (iii) morphological, chemical and biological differences between parental material and soil horizon.

"On the whole, soils constitute the physical base for any agricultural enterprise. Farming is a business and good soil is part of the farmer's stock in trade. Good soils are good to

¹S.S. Khanna, D.V. Yadav Practical Manual for Introductory Courses in Soils, Haryana Agricultural University, Hisar, 1979, p.5



the extent that man makes judicious use of them”.² Soils provide both mechanical support to plants and supply the required nutrients for plant growth. A balanced supply of all the mineral elements are important as limited supply of an element is detrimental to crop growth, yield and its quality. As a matter of fact, the modern agricultural scientists have accepted the soil type as one of the most important factors affecting the growth of plants. Therefore, maintaining soils in a state of high productivity on a sustainable basis is important for meeting the basic needs of an agricultural region.

The soils are products of climate and there is a great variation in climatic factors from place to place.³ The distribution and pattern of soils in North-eastern Haryana is complex, reflecting a variety of parent material, the range of the distribution of rainfall and temperature and variation in the intensity of irrigation, land use and hydrological hazards.

Location of the Study Area

The study region is a plain area about 250 to 700 meters above the mean sea level and is located between 30°N to 30°30'N Latitude and 77°E to 77°30'E Longitude in the sub-tropical belt of India. It covers a total geographical area of 2472.34 sq. kms. forming about 5.6 per cent of the total area of the state.⁴ The region makes the boundary with Sirmour District of Himachal Pradesh, Saharanpur district of Uttar Pradesh, Karnal, Kurukshetra and Ambala districts of Haryana. Whole of the area forms a part of Indo-Gangatic Alluvial plain. This was a deep depression or syncline depression lying between region in the south and Himalayas in the north. The entire area was formed as a result of alluvial deposition by the tributaries of Yamuna, Saraswati and Markanda. Thickness of the alluvium varies from 1000 meters. to 2000 meters. The fluvial and Aeolian sedimentations and erosion are the common geomorphologic processes in the region. The combined effect of mountains in the catchments area and pattern of monsoonal rainfall results into distributions of sediment load and due to high fluctuation of discharge in the Yamuna River broadening and meandering of river occur. The study area lies between two main rivers of Haryana State viz the Ghaggar and Yamuna, which is partly sub-mountainous with slope towards south-west. This sub-mountainous tract comprises of the low hill chain of Shiwaliks and a considerable portion of Jagadhari along the North-east border. Except the sub-mountainous tract, the rest of Indo-Gangetic region comprises of Alluvial Plains.

The Agronomic Classification of Soils

The soils in the study region vary widely in color; depth and texture, as it comprises the Shiwalik belt and its plains. It varies shallow to very deep and medium to moderately fine texture. The soil of Shiwalik area is yellowish, brown to dark yellowish brown in colors while in plain area it is white yellowish brown. Soils of the plains are normally loam and sandy loam type with mixing of clay soil, which mainly formed by Markanda,

²Jasbir Singh, S.S. Dhillon, Agricultural Geography, IInd ed., New Delhi, 1994, p.75

³See Harry O. Bucknan, Nyle C. Brady, The Nature and Properties of Soils, New York, 1969. pp. 297-298, Jasbir Singh, S.S. Dhillon, op.cit, pp. 77-78.

⁴ Sources: Statistical Abstract, Haryana, 2001.



Yamuna, Saraswati and their tributaries. These types of soils are of medium soils as has been categorized by National Bureau of Soil Survey and Land Use Planning (Indian Council of Agricultural Research) and as also by Jasbir Singh in his work *An Agricultural Geography of Haryana*.⁵ These soils have differential sugarcane crop growth potentiality. The agronomic classification and characteristics of the soils of North-eastern Haryana have been described under the following major physiographic categories (Fig. 2)

a). Soils of Shiwalik Hills

The soils of Shiwalik hills are in general developed on sandstone, shales and conglomerates. Soils are confined to small strips and terraces along the intervening valleys. These varies shallow to moderately deep, well to excessively drained, dark reddish brown, loamy-skeletal occurring on moderately steep to steeply sloping hills. They have been classified as Loamy-skeletal Typic Ustorthents. Sandy hills sprinkled with boulders are a usual phenomenon. Colluvium, the imperfectly sorted material that has been moved down by gravity, frost action, soil creep and local wash, is found near the base of strong slopes. Its existence is also usual in the upper parts of the piedmont plain where, if sorted at all, it is only poorly sorted and includes materials moved by local wash and water local alluvium is found at the base of the slopes and along small streams. Most of the area is under forests and rock outcrops. All the soils in this tract are moderately to severely eroded, gravelly on the surface and throughout the profile depth. These soils are rich in organic matter and have high fertility status. Shallow depth, gravel and moderate to severe erosion are the constraints of these soils.

⁵Soils of Haryana: Their Kinds, Distribution, Characterization and Interpretations for Optimising Land Use, (Pub. 44, Series 3), 1995; Geomorphology, Soils and Land Use of Haryana (Bull. No. 9), National Bureau of Soil Survey and Land Use Planning (Indian Council of Agricultural Research), Nagpur, 1983.

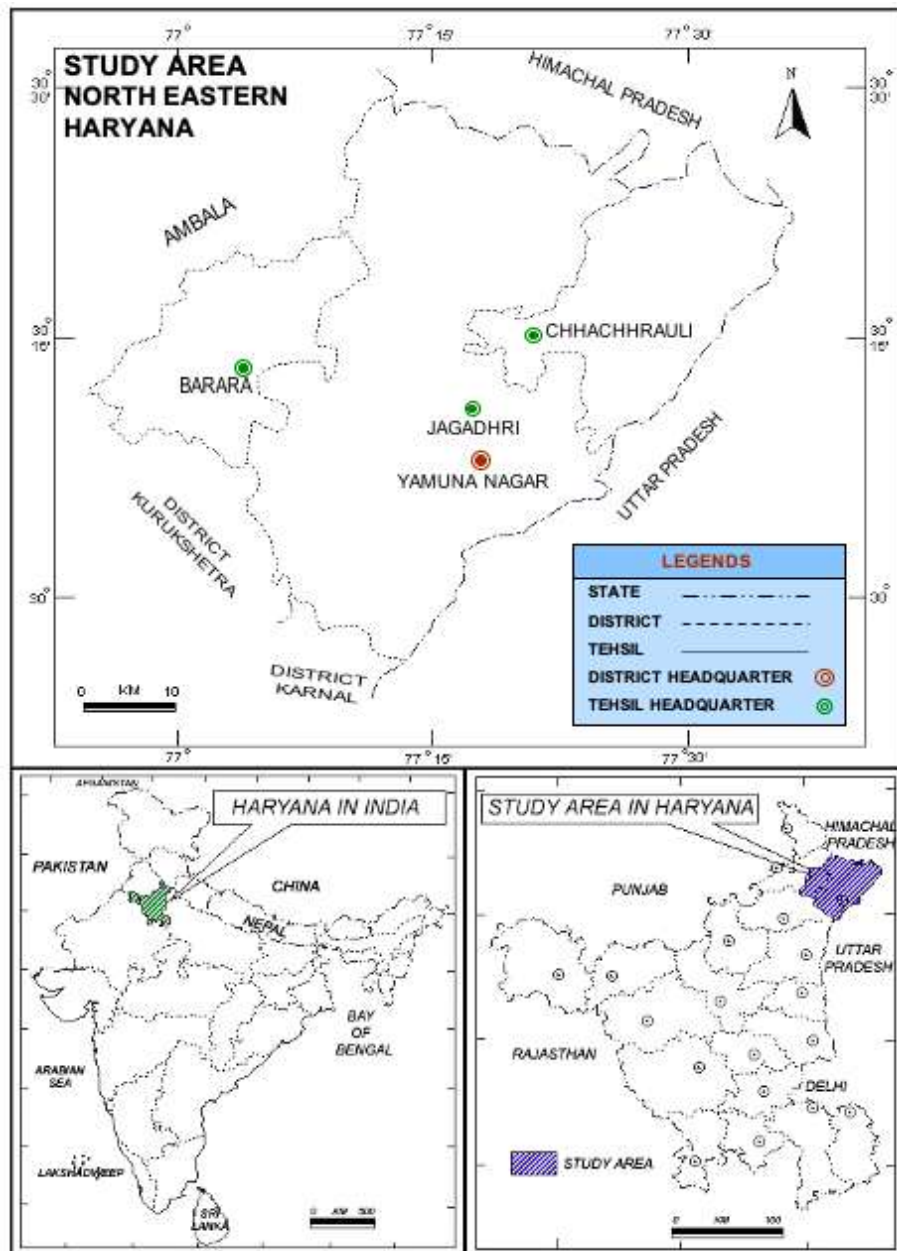


Figure 1



b). Soils of Piedmont

The Piedmont Plain is a transitional zone between Shiwalik hills and the plains. This tract, known as *Kandi* in Jagadhari tehsil, and *Ghar* in Kalka and Naraingarh, is mostly covered by sandy shingly soil. *Kandi* being throughout a sandy shingly broken area much honey-combed locally called as *Darrar*. The dominant soils are deep, fine-loamy, moderately well to well drained, occurring on nearly level to very gently sloping plains. They are classified as Udic Ustochrepts. The soils of this plain are poor and sandy, lying on uneven surface, and problems, shingles and boulders often lie close to the surface.⁶ At many places they are under thin forests and orchards. Main constraints of the soils of this are moderate erosion, gravelliness, low fertility; moderate soil depth and less water storage. Soils of this zone are cultivated for sugarcane and wheat, maize etc.

c). Soils of Old Alluvial Plains

Soils of Old Alluvial Plains constitute the central and southern part of study area and dominant soils are deep, well to moderately well drained, mostly non-calcareous, fine-loamy (Bangar and Nardak) with or without salinity/sodicity problems. These are medium-textured soil and comprise soil of great variation nature resulting from varying physical compositions in terms of silt sand and clay proportions. They are the most potential soils of the study region with good fertility and water holding capacity and capable of producing a variety of crops such as wheat, maize, cotton, rice, grams, various pulses and vegetables besides sugarcane. These soils are retentive of moisture and thus crops such as sugarcane and maize are grown without irrigation. Further, these soils respond very well to the application of fertilizers and irrigation.

d). Soils of Recent Alluvial Plains

The soils of this categories are coarse-loamy and sandy (Locally known as Khaddar), a medium-textured soil tract in the study region. They have been classified as coarse-loamy, calcareous as well as non-calcareous Typic Ustfluvents and coarse-loamy and or fine-loamy, Fluventic Ustochrepts. These soils form the flood plain of the Yamuna River and a significant portion of the region along the Markanda seasonal drainage system in Barara tehsil of the study region, known as bet. They are liable to usual floods during heavy rainfall increasing season. Sub-soil water of good quality facilitates intensive farming. From structural and textural point of view, the soil is suitable for sugarcane cultivation, however, on account of soil erosion, deterioration is rapid.

e). Soils of Active Flood Plains

The soils of this category are confined along the river courses and in the filled upriver channels in the study region. The active flood plains of river Yamuna, as depicted in the map, are comparatively broader than those of Ghaggar, Markanda and Saraswati. The dominant soils are very deep, moderately well drained, coarse-loamy, classified as Typic Ustifluvents. Seasonal flooding, poor fertility and soil structure are main limitations of these soils. The protection of crops from flood water is important.

⁶Jasbir Singh, op.cit., p. 96, Soils of Haryana: Their Kinds, Distribution, Characterization and Interpretations for Optimising Land Use, (Pub. 44, Series 3), 1995.

Thus, the region under study is under different types of soils. It has different slope starting from 3 percent to higher up to 30 percent. As regards the PH value of the soils of this region, it is almost natural as per soil testing analysis by Department of Agriculture, Haryana. However, as per year wise survey of availability of nutrients in soil conducted by Department of Agriculture, Haryana indicates that soil in the region is mostly deficient in organic carbon (nitrogen nutrient) and phosphorous and medium in potash availability. These nutrients are essential for maximum yield of sugarcane crop; therefore, use of commercial fertilizers is essential for better results. (Fig. 3)

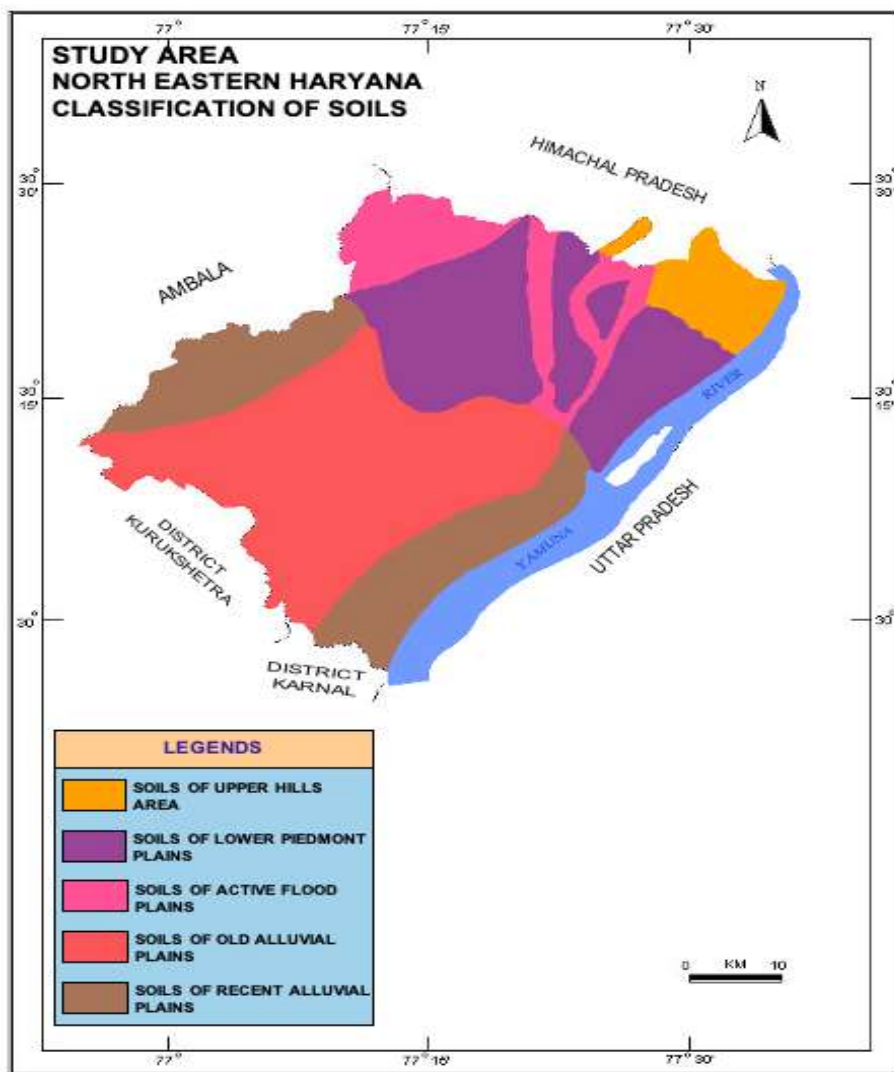


Figure 2

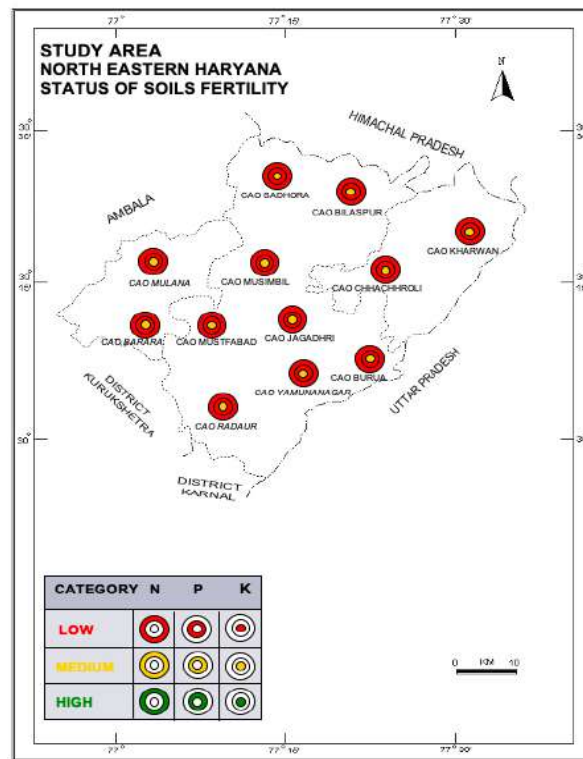


Figure 3

Soil Problems

Almost all types of soils have some types of problems; however, their degree of intensity may vary from soil to soil and from region to region. The soils of North-eastern Haryana also pose two major problems and these are a) soil erosion b) General flooding. These problems create serious threat to the yield of sugarcane and other crops of the area.

a). Soil Erosions

Water erosion is the major problem in this area as it comprises of hills, foothills and the flat plains. The upper hill area of the study region has the highest average annual rainfall i.e. over 1250 mm. and the highest monthly intensity of monsoon rainfall i.e. over 400 mm. As discussed earlier, the area has umber of rivers and their tributaries or 'choes' which wash away the fertile topsoil in the hills and regenerating silt and fragile and carry a large amount of silt sand and general causing devastation in the plains. Another kind of damages is identified on steep slopes by sheet erosion due to heavy rainfall. The area of Chhachhurali, Bilsaspur, Sadhura and some part of Barara having this problem with high level of soil erosion due to heavy rainfall. This leads to the formation of

gullies and ravines in these areas. On both sides of the river Yamuna and of other rivers of the region, a large area has been damaged under the influence of water erosion (Fig. 4). Wind erosion is not so significant in this region although it does exist. During the summer months, for dry winds some amounts of sand from the dry open beds of the rivers and *choes* and spread them indiscriminately over the adjoining cultivated area.

b). General Flooding

Flooding during the rainy season is a common feature of the region, as it is surrounded on all sides by rivers and *choes*. During the rainy season the rivers and *choes* spread over large areas, causing damage to cropped and common life. Soil degradation problem due to stoniness has also been observed in the region on the surface of the moderately to steeply sloping soils of Shiwalik hills in combination with erosion due to water and to a very little extent associated with wind erosion.

Conclusion:

The major part of the soil in North-eastern Haryana is loam and sandy loam, intermixed with clay soils. On the whole, the soils are fertile, respond to irrigation and support crop cultivation. Nevertheless, the agricultural potential largely depends upon the climatic conditions, particularly on rainfall. Excessive drainage system in the upper regions and lack of drainage in the lower areas consequently damage the crops and degrade soil fertility. Keeping in view the water erosion in the affected areas, urgent treatment of soils and water conservation are required to improve the productivity of the land and sustainable cultivation

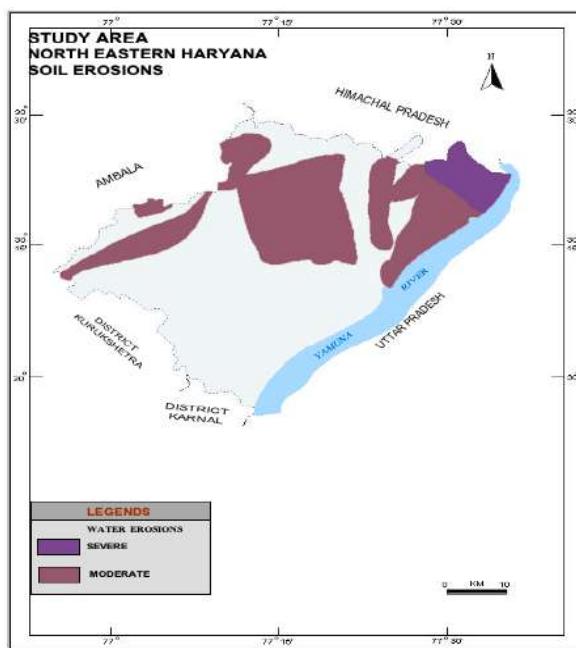


Figure 4



INCUCLATING RELIGIOUS AND PHILOSOPHICAL VALUES TO HUMANIZE THE DEHUMANIZED

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Abstract

Religious and Philosophical values are essential to live a good life for each individual in the world. Without moral values the world is thrown into chaos. But the religious and philosophical values and value theories have been safely put to dustbin by the so called contemporary people in the world who claim to be highly civilized apparently while essentially ruined with constant fear. As a result of failure to inculcate the religious and philosophical values, people today engage endlessly in jealousy, anger, hatred, domination, expansionist attitude, protectionism and many other evil practices that have utterly dehumanized them. Thus the aim of this paper is to set light on the contemporary human evils committed everyday in satisfying human greed and selfishness and thereby to highlight the necessity of inculcating religious and philosophical values in order to create better human society in the world today. Informations have been collected from the secondary data in order to substantiate this paper.

Key Words: Religion, Philosophy, Values, Dehumanize, Humanize.

Introduction

All religions and philosophical systems in the world have highly acceptable moral values that are extremely helpful in building good moral characters of individuals in human societies throughout the world and so essential to create good human beings worthy to be called civilized. Moral values like love, compassion, sympathy, empathy, selflessness, truth, sacrifice, nonviolence, ahimsa, etc. are the essential teachings in all the great religions of the world. Philosophers like Socrates, Plato, Aristotle, Immanuel Kant, Noam Chomsky, Sankaracharya, Ramanuja, Vivekananda, Radhakrishnan, Tagore, Jidu Krishnamurthy and many others from both West and East have propagated important moral values that are necessary to humanize the dehumanized and thereby create better human society. But the modern people have greatly neglected those values with pretentious attitude of ignorance in order to apparently justify their dehumanized acts performed in pursuit of material greed and as consequence hatred, bloodshed and atrocities among humanities have created irrevocable lose in the world today. So it is the need and call of the hour that the religious and philosophical values must be inculcated among all the individuals so as to create good humanity with highly civilized moral values and thereby neutralize the evil in the world today.

Religious and Philosophical Values: A Brief Overview

The concept of morality as an important characteristic of religion is patent mostly in so called institutionalized religions like Christianity, Buddhism, Hinduism, Islam, Judaism and others. Buddhism officially emphasized morality like the adherents of other Hindu religions in order to reach one's own nirvana. Moral values have to do with man's



relation to his fellow men, rather than with his relations to gods or other spirits. Morality has to do with objects and places only in a secondary way and is the antithesis of self-seeking. Moral principles and moral actions are concerned with the promotion of the welfare of, and justice toward, other persons. Principles and behavior that involve taking advantage of other persons, or recklessness of the welfare of the others, are therefore immoral (Dunlap, 1946).

One who lives the moral force of love, truth and sacrifice, is ready to sacrifice his/her life for the sake of others. Love and love alone is the secret of man's glory. All religions are founded on the principle of love and the secret of honor of man is sacrifice. Love and truth are Ahimsa. If you agree that love is God the eternal and if truth is also God, there remains no doubt that Ahimsa is eternal (Vasudev, 1990). Religions teach us the highest values of human life so as to unite us with supreme being or so called God. Those values are found to be universally valid for people of all generations irrespective of any religious affiliation because they inspire each individual toward becoming a better person. The values like love, compassion, sympathy, self-sacrifice, patience, tolerance, justice, etc. are applicable for everyone in the world. Such religious values need to be cultivated in each individual so that peace and harmony in the world can be an existential fact. The founders of religions have not only preached the principles of moral values but also tried to live with whole effort whatever they have preached in order to make sure that those values are not only idealistic but also practically possible.

Like religion, philosophy has given rise to important values that are undeniably important to encourage and inspire good character building of every human individual to foster a genuine human civilization in the world today. Philosophy as a subject, is a reflective and critical examination of thought, knowledge and concepts in general. It is for this reason that in the age of our great ancestors itself some individuals laid solid foundations to the scientific inventions of this day. Thus, many of the great philosophers in the past and even in the present have been the resources of great values that are meant for fostering peace and development for entire generations whether of the past, present and future. Many philosophers like Socrates, Plato, Aristotle, Immanuel Kant, Vedic seers, Confucius, Buddha, and some others raised fundamental questions about human life and tried to find out some solutions. They condemned any form of violence against humanity. Michel Foucault, the French philosopher too condemned acts of violence (Barker, 2003). This is how moral philosophy, virtue and spiritual paths were floated and advocated. Philosophers not only propagated new value systems but they also tried their best to live in accordance with whatever they had preached.

The early Greek Philosophers, namely Socrates, Plato, and Aristotle examined the basic questions relating to human society and tried their best to live in accordance with the moral and political ideals they advocated for the good of whole humanity. Confucius taught to inculcate good will towards one's own neighbor. Kant says that the only thing that is good without qualification or restriction is a good will (Kant, 1956).

Since ancient days, saints, wise men, and philosophers have advocated certain ideology to be practiced by human beings in order to avoid war, hatred and conflicts in human society. Buddhism says,

Kill not-for pity's sake-and lest ye slay

The meanest thing upon its upward way(Nyanaponika).



In various world cultures, including primitive and tribal cultures, philosophical ideologies and ideas have been advanced. In Vedic and Upanishadic traditions concepts like Dharma, Karma and Mukti have been advanced to be put into practice. Mahavira, Sankaracharya, Ramanuja, Gandhi, Radhakrishnan, Robindranath Tagore and many other Indian philosophers have also advocated similar moral values. But in the long run, people have forgotten these values being blinded by the materialistic spirit.

Dehumanized State of Humanity

Human beings bring destructions upon themselves by their own knowledge. They have strayed from the righteous path after acquiring greatness through science. In this connection it may be mentioned that politics in accompaniment with scientific inventions is a kind of power to subjugate and manipulate others. The growth of science and technology is of great help to politicians to emerge as super power in the world. The strong will for domination among world countries is clearly visible in continuous war of words and often wars of bloodshed in the recent years. Various disputes such as territory, trade and business are also the signs that there is tough competition among the countries of the world. Today the most dreadful, disastrous weapons are being stockpiled in the race for arms. Clouds of war are overcast. Man is creating the means for his own annihilation, bringing doomsday near. May I ask why those who claim themselves the custodians of world peace invent destructive weapons? Why are they producing materials of war (Vasudev, 1990)?

Modern human beings have become greedier, selfish and avaricious throughout the world more than ever before. In other words, we have not put into practice a single idea of the value system propounded by the philosophers and the religious people. As a result, tensions and conflicts are reigning in the contemporary world. On August 6, 1945, during World War II (1939-45), an American B-29 bomber dropped the world's first deployed atomic bomb over the Japanese city of Hiroshima. The explosion wiped out 90 percent of the city and immediately killed 80,000 people; tens of thousands more would later die of radiation exposure. Three days later, a second B-29 dropped another A-bomb on Nagasaki, killing an estimated 40,000 people. Japan's Emperor Hirohito announced his country's unconditional surrender in World War II in a radio address on August 15, citing the devastating power of "a new and most cruel bomb (Bombing of Hiroshima and Nagasaki-World War II-History.Com, 2017). Further, the killing of six million Jews by Hitler is another historical fact that clearly suggests that human beings have become dehumanized to a great extent. Not only in the remote past that rampant killings had occurred but also in this 21st century we are witnessing random killings everywhere in the world. Frequent killings in Syria, Pakistan, Afghanistan, European states, and USA that we witness in everyday news are the signs that the world is getting filled day by day with more and more dehumanized people.

Wars and violence of various types keep on raising their ugly heads from time to time in various parts of the world today. There are murders and various kinds of atrocities committed by militants and government soldiers in some of the Middle East countries and recent beheading of the two Indian soldiers by Pakistani military men on the border of India and Pakistan are clear instances of dehumanized acts. Hindustan Times reports, "Pak army carried out unprovoked rocket and mortar firing on two forward posts on the Line of Control in Krishna Ghati Sector... Simultaneously a BAT (border action team —



an amalgam of terrorists and Pakistan army regulars) action was launched on a patrol operating between the two posts. In an unsoldierly act by the Pak army, the bodies of two of our soldiers in the patrol were mutilated” (Pakistan's latest barbaric act: Bodies of two Indian soldiers mutilated , 2017). Our country has lived now for more than six decades as united India, but this period of six decades has not been always happy in our life as a nation (Snaitang, 2009). Because within the country itself we find discriminations among various groups of people based on race, religion, language, color etc. In 21st century society such acts are very much unbecoming and so dehumanizing. Our arrogant modernist view of ourselves as absolute and all-powerful, capable of rising above history and mastering the world, thus comes at a considerable cost (Falzon, 1998).

There are problems in the world. Deep down there is unrest. Due to this inner feeling of unrest, people feel isolated, they get depressed, have mental uneasiness, mental suffering. This is the general atmosphere. Real justice and honesty are impossible within cunning feelings. Wanting to benefit others but deep down having a selfish motivation is again impossible. If you talk about peace, love, justice, etc., but then when things are actually affecting you, forget all about them and, if necessary, suppress others or even make war, this is a clear sign that something is lacking.

This troubled atmosphere is our current reality. People may feel that the opposite of this, the internal transformation is merely idealistic and not related with our situation here on earth. However, if this present atmosphere in which everything depends on money and power and there is not much concern about the real value of love continues, if human society loses the value of justice, the value of compassion, the value of honesty, we will in the next generation or farther in the future face greater difficulties and more suffering.

Religious and Philosophical Values must be Inculcated

Time has come now to imbibe and put into practice the ancient values and moral system. These will go a long way to reduce tension and conflict in the contemporary period. What is needed now at present is not to create more researchers in destructive technology and bombs but to make all efforts to create good human beings. More money, more comfort and more luxury are not necessary to live a good and fruitful life as all saints and seers of all religions have proved it. I would humbly suggest in this connection that value centric and value education should spread among the young people.

Both religion and philosophy teach us diverse forms of values like loving one's neighbor, being selfless, kind, generous, tolerant towards others every aspect, not being aggressive, compassionate empathetic etc. Renunciation is another important value for promoting and exercising selfless acts towards others. Detachment from action, or even non action, leads to spiritual emancipation (Flood, 1996).

We must understand who an individual is with reference to others in order to get rid of egoistic behavior. Underlying all is the valid feeling of 'I', and on a conventional level, there is an I- "I want happiness," "I do not want suffering." It is a natural feeling validated simply by the fact that we naturally and correctly want happiness and do not want suffering. Based on that feeling, we have the right to obtain happiness and the right to get rid of suffering. Further, just as I myself have this feeling and this right, so others



equally have the same feeling and the same right. Through this, we can experience that the majority-the other limitless beings-are more important than the single person 'I'.

If I am used for the majority, it is right. If others are used for this single I, it is absolutely wrong. Even if you can use these others, you will not be happy, whereas if this one single one contributes, serves as much as he or she can, that is a source of great joy. It is in terms of this attitude that real compassion and love for others can be developed. Compassion which is based on such reasoning and feelings can be extended even to one's enemies. The development of love is basic and it also includes an *agapeistic* frame of mind (Yandel, 1973).

The important thing is that in our daily life we practice the essential things like improving human beings, developing a sense of brotherhood and sisterhood, love, etc. and on that level there is hardly any difference between Buddhism, Christianity, Hinduism, Islam or any other religion. We must implement these good teachings in daily life so that it goes beyond mere ideology just as the saying goes that there is more to being a Christian than believing the right things (Chryssides, 2007).

That we humans can help each other is one of our unique human capacities. We must share in other peoples' suffering; even if you cannot help with money, to show concern, to give moral support and express sympathy are themselves valuable. This is what should be the basis of activities; whether one calls it religion or not does not matter. In politics, if you have a good motivation and with that motivation seek to better human society, such a politician is a right and honest politician. Politics itself is not bad. We say, "Dirty politics," but this is not right. Politics is necessary as an instrument to solve human problems, the problems of human society. It itself is not bad; it is necessary. However, if politics is practiced by bad persons, out of cunning and lacking the right motivation, then of course it becomes bad. To get rid of bad politics we must imbibe ourselves with sound religious and philosophical values.

Thus love, respect for others, honesty, sympathy, and other values that cover the fields of politics, economics, business, science, law, medicine – everywhere are important to make good human beings on earth. These values can help humanity to be good. Without religious and philosophical values, science and technology, instead of helping, bring more fear and threaten global destruction.

Conclusion

Whether we succeed or not is a different question but what is important is at least we make the attempt to form a better human society in this contemporary world on the basis of love and other religious and philosophical values. The people who deal daily with current problems must focus on the immediate problem but at the same time must look at the long-term effect on human society. The deliberate bombings in various parts of the world in today's world as a process of annihilating or subduing the enemies will have long impact on life on earth and so it will affect our future generation apart from being evil to the present generation. If we concentrate wholly only in the short-term benefits without taking into account the long-term aspect of future of humankind, we are bound to fail.

In this world at the present moment, not just nation to nation, but continent to continent we are heavily dependent upon each other. Hence it is essential that there be true cooperation. Then we can solve many problems. Good relations, heart to heart, human



to human, are necessary in order to humanize the dehumanized in today's world. And this goal can be achieved by means of upright values of religion and philosophy.

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UNLEASHING FACULTY ENGAGEMENT THROUGH 720 DEGREE PERFORMANCE APPRAISAL MECHANISM

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INTRODUCITON

In this rapid changing and competing world, academic leaders know that having a high-performing and engaged workforce is essential for growth of any institution. Human resource (HR), the most important and significant asset in any organization. The present scenario tells us that the overall effectiveness of any organization depends highly on its ability to observe the engagement-cum-performance of its faculty members. This insists on an establishment of effective appraisal mechanism. Performance Appraisals is the assessment of individual's performance in a systematic way. Assessment should be confined to past as well as potential performance also. The 720 Degree appraisal is emerging as a possible alternative technique to leverage faculty's engagement level to leverage overall effectiveness of educational organization. The 720 Degree Performance Appraisal system is a kind of double check for the 360 Degree Performance Appraisal system.

LITERATURE REVIEW

India have started to depart from the traditional method of evaluating performance which is "top to down appraisal" normally carried out by the superior (Anupama et al. (2011) to contemporary methods. 720 degree appraisal a method that uses various sources of evaluation such as supervisors, peers, subordinates and the employees themselves and also provides multiple perspective of the individual's performance in order to reduce subjective assessment errors (Sepehrirad, R., Azar, A., & Sadeghi, A. (2012). According to Bowman J. S., (1994), "personnel ratings have created tensions, defensiveness and avoidance in the part of both superior and employees which usually does not improve performance". An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization. Studies (Mone and London, 2010) suggest that fostering employee engagement will lead to higher levels of performance. Along these lines, we argue that the performance will be enhanced by focusing on employee engagement as a proximal outcome and fundamental determinant of job performance.

RESEARCH METHODOLOGY

- Sampling Method: Stratified proportionate random sampling, Targeted sample: Teaching faculty in Arts and Science colleges in Chennai city, Sample size: 527 teaching faculty,
- Data Collection: Primary – Administered questionnaire and Secondary data.



OBJECTIVES

Keeping the above in view, the present study was conducted with the following objectives:

1. To identify the need and the significance of the 720 degree performance appraisal in leveraging faculty engagement and performance.
2. To unleash the factors influencing the teaching faculty's engagement level.
3. To study various clusters of faculty in colleges based on engagement cum performance.

720 DEGREE PERFORMANCE APPRAISEMENT VS. ENGAGEMENT

The main need of 720 degree performance appraisal is the improvement of the performance of the people in their jobs and to ensure that the expectations of the Management, Teaching faculty and the stakeholders are met. In other words a 720 Degree Appraisal is basically a 360 Degree Appraisal performed twice. When 360 degree appraisal is done, then the performance of the employee is evaluated and having a good feedback mechanism, the boss sits down with the employee again a second time and gives him feedback and tips on achieving the set targets. Including the pre and the post feedback, that plays a vital role, the 720 Degree performance appraisal has 7 phases:

a) Pre Appraisal Feedback: A first appraisal step after the feedback is collected from the different people with whom the faculty would interact. This step is more of development focused than performance alone, and supplements training and development functions in a better way. It is needed to ensure that faculty members reach institutional standards and objectives.

b) Self-Appraisal: The teacher evaluates his/her performance by given a questionnaire through this method. They get an opportunity to discover the work potential and express the thoughts, strengths, weaknesses and judge his performance, understand the areas where training is required to perform best.

c) Peers/Colleagues Appraisal: Feedback from the peers or colleagues helps to understand the ability of the faculty to work as a team, co-operate, coordinate with others and bring out the best.

d) Stakeholders' Appraisal: Their feedback helps to improve the performance of the faculty and the Institution, as high stakeholder satisfaction helps to survive in this competitive field, by diagnosing deficiency regarding professional skill, knowledge, and competency.

e) Sub-Ordinates Appraisal: The faculty who work under the superior in the hierarchical structure of institution, appraise their superiors (HODs or senior faculty) in terms of his/her abilities like communication and motivating abilities, ability to delegate the work, leadership qualities and way of handling institutional responsibilities.

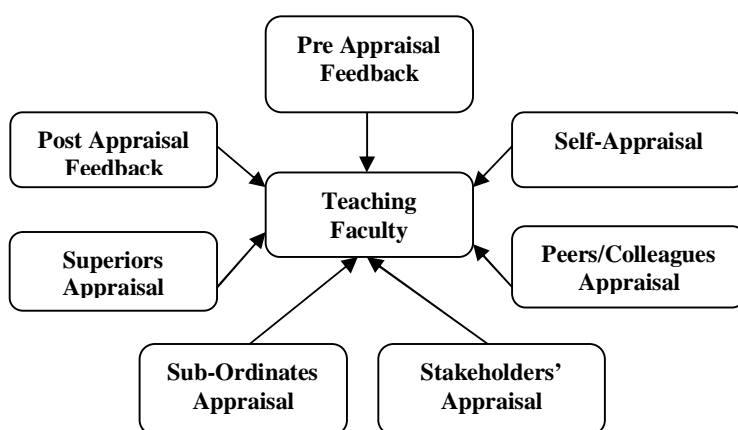
f) Superiors Appraisal: In this, the performance, responsibilities and the attitude of the faculty is evaluated by the Superiors (HOD) or Managers (the Management). Their timely information about the performance status make the faculty understand the expectations and prevent grievances in institutional activities.



g) **Post Appraisal Feedback:** It is this step that makes the 720-degree performance appraisal different and better than the 360-degree performance appraisal method. In this step, the performance is evaluated based on the performance during the period of the Pre appraisal and feedback is given. Timely feedback and guidance helps to make the faculty improve the performance. A Model of 720 Degree Performance Appraisal is projected below:

7.2 The Need Of

e Appraisals In The Modern Business World



“Engaged employees are the best performers, whereas the unnoticed ones will perish”. Highperforming employees can be demoralized by feeling that their work goes unnoticed or by seeing lower performers receive the same treatment and compensation that they receive” (Gesme& Wiseman, 2011, p.131).Engagement is also promoted by feedback, because it fosters learning, which increases job competence and the likelihood of being successful in achieving one’s work goals (Bakker & Demerouti, 2008). Better feedback gives better performance management. Hence, providing supportive feedback allows employees to know that superiors care about their performance and success, which increases their levels of engagement (Marciano, 2010).Engagement and Performance are not separate initiatives.A thoroughly integrated network of teaching mentors and teaching talks are required to achieve through effective performance mechanism (Mmako and Schultz, 2016). Additionally, studies have shown that rewards and recognition, feedback, and fairness lead to good performance and engagement.

FACTOR ANALYSIS

The performance of faculty members is ascertained through 40 variables in Likert’s 5 point and their respective reduction are done through factor analysis of the principal



component method. The KMO measure of sampling adequacy is 0.921 suggests excellent sampling adequacy and Bartlett's test of Sphericity with approximate Chi-square value of 9401.231 are statistically significant at the 5 % level and indicated the strength of the relationship between variables.

Factor 1, termed "**Institutional Connect**", depends on 6 items that bring out the faculty members' feelings of attachment and belongingness towards their employing institution. It arises from how far the faculty members feel valued and concerned in the institution. It explains how the institutions can create a connect with their faculty members to resolve their grievances in sprits of value system. Engagement cannot be just manufactured and has to be cultivated in the hearts and minds of every faculty through the mission and vision of the institution.

Factor 2, called "**Personal Accountability**", formed by the combination of 2 items that describe how far the faculty members are held accountable for the quality of output (results) achieved through their behavior and actions. Faculty members do their jobs with more confidence, when they have job knowledge and professional competence in carrying out teaching, research, mentoring and service activities properly. Faculty members take this accountability as an opportunity to grow.

Factor 3 is cited as "**Conducive Environment**" as it is impacted by 4 items that describe how far the working environment is growth oriented, encouraging and rewarding for the faculty members. Long-term engagement starts with good relations between employer and employees. The former must offer required professional advice to the latter at challenging times, fostering a positive working environment and the growth of the institution.

Factor 4, is termed "**Role Clarity**", after taking together 2 items that go with the faculty understanding about the role expectations to do the job effectively. It refers to how clear and undoubted the faculty members are about their role and the work context and the required responsibilities towards their job to perform it correctly and deliver their services efficiently.

Factor 5 is termed as "**Employee Collegiality**" as it comprises 3 items that represents relationships with fellow academics for guidance, information, friendship, and support. Colleague support predicted job performance through self-efficacy and work engagement. It is their perceptions of trustworthiness, reliability and integrity over the administration or the management.

Factor 6 is appropriately named as "**Work Autonomy**" as it discusses about 6 items related to the level of freedom or independence given to faculty members over academic activities that make them feel flexible at work. It is inclusive of the freedom given to relate with all colleagues and enjoy teamwork among faculty members, to adopt innovative teaching methods, to plan their workload and to express their academic views. Administrators should provide autonomy except in proven cases of academic incompetence.



Factor 7, coined after 3 items as **“Inducing Incentives”**, speak about that a pure transactional relationship between the institution and its faculty members is not going to reap discretionary effort. Institutions have to offer a set of tangible and intangible benefits to their faculty members by way of pay, rewards, pride in the institution, feeling appreciated and respected that improves their engagement and performance level.

CLUSTER 1

This group can be named as **“IMPROVEMENT SEEKERS”**. They are the individuals who are looking for improvement in terms of effective appraisal practices, confidence and trust level on employees and job incentives to motivate them.

CLUSTER 2

This group can be named as **“CONTENTED FACULTY”** as they have moderate feeling towards Institutional Connect, Work Autonomy and Inducing Incentives. Contented Faculty, continue to work in the mental satisfaction, though they get tension and feel stressed due to the pressure from all sides.

CLUSTER 3

This group can be named as **“CULMINATED FACULTY”**. Culminated Faculty are those who want to reach heights and very much satisfied with the management's performance appraisal practices.

RECOMMENDATIONS AND CONCLUDING REMARKS

The performance appraisal is not merely an annual event; it is an ongoing process. It acts as a coach who observes performance throughout the year and provides useful feedback to help the staff to improve their engagement and in turn their performance. Now is the time for higher education institutions to step up and create a cultural environment that encourages and rewards new forms of collaborative, interdisciplinary, and engaged work that involve knowledge exchange with other sectors and interactions with nontraditional and nonacademic sources of expertise and wisdom. After identifying the category of faculty, PA should emphasize on developing professionalism, commitment, competencies and performance skills. When the performance appraisal measures are taken negatively by the faculty due to the stress and defense, they may even perish. Hence, values, vision and mission of the college should be reflected in the performance appraisals. Management/Authority should not fail to recognize and appreciate faculty in each cycle on good performance. 720 degree performance appraisal should be implemented in such a way that create an environment where together the principal and faculty can question, challenge and discuss goals and objectives to gain clarity. 720 degree performance appraisal establishes SMART goals

and clear and rational performance expectations towards institutional effectiveness. It helps in Engages, Encourages and promotes continuing inquiry into effective teaching practices and Promotes professional growth among teachers. “Faculty Engagement Survey” is highly recommended post appraisal. This appraisal teaching places a particular responsibility on all teachers in Chennai city to promote equitable institutional outcomes.

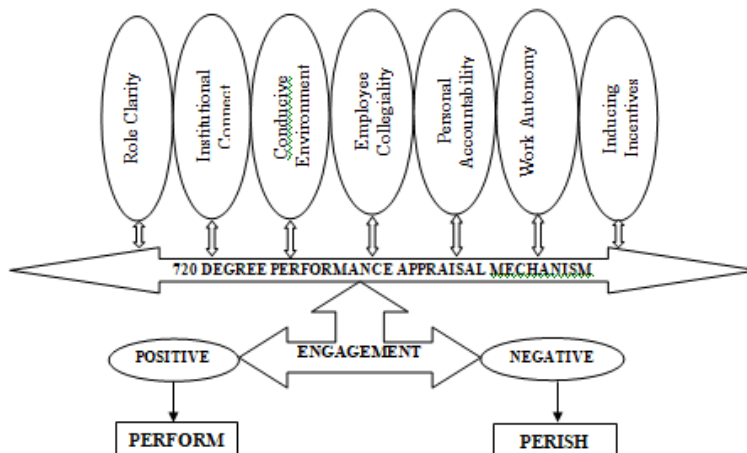


Figure 2: A modern model of Engagement cum Performance

SCOPE FOR FURTHER RESEARCH

The following areas are identified for further research:

- i) Analytical study on the opinions of the top management/ administrators on 720 Degree performance appraisal method and its implementation
- ii) Research on effectiveness of 720 Degree performance appraisal method post Covid 19.

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UNIVERSAL DESIGN FOR LEARNING: IMPLEMENTATION STRATEGIES AND BARRIERS IN INCLUSIVE EDUCATION

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Abstract

Currently there are lots of challenges in the field of special education, particularly in terms of success within the general education system or school curriculum. The typical curriculum is usually centered on printed materials and it is designed for a homogeneous group of learners and more often is not able to meet different needs of the learners. This design puts the burden on learners to adapt to inflexible curricula and on educators to fit into it.

Universal design for learning (UDL) is a structure which helps the teacher to reduce barriers and supplement learning for all learners. It also provides the opportunity for all learners to access, participate in, and progress in the general-education curriculum by reducing barriers to instruction. It also improves and optimizes teaching and learning for all people based on scientific insights into how humans learn. It ensures minimizing the barriers and maximizing the learning for all.

In today's classroom there are learners having diverse needs and inclination, in order to make sure that all learners perform well in general education curriculum, teachers have to make sure that opportunities are created for the learners to perform better as per their potential.

In the inclusive setup, it is necessary that, learners with diverse needs learn the concept with interest and attention and it is helpful for their achievement. Universal Design for Learning satisfies the needs of diverse learners in the classroom and they are able to complete the assignment, projects with proper learning. Universal Design for learning approach is the need of the hour for learners with diverse needs in Inclusive setup.

The UDL is presently emerging as a research based educational framework which provides input to the teachers so that the diverse needs of learners can be met. Neuroscience forms the foundation of UDL, which says that each student or learner has multiple intelligences, varied learning styles and learn differently in different environmental conditions; i.e. how of learning, what of learning and why of learning.

The authors in this paper tries to put forth ways of implementing UDL in classrooms and also discuss the barriers involved in using UDL.

Key words: UDL, diverse learners. Inclusive set up, Diverse needs.



Introduction:

Universal design for learning (UDL) is characterized by efforts to create universal, barrier-free access to education for all learners, including learners with and without disabilities (Thoma, Bartholomew, & Scott, 2009)

As per universal declaration of Human rights, all human beings are born free and have rights to be included, but there are various factors that leads to exclusion within our society, there has been lot of debate about the nature of inclusion an its development in educational and social terms, we still have an inadequate understanding of those conditions and factors that result in individual or groups of people being excluded (Rose, R, 2017).

With the advent of the Right for persons with Disabilities Act 2016 (RPwD), focus has shifted on creating *inclusive*, where in education to all to be provided by providing required and adapted learning materials, aids, methods etc (Rani, B 2018). Ininclusive education the special education teachers face lots of challenges while teaching the general education curriculum, because inclusive classroom consists of diverse learners and children with disabilities. Each child learn in the different way therefore the instructions have to be different for each individual learner. In this type of classroom the children face learning barriers. In order to overcome these barriers, a universally designed curriculum needs to be implemented to help the teachers in understanding the diverse needs of the children.

Universal design for learning (UDL): It is a framework that helps the teacher to minimize barriers and augment learning for all learners. During the year 1984, few educationists and clinician founded the Centre for Applied Special Technology (CAST) and they tried to develop a flexible teaching approach for education which is based on the needs of individual learners, further by reducing barriers and enhancing learning for all learners. In the early 1990, Centre for Applied Special Technology (CAST) author David Rose and team developed the principles and practices of UDL; which means a scientifically valid framework for guiding educational practice that (1) provide flexibility within the ways in which information is bestowed, within the ways in which learners respond or demonstrate information and skills, and within the ways in which learners are engaged; and (2) reduces barriers in instructions, provides appropriate accommodations, supports and challenges, and maintains high achievement expectations for all learners, including learners with special needs and those learners who have limited English proficiency skills.

Universal Design for Learning (UDL) emphasized the right of learners to a free, appropriate public education in the least restrictive environment (Hitchcock, Meyer, Rose & Jackson, 2005). The Universal Design for Learning (UDL) framework was conceived by the Center for Applied Special Technologies (CAST) researchers as the result of the alignment of three conceptual shifts:

1. Discoveries from brain research.
2. Developments in education technology and
3. Advancements in architectural design



Universal Design for Learning (UDL) and Classroom

Universal Design for Learning (UDL) is an approach to teaching, aimed at meeting the needs of every learner in a classroom. It can be helpful for all children, including children with learning and thinking differences.

Universal Design for Learning (UDL) provides the flexibility in the classroom by instructing diverse group of learners and building the flexibility in the ways learners can access information and in the ways learners can demonstrate their knowledge. Closed captions, automatic doors and accessibility features on smart phones are helpful for learners with disabilities. Here are some of the ways that Universal Design for Learning (UDL) is helpful to learners with learning and attention issues in the classroom.

- Makes learning more accessible in general education classrooms, which is where most learners with learning and attention issues spend most or all of the school day
- Presents information in ways that adapt to the learner, instead of asking the learner to adapt to the information
- Give learners more than one way to interact with material. Universal Design for Learning builds flexibility to make easier for learners to use their strengths to work on their weaknesses
- Universal Design for Learning (UDL) encourages teachers to offer different test formats, including oral presentations and group projects, to get a more accurate picture of what learners know.
- Universal Design for Learning (UDL) also looks for different ways to keep learners motivated.

Implementation of UDL in Inclusive Education:

Unlike a special education classroom, where learners with disabilities learn with only other learners with disabilities, an inclusive classroom is a general education classroom in which learners with and without disabilities learn together. Since they all are diverse learners and for them UDL is aimed at meeting the needs of all learners, here the teacher can plan the strategies with UDL, which helps to meet the diverse and variable needs of all learners.

Implementation:

• **Establish clear learning goals with the learners:** The goals need to be displayed clearly in the classroom as to make the learners understand what they are working to achieve. The goals should be clearly spelt out for the class as a whole and for each individual learner. The learners are also encouraged to write the goals in their notebook.

• Posted Lesson Goals

Having goals help learners know what they're working to achieve. That's why goals are always made apparent in a UDL classroom. One example of this is posting goals for



specific lessons in the classroom. Learners might also write down or insert lesson goals in their notebooks. The teacher refers to lesson goals during the lesson itself.

•**Ensuring flexibility of the physical learning environment:** in a UDL classroom, there are flexible work spaces for learners. This includes spaces for quiet individual work, small and large group work, and group instruction. If learners need to remove noise, they can choose to wear earplugs, ear-buds or ear-phones/headsets during independent work.

•**Determine the types of content that best support learning of the learners:** the learning content provided by the teacher should be in accessible format along with the use of technology, learners should have option for reading, including print, digital, text to speech, audio books, text enlargement, screen color and contrast, if using video then it should have captions or sub titles. It should also have the option of listening the audio in their respective languages (if possible).

•**Feedback and plan for assessments:** learners should be given feedback every day, on how they are performing. At the end of a lesson, teachers may talk with individual learners about lesson goals by encouraging the learners and reflect on the choices they made in the class and whether the goals are met, if the goals are not met then they are encouraged to think about what might have helped them to do so. A variety of questions and considerations should be used by the teacher while doing assessment.

•**Assignment Options**

In a traditional classroom, there may be only one way for a learner to complete an assignment. This might be an essay or a worksheet. With UDL, there are multiple options. For instance, learners may be able to create a poster or a collage or a verbal story to show what they know. They may even be allowed to draw a comic strip. There are lots of possibilities for completing assignments, as long as learners meet the lesson goals.

•**Regular Feedback**

•**Digital and Audio Text**

UDL recognizes that if learners can't access information, they can't learn it. So in a UDL classroom, materials are accessible for all types of learners. Learners have many options for reading, including print, digital, text-to-speech and audio books. For digital text, there are also options for text enlargement, along with choices for screen colour and contrast. Videos have captions, and there are transcripts for audio.

Barriers faced in Implementation of UDL: Since UDL is a research based framework, strategies need to be planned in a systematic way by the teachers to be used in a general education classroom. The teachers face lots of challenges while implementing the UDL in classrooms, some of the challenges are as following-

•**Support from a general education teacher:** The general education classroom or a inclusive classroom has a general education teacher and a special education teacher and both work in a co- teaching model, it is often seen that some teachers do not support



special education teachers, because of their insufficient training to work with diverse learners.

•**Support from administration:** The administrative support is compulsory to implement the UDL principles in general education classroom or in inclusive education. There are some materials like accessibility which requires financial approval from the administration, hence seeking support from administration and making them understand the need for UDL should be a priority

•**Training for General education teachers:** the general education teachers should be trained in the principles and practice of UDL for a better understanding. They should be made to understand that it creates a healthy learning environment for all learners and enrich all during the process of learning.

•**Funding:** The cost of implementing UDL is usually higher but if it is planned in advance then cost can be reduced. The impact on the learners in this environment is very high and that can not be restricted because of high cost. Implementation of UDL cannot be considered in absolute terms but must be weighed against the costs of not having a policy of this kind (CAST, 2007).

•**Time:** In implementing UDL time taken for teaching the same content in four different ways is high, hence teachers feel additional burden in delivering the UDL strategies. Some schools feel the need of completing the syllabus within the time frame and feels that implementing UDL strategies may incur time and money.

Conclusion: The term universal design is closely associated with the policies related to inclusive growth and development. The terms synonymous to ‘Universal Design’, ‘barrier-free design’, ‘accessible design’, ‘inclusive design’, and ‘design-for-all’ hold somewhat divergent historical and cultural meanings in what Iwarsson (2005) collectively refers to as the enabler concept (Ostroff, 2011). UDL was actually used in the field of architecture and paved way for Universal design for learning (UDL). Research has shown that UDL benefits all learners having diverse needs. It provides learners access to areas related to learning and their strengths/interests. It is the practice of embedding flexible strategies into the curriculum during the planning process so that all (diverse learners) learners can access a variety of learning solutions (Bhaumik, 2018). The authors in this paper discussed about the implementation strategies and possible barriers that the teacher faces in implementing UDL principles. These are not the only strategies but are suggestive strategies for UDL, the teachers in the classroom can adopt more as per the need and availability of resources.

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MOTIVATIONS, PERCEPTIONS AND INTERESTS AMONG UNDER-GRADUATE DENTAL STUDENTS TOWARDS HIGHER EDUCATION AND CAREER PREFERENCES

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ABSTRACT:

Background: In recent years the need of the specialists is increasing in the field of dentistry. Dental students were having different choices and perceptions towards specialities and other career options.

Aim: The aim of the study was to explore the motivations, perceptions and interests among under-graduate dental students of Tamil Nadu towards higher education, career preferences and identify the influencing factors.

Materials and methods: A questionnaire was formulated in Google forms and the link of which was circulated among the study participants in Social Media such as WhatsApp and Instagram.

Results: A total of 299 students participated, out of which 76.9% were females. Oral and maxillofacial surgery and conservative dentistry were the first choice of preference. Majority of the participants preferred pursuing masters in government colleges. If not post-graduation, 29.1% preferred working in clinics and 22.4% were interested in fellowship. About 43.8% of students also preferred for masters in abroad countries. Talent in the field has been quoted as major reason for pursuing master degree. About 55.9% of the participants reported post-graduation being too expensive as a discouraging factor and 93.3% of people were willing to continue their career as dentist.

Conclusion: Majority of the participants reported their willingness towards higher education but they were facing constraints to achieve their aspirations.

Key words: Abroad studies, Fellowship, MDS, PG NEET, Speciality.

INTRODUCTION:

Dentists have an important role in the society as a professional health care worker. Only a small percentage of people are able to take up dental education [1]. As there is an increase in the awareness about dentistry among the Indian population, patients prefer consulting a specialist than a graduate dentist. So the demand for specialists has



increased and the students have to undergo heavy competition [2], since only limited seats are available for dental post-graduation (PG) courses especially for clinical specialities [3]. In recent studies, oral and maxillofacial surgery has been the most sought out speciality [2]. Some graduates also search for alternative career options. Many factors may affect the career choice such as work condition, financial status, personal skills and interest [1].

AIM: The aim of the study was to explore the motivations, perceptions and interests among under-graduate dental students of Tamil Nadu towards higher education and career preferences and identify the influencing factors.

MATERIALS AND METHODOLOGY:

The study was conducted among students of various dental colleges of Tamil Nadu in India to find the interest among the undergraduate dental students to pursue post-graduation. Since this study was conducted during a COVID19 pandemic lock down period, the questionnaire was then converted into the online filling format called Google forms. Then the link of the Google form was circulated among the Undergraduate dental students of Tamil Nadu from May, 2020 to June, 2020 through social media platforms like WhatsApp and Instagram. Google form was limited to collect upto 300 responses automatically. The students were asked to participate in the survey according to their willingness. The purpose of the questionnaire was clearly explained to the participants. A self - structured and validated questionnaire with twenty seven items including demographic details and socio economic status of the participants, written in English and designed to assess factors which affects the interest among dental students to pursue their Post-graduation, was formulated. The questionnaire consisted of a combination of selected response to the questions and close-ended questions. Two themes were addressed: the students' decision to pursue post-graduation courses and their preference of specialization in dentistry and what was their career choice if they didn't want to pursue post-graduation. And an open ended question was given for people who didn't want to continue their profession as a dental practitioner. The link was kept open until 300 responses were collected, out of which one respond has been deleted due to invalid data and the final outcome was 299 responses. Participants were asked to complete and submit the responses to this online survey. All the questions were marked as mandatory, so without answering the participants cannot submit the response and by this data missing was eliminated. It took about five to ten minutes to complete the questionnaire. Subsequently summary of the responses were analysed through the Google forms itself and SPSS Software.

RESULTS:

Demographic data:

The study was conducted to assess the interest among the dental students to pursue Post Graduation. The age group of the participants ranged from 18 to 24 years and the mean age was 20.71 ± 1.90 . There were 76.9% (n=230) female and 23.1% (n=69) male participants (fig.1). Out of 299 participants, 81% (n=256) were residents of Tamil Nadu and the remaining 19% (n=43) were from other parts of India studying in dental colleges in Tamil Nadu. Among all the participants, 52.8% (n=158) resided in urban areas (fig.2). Students of all the five years had participated and the majorly were interns 29.8% (n=89), followed by 21.4% (n=64) of first years, 21.4% (n=64) of third years,

16.1% (n=48) of second years, and 11.4% (n=34) of final years. Regarding their familial backgrounds most of the participants' parents were graduates 50.8% (n=152). And 33.8% (n=101) parents were professionals by work (fig.3). Familial incomes are above 63 thousand to 1 lakh for 26.1% (n=78).

Fig.1 : Distribution of study participants according to gender

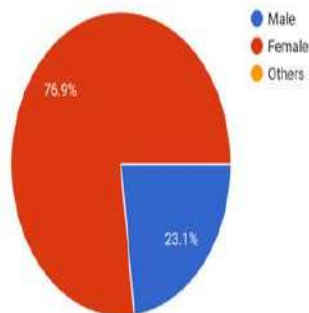


Fig.2: Distribution of study participants according to their place of residence

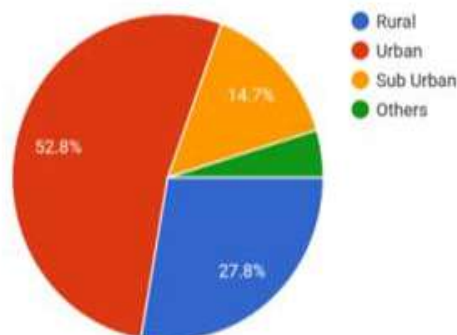
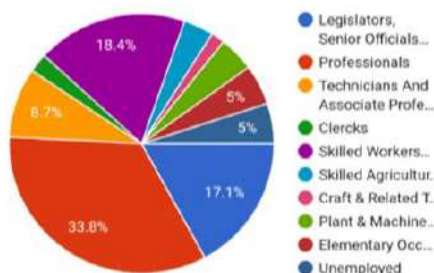


Fig.3: Distribution of study participants according to the occupation of head of the family



Interest to pursue post graduation:

Students were asked to answer wide range of questions regarding their influences, interests and perceptions of their choice of career in dentistry and pursuing post graduation. First they were asked whether 'choosing dentistry as their career was useful' for which majority i.e. 68.6% (n=205) answered yes. About 66.6% (n=199) answered that only under graduation was not enough for their successful career; 24.7% (n=74) reported that they will continue their career as dentist with graduation degree alone. Almost all i.e. 94.6% (n=283) participants were aware that they had to clear entrance examination to get their PG seats; while 49.8% (n=149) were not attending any coaching classes to crack entrance exams; 37.1% (n=111) were planning to take coaching from institutes. About 58.9% (n=176) participants reported that coaching institutes would be useful to crack examinations and 35.8% (n=107) were not sure about it. About 43.8% (n=131) of participants wanted to pursue their masters in abroad. Almost 59.5% (n=178) were willing to pursue PG while 35.5% (n=106) were in dilemma that they may or may not pursue PG. [Table.1]

Factors which may encourage or discourage to pursue post graduation:

Among the study participants 42.5% (n=127) said their talent in the field (dentistry) is the factor which encourages them to pursue MDS; whereas 31.1% (n=93) found that pursuing MDS will improve their economic status; 17.4% (n=52) were pursuing PG to satisfy expectations of their friends and family members. When asked about discouraging factors 55.9% (n=167) participants said it was too expensive; 13.4% (n=40) said it was too competitive; 11.7% found it too time consuming; 19.1% (n=57) people have other reasons. [Table.1]

Choice of specialization and its preference:

In their first preference most of the participants i.e., 47.2% (n=141) preferred oral and maxillo facial surgery; 15.1% (n=45) preferred Conservative endodontics and 14.7% (n=44) preferred Orthodontics respectively. In their second choice of preference; 22.1% (n=66) of people want Orthodontics 15.1% (n=45) Conservative 14.7% (n=44) Oral



maxillofacial surgery. When the students were asked about their college of preference in which they wanted to pursue PG; 44.8% (n=134) participants wanted to study in Government Dental Colleges; 11.4% (n=34) chose Government affiliated colleges; 3.0% (n=9) wanted to pursue in Deemed universities and the remaining 36.5% (n=109) participants were okay with any of the above colleges/universities. [Table.1]

Fellowship and other choices:

Question was raised on the participants that what they are going to do if they were not going to pursue post graduation; 29.1% (n=87) wanted to work in dental clinics; 22.4% (n=67) wanted to do fellowship; 20.4% (n=61) wanted to start their own private clinics; and 14.7% (n=44) of people strongly said they were going to do PG. And when their perceptions about fellowship courses and its benefits were questioned; 46.2% (n=138) thought that fellowship may be a better option than PG; 39.1% (n=117) thought that they can do fellowship in many specialities; 23.7% (n=71) said that fellowship can improve their hand skills. Finally when they were asked whether they will continue their career as a Dentist; 93.3% (n=279) participants said they will continue their career as a dentist while 6.7% (n=20) were having other career options in mind. [Table.1]

When questioned about awareness on entrance exams, females (n=223) were significantly more aware about it and (n=149) females felt that coaching classes were helpful to clear competitive exams compared to male participants ($p=0.005$) and it was statistically significant. [Table.2]

Based on the area of residence, when the participants were asked about what they will do if not pursuing PG, it was observed that urban participants wanted to work in a clinic or pursue fellowship and rural participants wanted to setup private practice, and these findings were statistically significant ($p=0.004$). [Table.3]

Table. 1 Distribution of study participants according to motivations, perceptions and interests towards higher education and career preferences

QUESTION	OPTIONS	(N)	(%)
1.Do You think choosing dentistry as your career was useful?	Yes	205	68.6
	No	15	5.0
	Not sure	79	26.4
2.Do you think only under graduation is enough to continue your career as dentist?	Yes	26	8.7
	No	199	66.6
	Maybe	74	24.7
3. a) Are you aware that you have entrance examinations to get your master seat?	Yes	283	94.6
	No	7	2.4
	Maybe	9	3.0
3. b) If yes,are you attending any coaching classes for entrance examination?	Yes	32	10.7
	No	149	49.8
	Planning to attend	111	37.1
	Not aware of entrance exams	7	2.3
4. Do you think coaching classes are helpful to clear competitive exams?	Yes	176	58.9
	No	16	5.4



	Not sure	107	35.8
5) Would you like to pursue your master degree abroad?	Yes	131	43.8
	No	81	27.1
	Not sure	87	29.1
6) What will you prefer to do after your undergraduate course?	May pursue PG	178	59.5
	May not pursue PG	15	5.0
	May or may not pursue PG	106	35.5
7.Which one of these factors is most likely to affect your decision on doing Master degree?	Family & friends expectation	52	17.4
	To improve social status	27	9.0
	To improve economical status	93	31.1
	Talent in the field	127	42.5
8. What might discourage you from pursuing your masters?	Too time consuming	35	11.7
	Too expensive	167	55.9
	Too competitive	40	13.4
	Other reasons	57	19.1
9) a) If you are continuing your master degree, which specialization is your first choice of preference?	Oral medicine and radiology	10	3.3
	Prosthodontics	14	4.7
	Oral and maxillofacial surgery	141	47.2
	Conservative dentistry	45	15.1
	Periodontics	8	2.7
	Public health dentistry	3	1.0
	Orthodontics	44	14.7
	Pedodontics	17	5.7
	Oral pathology	7	2.3
	Not applicable	10	3.3
9) b) If you are continuing your master degree, which specialization is your second choice of preference?	Oral medicine and radiology	22	7.4
	Prosthodontics	35	11.7
	Oral and maxillofacial surgery	44	14.7
	Conservative	45	15.1



	dentistry		
	Periodontics	23	7.7
	Public health dentistry	13	4.3
	Orthodontics	66	22.1
	Pedodontics	26	8.7
	Oral pathology	12	4.0
	Not applicable	13	4.3
10) Which type of college will you choose to do your master degree?	Govt dental colleges	134	44.8
	Govt affiliated college	34	11.4
	Deemed universities	9	3.0
	Any of the above	109	36.5
	not applicable	13	4.3
11) What would you prefer if you are not going to pursue postgraduation?	Private practice	61	20.4
	Work in a clinic	87	29.1
	Fellowship	67	22.4
	Others	40	13.4
	Prefer only PG	44	14.7
12) what might be the reason for people to choose private practice instead of Masters?	To earn immediately	82	27.4
	Self interest	90	30.1
	Not interested in masters	29	9.7
	Not affordable for Masters	98	32.8
13. Have you ever thought that doing fellowship is better than doing postgraduation?	Yes	78	26.1
	No	83	27.8
	May be	138	46.2
14) what might be the reason for people to choose fellowship instead of Masters.?	Less expensive	56	18.7
	Less timeconsuming	55	18.4
	Improve hand skills	71	23.7
	Fellowship can be done in many speciality	117	39.1
15) a) would you like to continue your career as a dentist.?	yes	279	93.3
	No	20	6.7



Table 2. Comparison of motivations, perceptions and interests according gender

QUESTION	OPTION	MALE		FEMALE		P-VALUE
		N	%	N	%	
1. Are you aware that you have entrance examinations to get your master seat?	Yes	60	20.1	223	74.6	0.005
	No	4	1.3	3	1.0	
	Maybe	5	1.7	4	1.3	
2. Do you think coaching classes are helpful to clear competitive exams?	Yes	27	9.0	149	49.8	0.000
	No	7	2.3	9	3.0	
	Not sure	35	11.7	72	24.1	

Table.3 Comparison of motivations, perceptions and interests according to place of residence

QUESTION	OPTION	RURAL		SUBURBAN		URBAN		OTHERS		P VALUE
		N	%	N	%	N	%	N	%	
1. What would you prefer if you are not going to pursue postgraduation?	Private practice	28	9.4	7	2.3	25	8.4	1	0.3	0.004
	Work in a clinic	23	7.7	11	3.7	46	15.4	7	2.3	
	Fellowship	13	4.3	6	2.0	45	15.1	3	1.0	
	Others	5	1.7	11	3.7	22	7.4	2	0.7	
	Prefer only PG	14	4.7	9	3.0	20	6.7	1	0.3	

DISCUSSION:

Many studies have been conducted earlier regarding the career aspirations and motivations among the dental students and graduates in which, some of the studies addressed the choice of specializations and its preferences. But in addition to that, we have reported a wide range of data about the student's interests and factors, which affect and are influencing their decision to pursue post-graduation. In this study, demographic data of study participants were widely analysed including socio-economic status, area of living and familial background. And other career options of the participants were also analyzed.



From the results, about 76.9% of participants were female; which was similar with the Vatsul Sharma et al (80.2%) [4]. Most of the studies [1, 5, 6, 7 & 8] have also shown the female predominance in the field of dentistry. Feminization in the field of dentistry may be due to psychological and social factors. Majority of the participants felt that only under-graduation was not enough for their successful career; that is about 66.6% of participants felt that doing masters is mandatory. This was similar to the study by Vatsul Sharma et al [4], Ravi k et al [2], Amit aggarwal et al [5] but these results were contrary with Manjunath et al [1] where only 17.90% of the students wanted to pursue higher studies. Results of Puryer J et al [7], reported that 48.3% of students expressed uncertainty in their desire to do masters. Similarly, here, 35.5% of participants reported that they may or may not pursue PG. Hence it is evident that a large number of students were in dilemma, whether to continue to study masters or not. Since it is essential to analyze about the 'encouraging and discouraging factors' towards post-graduation, questions were put forward before the students about it, of which, 42.5% students reported that their personal interest and talent in the speciality was responsible for their decision to pursue PG which was also reported by Vatsul Sharma et al [4], Ravi K et al [2], and Puryer J et al [7] as 61.78%, 58.11%, and 37.9% respectively. When it was about discouraging factors, financial issues played a major role as 55.9% of participants felt that PG seats were too expensive for them to join in post-graduation; whereas it was different in other countries. A study by Puryer J et al [7] reported that the students of Bristol university U.K. felt doing master courses was too time consuming (41.1%), which discouraged them. This difference might be due to varying socio economic status among the developed and developing countries.

There has always been a fascination among Indian students towards overseas education or job opportunities especially; they have more interest towards western countries [9]. On that basis, a question was raised, about their willingness to pursue PG abroad, 43.8% showed their willingness and 29.1% were not sure about it whereas in a study by Vatsul Sharma et al [4] 66.9% of students were willing to go abroad. Once students had decided to study masters, another important decision they had to make was the choice of speciality. Mostly it depended upon their interest towards the speciality. However, sometimes the current trend among the students also played a vital role in choosing specialities. The results of previous studies also show the same; thus it is adding strength to the above statement. Most of the recent studies show that students are more willing to choose oral surgery as their choice of specialization [1], [2], [5]. This may be due to the opportunity it provides to perform oral and maxillofacial surgery. And they can get an opportunity to tie up with the reputed hospitals and perform esthetic surgeries, implants and rehabilitation procedures. So it is considered as a prestigious speciality. The same trend continues in our study too as 47.2% of students' preferred oral surgery as their first choice of specialization followed by conservative and endodontics (15.1%) and orthodontics (14.7%). This order of preference was mostly reported in all the other studies but the scenario was not same in the other countries. Study by Puryer J et al" [7] (Bristol University U.K.) showed that the most preferred speciality was "Restorative dentistry"; followed by orthodontics and oral surgery. This may be because of the difference in the dental awareness among the western population



so that, most of the people will be concerned about their dental health and want to restore the carious tooth in its early stage of destruction by periodical dental visits.

And the second choice of preference was orthodontics (22.1%), conservative dentistry (15.1%), oral surgery (14.7%). However, the order of preference is changed but the trend towards choice of specialization remains the same. The least preferred first choice of specialization was Public health dentistry (1%), second least choice of preference was oral pathology (4%). The above results showed that students preferred clinical specialities over non – clinical specialities. The most preference of clinical specialities maybe due to their own interests and good monetary return. They can be self employed and get better opportunities as a consultant. In addition, student's preference of college is also important; which is determined by their grades, financial status and interest too. From the results, we came to know that nearly 45% of the students were willing to study their masters in government dental colleges. The reasons behind their choices may be due to better infrastructure and quality of education and great clinical exposure with a large number and varieties of cases. Ultimately government seats are cost-effective. So, people from all the social and economical backgrounds can be benefited from government institutions [10]. Another major group, 36.5%, of the people were okay with any type of institutions; which included government, government-affiliated and colleges which belonged to deemed Universities; it shows their aspiration towards higher studies.

At present stage, students have to prove their eligibility to get PG seats through national-wide common entrance exams. Since it is essential to crack these entrance exams; student's awareness about the entrance exams was assessed. Almost all the students were aware of the entrance exams. And many people felt that coaching classes were helpful to clear these exams. And nearly 10 percent of the students were already attending the coaching classes; 37.1% were planning to attend. It denotes the significance of coaching classes and its role on aspirants. It was also evident that the knowledge which they learn in their under-graduation is not enough for them to crack competitive exams. Hence, they feel special & exclusive coaching is need of the hour. Again, it will not be accessible to all the level of people living in the society. People from rural areas and poor economic and social background will be affected.

It is important to know about other aspirations or future plans of the students, if they are not going to pursue PG. In accordance to that, questions were asked. From the results, significant reports or predominant choices were not obtained; which shows the mixed feelings of the students. They also felt that people are choosing private practice because they cannot afford for masters and their self interest towards private practice and to earn immediately. Since fellowship courses on specializations are emerging now, participants felt that fellowship maybe a better choice than masters and some of them were denied it. And the major reason for the choice was fellowship can be done in many specialities.

Another important perspective of the study is to analyze and produce the detailed report on demographic details of the study participants. On decoding the results, it shows that half of the people were from urbanized areas and a fair economic background. This imbalance between the rural and urban population reflects in the patient dentist ratio which is saturated in the urban areas and inadequate in the rural counterparts [10].



The results depict that most of the students were from middle-class background and significant amount of people were also from upper-middle-class societies. Rest of the students (nearly 40%) might be from an average familial background. So, it was clear that, there is a need for a fair financial background to study an under-graduation course in dentistry. Earlier, on the discouraging factors, students have said that master courses are too expensive for them to pursue. And now the demographic details justified their claim.

There is a need to assess student's interests in continuing their career in dentistry. Dental graduates prefer to continue their career in other medical or research fields, instead of dentistry [1]. Sometimes, they are pursuing their career in completely a different field of work. However majority of the study population were interested in dentistry and willing to continue their career as a dentist. But in response to the open-ended question; even people who said that they will continue their career as a dentist have answered it. Majority of their choices were: business, other medical related jobs, service and public-relation sectors, and aspiring towards public service commission exams. Therefore, it was clear that students were also having other career options. Sometimes it may be just perceptions. Since practical difficulties are involved; they may change their motives later.

Although the study involves participants from different geographical locations and a minimal number of other state candidates, still it couldn't involve students from all parts of the country. And the study size was also minimal. Also, the question was formulated as self-reported in nature; it can lead to informational bias. These limitations have to be rectified in future studies.

In order to rectify the imbalance between the rural and urban population and other socio economic barriers which affects the students' career in dentistry, we recommend the following suggestions. The Government and authorized bodies should take necessary steps to increase the number of PG seats; and also have to rectify the difficulties associated with the process of getting into masters. By creating awareness and job opportunities in the rural areas, we can minimize the urban predominance over rural areas and it will help to eradicate unemployment at the same end.

CONCLUSION:

This study reported a detailed data on interest among the undergraduate dental students towards post-graduation courses. And it also mimics some of the results reported by previous studies; especially on the results of choice of specialization. However, it decodes various aspects of the student's perceptions towards masters and factors which affect their decision. From that we can come to a conclusion that majority of the students wanted to pursue post-graduation courses but for the financial reason and the other difficulties such as minimal availability of post-graduation seats and heavy competition, pursuing masters can become a nightmare for the students.



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ROLE OF TEACHER IN COMMERCE EDUCATION

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Abstract:

Teacher is an essential and most important factor in Teaching- Learning process of education system. There are three important factors in teaching- learning process. They are Teacher, Student and subject or (Knowledge and information) object. Teacher play a vital role in this process, he is a bridge between student and subject knowledge. This process happens constantly difference school, colleges and the place of formal education. Teacher, being multisided person. He imparts different aspects of life, knowledge and information. He acquaints the student with formal and informal education. He is perfect person all in one and on e in all. He helps to build the personality and career of the student. So teacher has great important in human history. He is always loved, respected and expected in all countries and all the time.

Keywords: Role, Teacher, Commerce, Ancient and Recent Education

Introduction:

Different concept has been formed to describe a teacher. The following Ideal concepts according to the spelling of T E A C H E R, show the nature of working, good quality, behavior and role of teacher

T Task master/time conscious/trustworthy/ truthful
E Effective/ Efficient/Eager to learn/Ego free/Empathetic.
A Achievement oriented/Advertent/ Analytical.
C Creative/Cooperative.
H Hard working/Honest/Healthy/Having heart of teacher.
E Ethical/Emotionally intelligent.
R Research oriented/ ready for self analysis.

He is taken next to God.

The definition of Commerce:-1

The following definitions indicate the scope and nature of commerce in higher education

- 1) **Evelyn's Thomas** "Commerce occupations deal with the buying and selling of goods, the exchanges of commodities and the distributions of the finished products"
- 2) **Jemes Stephenson** "commerce means the total of those processes which are engaged in the removal of the hindrances of persons (trade),place(Transport and Insurance) and time (warehousing)in the exchanges (banking) of commodities"
- 3) **Lomax, 1928:** "Commercial education is fundamentally a program me of economic education that has to do with the acquisition, conservation and spending of wealth"

Objectives of commerce education:-2

Following are the important objectives of commerce education



- 1) To impart the knowledge of commerce.
- 2) To impart the knowledge about different professions.
- 3) Development of human values related to commerce education.
- 4) Improve the knowledge of vocational skill.
- 5) Development of logical & decision taking power.
- 6) Motivate in attitude of nationalism and international understanding with new challenges of commerce high education.
- 7) To develop the E-education recent trends in commerce.

The ill of Existing higher commerce education:-3

- 1) Outdated information and knowledge base.
 - 2) Limited practical exposure.
 - 3) Poor infrastructural facilities.
 - 4) Lack of new approaches in teaching-learning process.
 - 5) Limited interaction with society and industries.
 - 6) Lack of socially useful and productive research.
- Dr. B. Narayanrao has rightly observed the ills of commerce education.

- 1) The commerce education even today provides narrow, traditional and conceptual education with lack of practical orientation so it is not solve the social and commercial problems.
- 2) The present system and courses of commerce education does not correlate with the job potential provided by industries, commerce and financial institutions.
- 3) The present system of commerce education is not suited for the growing complex of the organization.
- 4) Lack of international or globalization understanding skill of students the result of it poor ability of commerce student in higher education of commerce.

The need of reforms in commerce education:-4

To avoid unnecessary courses and duplicate efforts and to developing the education quality of commerce. Hence it is essential to reforms in commerce education.

- To develop a set of new values and business ethics.
- To activate the social and cultural interaction.
- To improve the quality of teaching- learning process.
- To develop a right kind of manpower to meet challenge of change.

New challenges or new trends in commerce:-5

The role of commerce teacher started with to know the following new trends and challenges shall be adopted in future through higher education in commerce is as follows: -

- E-Commerce education: - E-commerce is the use of technology to automate business transactions and work flows. and helpful innovation to allows business to cut costs, enabling it to provide better quality products with a quick delivery time and literacy in buying selling of goods.
- E-Products: - Different electronic equipments with capacity, efficiency, accuracy, speed, simplicity and conventional character have been developed and introduced in business activities. I.e. E-Computer, E-Calculator, E-Television, E-Hardware-Software. Etc.



- New trends in Services Marketing:-Services of today marketing belong to major portion of human life. Like that communicate a housekeeper to up-keep home, consult to a doctor for check –up to home of patient, Ask for insurance policy door to door of party, Ask for maid servant.
- Total quality Management: - This system is a powerful tool against competition, H.G. Menon (1972) states that implementing the system helps to product Better more reliable products which better meet customer requirement and minimizing cost of production of organizations.
- Marketing of tourism Development:-Tourism is a socioeconomic and cultural tool of change. Tourism has contributed and assisted significantly through providing job opportunities, creating infrastructure, rectifying regional imbalance, utilizing natural and financial resources. in future it is a challenge of new view in commerce education
- Human Resource Development: - Now a day everyone ignorance the base of humankind approaches due to mechanism actives. But every activity of human life is based on humankind. Related to HRD tress management is the new challenge in commerce education to provide efficient and strong skillful Human resource for future commercial activities.
- Environmental Awareness:-It is a new challenge in commerce education to provide education of anti-pollution, education of natural beauty of water, air for future safety of humanity with commercial activities.
- Education for Self- Empowerment awareness: - Personality Development and changes in negative to positive life style of everyone. It is a new challenge for future in commerce education.
- Education of Social Issues: - Every factor of society i.e. Doctor, Teacher, trader, farmer, Advocate, Tailor, Mechanic, etc. are directly or indirectly related to commercial education. So those new challenges of commerce education turn to social issues. I.e. equality of sex, press freedom etc.
- Investment Education:- investment with commercial view is most important for future. It is essential for future in cloud investment world

The Ideal Model of Teacher

Teacher has to be dynamic one to adjust and adopt with the new trends and challenges in commerce education. He has to be well informed with the recent challenges in the field information and technology related to commerce education, changing values in the society and vacant psychology of the student.

The following noteworthy positive comments related to Ideal model of Teacher as follows:-

- A) **Dr.Radhakrishnan**:-“The teacher’s place in society is of vital importance. He acts as the pivotal for the transmission of intellectual traditions and technical skill, from generation to generation. He helps to keep the lamp of civilization burning.” 6
- B) **Secondary Education Commission (1952-53)** “ We are, however, convinced that the most important factor in the contemplated educational reconstruction is the teacher-- his personal qualities, his educational qualifications, his professional training and the place that he occupies in the school as well as in the community.



the reputation of a school and its influence on the life of the community invariably depends on the kind of teachers working in it” 6

C) **Kothari Education Commission(1964-66)** “ Since ancient times, the teacher’s role in the teaching- learning process has been pivotal, because the teacher is that person who influences the personality of the child at a large extent. So, he himself should have some desirable qualities of physical, moral and executive. The importance of the teacher has enhanced even after that, the role and importance of the teacher has not declined because for the concerned subject that he teachers. So, up to a great extent, the success or failure of commerce education depends upon the commerce teacher.”6

D) **Ravindranath Tagore** “Believed that only man can teach another man. Thus, he gave a very important place to teacher in his scheme of education. Teacher should have behaved with him with great love, affection, sympathy and consideration. Teacher engaged himself in useful and constructive activities.”7

The above responsible comments on Ideal teacher show the vital and responsible role of commerce teacher in teaching- learning process in higher education of commerce. The following Ability, eligibility, responsibility and ethics of commerce teacher convert existing education system through adopted new challenge of commerce education on the basis of universal role of teacher as follows:-

A.S.Barr (1958), mentioned the following characteristics of successful teacher (as quoted by N S Saxena) 8

- Good cultural background.
- Substantial knowledge of the subject taught.
- Substantial knowledge of professional practices and techniques.
- Substantial knowledge of human development and learning.
- Skill in the use of language- spoken and written.
- Skill in human relationships.
- Skill in research and educational problems solving.
- Effective work habits.
- Interest in professional growth.
- Interest in place of education and community.
- Interest in professional co-operation.
- Interest in teaching.
- Interest in subject.
- Interest in the students.

The role of commerce teacher

The vital role of commerce teacher is most important in extended and to meet the new challenges of higher education. The subject of any education not useful without vital and good Guidelines of implementation with knowledge of commerce education.

Commerce and Management science education is a part of higher education. All the activities concern with the business come under the study of commerce. Education of commerce is essential in every sector of human life. I.e. trading sector, transportation,



Banking, Insurance, production of goods, Research sector, Human Resource Development, Computer science. Etc.

Ancient Period

In the ancient period education system was in the types of 'Gurukul' system. Guru Dronacharya, Maharishi Vyasa, Maharishi Narad, Arya Chankya, Kapil Muni, Manu, etc. they give the various types of human life education to students (Shishya) in Gurukul .(Place of formal education) like that dhanurvedya,Aurvedya,adhyatma vidya.

"The role of ancient teacher was universal; they used to give theoretical as well as practical training to their students. To develop all these part of mind. The tool of moral values and social values were the initial lessons, for example, in the beginning these moral and social values were ten-Asaty(non-stealing) , dhi (knowledge confirmed to matter),Vidya (knowledge of sub-conscious and non-conscious part of mind, soul) ,saty (truth), Self control, Dhriti(patience), Kshama (forgiveness), Dam (control on mind),Akrodha(non-angry),slowly more values were added like Aparighra, Ahinsa, Karuna, Fearlessness and boldness, Discipline, patriotism etc. through knowledge of ancient literatures and meditation, bhakti and Yogaetc."9

In the Ancient period commercial education was only related to basic need of human daily life.

Recent Period

In the modern life the role of commerce teacher to adopt the new challenges in commerce education. To motivate to himself and education system to change in commerce education system in India has grown in a remarkable way, particularly in the post-independence period, to become one of the largest systems of its kind in the world.

- To Motivate and develop the e-content in education in e-education which useful for learning and research working for PG students.
- The teaching system has many issues of concern at present, like financing and management including access, equity and relevance, reorientation of programmers belaying emphasis on health consciousness.
- Values and ethics and quality of commerce education together with the assessment of institutions and their accreditation.
- These issues are important for the country, as it is now engaged in the use of commerce education as a powerful tool to build a knowledge-based information society of the 21st Century.
- In an environment of global competitiveness it is important that Indian products of the commerce education institutions are as competent as graduates of any other country, Not only in their scholastic attainments, but also in terms of the value system and richness of their personality.
- The quality and standard of Indian commerce education through innovation, creativity and regular monitoring, it seems to be difficult for the Indian academics/professionals to compete in the World scene.
- The important role of commerce teacher to develop the research view, business skill, of student in commerce education.



Conclusion:

In the 21th century the universal role of commerce teacher has to be efficient to teach, to build the personality mould the character of student to achieve the success commercial education on globalizing world. Teacher, being multisided person. He imparts different aspects of life, knowledge and information. He acquaints the student with formal and informal education. He is perfect person all in one and on e in all. He helps to build the personality and career of the student. So teacher has great important in human history. He is always loved, respected and expected in all countries and all the time. He has a great responsibility to set the nation in international link; he has an opportunity to be called a builder of not only a nation but the global, the world, the universe also. He should adopt new innovations and recent trends & challenges in commerce education.

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WORK OVERLOAD, SELF EFFICACY AND ORGANIZATIONAL COMMITMENT OF BANK EMPLOYEES

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ABSTRACT

Recent studies on banking sector indicates that the employees of banking sector are under a great deal of pressure due to many antecedents of environmental factors such as heavy workload, role ambiguity, role conflict, lack of feedback, lack of supervisors support keeping up rapid change in organizational technology, being in a innovative role, career development organizational structure and climate and recent episodic events, one of the affected recent that come out is stress consequences on commitment of the employees. The aim of the study to examine the nature of the relationship between work overload, self-efficacy and organizational commitment of public and private sector bank employees A total number of 120 (60=private, 60=public) banking personnel including clerk and managerial level were participated in the study. In order to collect data, required for the present study, quantitative workload inventory developed by Spector & Jex's (1998) consists 5 item, organizational commitment scale developed by meyer's et al (1993) consists 18 item, and to measure self efficacy level of the employees, six item has been taken from the original psychological capital questionnaire developed by luthans, yussef et al (2007) was administered. Correlation was done to examine the relationship between variables, and stepwise regression analysis was done to analyze the data.

Key words: Work Overload, Self efficacy, Organizational Commitment, Bank Employees

INTRODUCTION

Banking sector is one of the biggest sectors in the Indian context, and a huge amount of people are working with this particular sector. The targets for banking sector employees are now very unpredictable and uncertain, and due to unpredictability employees feel an increased level of discomfort and stress in their work environment. In comparison of past years the present scenario of banking sector has become very target oriented. "The responsibility load creates severe stress among workers and managers", if the individual manager cannot cope with the increase responsibility it may lead to physical and psychological consequences among them. During the past years, the banking sector had under gone rapid and striking changes like policy change, Due to globalization and liberalization, increased competition due to entrance of more financial agencies, downsizing and introduction of new technologies etc. due to these changes, the workload on individual employee has been increased in quantitative manner and it results as a low commitment and satisfaction level of employees.



Work overload, work overload stress can be defined as “reluctance to come to work and a feeling of constant pressure accompanied by the general physiological, psychological, and behavioral stress symptoms”. According to Cascio, (1995) and Quick, (1997) rapid change in global scene is increasing the lot of pressure of workforce to perform maximum output and enhance competitiveness in the platform. Indeed to perform better to their job, there is a requirement for workers to perform multiple tasks in the workplace to keep abreast of changing technologies. The ultimate results of this pressure have been found to be one of the important factors influencing job stress in their work. According to Bandura (1997) self-efficacy refers to “people’s convictions about their own capacity for successfully executing a course of action that leads to desired outcome”. Self-confident people choose challenging tasks and endeavour to successfully accomplish their goals and persevere in face of obstacles. Bandura (2000), has noted that self-efficacy plays a critical role in impact human performance determinants such as goal.

Organizational commitment, Mayer and Allen (1991) found that “commitment has been viewed by researchers as reflecting an affective orientation towards the organization, recognition of costs associated with leaving the organization and a moral obligation to remain with the organization. In order to acknowledge these differences, they gave different labels addressing them as affective, continuance and normative natures of commitment. Affective commitment refers to the employee’s emotional attachment to identification with and involvement in the organization. Continuance commitment refers to an awareness of the cost associated with organization and normative commitment is stated to reflect a feeling of obligation to continue employment. He also suggested that affective, normative and continuance commitment should be considered as components of commitment rather than types of commitment as the employees relationship with an organization could reflect varying degree of all the three”.

Review of literature

A study in UK (2017) indicated that the corporate workers were unhappy with the current culture where they were required to work extended hours and cope with large workloads while simultaneously meeting production targets and deadlines (Townley, 2000). According to Wilkes et al. (1998) work overloads and time constraints were significant contributors to work stress among community nurses.

Alexandros-Stamatios G.A. et al. (2003) also argued that “factors intrinsic to the job” means explore workload, variety of tasks and rates of pay. Rapidly changing global scene is increasing the pressure of workforce to perform maximum output and enhance competitiveness. Indeed, to perform better to their job, there is a requirement for workers to perform multiple tasks in the workplace to keep abreast of changing technologies (Cascio, 1995; Quick, 1997). The ultimate results of this pressure have been found to be one of the important factors influencing job stress in their work.

A study on banking sector found that commitment has been correlated with hope, optimism, and resilience (Youssef & Luthans, 2007) and many other positive psychological factors like self-efficacy, locus of control etc. Positive psychological capital here refers to hope, self-efficacy, resilience and optimism of the employees. It



also plays an important role in an organization development and success. Sinha, Talwar&Rajpal (2002) studied the relationship between self-efficacy and commitment in a sample of 167 managers and reported that organizational commitment is positively related with self-efficacy. Their research finding shows that different psychological factors were positively correlated with organizational commitment, but different dimensions of commitment namely affective, normative and continuance have not yet been examined in relation to different positive psychological factors.

A growing number of studies have clearly demonstrated that positive psychological capital has impact on desired outcomes in the workplace. For example, in one major study, Psychological capital was shown to be positively related to employee satisfaction (Luthans, Avolio, et al., 2007). There is also increasing evidence that Psychological capital is significantly related to desired employee behaviours (and negatively to undesired behaviours), attitudes (e.g., satisfaction and commitment), and performance (Luthans, Avolio et al., 2007). Research studies evidently demonstrates the impact that positive psychological capital may have on satisfaction and/or commitment (Larson &Luthans, 2006; Luthans, Avolio et al., 2007; Luthans, Norman et al., 2008; Youssef &Luthans, 2007) and absenteeism (Avey, Patera, & West, 2006). Although Psychological capital predominately focuses on positivity at the individual level, expanding research has also demonstrated positive relations between collective PsyCap and team performance.

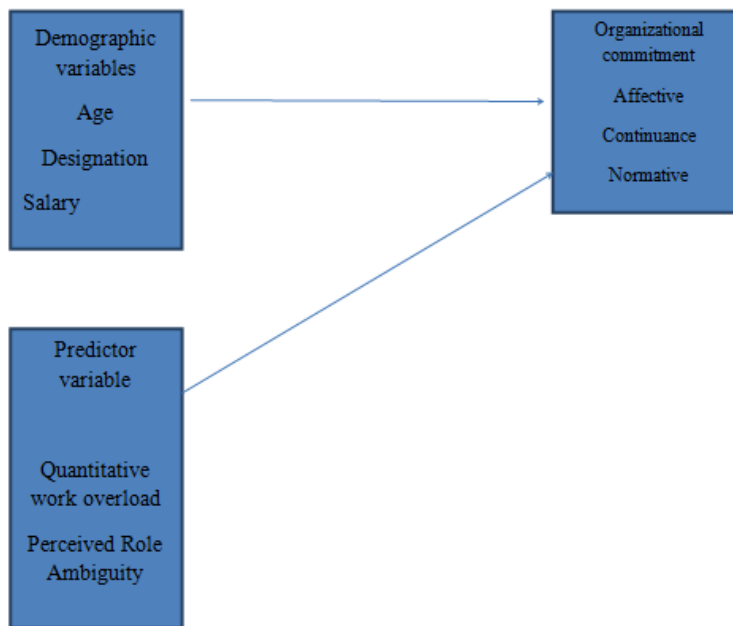
The Present study is the modest attempt to address specific condition and problem of banking sector, including private and public sector employees related to work overload and this throws light into the relationship between work overload and organizational commitment of the bank personal. Purpose of the study to investigate the relationship between work overload, self efficacy and organizational commitment bank of employees. The study also aims to examine and compare the work conditions and individual aspects of private and public sector bank employees.

Objectives of the study

- To compare the nature of the relationship between work overload, self efficacy, and organizational commitment of public and private sector bank employees.
- To examine the nature of the relationship between work overload and organizational commitment of bank employees.
- To examine the nature of the relationship between self-efficacy and organizational commitment of public and private sector bank employees.

Hypothesis of the study

- The relationship between the perception of the variables understudy would be different in private and public sector bank employees
- Work overload will be negatively correlated to organizational commitment of bank employees.
- Self efficacy of the banking personnel will be positively correlated to organizational commitment of bank employees.
- Self efficacy would come out as a strong predictor of organizational commitment of private and public sector bank employees.

Hypothetical model of proposed relationship between variables under study**Method:****Sample:**

The sample consisted of 120 banking personnel including public=127 and private=158 sector banking employees, who have spent at least 2 years in organization. Participants were chosen randomly for both private and public sector bank employee. The data were collected through questionnaire from the respondents.

Measures:

Work overload was measured by the scale developed by Spector & Jex's (1998), Quantitative work load inventory. The instrument includes five items measured on a five-point Likert type scale and it has Cronbach's alpha of .88. The *self-efficacy* level of the respondent was measured by taking 6 items from the most popular 24-item PsyCap questionnaire developed by Luthans, Avolio, et al., (2007) and psychometrically analyzed by Luthans, Youssef, et al. (2007). The instrument includes 6 items or each of the four components of hope, efficacy, resilience, and optimism measured on a 6-point Likert type scale. Reliability coefficients for all components are greater than .70, and for the overall PsyCap instrument, it is .95. The three *commitment* components will be measured by Meyer's et al. (1993). Six-item version of scale. Respondents will be elicited on 7-point Likert-type forms anchored "strongly disagree" (1) and "strongly agree" (7). Alpha-coefficient for the affective commitment scale, the continuance commitment scale, and normative commitment scale were .83, .74, and .87.



Procedure: The participants were contacted individually and explained the purpose of study. All participants were requested to ensure that they have responded to each items of every questionnaire/scale. The obtained data were analyzed by using T test, correlation, stepwise regression analyses.

Result and discussion: To examine the relationship of work overload and self efficacy with organizational commitment, correlation was computed separately for public and private sector bank employees.

T test

In order to examine the difference between working banking personals in two types of banking sector that is public and private sector, t value were computed on the means score of the variables under study. Table 1 presents the significance of difference between two types of banking sector on the demographic characteristics of the participants, work overload, self-efficacy, and affective, continuance and normative organizational commitment of the banking personals. It was reported that among demographic characteristics, age was reported significantly higher in public sector banks as compared to private sector banks. Among organizational commitment dimensions, all the three dimensions namely affective, continuance and normative were reported significantly higher in public sector banks. Work overload was reported significantly higher among the private sector bank employees as compared to public sector bank employees. Level of self-efficacy was reported nearly same among both public and private sector bank employees.

Table 1. . Showing significance of the difference between the means of variables in public and private sector banks in the study

	PUBLIC = 127		PRIVATE = 14		t	Sig.
Demographic	Mean	SD	Mean	SD		
Age	34.5	10.7	32.4	7.35	1.95*	.050
Salary	2.03	.995	2.04	1.11	-1.63	.103
Designation	1.40	.492	1.64	.479	-4.21***	.000
Organizational commitment						
Affective	22.27	2.12	18.73	2.76	.866*	.019
Continuance	20.61	2.66	18.96	3.79	-2.09*	.038
Normative	21.47	3.42	17.68	3.39	1.26**	.009
Predictor variable						
Work overload	19.68	4.07	19.30	3.20	.797	.426
Role Ambiguity	15.07	4.22	16.95	4.09	-3.47**	.001
Self-efficacy	21.55	2.63	23.24	2.64	-5.34***	.000

*p < .05, **p < .01, ***p < .001



The findings provide support to the hypothesis (4), as the levels of perceived work overload reported to be significant differed by type of banking sector that is public and private sector banks. The dimension of organizational commitment namely affective, continuance and normative reported significantly differed and higher among public sector bank employees as compared to private sector bank employees.

Table 2. Showing significance of the difference between the means of variables in public and private sector banks in the study

	Male =170		Female= 115		t	Sig.
Demographic	Mean	SD	Mean	SD		
Age	35.18	9.98	30.64	6.65	4.26***	.000
Salary	2.25	1.01	2.00	1.00	2.02*	.044
Designation	1.58	.49	1.46	.54	1.87	0.66
Organizational commitment						
Affective	20.4	3.3	20.4	3.2	.103	.918
Continuance	19.0	3.29	18.1	3.79	.685	.494
Normative	19.5	3.42	18.1	3.39	2.45**	.009
Predictor variable						
Work overload	19.5	3.7	19.4	3.4	.163	.870
Role Ambiguity	15.0	4.20	16.9	4.29	-.461	.650
Self-efficacy	22.35	2.63	22.6	2.84	-9.75	.330

Table 3. Correlations between the organizational commitment and predictor variables

Variables	Age	designation	salary	QWI	RO	SE
Affective	.031	.166**	-.032	-.154	-.256**	.209*
Continuance	.051	.091	.198*	.054	.182	.233*
Normative	.144*	-.053	-.125	.043	-.299**	.352**

*Significant at .05 level

It is evident from correlation table 1 that all the dimension of organizational commitment is significantly and positively correlated with self-efficacy work overload is significantly negatively correlated with affective and continuance commitment. It means that work overload is negatively correlated with all the dimension of organizational commitment and self efficacy is positively and significantly correlated with all the dimension of organizational commitment that is supporting the hypothesized patten of the relationship.



Table 4. Stepwise Regression Analysis of Demographic, work overload, and self-efficacy with Affective Commitment in Public and Private Sector Bank Employees.

	R	R square	Adj. Rs	R2 change	Beta	t ratio	Sig.
Demographic							
Salary	.291	.093	.076	.093	.291	2.09	.037*
Predictors							
work overload	.301	1.92	1.17	1.92	-.301	-3.15	.000***
self-efficacy	.356	20.2	.099	20.2	.356	3.01	.003**

Notes: *p < .05, **p < .01.

Table 3 presents the stepwise regression analysis of demographic variables, work overload, self-efficacy with organizational commitment. Results show that among demographic variables, salary predicted significantly positively 9% of variance with beta coefficient of .291 (*p < .05) in organizational commitment of public and private sector bank employees. Work overload predicted significantly negatively 19% variance with beta coefficient of -.301291 (*p < .01) in organizational commitment of public and private sector bank employees. Self-efficacy predicted significantly positively 20% variance with beta coefficient of .356 (*p < .01) of the public and private sector bank employees.

Table 5. Stepwise Regression Analysis of Demographic, work overload, and self-efficacy with Continuance Commitment in Public and Private Sector Bank Employees.

	R	R square	Adj. Rs	R2 change	Beta	t ratio	Sig.
Demographic							
Salary	.291	.093	.076	.093	.291	2.09	.037*
Predictors							
self-efficacy	.372	21.1	.099	20.2	.356	3.01	.003**



Table 6. Stepwise Regression Analysis of Demographic, work overload, and self-efficacy with Normative Commitment in Public and Private Sector Bank Employees.

	R	R square	Adj. Rs	R2 change	Beta	t ratio	Sig.
Predictors							
self-efficacy	.391	21.1	.099	20.2	.356	3.01	.003**

Discussion

A major aim of the study was to compare the level of work overload, self-efficacy and organizational commitment of public and private sector banking personals. The study also aimed to examine the nature of the relationship between work overload, self-efficacy and organizational commitment of public and private sector bank employees. The findings of the study suggested that work overload effects the organizational commitment of the employees in both public and private banks. The results highlighted certain differences of working environments among public and private sector women banking personals. Findings further indicated that there is a significant difference in level of work overload in public and private sector banking personals. Work overload was reported significantly higher in private sector bank employees as compare to public sector. Similarly, among the organizational commitment dimensions, affective, normative and continuance commitment was found significantly higher in public sector bank employees, where self-efficacy reported nearly similar in both public and private sector bank employees.

In continuation of the above analysis, the findings emerging from correlation and regression analysis indicate that work overload was significant negative predators of organizational commitment in public and private sector banking personals. Self-efficacy was observed as a significantly positive predictor of All the dimension in both public and private sector banking employees. The study has revealed the significant importance of self-efficacy for all the forms of organizational commitment in public and private sector banks. It is probably because the self-efficacy refers to the individual believed on his or her ability to complete any given task in the organization. Perception that is valued by the organization, hence low level of self-efficacy is one of the important factors to employee's dissatisfaction and low commitment in the organization. Findings further suggested that among the demographic variables, salary emerged as a significant positive predictor of organizational commitment in public and private sector banks.

As supporting the expected trends, private sector bank employees were observed to be more affected by work overload as compare to public sector bank employees. A study by Pendke(2016) was conducted to address specific problems of bank employees related to occupational stressors, such as role ambiguity, work



overload. The study conducted on nationalized and non-nationalized 200 bank male employees in Kerala belonging to an age group of 30-40 years of age, revealed that occupational stress was higher among non-nationalized employees compared to nationalized employees. However, a study conducted by Batool (2010) in Pakistan regarding the occupational stressors in public and private banks among a randomly selected sample of 200 employees, showed that occupational stressors were reported higher among private bank employees compared to public bank employees.

Practical Implication

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TO ASSESS THE PHYSICAL FITNESS IN SCHOOL GOING FEMALES IN ANAND: A CROSS SECTIONAL STUDY

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Abstract

BACKGROUND AND PURPOSE: -

Physical activity (PA) is a key component in order to maintain and improve health, including physical, mental, and emotional health. A considerable amount of evidence exists that support the concept that PA is able to improve musculoskeletal health, improve cardiovascular fitness, and improves body composition and overall physical fitness. The latter is defined as a state of wellbeing, which refers to the ability to perform daily tasks, sports, or occupations without undue fatigue. This study focuses on the assessment of the fitness level of the school going females.

OUTCOME MEASURES: -

ASSO fitness test battery:

- Standing broad jump for the evaluation of lower limb strength.
- The hand - grip test for the evaluation of the strength of the upper limbs.
- The 10-m shuttle runs for the evaluation of aerobic capacity.
- The sit-up to exhaustion for the evaluation of abdominal muscular endurance.

METHOD: -

This study was conducted to study the fitness level among school going females. Total of 200 female students between the ages of 14 to 16 years were recruited for the study. The parents/school authorities of the respective subjects were explained about the method and purpose of the study. Once medically fit, written informed consent was taken from the parents/guardians of the respective subject (medically unfit subjects as per the information given by the school authorities were excluded from the study). BMI (Body Mass Index) was done for all the subjects participating in the study. All the participants were assessed for outcome measures.

RESULT: -

In present study total number of 200 subjects of age group of 14 to 16 years (only females) was taken. All the 200 individuals completed the study program without any complications.

CONCLUSION: -

The final conclusion of the study is that, school going females between the age of 14 to 16 years have good fitness level as per BATTERY TEST but majority could not reach the normal level of fitness. Hence incorporating of fitness training at



school level will help in improving the fitness level of children.

Key Words: Fitness assessment, Young females, BATTERY TEST

INTRODUCTION

Physical Fitness

Physical wellness can be characterized as the capacity of a person to adequately and competently perform regular exercises without past due exhaustion, and with enough vitality staying to make the most extreme out of the spare time, just as to determine irregular circumstances of unexpected and concealed crisis. It very well may be taken as an incorporated measure in the event that not all, at that point lion's share of the body-capacities, are associated with the exhibition of exercises of day by day living and additionally physical preparing. In the Serbian language state of being term is utilized. In spite of the fact that propositions words are really equivalents, it is generally viewed as that the term condition applies just to competitors. In this way, the word wellness expands the thought of the whole populace, for example competitors and non-athletes.

Over the most recent couple of decades, kids' physical movement levels have significantly changed. Open air physical exercises and games are progressively being supplanted by diminished physical in-house exercises, 4–6 years of age youngsters are progressively going to class via vehicle or transport as opposed to cycling or strolling, and investment in different games is declining.

Changed youths Surveillance System and Obesity anticipation battery test study (ASSO wellness test battery):

These tests were chosen by their possibility, safety, unwavering quality, and ease. These tests were as per the following: standing expansive hop for the assessment of lower appendage quality, the hand - hold test for the appraisal of the quality of the furthest points, the sit-up to fatigue for the evaluation of stomach solid perseverance, the 10-m transport run for the appraisal of oxygen consuming capacity.

In sports just as schools, youngsters are fundamentally sorted in age gatherings, and this gathering is normally done by the date of birth, in this way a one-year contract will be quite often present⁸. During advancement, more seasoned individuals generally perform better, characterizing what is known as the relative age impact. On the off chance that such an impact was not pertinent, at that point it would be of no utilization to gathering kids as indicated by their age. The age-related impact might be appropriate to both physical and mental aspects.

MATERIALS AND METHODS

Source of Data: School going females in Anand



Technique for Collection of Data: School going females (age between 14 – 16 years).

Study Design: A Cross sectional investigation.

Sample Size: Sample size for the investigation is 200 understudies.

Term of Study: a half year

Inclusion Criteria:

- Individuals age between 14 - 16years.
- Only females.

Exclusion Criteria:

- Subjects experiencing any sort of musculoskeletal, neurological or cardiovascular issues.

Self-detailed or therapeutically ill-suited subjects according to the data given by the school specialists.

Outcome Measure:

ASSO wellness test battery:

1. Standing broad jump test for the assessment of lower limb strength.
2. Hand - grip test for the assessment of the quality of strength of the upper limb.
3. 10-m shuttle run test for the assessment of aerobic capacity.
4. 1-minute Sit-up test for the assessment of abdominal strength.

Procedure

This examination was directed to consider the fitness level among school going females.

Complete number of 200 school going female understudies between the ages of 14 to 16 years were enlisted for the investigation. The guardians/watchmen/school specialists of the separate subjects were clarified about the technique and reason for the investigation. When the understudies were inspected for any clinical and physical issues, composed educated assent was taken from the guardians/watchmen of the individual subject (restoratively unsuitable subjects according to the data given by the guardians/gatekeepers/school specialists were avoided from the examination). When the assent was marked, the subjects were clarified and exhibited in insight regarding the test they expected to perform.

TEST 1

Standing broad jump test for the assessment of lower limb strength: The subject was approached to remain behind a line set apart on the ground with feet marginally separated. A two-foot take-off and landing was utilized, with swinging of the arms and bowing of the knees to give forward drive. The subjects were approached to bounce beyond what many would consider possible, arriving on the two feet without falling in reverse. Three endeavors were permitted. The best of three information



was recorded for the result of the test.

TEST 2

Hand - grip test for the assessment of the quality of strength of the upper limb:

The hand held dynamometer was utilized to evaluate the hand grasp quality of the subjects. The dynamometer handle was balanced (if conceivable) to fit the hand or set at a similar setting for everybody. A similar setting was utilized for all the subjects for testing and during retesting. As the quality of the left and the correct hand can likewise fluctuate, so the test was directed on the prevailing side of the considerable number of subjects. Three endeavors are normally required to get the most extreme score, henceforth the test was rehashed multiple times and the best of three readings was recorded for examination.

TEST 3

10-m shuttle run for the assessment of aerobic capacity (best time was noted in a moment or two): Two lines were set apart at 10 meters separated utilizing checking tape or cones. The two squares were set on the line inverse to the line at which the subjects were going to begin at. On the sign "prepared", the member needed to put their front foot behind the beginning line. On the sign, "go" the member ran to the contrary line, got a square of wood, ran back and put it on or past the beginning line. At that point turning without a rest, they ran back to recover the subsequent square and conveyed it back over the end goal. Three preliminaries were performed and the best time was recorded for the investigation.

TEST 4

1- minute Sit-up test for the assessment of abdominal strength (Fig 3.7): The subjects were approached to lie on a covered or padded floor with their knees twisted at roughly right points, with feet level on the ground. The hands were laying on their thighs. With keeping up this position, the subjects were then approached to press their stomach, push the back level and lift sufficiently high for their hands to slide along their thighs to contact the highest points of their knees. Safeguard was taken for not to pull with their neck or head and hold their lower back on the floor and afterward come back to the beginning position. All the subjects were approached to do this for greatest one moment and just for one time not at all like past tests which were rehashed for multiple times. The quantity of redundancies was then reordered for investigation.

All the subjects were approached to play out each test separately i.e all the subjects originally did one test followed by the other with 5 minutes of rest in the middle of the tests. The information was recorded for one test and afterward the following test, etc. Standing broad jump for the assessment of lower appendage quality, Hand - grip test for the assessment of the quality of the upper appendages and 10-m shuttle run for the assessment of oxygen consuming limit test were rehashed multiple times and the best of three was taken for conclusive assessment and examination. 1-minute sit up test was just performed once and the information was taken for assessment and



examination.

RESULTS

In present investigation complete number of 200 subjects old enough gathering of 14 to 16 years (just females) were taken. All the 200 people finished the investigation program with no entanglements.

The last finish of the investigation is that, school going females between the age 14 – 16 years have great wellness level according to BATTERY TEST yet lion's share couldn't arrive at the typical degree of wellness. Thus joining of wellness preparing at school level will help in improving the wellness level of youngsters.

DISCUSSION

The term 'physical action' is characterized as alluding to any substantial development delivered by the activity of the skeletal framework and muscles that outcomes in vitality use. Free-living physical action practices in youngsters and youths are estimated one of the most mind-boggling spaces to survey. Normally, physical movement spaces incorporate a wide range of exercises performed during spare time or relaxation time, transportation exercises, all assignments acted in the home setting, physical education sittings and break-time at school.

Further, physical action practices can be described by the elements of type, power, recurrence and length. Subsequently, estimating the physical action in kids and youths is very troublesome, making it critical to have successful and dependable devices that can be utilized to evaluate the wellness level of understudies.

The need is to comprehend that it is significant for small kids mostly females to grow great quality as to have a decent solid and fit life in the more seasoned age. Surveying the wellness of youthful females is significant for examining the need of fusing wellness preparing in schools to build up a decent wellness level among youthful females.

Ewan Thomas and Antonio Palma in their examination dependent on "Physical Fitness assessment of School Children in Southern Italy: A Cross Sectional Evaluation" presumed that an age relative impact is available somewhere in the range of 6 and 10 years old with contrasts Between the brokedown male and female younger students from southern Italy. The aftereffects of the investigation featured that the quality of the upper appendages grows sooner than lower appendages and that speed and deftness are more noteworthy around 10 years old. The consequences of the current examination underpin the previously existing writing and could support instructors and game experts to comprehend the diverse wellness formative stages using the chose wellness tests and engine improvement intercession programs.

Dragan Cvejic, Sergej Ostojic, Tamara Pejović did an examination on assessment of physical wellness in youngsters and youths. In this examination, they found that Physical wellness is a critical pointer of the soundness of kids and young people and a decent translator of wellbeing in later life. As of late, enthusiasm for the assessment



of structure has expanded in the open area. As opposed to the customary practice tests which surveyed the inert elements of engine space (physical wellness so as to be effective), new logical proof recommends and highlight the approval of the part size wellness that are straightforwardly identified with wellbeing (physical qualification with the end goal of wellbeing). Many created nations have remembered this gathering of tests for their instructive procedures. This surely doesn't lessen the need to survey engine abilities in kids and youths.

While there is little proof concerning the reaction of various populaces (for example ages, sexual orientation, races, donning movement and so forth.), it would appear to be reasonable that over particular age and sex wellness evaluation devices would lose their viability.

We can utilize these tests to evaluate the wellness level of subjects with various age gathering and sexual orientation so various exercises can be fused as standard to improve wellness among subjects with various age gathering and sex.

CONCLUSION

The last finish of the investigation is that, school going females between the age 14 – 16 years have great wellness level according to BATTERY TEST yet lion's share couldn't arrive at the typical degree of wellness. Thus, joining of wellness preparing at school level will help in improving the wellness level of youngsters.

ACKNOWLEDGEMENTS

It is my great pleasure to thank people who helped and encouraged me for guidance and completion of this project work.

It has been my privilege to receive the able guidance of **DR. DIDHITI DESAI** [MPT in Cardio-Pulmonary] Assistant Professor in Parul Institute of Physiotherapy, PARUL UNIVERSITY, Vadodara. I sincerely acknowledge my indebtedness to her, for her keen interest and guidance throughout the work.

I consider myself fortunate for the constant encouragement given by **DR. BHAVANA GADHVI**, Principal of Parul Institute of Physiotherapy, PARUL UNIVERSITY throughout the course of the study.

I also thank my teachers, classmates and friends for their moral support and continuous encouragement.

I am forever grateful for love and support of my Parents. Last but not the least, my heartfelt and sincere thanks to all the subjects on whom this study was carried out.

Above all, I would like to thank the Almighty God without whose grace this project would not have taken this form.

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COVID-19 OUTBREAK: AN ANALYSIS OF RISK FACTORS AND POTENTIAL ROLE OF MEDICINAL PLANTS TO COMBAT THE DISEASE

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ABSTRACT:

COVID-19 (Corona Virus Disease 2019) pandemic caused by SARS-CoV-2 (Severe Acute Respiratory Syndrome Corona Virus 2) has put this world into unprecedented health crisis. In most of the cases the infected people develop mild manifestations of the infection viz. fever, cough, and malaise and recover in few days, however it may advance into respiratory distress and organ failure too. Some individuals may be more prone to severe illness than others because of some characteristics or factors increasing their risk. Genetic studies suggest that blood type of individuals may have impact on COVID-19 risk. In addition factors like age and hormones have also been found to determine the risk of COVID-19 infection. In this crucial moment of pandemic, natural ingredients from medicinal plants can play vital role to boost up our immune system and overcome the risk. Few Chinese, Indian and Iranian conventional medicine, suggests the role of plant based ingredients in prevention, treatment and rehabilitation of the diseases like COVID-19. In this review we have focused on common risk factors of COVID-19 and analysed various plant extracts, traditional medicines and herbal products which can have therapeutic and prophylactic impact COVID-19 virus infection and help to combat this deadly disease.

Keywords: COVID-19, Risk factors, Natural ingredients, Immune boosting, Prevention

Introduction:

The COVID-19 (Coronavirus Disease 2019) caused by SARS-CoV-2 (Severe Acute Respiratory Syndrome CoronaVirus 2), the novel corona virus, has led a world into a global health crisis and has been announced as pandemic by World Health organization [1]. By the starting of October 2020, more than 35 M cases and nearly 1 M death cases have been reported world wide. COVID-19 can affect anyone and the severity of infection can range from mild to very severe. Studies have identified some common factors like individual blood type, sex hormone and age that may have impact on infection risk.

ABO blood group is often linked to various infectious diseases and syndromes. Some recent studies have also found the association between ABO blood group and Coronavirus disease. In these studies individuals with 'A' blood type were noted to be at higher risk than blood type 'O' [2]. Similarly gender, age and hormones are well-studied risk factors for COVID-19 and have been found to be intensely linked with this disease [3].



Various conventional therapeutic practices based on theories, experience and classical knowledge are homespun to different cultures. Wide range of products, based on medicinal plants are found to have profound antiviral and immune-modulatory properties and their revelations can be an achievement to prevent and control COVID-19 disease too [4].

Conventional therapeutic systems are investigated for preventative and rehabilitative considerations to patients. In this regard, India's conventional medicinal systems represented by the acronym 'AYUSH', i.e. 'Ayurveda, Yoga, Unani, Siddha and Homeopathy' has also been investigated for their applications on viral infections [5]. Though availability of scientific proof is limited, few uncontrolled studies with conventional medicines, recommend their adequate impact on viral infections.

In current times, as the numbers of COVID positive cases are increasing rapidly a great number of clinical trials are going on worldwide and different herbal medicines have emerged as effective therapeutic and prophylactic agent against COVID-19 disease. In this review, we have discussed the common risk factors associated with COVID -19 along with the medicinal plants and conventional medicine systems followed in few countries for boosting the immune system and for treating diseases like COVID-19. In addition these herbs can also be used in antiviral mask, air and hand sanitizers. We have also discussed in brief the daily dietary intake of these herbs which may help to boost our immune system against the disease.

1. Risk factors associated with COVID-19

1.1. ABO Blood Group

ABO blood types, discovered by Landsteiner, are determined by carbohydrate epitopes, available on the cell surface of blood cells. The antigenic determinants of blood types 'A' and 'B' are trisaccharide moieties $\text{GalNAc}\alpha 1\text{-3-(Fuc}\alpha 1,2\text{)-Gal}\beta\text{-}$ and $\text{Gal}\alpha 1\text{-3-(Fuc}\alpha 1,2\text{)-Gal}\beta\text{-}$ respectively, whereas $\text{Fuc}\alpha 1,2\text{-Gal}\beta\text{-}$ is found in blood type O. While blood groups are taken over genetically, environmental factors may possibly impact which blood groups in a community will be transferred more often to the upcoming generations. The sensitivity of an individual towards viral diseases is suggested to be associated with ABO blood group. For instance, Hepatitis B and Norwalk virus has been found to have blood group susceptibility. In this regard, few studies suggest that individuals with 'O' blood type, are less susceptible for SARS coronavirus infection [1, 6]. However, few other studies indicate that individual with blood type 'O' are more at risk for this disease [7].

Mucosal surfaces express significant amounts of carbohydrate blood group antigen which acts as receptors for microbes. Pourali and co-workers found that 'A' blood type is a partial risk factor for Coronavirus disease whereas a protective factor for type 'O'. Additionally, blood types 'B' and 'AB' were not notably related with this infectious disease [2]. As mentioned in some studies, ACE2 (Angiotensin converting enzyme 2) expressed in many cell types and tissues including lungs, kidneys, heart, blood vessels, gastrointestinal tract and liver is the primary receptor for the virus SARS-CoV-2 however the virus also binds to the carbohydrate which control the ABO blood groups,



and are widely expressed in mucous membrane of respiratory tract. For that reason, the non-'O' blood type has the more probability of contact with pathogen when compared to type 'O' [2]. Similarly, Zhao and co-workers found that individuals with the 'A' blood type may require stronger immune system to reduce the probability of COVID-19 infection and the patients might need aggressive treatment and vigilant surveillance [1]. Contrary to this, Latzet. *al.* (2020) found limited relation between ABO blood type and COVID-19. In their study, out of the 1289 patients tested positive for COVID-19, 440 patients were type A blood group (34.2%), 201 patients were type B blood group (15.6%), 61 were type AB blood group (4.7%), and 587 patients were blood type O (45.5%) [7].

These studies indicate towards the association between the COVID-19 disease susceptibility and ABO blood group. Currently there is limited data and information about the impact blood group type on COVID-19 infection, however majority of studies indicate that individuals with 'A' blood group might be at a higher risk for severe illness from this infection.

1.2. Sex Hormone

For most of the infectious diseases, it has been observed that females express a better immune responses compared to males. Generally, immune system in females, respond more effectively to the pathogens, creating higher number of interferons and antibodies. This defensive impact, primarily mediated by the hormone estrogen, is attenuated in post-menopausal women [8]. Females have depicted a consistent advantage for survival compared to males for this present pandemic, SARS-CoV-2 as well as SARS-CoV in the year of 2003 and MERS (Middle East Respiratory Syndrome) epidemics in 2012 [9]. In males, pattern baldness is related to the significant amount of androgens, a male sex hormone which seems to play a significant role in SARS-CoV-2 virus infection [3]. The hormone estrogen, plays potential role in generating immune response against certain viral diseases. This has been reported to render immunity against acute lungs inflammation by mediating adaptive immune response and through modulating cytokines expression. Some previous studies show that, women are affected less by the viral disease COVID-19 due to the possible impact of the hormone estrogen than men [10].

Progesterone and estrogen both the key sex hormones characterising women. The male body also contains progesterone and estrogen, however in little concentrations. Estrogen interacts with the immune system by affecting number of lymphocytes and their reaction to infection [11]. Coronavirus causes ER (endoplasmic reticulum) stress by the formation of DMV (double membrane vesical), glycosylating protein and degrading the membrane lipids. In some of the previous studies, it is noted that estrogen maintains a great role in the reduction of ER stress by the activation of UPR (unfolded protein response) through PIP2 (phosphatidylinositol 4,5-bisphosphate), PERK (protein kinase R (PKR)-like endoplasmic reticulum kinase) and XBP-1/GRP78 pathways [10, 12]. The anti-inflammatory properties of progesterone hormone may play potential role in prevention of harmful over reactions of the immune system [11].

Taskin (2020), analysed around 6,00,000 women for possible relation between menopausal status, intake of COCP (Combined Oral Contraceptive Pills) and HRT



(Hormone replacement therapy) and viral infection symptoms. They reported that post-menopausal women, who are in the age group of 45-50, had a high possibility of COVID-19 compared to the rest. Post-menopausal women, in the 50-65 years age group, who used HRT, showed greater COVID-19 risk. women, who were using COCP in the 18-45 years age group showed a low prediction rate of SARS-CoV-2 with the reduction in symptoms including persistent cough, anosmia, severe fatigue and delirium. COCP contains a minimal dosage of progesterone and estrogen hormones, like those normally created by the body [11].

In another study, Graves (2020), reported that baldness may escalate the risk factor of COVID-19. The researcher reported that an enzyme named TMPRSS2 (transmembrane protease, serine 2), produced by human body, cleaves the spike protein of the novel corona virus, empowering it for the binding to the ACE2 receptor. It permits the virus to take entry into the cell. The gene which is able to encode TMPRSS2 is activated in the presence of DHT (dihydrotestosterone) a male hormone, binds to the androgen receptor (a protein on cell's surface, including lung cells and hair cells). Hence, high amount of male hormone leads to higher androgen receptor binding and greater presence of TMPRSS2 facilitating the virus entry into the cell [3]. In another study conducted on 122 male patients affected with COVID-19, admitted to hospitals in Madrid revealed that 79% of patients were bald, which indicates its association with COVID-19 as a risk factor [3]. Thus it is suggested that, sex hormone may be one of the risk factors of Coronavirus disease.

1.3. Age:

The current pandemic of COVID-19, has demonstrated a uniquely lower rate of cases among children. The disease shows an expanded number of cases with the growing age [13]. Davies and co workers reported an age gradient, analysed from the very fast phases of this pandemic, showing children having diminished susceptibility to the disease in comparison with adults. They also found that individuals below 20 years are half as susceptible to the disease roughly as those who are older than 20 years, and that 79% of the infections were non-symptomatic or paucisymptomatic (*i.e.*, subclinical) in the age of 10-19 years, in the comparison with 31% in patients over the age of 70 [14].

The mortality rate in this current pandemic in aged adults' has been found striking. According to the report of joint WHO-China fact-finding mission, in the month of January the overall CFR (case fatality rate) was 17.3% and was reduced to 0.7% in the month of February, though in case of adults older than 80 years old, the CFR had enhanced to 21.9% [15]. Shahid and co-workers(2020), analysed 72,314 cases which showed a CFR of 2.3% overall, but a CFR of 8% in patients who were 70-79 years old and the percentage of 14.5 in patients who are older than 80 years. A report which was based on 355 patients with COVID-19 found that patients who died had an average age of 79.5 years. Another study of United States based on 4,226 cases, showed a CFR which was lesser than 1% in the patients who are below the age of 54 but in case of those patients, between the age of 65 to 84 the CFR was 3% to 11% and 10% to 27% in

patients older than 85 years. More than 80% of death cases among adult patients happened in those older than 65 years [15, 16].

As per the report of U.S. Centres for Disease Control and Prevention (CDC), 8/10 deaths in the U.S. from the current COVID was in individuals in the age of 65 and more. An estimated percentage of 6-29 of the individuals of 85 and more who get SARS-CoV-2 will need more care. Maragakis (2020), has mentioned some reasons associated with age related statistics of COVID-19. Older adults have some long-time health issues that may put them at the risk. Human immunity tends to be weaker with their age, makes it very tough for the older people to combat against infections. There is also a reason like our lung tissues become less elastic over the age or time, makes respiratory diseases like Coronavirus disease a particular concern for aged persons and inflammation for the adult aged can be more intense, may cause organ damage [17].

Thus, though there is limited data and information about the risk factors associated with COVID-19, however extensive research being conducted worldwide will undoubtedly lead to a more robust analysis of potential factors and give us valuable insight into this disease and its patterns.

3. Plant extracts in the way of COVID-19 prevention and treatment

From the early 2020, researchers are trying to develop vaccines and drugs against SARS-CoV-2, the life threatening viral disease. While drugs are under development or in trial phase, dietary therapeutics and medicines based on herbs can prove to be effective for prevention and treatment of this disease [18]. In addition, plant based hand sanitizers, antiviral mask and air disinfection can also help to prevent disease naturally (Fig 1).

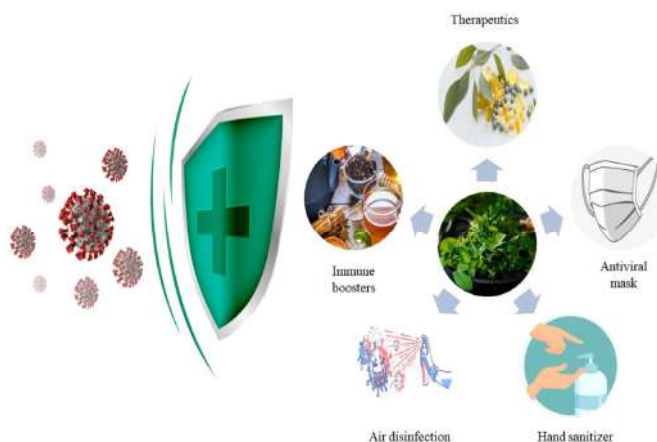


Fig 1: Plant extracts in the prevention of SARS-CoV-2

3.1. Immune boosters and therapeutics from nature



A good number of plant and fruit extracts contain chemical constituents viz apigenin, menthol, piperine, gingerol, paradol, eugenol, catechins, allicin, steroidal lactones, steroidal alkaloids, terpenoids etc., which have been reported and claimed to be helpful in remedial of viral infection (Table 1). Few previous studies inform us that *Andrographis paniculata*, a medicinal plant, mainly found in south India and Sri Lanka, contains flavonoids, diterpenoids and polyphenols, helps in the boosting of immunity and in reducing Coronavirus infection symptoms like fever and sore throat. A medicinal plant of Asia and Africa named *Tinosporacrispa*, utilized as an antiviral drug and eye drop, by preventing entry of virus through eyes. The presence of various flavonoids, alkaloids, triterpenes have been revealed in this plant [19-21].

Huang and co workers reported that antiviral therapy based on herbal medicines of China can play potential role to prevent the transmission of SARS. Considering the availability and reduced toxicity of these medicinal plants, an extensive screening of active compounds against viral or host targets may help in devising strategies for COVID-19 treatment [22].

Unani researchers recommend few medicines which might be utilized as health protecting medicines in the time of epidemics. Single plant extracts as well as formulations of compounds are already recommended in this regarding. *Halela* (*Terminalia chebula* Retz.),

TABLE 1: Some medicinal plant extracts and their partial role in prevention of COVID 19

Sl No.	Name of the plant extract	Commonly known as	Chemical Constituents	Properties	References
01.	<i>Ocimum tenuiflorum</i>	Holy basil	Phenolic compounds, Limonene, Eugenol, Apigenin, Linoleic acid,	Antimicrobial activity, Anti-inflammatory, Anti-oxidant, Immune-modulatory, Antipyretic	[4, 38]
02.	<i>Piper nigrum</i>	Black-pepper	Piperine, Piperanine (4,5-dihydropiperine), Piperlyline, Piperlonguminine, Piperettine, Piperdardine (6,7-dihydropiperettine)	Antihypertensive, Antioxidant	[24, 38]
03.	<i>Zingiber officinale</i>	Ginger	6-Shogaol, 6-Gingerol, 8-Gingerol, 10-Gingerol, Paradol, Zingerone, Zingiberene, Phellandrene	Antimicrobial effect, Antioxidant	[24, 38]
04.	<i>Cinnamomum cassia</i>	Cinnamon	Benzaldehyde, Cinnamaldehyde, Terpenes, Linalool, Eugenol, Cuminaldehyde	Immune-stimulant activity	[38]
05.	<i>Allium sativum</i>	Garlic	Allicin, Alliin, Ajoene, 2-Vinyl-4H-1,3-dithiin, Diallyl sulfide, Diallyl disulfide, Diallyl trisulfide, Allyl methyl sulphide	Anti-inflammatory, Antioxidant, Anti-stress	[24]
06.	<i>Tinospora cordifolia</i>	Heart-leaved moonseed	Terpenoids, Alkaloids, Lignans, Steroids	Antioxidant, Anti-inflammatory	[27, 36]
07.	<i>Withania somnifera</i>	Winter cherry	Withanolides, Steroidal lactones, Steroidal alkaloids	Decreasing inflammation	[27, 37]



08.	<i>Andrographis paniculata</i>	Creata or green chiretta	Flavonoids, Diterpenoids, Polyphenols	Immunity boosting, reduce fever and sore throat	[19]
09.	<i>Tinosporacrispa</i>	Patawali, AkarPatawali	Falvonoids, Alkaloids, Triterpenes	Antiviral drug and also used as eye drop	[19]
10.	<i>Glycyrrhiza uralensis</i>	Chinese licorice	Carvacrol, Thymol	Antiviral activity	[22]

imli (*Tamarindus indica*), gul-e-banafsha (*Viola odorata L.*), turanjabeen (*Alhagipseudalhagi* (M. Bieb.) Desv. ex B. Keller & Shap.), revandchini (*Rheum australe D. Don*), aab-e-anar (*Punica granatum L.*) and amaltas (*Cassia fistula*), are suggested to afford protective effects throughout the epidemics [5]. Treatments based on these natural remedies and applications in our daily diet will be fruitful to boost our immune system against Coronavirus disease.

3.1.1. *Ocimumtenuiflorum*

Ocimumtenuiflorum, commonly known as Holy Basil, a medicinal plant of *Lamiaceae* family, is cultivated throughout the Southeast Asian region. A huge number of in-vitro, human and animal exploratory scientific studies demonstrated that phenolic compounds like eugenol, linoleic acid etc. are present in this plant which shows antimicrobial activity including antiviral, antibacterial and antimalarial activities. It also shows anti-inflammatory, anti-oxidant, anti-diarrheal, cardioprotective, hepatoprotective, renoprotective, immune-modulatory, antipyretic, analgesic properties and in this manner a treatment is suggested for a scope of ailments continuing features like fever, cough, asthma, gastric, diarrhea, anxiety, cardiac and genitourinary disorders [4].

3.1.2. *Piper nigrum*

Piper nigrum, well known as black-pepper, a medicinal plant from *Piperaceae* family, native either to Southeast Asia or South Asia, has been found to enhance bioavailability and medicinal effectiveness of numerous drugs, nutrients and vaccines and have immunomodulatory, anti-inflammatory, antihypertensive, antiplatelets, antipyretic, anti-asthmatic, antispasmodic, anti-diarrheal, analgesic, antidepressants, anxiolytic, hepatoprotective, antithyroids, antiulcer, antimetastatic, antiapoptotic, antimutagenic, anti-amoebic, antifungal and antibacterial properties [23].

Black pepper was accounted for antioxidant, anti-cancer, respiratory congestion, cardiovascular disease, assisting to expectorate, and dry up mucus membranes physiological effects, and so on. Rajagopal and co-workers has reported that *in silico* studies exhibited many of the chemical constituents from black pepper family might be valuable against Coronavirus [24].

3.1.3. *Zingiber officinale*

Zingiber officinale, commonly known as Ginger, a folk medicinal plant of *Zingiberaceae* family, helps in the modulation of genetic pathway, acts on tumor suppression of genes and cyclooxygenase I inhibitory properties, anti-inflammatory action, antimicrobial effect, hypotensive properties, and cholesterol regulation, etc. [24]. It also expresses



anti-platelet activity which may counter act the coagulopathic effects of COVID-19. The bioactive compounds in ginger like β -sitosterol, nevirapine, methyl-6-shogaol, 6-gingerdiol, germacrene, 6-gingerol, 6-shogaol, α -linalool, zingiberene, gingerdion and so on, are familiar for the inhibition the viral replication; among these, β -sitosterol enzyme is the most intense inhibitors of reverse transcriptase (RT), that is expected to be used as non-nucleoside reverse transcriptase (NNRTIs) HIV-1 inhibitors [4, 25].

3.1.4. *Cinnamomum cassia*

Cinnamomum cassia, known as Cinnamon, widely cultivated in southeast and south Asia, works as a potential immunity boosting agent and is utilized in different ailments like flu, cough, edema, indigestion, etc. It carries bioactive compounds like benzaldehyde, cinnamaldehyde, cuminaldehyde and terpenes. In one of the studies, it was reported that cinnamon at higher dose (100 mg/kg) demonstrated the activity of immune-stimulant as it significantly enhanced the phagocytic index, antibody titer and the levels of serum immunoglobulin and reduced the percentage reductions in the neutrophil count. Lower dose (10 mg/kg) of Cinnamon also helps in the increment of the levels of serum immunoglobulin only. This indicated that high dose increases both humoral immunity and cell mediated immunity while lower proportion depicted the effect only on humoral immunity [4, 26].

3.1.5. *Allium sativum*

Allium sativum, commonly known as Garlic, was accounted for relieving diarrhea, abdominal discomfort, and respiratory tract infections. The result of Rajagopal *et al.* (2020) revealed that it contains allicin, ajoene, diallyl sulphide, allyl methyl which shows the SARS-CoV-2 inhibitory properties. In addition it shows anti-inflammatory, antioxidant, anti-stress properties. It also carries anti-cancer cardiovascular disease, anti-diabetic properties. It works as immunity booster also, etc [24].

3.1.6. *Tinospora cordifolia*

Tinospora cordifolia, member of the family of menispermaceae, also known as heart-leaved moonseed and in India as Giloy, an Ayurvedic herb is extremely rich in antioxidants that helps in the neutralisation free radicals and also in the prevention of inflammation. Likewise, it also assists in the purification of blood, boosting immunity, removes toxins from the body and resists bacterial and viral infections effectively. Fever is one of the indications of Coronavirus disease and consumption of giloy juice may be helpful to get rid of fever. It has anti inflammatory properties which aids in managing respiratory issues [27].

3.1.7. *Withaniasomnifera*

Withaniasomnifera, belongs from the Solanaceae family, an old medicinal herb, known as Winter cherry and Ashwagandha in India, gives pretty much every health advantage. From boosting immune system to stress reducing it regulates blood glucose level, and lowers cholesterol level. A very recent research which was conducted by the researchers at the IIT-Delhi, has discovered that Ashwagandha carries certain bio-actives that interact with COVID-19. A natural compound named withanone (Wi-N), is found in



this herb which has the ability to block the replication process of virus and resists its spread [27].

3.2. Chinese, Iranian and Indian traditional medicine

Now we are dealing with deadly SARS-CoV-2 virus. In this moment, besides boosting our immune system, traditional medicines can help in the treatment also. Traditional Chinese medicine (TCM) is used to treat several acute epidemic infectious diseases. In Beijing, in the month of January 2020, it was first reported that a patient was cured and discharged after the TCM treatment with symptomatic therapy [28]. Iranian as well as Indian traditional medicinal system also emphasize on prevention from the causative agent.

Licorice, a herb mostly grown in some parts of Asia and Europe, is extensively used in traditional Chinese medicine. This medicinal plant (known as Gan Cao) contains Glycyrrhizic acid which is isolated from *licoriceroot*. *Glycyrrhiza uralensis*, also known as Chinese licorice, carries active ingredients like carvacrol and thymol, that significantly shows bactericidal and antiviral effects. From previous studies it's known that bioactive compounds from licorice have protective impact on lung inflammation and damage, and for treating SARS, it may have a favourable herbal medicinal value. Some of the previous studies compared the effect of traditional antiviral drugs (like 6-azouridine, pyrazofurin, ribavirin, glycyrrhizic acid and mycophenolic acid) on SARS-CoV, with glycyrrhizic acid and found that glycyrrhizic acid plays better role as anti viral agent with respect of inhibiting the viral adsorption and penetration. Hoever *et al.* also demonstrated that glycyrrhizic acid has a better anti-SARS-CoV effect, while SARS-CoV-2 and SARS-CoV belong to different subclasses of coronaviruses with similar structures [22, 29].

Another medicinal plant *Artemisia annua*, has been reported for its potential role in probable treatment of SARS-CoV-2. It is recommended that the Iranian type of *Artemisia annua* can be utilized as a drug candidate for the COVID-19 treatment. Furthermore, four Iranian organizations have initiated the studies for the making of herbal medicine which may be beneficial to treat Coronavirus disease 2019 using *Artemisia annua* extracts [19].

Indian conventional medicine based treatment is one of the most established treatments in human history and includes Ayurveda, Unani and Yoga, Siddha, Homeopathy and Naturopathy can play a great role in the treatment of different diseases. Around 2500 therapeutic plants based formulation are there which is used in Indian conventional medicinal system. Since a great deal of Indian therapeutic herbs has shown anti-cancer, antiviral, and anti-oxidant activities that it screening them against SARS COVID will be highly beneficial. Numerous studies are there regarding anti-coronavirus activity by utilizing therapeutic plants in India. It was indicated that the medicine producing plants including *Gymnemasylvestre*, *Vitex trifolia*, *Indigofera tinctoria* (AO), *Leucas aspera*, *Abutilon indicum*, *Sphaeranthus indicus*, *Cassia alata*, *Pergulariadaemi*, *Clitoriaternatea*, *Evolvulusalsinoides* and *Clerodendrum inermis* Gaertn has anti-mouse coronavirus activity. Few of previous study report have already shown that the *Allium sativum* and *Glycyrrhiza glabra* have the effect of inhibition on the replication of SARS-



CoV and then they also may be considered as a better drug candidate for Coronavirus disease 2019 [19, 30, 31].

3.3. Plant extracts in alternative ways of prevention

Disease causing microorganisms spread through the contaminated food, water, air, cloths, equipments or from affected individual to healthy one. Though just in contact with the microorganism isn't sufficient to cause the infection or disease, deposition of germ to the inner body is a very critical step associated with the appearance of ailment. Transmission of the infection in a person may be take place from skin to the internal body particularly when the infected part (generally hands) arrives at the mucous membrane of open cavities for example, mouth, eyes, nose or open wound. Subsequently the utilization of better quality sanitizers for preventing infections like Coronavirus disease is one of the basic measures. Hence Kwatha (medicated decoction) of therapeutic plant extracts can be formulated into an antiseptic liquid which further can be utilized as a readymade hand sanitizer [32]. Nikhat and Fazil reported numerous drugs that have been recommended for spraying, to apply on equipments and body as sanitizers and also for fumigation. These drugs are mostly aromatic plant extracts, for instance loban (*Styrax benzoides* W. G. Craib), za'fran (*Crocus sativus* L.), sandroos (*Hymenaeaverrucosa* Gaertn.), vinegar, Rose water and so on which give a relaxing aroma and also have a clearing impact on microorganisms [5].

COVID-19 transmission occurs generally by respiratory droplets than through surfaces and objects, such as keyboards, countertops, doorknobs, toys, etc. Studies suggest that Coronavirus may remain viable from hours to days on surfaces, made up of many types of materials. Cleaning of visibly filthy surfaces followed by disinfection is a good measure to prevent COVID-19 and other viral respiratory illnesses in households as well as community settings [33]. 'Defence research and development organization', an organization of government of India, has developed, herbal air sanitizer formulation, AEROCLEAN. This 100% herbal formulation, disinfects air by the natural antimicrobial activity. It shows effectiveness against most of pathogenic bacteria and microbes responsible for air-borne infections. This product is reported to be safe effective at higher level and does not carry harmful chemicals. It has a beneficial impact on human health in aroma-therapy and also has aesthetic importance [34].

Surgical masks are good in the prevention of virus spread into the air and transmission to people. Nonetheless, after the removal of mask, the virus stays on the mask and is most likely re-aerosolized, expanding the human infection risk. Mask covering with an antiviral compound might be beneficial, but disinfectant toxic nature to humans must be thought of [18]. Conventional Indian medicine which includes oil and herbs, may play a role in helping combat Covid-19. Researchers in South Korea, UK and India have referred two studies which show plants utilized in conventional medicines in India might be utilized both in face masks for the improvement of their capacity to filter out the infection and taken orally to slow disease rates and ease symptoms. From this reports we additionally come to know about a way of infusing nano-fibre based respiratory masks with some of these herbs, which they claim will diminish the pace of infection going through the filter and into the lungs of the wearer. The herb filter, including plants that



were noticed to inactivate or 'turn off' the SARS infection. The size of the SARS-CoV-2 virus is 120-125 nanometer and most masks can stop only microbes of 300 nanometer or more [35].

4. Discussion and Future aspects:

The positive cases of COVID-19 in increasing very rapidly and there are some common risk factors of this disease. Blood group is related to Coronavirus disease. Though there is a contradiction on which blood group is at higher risk. Most of the studies indicate that blood type 'A' is in the higher risk than other blood types and 'O' is in the lower risk. Sex hormone is also related to this disease and estrogen, a sex hormone, protects women. The SARS-CoV-2 pandemic also has a much higher mortality rate in older adults. Herbs play a great role in preventing this type of deadly disease. Ayurveda has a great possibilities and potential to be engaged in both to prevent as well as to treat COVID-19. Herbal medicine and dietary therapy might be a complementary preventive therapy for Coronavirus disease. An important aim of this paper is to alert and inform people about the infectious deadly disease and the era of epidemics and COVID-19 like pandemics and how to take precautions, prevent and overcome these type diseases based on the herbs and traditional medicine. Our article recommends the further studies on the Chinese, Iranian and Indian therapeutics based on natural plant extracts, might be required to find the novel anti-SARS-CoV-2 substances valuable for eradication of Coronavirus. It features the ways that the natural medicines may be effective to overcome the COVID-19. It is the right time to show that traditional therapeutic systems can give a major fight in COVID-19 and future pandemics.

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DECLARATIONS:

Funding: NA

Conflicts of interest/Competing interests: Authors have no conflict of interest

Ethics approval: NA

Consent to participate: NA

Consent for publication: Authors give publishers the consent to publish

Availability of data and material: NA

Code availability: NA

Authors' contributions:

1. Mr. Abhrajit Debroy: Presented the idea for the article, performed the literature search and analysis.
2. Dr. Nancy George: Drafted and critically revised the work.



A FRAMEWORK FOR MITIGATION OF HOME-BACK LABOURS ON POST COVID-19 FOR
REGIONAL DEVELOPMENT

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ABSTRACT

This paper's basic objective is to design a framework for the efficient mitigation of home-back labours of rural North-eastern India. For this purpose, secondary data derived through content analysis have been analyzed and interpreted. Besides recognizing home-back labours wishes and ascertaining their inbuilt skill sets, the framework will focus on skill mapping with the existing and would-be economic activities in the rural sector. Since the inflow of home-back labours to the rural sector has been a crucial point of concern for respective state governments owing to the Covid-19 pandemic, all state governments are alert to addressing the issues of these labours. The North-eastern states especially Assam is not an exception to this concern. It has been putting all its efforts into accommodating all back home labours in the rural sector's economic activities, but with no significant achievement. A framework embedded within the skills matrix will help employment strategy to promote rural development against this backdrop. This study's findings will help policymakers shift focus from transfer payments to the creation of capital overheads.

Keywords Home-back labours, North-eastern states, Agriculture, Skill mapping, Economic activities.

Contribution/Originality: This study's findings will help policymakers shift their focus from transfer payments to capital overheads. This research will help in policymaking of the management of surplus workers in the rural sector, the management of skill sets of home-back labours, providing socioeconomic justice, and weathering the expected recession in the future.

1. INTRODUCTION

The Covid-19 pandemic has made an inevitable situation irrespective of their geographical boundaries that has made the lives of migrant workers in India wretched and forced most to return to their home regions. The inflow of returnee migrant workers to the rural sector is a crucial concern for the respective state governments (Bhagat, Sahoo, Sahoo, Roy, & Govil, 2020). The North-eastern region especially Assam is no exception to this; the lives of home-back labours from Assam working in other states are in disarray due to Covid-19. Because of lockdown and shutdown, their work establishments, factories, workshops etc have been closed and they are living in so-called residences where the density of workers per room is exceptionally high. They are obeying the mantra "stay home; stay safe" to help survive the virus, but the nature of this incarceration makes them more vulnerable as they cannot maintain social distancing or the required hygiene measures. Since they do not have ration cards, they are deprived of governmental assistance. To safeguard these migrants, the government announced that those establishments where migrants are working would take care of their food and other basic requirements.

However, it is obvious that the reality of their conditions is far removed from that stated by the government. When these establishments are no longer operational and showing a negative return on investment, how long can they support those workers? Consequently, migrant workers are left either starving or poorly fed. They are unable to return to their home villages because no mode of transportation is allowed during lockdown. Also, they are well aware that they will be put into quarantine for 14 days in their villages and, only if everything goes well post quarantine, will they be allowed to enter their village and residence. In both cases, they are facing a critical choice between life and livelihood. In the former case, as they walk for long distances looking for work in their native villages, they put their lives at risk owing to the physical strain of extensive walking and their vulnerability to Covid-19. In the latter case, if they seek work outside of their local area, they render themselves vulnerable to the virus (Jan, 2020). This is a matter to ponder for researchers and planners – life or livelihood, which is to be prioritized during this unprecedented situation, particularly for migrant workers? Is there any intermediate pathway for these migrants? That question is the basis of this research proposal for the design of a comprehensive framework. One clue to the solution of this question, and which encompasses a greater socio-economic issue, has been arrived at by analysis of the literature, abstracted from both print and electronic media.

India's government has started to announce economic packages for different sectors of the economy and different sections of society. These packages may help address the employment issues in both segments regarding migrant workers during the post-pandemic situation. These packages announced by the government, together with existing facilities and those to be created in rural areas, may address the issue of tackling the surplus workforce



that has emerged due to home-back labours. However, the value paradox still stands because migration was the outcome of not accommodating the rural population effectively in their home regions; but how will this rural economy accommodate the returning back migrants? A well-thought out framework devised by the government may address this paradox. Thus, the development of a precise framework is needed to efficiently utilize this surplus workforce by proper planning for the skill sets inherent in home-back labours and the facilities available or created in rural areas (Singh, Patel, Chaudhary, & Mishra, 2020).

As a rough estimation, of around 1 lakh 50 thousand migrant workers from Assam working in different states around the country, more than 90 thousands have returned back home. These migrant workers are an extra burden on the rural sector as they return to their place of origin. If they are properly utilized, the primary sector, in particular, and the rural economy, in general, may see a boost in regard to growth and development. However, improper utilization of this additional workforce may create chaos and distortion in the rural economy.

The immediate measures required of the state are:

Food security: the government and many nongovernmental organizations (NGOs) have put all their efforts into providing food security to all migrants. Thus, there must be a team set up to ensure implementation along the desired pathway.

Agricultural labour security: the addition of repatriated migrant workers to the existing workforce in rural areas may result in a surplus workforce, which will overload the agricultural sector leading to hidden unemployment.

The leading existing economic activity that dominates provision of livelihoods in the rural sector of Assam is agriculture. The average holding is 1.25 hectares, and 83% of farms are small and marginal. Agriculture employs around 67% of the state workforce and contributes around 26% of state GDP.

Due to various factors such as seasonal floods, absence of assured irrigation, low- level seed transposition, basal levels of fertilizer usage, and reduced pace of mechanization, agriculture in Assam is known for medium productivity.

For the effective utilization of home-back labours, all rural sector stakeholders need to make a concerted effort to solve the current problem of employing them in economic activities and facilitating development of the rural economy.

From secondary data, i.e., data from the registration done by the Health Department, Assam we can assess the baseline for the type of employment under consideration. Before assessment of the skills of home-back labours, we should compile a list of parameters that cover the expertise of workers inherent in each job ascertained from the secondary data. If a particular job is not found in the migrants' register, it could possibly be created in the locality. The parameters inherent in that job will also be enlisted as that could be a source of employment for some migrants after motivating and making them trained.

2. LITERATURE REVIEW

Home-back labours can be the source for regional rural development. The knowledge, skills, and expertise gained in the workplace, factories etc. are channeled into the production process and appropriate institutional infrastructure (Kumar, Bhattacharya, & Nayek, 2014). There have been policy issues in regard to the rehabilitation of repatriated migrants from Gulf countries to India; lack of a comprehensive framework to channel those returnees is responsible for them not becoming contributors to domestic growth (Kumar, 2008). While chronic poverty is the cause of migration in most cases, migration may lead to chronic poverty in exceptional cases due to an incorrect approach (Kothari, 2002). Apart for decentralization, the convergence of various services related to food and nutritional programmes, water and sanitation programmes, and employment and livelihood programmes must be made worthwhile. It is appropriate to establish an alliance and systematization between central and state governments (Bhagat et al., 2020).

Around 21% of the home-back labours surveyed reported they had taken loans from banks, moneylenders, contractors, or other sources, and 8% said they had taken loans from friends from Assam as well as in working area. More than 79% believed that they would not repay their debts in the short term, and nearly 50% feared danger or violence due to their inability to repay these debts. Over 42% of the workers surveyed said they did not have sufficient rations for the next day, while nearly 40% said they had rations for the next two weeks and 18% reported that they had enough for 2–4 weeks. One third (33%) of the workers surveyed reported having no money to buy rations, 14% had no ration card, and 12% had ration cards. Nevertheless, these workers could not access the public distribution system because they were migrants (Jan, 2020).

Return labours has many potential benefits. Through employment abroad, labours can increase their income, acquire new skills, and accumulate savings and assets. However, benefits are materialized in their home region only if that region has the right policies to encourage returnees' investment and to use their skills (Wahba, 2015). Returning to home based town has major potential to boost the performance of the economic engine of the



country. However, it needs to be handled delicately (Dustmann & Weiss, 2007). Returnee labours have experienced both a conservative and an innovative approach.

Home-back labours use their earnings generated for repayment of loans previously taken, or to meet family needs in some cases. This is the conservative approach. In other cases, returnee migrants use their return to develop a new career (Klave & Supule, 2019).

Based on a comparative study in six countries, it was found that return migration has the potential to engender peace and prosperity. Migrants intend to be the agents of positive change in their home territory (Houte & Davids, 2014). With governmental policies and assistance from NGOs, a relationship among home-back labours, sustainability, and growth can be established. A borderless approach is needed to address the need for these labours, strengthening the economic condition of the regions where they are based (Van & Davids, 2008). Migration has the potential to impact economic development because home-back can promote entrepreneurship in their place of origin. By way of ethnographic research in Senegal among home-back entrepreneurs, it was found that return migration is a pivotal instrument for promotion of development (Sinatti, 2019).

Home-back is a key component of total migration, because it is estimated that approximately one in four returnee migrants relocates to their place of origin. Returnee migrants, if organized properly, may drive the local economy in the desired direction (Azose & Rafterya, 2019). By contributing to social reclamation and economic growth, returnee migrants can contain ferocity in their places of origin. In the context of homicide rates in Mexico, it was found that the higher the rate of return migration the lower the local homicide rate (Bucheli, Fontenla, & Waddell, 2019).

While migration is treated as a brain drain, return migration can be seen as a brain gain (Olesen, 2002). Home-back promote entrepreneurship and the generation of capital, both financial and human, in their place of origin. However, proper planning must integrate the inherent talent and intent of returnee migrants with the local economies (Coniglio & Brzozowski, 2018). A concise framework based on reviews of experiential and theoretic literature on the regional development role of home-back labours is required (Wahba, 2014).

It is apparent from the literature reviewed here that home-back migration has great potential to contribute to the economy. Nevertheless, this requires planned intervention with a comprehensive framework to channel that potential. This research is primarily designed to develop an all-encompassing framework for the same.

2.1. Objectives

The objective of this study was to design a framework that includes the following:

The wishes of home-back labours concerning their place of work after the restoration of normality. All potential work opportunities (available and future) in rural areas.

The potential of this labours to adapt to any job that is available or that can be created in their native region.

Mapping of job opportunities in the locality with regard to the potential of this labours, by absorbing the surplus workforce efficiently and thus benefitting the rural sectors.

3. METHODOLOGY

The framework and proposed methods for the research are given below.

The study is a blend of descriptive and action research for rural Assam. The census method (i.e., complete enumeration survey) was followed. Both primary data (from home-back labours, villagers, village heads, health department records, transport department records) and secondary data (analysis of both the print and digital literature) were used.

To outline all potential work opportunities and explore some unusual and unconventional work opportunities based on existing facilities and available know-how, regular and sustainable livelihoods could be catered for.

Content analysis and experts' opinions are used to design a model that absorbs a surplus workforce to benefit the regional rural economy.

Descriptive statistics are used to interpret data, and a skills matrix created to assess the skill sets of home-back labours, which will be mapped with existing and would-be job opportunities created.

3.1. Efforts to engaged the home-back labours

To upgrade the skills of home-back labours and to create sustainable livelihood opportunities under the Pradhan Mantri Kaushal Vikas Yojana and the Apprenticeship Scheme, the Skill Development Ministry of India selected 116 districts of the country to re-skill as per local requirements. The Ministry will identify the current skill sets of home-back labours and to re-skill them, if necessary, as per local job market requirements.



It is pertinent that skill mapping and re-skilling are addressed without delay to ease the pressures on the regional rural economy created by this labours. However, skill mapping methodology is vital but has not been clarified by the Skill Development Ministry. Our focus is on the methodology for skill mapping.

In Bihar, the Department of Industry carried out skill profiling of 80,000 returnee migrant workers and found that most were unskilled. Hence, Bihar is planning to focus on the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to provide livelihoods to unskilled migrant workers at an enhanced workday of 200 from 100 previously.

However, the potential of re-skilling those unskilled workers who intend to engage in other modes has not been explored; our skill profiling methodology and recommendations for re-skilling will create a window of opportunity for those unskilled workers.

The state of Uttar Pradesh has begun to liaise with industry to accommodate skilled and semiskilled home-back labours. Real estate companies have already started contacting such workers for skill assessment, based on which they will be engaged or, if required, they will be reskilled and trained before being engaged. However, the problem here concerns correct skill profiling and interest assessment. Perhaps skill profiling will be done appropriately by the real estate companies and other companies, but what about labours intentions? Real estate companies are mostly based in cities, but home-back labours live mostly in their remote home villages. In this case, migration would again occur from rural to urban areas in that state but not in other states. The Covid-19 pandemic has impoverished the lives of migrants within the state, as well as the resident population. Thus, mere skill profiling is insufficient to address the issue. Besides skill profiling, intent assessment is required because most home-back labours may prefer to remain in their native areas.

Moreover, the real estate sector may have little spare capacity to engage a substantial additional workforce. At present, people in cities also struggle to find regular work. If engaging them results in redundancy for existing workers, this is clearly not a solution. Finding a way to employ and engage the home-back labours in their native regions will solve the problems of ignoring their wishes, reduce the incomes of existing workers in cities and strengthen the regional rural economy. Our framework is aimed at addressing this gap.

Jharkhand and Odisha are in a similar position to Uttar Pradesh, with pivotal dependence on MGNREGA. However, this is not the right platform for skilled and semiskilled home-back labours. A pertinent point that questions the potential of MGNREGA is: "Can it generate sufficient work for massive numbers of home-back labours or will it just be a type of transfer payment to inject money into the economy?"

States like Punjab and Haryana have adopted a different approach. Migrants working in those two states and who were unable to return to their native regions because of lockdown were given distress cards by which they can obtain free food (grain) until they resume work. Some migrant workers who had gone back to their native regions were offered booked train tickets by their employers to return to work. However, considering the pain and fear the migrant workers experienced because of the Covid-19 pandemic, it is important to assess their wishes. Nevertheless, unfortunately, migrant workers' wishes have not been given due importance in either of the alternatives mentioned.

Although efforts made to date at different levels to engage and employ the home-back labours at economic activity are undoubtedly praiseworthy, the outcome will be satisfactory only if they are properly channeled through skill mapping.

3.2. Skill Mapping through Skills Matrix

The following steps were used to map the skills of home-back labours.

Identify all possible work opportunities to get engaged in rural areas (an exhaustive list can be prepared).

Considering the specific conditions in Assam, work opportunities or engagement could be created through the following suggested categories: traditional farming (rabi and kharif crops), horticulture, vegetable farming, mushroom farming, sugarcane farming, betel leaf plant farming, floriculture, animal husbandry (cattle, sheep, goats, and pigs), beekeeping, poultry, fishery, masonry, brick making, trading in agricultural products, cottage industries (based on locally available raw materials), vehicle repair, pottery, carpentry, blacksmith work, goldsmith work, stationery shop, snack shop/dhaba, tailoring, painting, plumbing, electrical work, welding, security guarding, and see-saw, rice, and flour milling, etc. However, the complete list of job opportunities for a particular locality may vary depending on soil quality, climatic conditions, availability of raw materials, etc. Further, each category of work opportunity needs to be tested for its potential to engage an enhanced workforce; otherwise, it may create hidden unemployment.

Define the relevant skills required for each job opportunity (enumerate all skills required for each job opportunity).

For example, to establish a successful opportunity in agricultural activities, knowledge of the following is required:

- • Irrigation
- • Plant nutrition
- • Soil management



- Crop rotation
- Pest and disease management
- Weed control
- Care in postharvest handling
- Costs involved in machinery and equipment, etc.
- Adopting technology as and where required
- Legal aspects of food safety requirements
- Dealing with people, i.e., good interpersonal skills.

Any migrant with the qualities of crop cultivation knowledge, basic education, willingness to learn, dedication, patience, good communication skills, and interest in horticulture can be re-skilled to adopt this area as his/her occupation.

Assess repatriated migrants on their current skill levels.

For each job we need to know the migrant's level of proficiency, which is scaled thus:

- No experience or knowledge (level 1)
- Little experience or knowledge (level 2)
- Reasonable experience or knowledge (level 3)
- Considerable experience or knowledge (level 4)
- Expert experience or knowledge (level 5).

Migrants are to be briefed about the skill set or proficiency required for each job so that they can rate themselves appropriately.

Determine a migrant's interest in working in their chosen field. For each migrant, we would want to know whether they are:

- Not interested in applying their skills or knowledge in this job (level 0)
- Interested in applying their skills or knowledge in this job (level 1).

Information collected from steps 3 and 4 will help us to create 'clusters' of returnee migrants.

Assimilate all data collected from steps 1 and 2 in the skills matrix.

The format of the skills matrix, showing the levels of proficiency and interest of back-home labours in regard to a specific type of work, is presented in sample form in Table 1. This will be extended for all types of work identified in the locality.

Table-1. Skills matrix.

Proficiency rating	Past employment		Level of proficiency and interest of migrant regarding different work opportunities			
	What (where)	Expertise	Agriculture(Rabi/Khari)		Mushroom farming	
			Proficiency	Interest	Proficiency	Interest
1						
2						
3						
4						
5						

Source: Collated from existing literature. **Note:** Proficiency and interest ratings: see steps 3 and 4, respectively.

Table 1 is a sample of the skills matrix in which only two employment opportunities are featured. However, while collecting data from migrants, all work opportunities will be reflected in the matrix. When administering this schedule to labours, the data collector must clarify all its technicalities.

Take action on insights derived from the skills matrix.

Home-back labours will be clustered according to the output of the skills matrix and accordingly they will be trained and re-skilled, if required, to be engaged by any of the work opportunities. For example, suppose a home-back labour has rated her/himself 1 for proficiency and 0 for interest under each work opportunity; in that case, she/he may be considered for unskilled work through MGNREGA or as a casual worker in traditional farming as per the requirements. If the labour reveals a degree of proficiency in a particular type of work and shows interest in that job, she/he may be considered for the said job. Suppose a migrant shows interest in multiple jobs and has different levels of proficiency in those; in that case, she/he will be accommodated in the type of work in which his/her proficiency level is highest. Migrants having a reasonable level of proficiency, or the highest level of



proficiency for them personally, will be directly engaged in that job where available. On the contrary, migrants with a low proficiency level, which is the highest level of proficiency for them personally, will be upgraded through re-skilling before being engaged in that job.

2. CONCLUSION

Migration plays a crucial role in maintaining a balance between the twin market forces of demand and supply in the inter-regional labour market. The research in this study is innovative; it advocates accommodating surplus labour emerging from the repatriation of migrant workers to their native regions. This research is not meant to discourage migration; rather, it targets a solution for managing pressure in the labour market of rural areas where migrant workers are being repatriated due to disruption to their lives resulting from the Covid-19 pandemic, with no intention on their part to migrate again even after normality is restored. This research was planned to effectively manage a surplus workforce in rural areas to benefit the regional rural economy.

This study's basic objective was to design a framework to accommodate a surplus workforce returning permanently to their native regions from their previous work places. As such, the rural sector is not able to engage them efficiently with the facilities currently available; pump priming (stimulating economic activity through investment in socio-economic overheads) is required to get them effectively engaged. Capital overheads will be created, and self-employment will be promoted by way of providing subsidies and facilitating acquisition of the required know-how. This, in turn, will enable the rural sector to prosper and the rate of employment in the rural economy will be expanded. Greater employment will accelerate the purchasing power of the community and augment the supply of goods and services. Thus, society will be in equilibrium at a higher level.

This study's findings will help policymakers shift their focus from transfer payments to the creation of capital overheads. Instead of providing free or subsidized essential commodities in creating socioeconomic justice in the rural sector, policymakers can provide the subsidized equipment required for job opportunities that will engage and employ the home-back labours and add enormous value to the rural economy. However, transfer payments in the form of either cash or in kind might make the rural population complacent, and there is a risk that they could opt for working less in the hope of being taken care of by the government for their essential needs. Thus, pump priming represents a better alternative than transfer payments and, as such, it has the inherent trait of combatting recessionary pressure which is part of the post-COVID-19 effect. Thus, this research will help policymaking and governments agencies in regard to 1) management of a surplus workforce in the rural sector, 2) management of the skill sets of home-back labours, 3) provision of socio-economic justice to home-back labours, and 4) combatting the anticipated recession.

Acknowledgement: The research paper has been authored, design and estimation done as per my opinion and work-out. Datas obtained from the relevant department of Assam for my research to arrived at the conclusion.

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A STUDY ON MENTAL HEALTH AND ITS CORRELATES AMONG COLLEGE-GOING STUDENTS

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ABSTRACT

Background: Mental health may be a state of well-being with a way and understanding of talents and techniques to handle causative life stressors, thereby leading to productive work performance and fruitful contribution to community prospects. The mental health may be a major concern in today's situation. This downside is found altogether ages.

Aim: The aim of the present study was to study the mental health and its correlates like self-efficacy, life satisfaction, and happiness among college-going students. **Sample:** For this study, a sample of thirty males and thirty females were collected on a random basis from D.A.V. College, Chandigarh. For this study participant's age, gender, and academic qualifications conjointly studied. **Tools:** To assess the mental health, Mental Health Inventory (MHI) by Veit and Ware (1983), to assess the happiness, Subjective happiness scale (SHS) by Lyubomirsky and Lepper (1999), to assess the self-efficacy, Generalized Self-Efficacy scale (GSES) by Schwarzer and Jerusalem (2013), and to assess life satisfaction, Satisfaction with life Scale (SWLS) by Diener et al (1986). **Results:** Although finding disclosed that mental health was associated with happiness, self-efficacy, and satisfaction with life.

Keywords: Mental Health, Happiness, Self-Efficacy, and, Life Satisfaction.

Introduction

Health is the state of being free from unhealthiness or injury. World Health Organization (2001), the health isn't thought of just a free physical state of unhealthiness, however, could be a balance of physical, mental and social well-being wherever notably mental health refers to psychological feature and emotional regulation regarding however someone thinks, feels and behaves completely different things and below different stresses. The psychological state is believed to be an integral part of health that's on the far side of the elimination of disorder for any given states and capacities and is intimately connected with physical health and behavior. In keeping with WHO in 2001 mental health could be a state of well-being with a way and understanding of skills and techniques to handle casual life stresses, thereby leading to productive work performance and fruitful contribution to community prospects. Mental and physical health cannot exist alone and are thought of as two faces of a coin, encompassing activity, and social functioning as mutually beneficial constructs. They're thought of separate and reciprocally exclusive as long as the construct of health is seen in a very restrictive approach because of the absence of unwellness (Sartorius 1990). The in-depth identification and understanding of health as a state of balance within the self, others,



and also the setting is taken into account helpful not solely to people however to the communities at massive to research ways in which to hunt its improvement and betterment. Mental health remarked balance, harmony, and fitness. Vaillant (2003) has prompt that the mental well-being of general or average folks isn't thought of as healthy, for it mingled inside the health, the refined quantity of psychopathology, and deviance. Since a sound psychological state is mirrored in behavioral outcomes in any respect stages of life, therefore, it is often aforementioned, "there is no health without mental health" (Mental Health Network, 2012, p.1). Analysis has supported the read that the social factors of mental ill-health are related to medication, crime, or different factors, indicating advanced interactions between these antecedents, behavior, and psychological state (Walker, Moodie & Herrman, 2004).

Self-efficacy could be a development associated with whether or not or is capable of manufacturing sure actions. To place it otherwise, it's dominant in one's life (Bandura, 1986, 1997). Bandura (1997) suggests that beliefs associated with effectuality dissent reckoning on factors like (a) analysis of current capacities, (b) perceived hardness of the act, (c) quantity of try needed, (d) quantity of external support needed, (e) state of affairs within which the acts are accomplished, (f) temporal styles of achievements and failings and (g) the approach experiences are organized and reconstructed. He identifies the characteristics of self-efficacy as (a) the capability to know, (b) the capability to anticipate, and (c) the capability to manage the setting, oneself, and others. Self-efficacy differentiates reckoning on how people suppose, feel, and act. It depends on the associate degree's optimistic belief of being capable of managing several stress factors. Whereas people with high self-efficacy choose to exercise tougher tasks, a low level of self-efficacy is related to depression, anxiety, and helplessness. Per Skaalvik and Skaalvik (2010), self-efficacy is an associate degree agent associated with individuals' perceptions regarding their capability in carrying out the roles prescribed for them to realize a group of goals and objectives. People with a high level of self-efficacy adopt a "can-do" approach towards life and hence, they will understand challenges as issues to be solved, instead of threats to be avoided (Graham, 2011). They're conjointly able to set goals for themselves and commit themselves to realize these goals. As a result, they're extremely connected to life; those with a high level of self-efficacy get pleasure from life. Just in case once they encounter a problematic situation, they become confident because they believed in their capability (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005; Pajares, & Urdan, 2006). On the opposite hand, people with a low level of self-efficacy typically approach to a tough task with worry. what is more, low self-efficacy becomes a cycle, such that; absence of belief inability ends up in a scarcity of action, which then will increase diffidence folks with low self-efficacy doubt their potential, tend to fret out simply, and are a lot of depressed as compared to those with high self-efficacy levels (Luszczynska, Schwarzer, Lippke, & Mazurkiewicz, 2011; Rodebaugh, 2006).

Happiness is outlined as the mental and emotional well-being occurring because of the results of positive emotions as well as happiness and joy. For the aim of process happiness and its supply, several biological, psychological, religious, and philosophical approaches are given. To implement a methodology for locating answers to what "happiness" is and the way it's achieved, varied analysis teams as well as



positive psychological science conducted varied studies. Happiness could be an obscure thought that may mean various things to totally different folks. One of the foremost difficult aspects of science managing happiness is to spot its different ideas and confirm the elements of those ideas which can be listed as well-being, gratification, and prosperity (Diener, 2000; Shin & Johnson, 1978). From a subjective perspective, happiness will mean various things. Happiness means that emotional well-being used to determine associate degree individual's subjective state of well-being (Diener, Scollon, & Lucas, 2003). Diener (2000) suggests that well-being is related to the individuals' evaluations of their own lives. Happiness is built on the individual's subjective analysis of his life inside the framework of his sentiments and emotional outcome.

Life satisfaction is outlined here as associate degree overall "conscious psychological feature judgment of one's life within which the factors for judgment are up to the person" (Pavot & Diener, 1993, p. 164). Life satisfaction has an associate degree affectional dimension that, however, isn't identical with positive affect happiness. Hence, life satisfaction shouldn't be formed as an associate degree overarching or superordinate thought of overall psychological state however rather a united necessary facet of positive psychological state (Kjell, Daukantaite, Hefferon, & Sikstrom, 2016).

Review of Literature

Kamkary and Shokrzadeh (2012) investigated the connection between mental state and happiness in youth for the prediction of a positive association between the 2 variables. Data was collected by the MMPI-2 and Happiness scale from a sample of fifteen to twenty-nine years of youth. Results showed a positive level between mental state and happiness.

Sasanpour, Khodabakhshi, and Nooryan (2012) have researched to analyze the association between emotional intelligence, happiness, and mental health in a hundred and twenty Medical Sciences students. Results revealed a positive relationship between emotional intelligence, happiness, and mental health.

Salehi, Hajizad, and Bagheri (2011) examined the connection between happiness and mental state among 385 university students with a non-secular notion. Questionnaires of religious notion test and Oxford happiness and mental health (scl-25) were used for knowledge assortment. Findings showed a big positive association between spiritual notion, happiness, and mental health among students.

Gull (2016) investigated the connection between mental health and self-efficacy among skilled students. A hundred skilled students were selected from completely different departments of the engineering college of Aligarh Muslim University. The results therefore unconcealed that self-efficacy incorporates a positive impact on the mental state of skilled students.

Fergusson et al. (2015) investigated the association between life satisfaction and mental state issues. Statistically significant ($p < 0.05$) correlative associations were found between life satisfaction and mental health problems.

Shafiq et al (2015) investigated the association between happiness and mental health among a hundred students of the University of Gujarat. Findings indicated moderate correlational statistics between happiness and mental health.

Rivas and Fernandez (1995) stated that self-efficacy is an important factor in maintaining the mental health of adolescents. Specifically, higher self-efficacy was



closely related to the dodging of unhappiness and the management of one's feelings. Furthermore, a finding of (Robert, 1992) has shown that mental health and self-efficacy are related to one another.

Muris (2002), has been indicated a significantly positive relationship between self-efficacy, depression, and anxiety in adolescents. It was found that a low level of emotional self-efficacy was powerfully related to a high level of anxiety and depressive symptoms. So a high emotional self-efficacy can be essential in maintaining mental health.

Perneger et al. (2004) conducted a cross-sectional study on young Swiss adults and found a robust association between happiness and mental health. Therefore if folks are happy could facilitate to spot mental health care desires. They will able to do good care of themselves also as a society. Happiness may be a helpful outcome measure for the analysis of health intervention.

A study conducted by KambizKamkay et al. (2012) conducted their study on Tehran youth folks and located a vital correlation between happiness and mental health among Tehran youth folks.

A study conducted by Rahman et al (2016), on mental well-being and happiness among adolescents. They concluded that there's a major positive relationship between mental well-being and happiness, there are not any differences between males and females on happiness and mental well-being dimensions.

Objective

To investigate mental state and its correlates like happiness, self-efficacy, and life satisfaction and to research gender variations if any.

To study the results of happiness, self-efficacy and life satisfaction on the mental state

Hypothesis

1. There would be a significant relationship between mental health, happiness and life satisfaction.

Methodology

A correlational style was used to study mental health and its correlates like happiness, self-efficacy and life satisfaction among college-going students. Regression was used to study the impact of happiness, self-efficacy, and life satisfaction on mental state. T Ratio was used to study the gender differences in mental health, happiness, life satisfaction and, self-efficacy.

Sample

A sample of sixty faculty going-students (30 males & 30 females) was randomly collected from D.A.V. College, Chandigarh. Students' age ranged from 20-25 years. Graduated and postgraduate students took part during this study however most of them were graduates.

Procedure

First of all, rapport was made among the participants. Those that in agreement to participate were administered the questionnaires and demographic knowledge sheet they were assured that the knowledge derived from them will be kept confidential and cannot be used for the other purpose except research.



Tools

The following valid and reliable instruments are used.

1. The mental state of scholars was measured with the Mental Health Inventory (MHI) by Veit and Ware (1983). An eighteen-item scale is rated on seven points Likert scale from one to seven. Mental state inventory contains a Cronbach alpha of zero.82.

2. The self-efficacy of scholars was measured with the Generalized Self-Efficacy Scale (GSES) by Schwarzer & Jerusalem (2013). A ten-item scale is rated on four points Likert scale from one to four. The Generalized self-efficacy scale has Cronbach alpha found 0.76 to 0.90.

3. The life satisfaction of scholars was measured with the Satisfaction with Life Scale (SWLS) by Diener, Emmons, Larsen, & Griffin (1985). A five-item scale rated on seven points Likert scale starting from one to seven. The SWLS shows sturdy internal responsibility and moderate temporal stability with a coefficient alpha of .87.

4. The happiness of scholars was measured with the Subjective Happiness Scale (SHS) Lyubomirsky & Lepper (1999). A 4- item scale is rated on a 7-point Likert scale starting from one to seven. The SHS seems to own high internal consistency, test-retest, and self-peer correlations and suggesting good to excellent reliability.

Results

The current study has investigated the link between mental state, happiness, self-efficacy, and life satisfaction among college-going students. The role of demographic variables like age, gender, academic qualifications was additionally examined. A Statistical Package for Social Sciences (21st version) was used to cipher the results. Inferential statistics were additionally conducted to check the link between these variables and to review the impact of mental state on happiness, self-efficacy, and life satisfaction.

Table 1-Depicting Descriptive indicators of participant's scores in mental health, self-efficacy, life satisfaction, and happiness (N-60).

Variables	MH	Anxiety	Depression	Beh. Con.	Pos. Aff.	SE	Hap.	LS
Mean	77.80	20.98	17.72	17.87	17.17	30.37	20.98	24.88
Mean standard error	1.496	.585	.412	.450	.365	.587	.450	.713



Median	80.00	22.00	18.00	18.00	17.00	30.00	21.00	26.00
Standard deviation	11.586	4.530	3.189	3.486	2.823	4.547	3.486	5.521
Minimum	50	10	11	9	12	18	12	9
Maximum	98	28	24	24	24	39	28	35
Range	48	18	13	15	12	21	16	26
Skewness	-.648	-.896	-.547	-.428	-.031	-.361	-.276	-.657
Skewness standard error	.309	.309	.309	.309	.309	.309	.309	.309
Kurtosis	.174	.248	-.222	-.474	-.686	.021	.035	.629
Kurtosis standard error	.608	.608	.608	.608	.608	.608	.608	.608

MH- mental health, Beh. Con. - Behavioral control, Pos. Aff. - Positive Affect, SE- Self-esteem, Hap. - Happiness, LS- Life satisfaction

Table 2 - depicting the t Ratios for variables and their interpretation.

Sr. No.	Variables	T Ratio	Interpretation
1	Mental Health	0.629	Not Significant
1.1	Anxiety	0.2038	Not Significant
1.2	Depression	0.6310	Not Significant
1.3	Behavioral Control	2.1118*	Significant at 0.05 level
1.4	Positive Affect	0.1346	Not Significant
2	Self-Esteem	0.4782	Not Significant
3	Happiness	0.0467	Not Significant
4	Life Satisfaction	1.1575	Not Significant

Table two revealed the t ratio values and their interpretation on different levels. All the variables were not significant except behavioral control was significant at 0.05 levels.

Table 3 -depicting the correlation between mental health, self-efficacy, life satisfaction, and happiness.

Variables	1	1.1	1.2	1.3	1.4	2	3	4
1. Mental Health	-							
1.1. Anxiety	.844**	-						
1.2. Depression	.820**	.730**	-					
1.3. Beh. Control	.811**	.557*	.541**	-				
1.4. Positive affect	.622**	.258*	.337**	.453**	-			



2. Self-efficacy	.291*	.218	.148	.334**	.283*	-		
3. Happiness	.356**	.281*	.367**	.143	.377**	.173	-	
4. Life Satisfaction	.369**	.333**	.268*	.198	.312*	.172	.417**	-

*p<.05, **p<.01

Pearson product-moment correlation was conducted to look at the link between mental state, self-efficacy, happiness, and life satisfaction. Results revealed that mental health among students was associated with satisfaction with life followed by happiness and self-efficacy. Hence, the primary hypothesis of this study has been accepted. Happiness was associated with satisfaction with life. The positive affect was associated with happiness followed by satisfaction with life and self-efficacy. Behavior control was associated with positive affect followed by self-efficacy.

Table 4- depicting the effects of mental health on self-efficacy, life satisfaction, happiness and sub-levels of mental health.

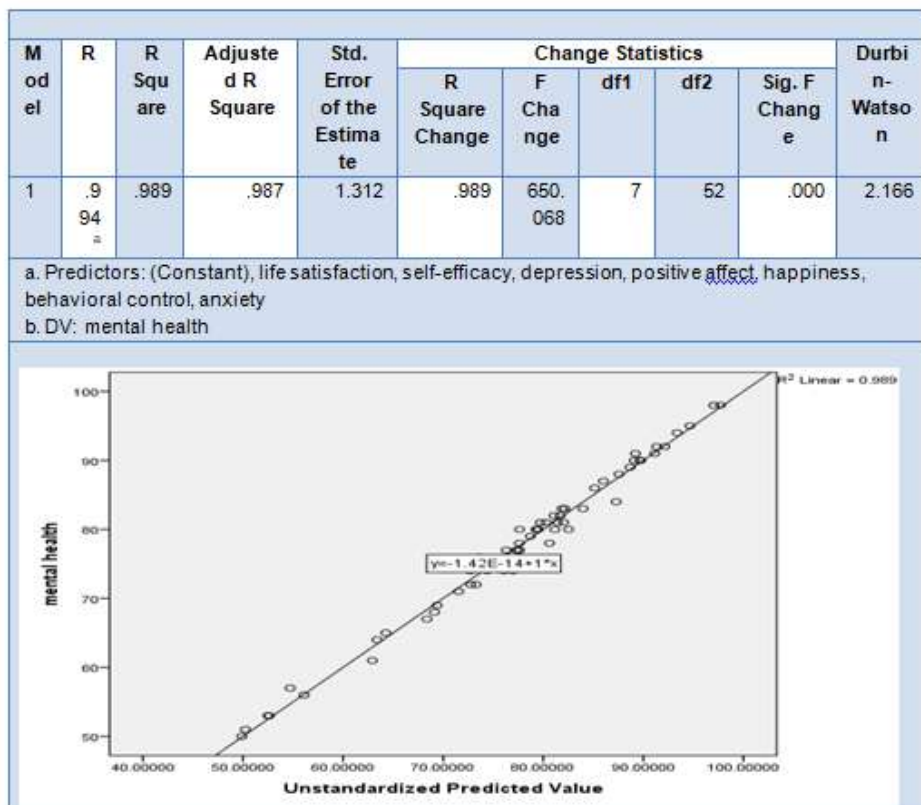




Table four revealed the effects of mental health on self-efficacy, life satisfaction, happiness and mental health sub levels. Multivariate analysis was used to check if the mental health was considerably foretold participant's ratings on self-efficacy, life satisfaction and happiness. The model showed a 98.9% variance. It has been found that mental health (dependent variable) did predict the effect of self-efficacy, life satisfaction, happiness and, sub- levels of mental health.

Discussion

The current study has investigated psychological state and its correlates like happiness, satisfaction with life, and self-efficacy. Overall, results supported that there aren't any important gender variations between psychological state and its correlates like happiness, satisfaction with life, and self-efficacy among college-going students. A positive important association was found between mental and its correlates. And the psychological state was found to be an honest predictor of happiness, satisfaction with life, and self-efficacy.

The findings are per the previous study by Rahman et. al (2016) supported my findings. They conducted a study on mental well-being and happiness among adolescents. They concluded that there is a significant relationship between mental well-being and happiness, there is no difference between males and females on happiness and mental well-being dimension.

A study conducted by KambizKamkay et al (2012) supported my findings. They conducted their study on Tehran youth folks and located a vital correlation between happiness and mental health among Tehran youth folks.

A study conducted by Sasanpour, Khodabakhshi, and Nooryan (2012) supported my findings. They have researched to investigate the association between emotional intelligence, happiness, and mental health in 120 Medical Sciences students. Results revealed a significant positive relationship between emotional intelligence, happiness, and mental health.

A study was done by Salehi, Hajizad, and Bagheri (2011) supported my findings. They examined the relationship between happiness and mental health among 385 university students with a religious notion. Findings revealed a significant positive association between religious notion, happiness, and mental health among students.

A study conducted by Fergusson et al. (2015) supported my findings. They investigated the association between life satisfaction and mental health problems. Statistically significant ($p < 0.05$) correlative associations were found between life satisfaction and mental health problems.

A study conducted by Shafiq et al (2015) supported my findings. They investigated the association between happiness and mental health among 100 students at the University of Gujarat. Findings indicated a significant moderate positive correlation between happiness and mental health.

Conclusion

From this study, we concluded that mental health plays a key role in college-going students. Self-efficacy, life satisfaction and happiness predicted the mental health of college-going students.



Limitations

There are certain limitations of this study-

1. The sample of this study was handily hand-picked thence no claim is often created concerning the sample being representative of the final population.
2. The findings of this analysis cannot essentially be generalized as a result of the sample was comparatively little. It's instructed that future researches ought to target the choice of an oversized sample from multiple instructional establishments.
3. A number of the plausible variables haven't been taken into thought whereas conducting this study. These variables might need to influence the strength of the psychological state and its correlates.

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STATUS AND CHALLENGES OF ORGANIC FARMING PRACTICED BY INDIAN FARMERS

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ABSTRACT

Organic farming is a not an advanced concept rather it is the ancestral practice which was used to produce food for living. But after the world war II due to lack of food supply countries had to import food materials. And to enhance the production of food to twice than before as per the then requirement, farming industry had to use chemicals in agriculture. But after a period of time the disastrous impacts of chemical farming have been coming into light. Therefore, revolution of using organic techniques in farming has been started and is still going on. A data related to organic farming is published by Research Institute of Organic Agriculture FiBL internally every year. This particular paper has also reviewed the present status of organic farming nationally and Internationally.

Key Words: Organic farming, chemical farming, world war II, organic land, organic producers, biomass

1.0. INTRODUCTION

1.1. Brief Introduction

India's economy is one among the fastest growing economy of developing countries of world. Agriculture being an important source of raw material it is also the major contributor to Nation's economy (**Deshmukh & Babar, 2015**).

According to (**Anonymous, 2019**) at present, forestry, dairy, fruit cultivation, poultry, beekeeping, mushroom, arbitrary, etc. are included in agriculture above and beyond farming. Today, as part of current agriculture, the manufacturing, marketing, and distribution of crops and livestock products etc. are all recognised. The cultivation, processing, promotion and distribution of agricultural products may thus be referred to as agriculture.

1.2. History

Organic farming has been practised for thousands of years in India. The great Indian civilization flourished on organic farming and, before the British controlled it, was one of the world's most prosperous nations. All agriculture was practised using organic techniques in traditional India, where fertilisers, pesticides, etc. were obtained from plant and animal products. The original form of agriculture was traditional farming (of many unique kinds in various eras and places) and has been practised for thousands of years (**www.woofindia.org, 2007**).

The Indus civilization had great economy that was mainly based on agriculture which is evident through trade and transportation. Conventional practice of agriculture appears to be filled with complexity and advanced applications as the then civilization was dependent on natural and local resources. Information about agricultural machineries, land patterns, predictions of climate and time, manure production, land



irrigation, seeds and sowing, pest control techniques and etc are mentioned in the ancient manuscripts. India is represented as a fertile soil state, it is because of the hard work and wisdom of our forefathers (**Sharma**)

Walter James (Lord Northbourne), a student of Biodynamic Agriculture, coined the word 'organic farming.' In the first 40 years of the 20th century, research into plant breeding contributed to the commercialisation of hybrid seeds. To allow more productive use of equipment, fields grew larger and cultivation more specialised. Aware organic farming started in Central Europe and India more or less simultaneously. In Germany, biodynamic agriculture, founded by Rudolf Steiner, was possibly the first systematic method of what we now call organic farming. American agronomist, F.H., in 1909. He says King toured China, Korea, and Japan, studying conventional fertilisation, tillage, and general agricultural practises.

The ever-increasing population of India and many natural disasters contributed to a serious food shortage in India during the 1950s and 1960s. As a consequence, it forced the government to import food grains from foreign countries. The government has had to significantly increase food production in India in order to increase food security. In the 1960s, the Green Revolution (under M. S. Swaminathan's leadership) became the most significant government initiative.

Significant amounts of land have been put under cultivation. They introduced hybrid seeds. Chemical fertilisers have been replaced by natural and organic fertilisers and chemical pesticides have been replaced by locally generated pesticides. In India, both consumers and farmers are now steadily going back to organic farming. Organic farming is claimed by many to be healthier. Consumers are willing to pay higher prices for the same, while the health benefits of organic food are yet to be confirmed. Due to the domestic and foreign demand for organic food, many farmers in India are moving to organic farming. More strict non-organic food requirements in the European and US markets have in the past contributed to the rejection of many Indian food consignments. Therefore, organic farming creates a safer alternative to chemical farming.

1.3. Objectives of the study

- To learn about concept of organic farming
- To analyse the advantages and disadvantages of organic farming and chemical farming
- To know the status of organic farming in India
- To understand the challenges faced by farmers practising organic farming

1.4. Chemical farming

Conventional farming is the cultivation method where in order to reach higher levels of yield in farming, synthetic pesticides and chemical fertilizers are used. Through conventional farming, Insects, weeds, diseases and pests are killed by chemicals and increase in synthetic hormones and fertilizers increases the rate of growth (**Das, Chatterjee, & Pal, 2020**).

(**Kondepati, 2019**) points out that by the constant usage of chemicals in farming can result in soil erosions, habitat devastation, reduced soil porosity. The harm can be to such a scale where all types of environmental pollutions can occur on chronic usage of chemicals. The major concern of chemical or modern farming is that it does not only causes health issues like cancer, liver damage, birth defects and nervous system



damage to human but the practice of such is equally harmful to other organisms by unbalancing in natural elimination system.

1.5. Organic farming

According to IFOAM, "Organic agriculture is a production system that sustains the health of soils, ecosystems and people". According to an author (**Barik, 2017**) organic farming relies on ecological processes, biodiversity and many other life cycles that are adapted to local conditions, instead of using inputs with adverse effects. The main purpose of adapting organic farming is that it encourages to use the natural processes in farming and produces chemical free food. Organic farming also maintains a harmony with nature by enriching the ecosystem around it.

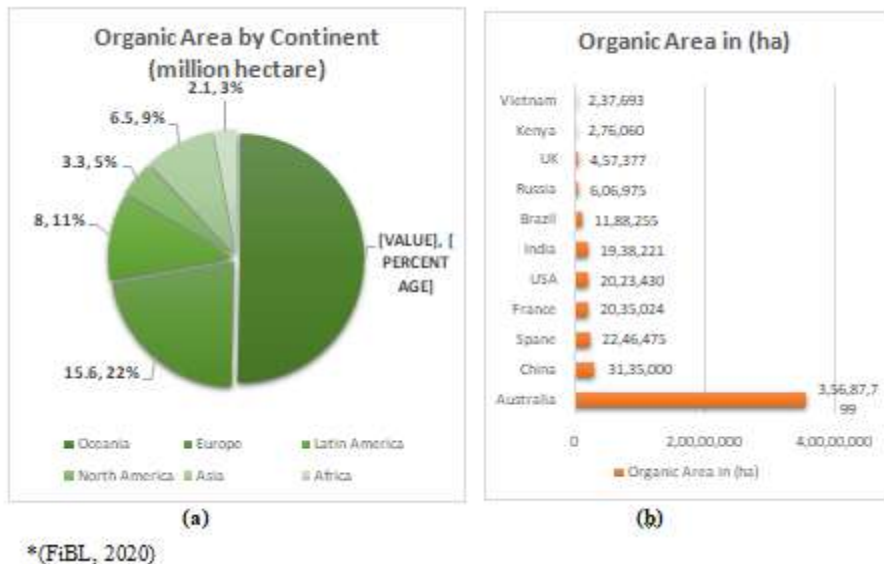
According to the Food and Agriculture Organization (FAO), sustainable agriculture "is the successful management of resources for agriculture to satisfy changing human needs while maintaining or enhancing the quality of environment and conserving natural resources"(**Narayan, 2005**)

India being the seventh largest country in the world is rich in agricultural land, traditional practices of farming and diversification of climate potentiates the land for organic farming (**Sharma, 2012**). (Sharma, Innovative Organic Farming in India, 2012). Organic farming maintains the nutritional level and enhance the health benefits, protects environmental impacts and helps to maintain a socio-economic status (**Das, Chatterjee, & Pal, 2020**). According to (**Kondepati, 2019**) organic farming benefits in preventing harmful pesticides and other toxins from entering any living organism, regulates pollution and prevents soil from erosion.

2.0. STATUS OF ORGANIC FARMING

In the current agricultural scenario, despite the maximisation of chemical inputs, crop yields are declining day by day. Growing crop unsustainability, higher input requirements, low soil quality as well as frequent pest and disease infestations are now exposed to the vicious cycle of chemical farming. Moreover, under the pretext of climate change, yield interference has become very predictable vis-a-vis rises in biotic capacity under unpredictable weather conditions. The excess use of pesticides and fertilisers has resulted in the entrance into the food chain of toxic chemicals, the death of natural enemies and the degradation of the environment (**Barik, 2017**)

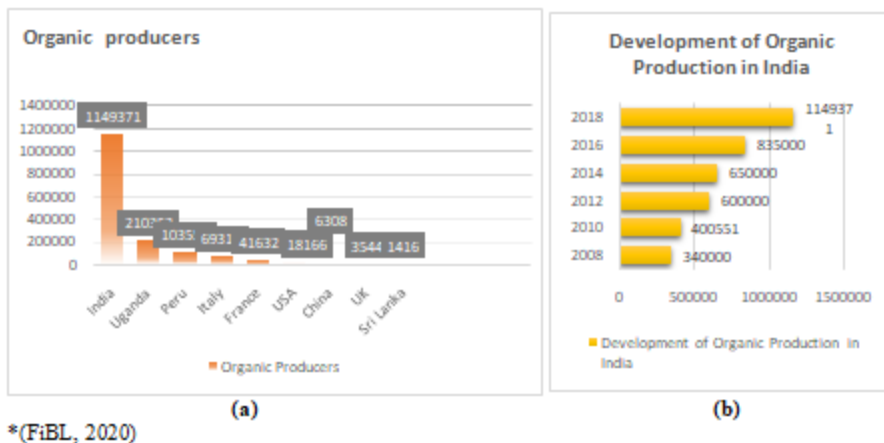
Organic farming is now being used worldwide, according to (**Kondepati, 2019**) by 2019 around 138 countries have adapted organic farming techniques where India stands on 33rd rank. Madhya Pradesh holds the highest rate of organic farming in the country followed by Maharashtra and Orissa. Government has also implemented some schemes which benefit farmers using organic farming. The schemes are under "National Project on Organic Farming", "National Horticultural Mission" (NHM) and "National Project on Management of Soil Health and Fertility". A monthly magazine is published by National Organic Farming Association which includes necessary details regarding organic farming it also guides the farmers about importance of organic farming.



Graph no. 01: (a) Graph showing distribution of organic land in hectares of continents, (b) Graph showing distribution of land (ha) by countries.

The above graph (a) expresses distribution of organic area by continents. Oceania has 36million ha of organic land as per 2018 survey followed by Europe has 15.6million ha, Latin America has 8million ha, Aisa has 6.5million ha, North America has 3.3million ha and Africa has 2.1million ha of organic land as per 2018.

Graph (b) shows distribution of organic land by countries. Australia has 35687799ha of organic land as for details of 2018 followed by China has 3135000ha of land, France has 2035024ha of land, USA has 2023430ha of land, India has 1938221ha of land and UK has 457377ha of organic land as per a survey of 2018.





Graph no. 02: (a) Graph showing organic producers by country & (b) Graph showing Development of organic production in India

The above graph (a) shows organic producers in the world. India produced 1149371 organic materials in 2018 followed by Uganda produces 210352 materials, Italy produces 69317, France produces 41632 products, USA produces 18166 products whereas, China produces 6308 and UK produced 3544 products in 2018.

Graph (b) shows a ten-year development of production of organic materials in India from 2008-2018. Organic production of India alone has increased from 340000 in 2008 to 400551 in 2010 to 600000 in 2012 to 650000 in 2014 to 835000 in 2016 to 1149371 in 2018 respectively.

Table no. 01: Table showing growth of organic farmland of some developed countries

Country	Organic farmland (ha) of developed countries in three successive years		
	2016	2017	2018
Australia	27'145'021.00	35'645'038.00	35'687'799.00
Canada	1'099'013.90	1'191'738.88	1'311'571.81
France	1'538'047.00	1'744'420.00	2'035'024.00
Germany	1'251'320.00	1'373'157.00	1'521'314.00
Israel	5'757.70	6'568.20	6'665.70
Italy	1'796'363.00	1'908'653.00	1'958'045.00
Spain	2'018'802.00	2'082'172.79	2'246'475.00
Taiwan	6'783.60	7'568.80	8'759.03

*(FiBL, 2020)

The above table depicts a three-year status of organic land owned by developed countries in 2016, 2017 and 2018 years. Australia is having 27145021ha, 35645038ha and 35687799ha of organic land in 2016, 2017 and 2018 respectively. Similarly, Canada owned 1099013ha, 1191738ha and 1311571ha of organic land in 2016, 2017 and 2018 respectively. France had 1538047ha of organic land in 2016 which was increased to 1744420ha in 2017 and 2035024ha in 2018. Germany had 1251320ha in 2016 which was increased to 1373157ha in 2017 and also increased to 1521314ha in 2018. Followed by Italy in 2016, 2017 and 2018 had 1796363ha, 1908653ha and 1958045ha respectively. Spain had 2018802ha of organic land in 2016 which increased to 2082172ha in 2017 and 2246475ha in 2018. Likewise, Israel and Taiwan showed a gradual increase in total organic land owned by them in three successive years.



Table no. 02: Table showing growth of organic farmland of some developing countries

Country	Organic farmland (ha) of developing countries in three successive years		
	2016	2017	2018
Argentina	3'011'794.00	3'385'827.00	3'629'968.00
Brazil	1'094'133.00	1'136'857.00	1'188'254.81
China	2'281'215.42	3'023'000.00	3'135'000.00
India	1'490'000.00	1'780'000.00	1'938'220.79
Nigeria	52'420.95	53'402.10	57'116.95
Russia	315'154.77	479'828.81	606'974.98

*(FiBL, 2020)

The above table shows a three-year data of organic farmland owned by some developing countries. Argentina in the year 2016 had 3011794 hectares of organic land which increased to 3385827 hectares in 2017 and surprisingly decreased to 362968 hectares in 2018. Brazil in 2016, 2017 and 2018 obtained 1094133 hectares, 1136857 hectares and 1188254 hectares respectively. India owned 1490000 ha, 1780000 ha and 1938220 ha organic land in 2016, 2017 and 2018 respectively. Likewise, Nigeria and Russia also show a gradual increase in the three successive years.

3.0. CHALLENGES IN ORGANIC FARMING

Lacunae in government policies, lack of knowledge, marketing policies, shortage of biomass, low yield, high input cost and etc. are the lacunas mentioned. Some of the other challenges faced by farmers are as following

- Many farmers get cheated by lack of knowledge and lack of awareness about chemical farming and organic farming.
- Even if they are aware about organic farming, as organic farming needs high input compared to chemical farming, farmers tend towards chemical farming. Because chemical farming as for time being produces high yield in less time.
- Due to inadequate and inappropriate policies of farming encourages farmers to use synthetic materials in farming
- The major concern of farmers in using organic farming is that it produces low yield as compared to chemical farming. Rate of yield is high and time taken is low in chemical farming is because synthetic materials reacts on the plant hormones for their growth whereas, organic farming let plants grow on their own by not forcing any quick growth of crops.
- For organic farming, the primary source of nutrition is retrieved from biomass. Due to improper handling of waste management farmers are unable to get the resources.
- As organic farming produces comparatively low yield, it becomes very hard to farmers to meet export demands.

Likewise, many factors act as constraints to a farmer in adapting the conventional method.



4.0. CONCLUSION

By conducting a review research, researcher came to know about the historical development of organic farming in India and outside India. At present organic farming can be seen growing in both developed and developing countries. The seriousness of using organic farming is clear from the data collected above. By looking at the survey by FiBL it was very evident that most of the countries are increasing their land of organic farming and production of organic materials.

Chemical farming has both advantages and disadvantages. Advantages of synthetic farming are that it produces high yield and consumes lesser time than that of organic farming. The chemical fertilizers even produce good yield in poor soil and it is cost-effective so that farmers get attracted. It is a natural tendency that when any element is producing good yield in less time and needs low input finance, farmers develop a sense of belief towards it. But on calculation of temporary profit by chemical uses in agriculture, to its long-time disadvantages the later are more in quantity. First and foremost, concern is that these synthetic materials in farming harms health of farmers, consumers and animals consuming food. It is not only dangerous to human body but also very dangerous to environment. Chronic use of chemicals in agriculture impacts on soil quality, air pollution, water pollution and waste pollution. Long time use of chemicals result in complete destruction of land.

Therefore, after learning from experiences and experiments, many organizations and government sectors promote and educate farmers to use organic farming. Since organic farming is a zero chemical process it does not have any damages to living organism, also it does not affect the environment. Organic farming also encourages to biomass waste management which intern reduces the share of bio mass in pollution. But even after having so many advantages, organic farming do have some of the disadvantages. Since organic farming does not promote any hormonal experiments of crops it produces low yield and takes more time than that of chemical farming. It needs high input investment and most of the times farmers could not reach the demands of dealers. Farmers must be trained that it is always better to produce a good quality crops rather a good quantity crop. If they run behind quantity, they may have to lose their land forever by putting somebody else's life into threat.

Despite of having less organic farmland India stands first in the world for producing organic materials. According to (FiBL, 2020) India stands 9th rank in distribution of organic land in entire world. The previous and latest survey on organic farming has shown a very good growth in adapting natural process of farming and maintaining the nature's process of elimination system through a normal food chain process.

4.1. Suggestions

- Government of India can take strict actions by regulating the use of chemicals in farming.
- A proper management of biomass waste can reduce the issue of unavailability of organic fertilizers and pesticides.



- Every farmer must be told about benefits of organic by conducting workshops in villages and farmers can implant a vermicompost system, cow dung composting system and biomass composting system in a smaller scale which help them for easy and cost-effective accessibility.
- Development in organic farming and its benefits can be recorded and published every year to develop a sense of trust in farmers.

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AN OVERVIEW ON PRIORITY SECTOR LENDING IN INDIAN BANKING SYSTEM

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ABSTRACT:

Banking sector plays an important role in the growth of economy of any country. The economy of any country directly depends upon per capita income of its citizen. Thus the major role of bank is to provide lending assistance to all class of people irrespective of their financial condition to grow the country's economy. Basically citizens of India depend on agriculture and small trading businesses for their income generation. In earlier days individuals depend on private money lenders for generating their livelihood which attract an ample amount of interest rate. Hence bank nationalisation took place in two phases starting in the year 1969 and 1980 by then Hon'ble Prime Minister Smt Indira Gandhi. Priority sector lending is a major objective of bank nationalisation which encourages lending to weaker section of the society for their uplift. **Priority Sector Lending** is an important role given by Reserve Bank of India (RBI) to the banks for providing a specific portion of their lending to some specific sectors like agriculture and allied activities, micro and small enterprises, poor people for housing, students for education and other low income groups and weaker sections. This is essentially meant for an overall development of the economy as against to emphasising only on the financial sector.

Keywords: Banking Sector, Priority Sector lending, RBI, Economy, Nationalisation.

INTRODUCTION:

Priority sector lending is a tool developed by Govt of India to control the credit flow in the Indian economy. India is a developing country which mostly depends on agriculture. It was way back in the post independence era when rural credit was mostly necessary for the growth of agriculture. The government initiatives such as green revolution etc. also led to significant increase in the demand for credit by the farmers and it was not possible for the cooperative societies to meet the requirements of credit due to its increased demand. It led to adoption of the concept of 'directed lending' which is called 'priority sector lending' in India.

The term 'priority sector' was first used by Minister of Finance, Sri Morarji Desai stated in Lok Sabha on December 14, 1967 that there are repeated complaints regarding several 'priority sectors' such as agriculture, small scale industries and exports have not been receiving timely and adequate bank credit for their growth. The Banking Laws (Amendment) Act was passed in this regard in 1968 which came into force on 01st February 1969. National Credit Council was set up in 1968 to assess the demand for



bank credit from the different sectors of the economy. It focused on the coordination between cooperative banks and commercial banks to achieve optimum utilisation of resources. Nationalisation of Banks took place in 1969 by the government under the leadership of Smt. Indira Gandhi is till now considered to be the biggest milestone in the history of banking sector in India. In 1972, the priority sector was described on the basis of the report submitted by the Informal Study Group on Statistics relating to advances to the priority sector constituted by the RBI in May 1971.

OBJECTIVE:

- ❖ To classify the priority sector lending sector wise.
- ❖ To analyse PSL targets set by RBI to Commercial banks.

LITERATURE REVIEW :

The study by **Vallabh et. al. (2007)** investigates the fundamental factor which influences NPAs of banks. A model consists of macroeconomic factors and bank-specific parameters were developed and the behavior of NPAs of three types of banks-PSBs, private sector and foreign banks was observed. The empirical results showed that NPAs decrease with the increase in priority sector lending in PSBs and private sector banks.

Uppal (2009) explored Priority sector advances in Trends, issues and strategies. The research found the priority sector lending and targets achieved by various bank groups. He used financial data of public banks, private banks and foreign banks. The researcher concluded that priority sector advances of all the banking groups are increasing day by day.

Shabbir N. (2013) conducted a study to know the sector wise priority advances in India. The researcher objective was to check the willingness of the banks to lend to priority sector and to know whether the banks are lending to the priority sector by direct means or indirect means. The study showed that lending to agriculture has increased but lending to agriculture through direct means has decreased.

Solanki (2016) Analysed priority sector lending by commercial bank in India. The study examined the past and present position of the priority sector lending. By using the Statistical tool ANOVA, this study found the volume and trend of the priority sector lending. The research concluded that no significant different in priority sector lending between selected bank.

OVERVIEW OF PRIORITY SECTOR LENDING :

Priority sector lending was introduced as a tool to maintain proper credit flow in various weaker sections of the economy and to save them from exploitation of private lenders. It was formulated keeping in mind for growth of per capita income of weaker section resulting growth in GDP of the country.

As per the latest RBI Circular dated July 7, 2016, eight categories have been identified under the head of priority sector lending which are;



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- ❖ **Agriculture-** which includes the sub-categories namely, i) Farm credit(Loans to farmers up to Rs.50 lakh against pledge/hypothecation of agricultural produce (including warehouse receipts) for a period not exceeding 12 months), ii)Agriculture Infrastructure (an aggregate sanctioned limit of Rs.100 crore per borrower)and iii) Ancillary activities(an aggregate sanctioned limit of Rs.100 crore per borrower and Loans for Food and Agro-processing up to an aggregate sanctioned limit of Rs.100 crore per borrower from the banking system).
 - ❖ **Micro, Small and Medium Enterprises-** For classification under priority sector, no limits are prescribed for bank credits sanctioned to Micro, Small and Medium Enterprises engaged in the manufacture or production of goods under any industry specified in the first schedule to the Industries (Development and Regulation) Act, 1951 and as notified by the Government from time to time. The manufacturing sectors are defined in terms of investment in plant and machinery under MSMED Act 2006.Bank loans to Micro, Small and Medium Enterprises engaged in rendering of services and defined in terms of investment in equipment under MSMED Act, 2006, irrespective of loan limits, are eligible for classification under priority sector, w.e.f. March 1, 2018.
 - ❖ **Export Credit-** For domestic banks (Incremental export credit over corresponding date of the preceding year, up to 2 % of ANBC or Credit Equivalent Amount of Off-Balance Sheet Expo-sure, whichever is higher, subject to a sanctioned limit of Rs.40 crore per borrower to units having no limits on turnover.),For Foreign banks with 20 branches and above(Incremental export credit over corresponding date of the preceding year, up to 2 % of ANBC or Credit Equivalent Amount of Off-Balance Sheet Expo-sure, whichever is higher, effective from April 1, 2017),For Foreign banks with less than 20 branches(Export credit will be allowed up to 32 % of ANBC or Credit Equivalent Amount of Off- Balance Sheet Exposure, whichever is higher).
 - ❖ **Education-** Loan to students for educational purposes including vocational courses upto an amount of Rs. 10 lakh irrespective of the sanctioned amount will be considered as eligible for priority sector.
 - ❖ **Housing-** Bank lending to individuals up to Rs.35.00 lakh in metropolitan centres(with population of ten lakh and above) and loans up to Rs.25.00 lakh in other centres for purchase/construction of a dwelling unit per family provided the overall cost of the dwelling unit in the metropolitan centre and at other centres should not exceed Rs.45 lakh and Rs.30 lakh respectively. Loans for repairs to damaged dwelling units of families up to Rs. 5 lakh in metropolitan centres and up to Rs. 2 lakh in other centres. Bank credit facility to any government agency for construction of dwelling units or for slum clearance and rehabilitation of slum dwellers subject to a maximum of Rs.10 lakh per dwelling unit.
 - ❖ **Social Infrastructure-** Bank lendings up to a limit of Rs.5.00 crore per borrower for building social infrastructure for activities namely schools, health care facilities, drinking water facilities and sanitation facilities in Tier II to Tier VI centres.
 - ❖ **Renewable Energy-** Bank loans up to a limit of Rs.15.00 Crore to borrowers for purposes like solar based power generators, biomass based power generators, wind mills, micro- hydel plants and for non-conventional energy based public utilities
-



viz. street lighting systems, and remote village electrification. For individual households, the loan limit will be Rs.10.00 lakh per borrower.

- ❖ **Others-** Loans not exceeding **Rs.50,000/-** per borrower provided directly by banks to individuals and their SHG/JLG, provided the individual borrower's household annual **income in rural areas does not exceed Rs.100,000/-** and for **non-rural areas it does not exceed Rs.1,60,000/-**. Loans to distressed persons not exceeding Rs.1,00,000/- per borrower to prepay their debt to non-institutional lenders.

❖ **Weaker section-**

No.	Category
1.	Small and Marginal Farmers
2.	Artisans, village and cottage industries where individual credit limits do not exceed Rs 1 lakh.
3.	Beneficiaries under Government Sponsored Schemes such as National Rural Livelihoods Mission (NRLM), National Urban Livelihood Mission (NULM) and Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)
4.	Scheduled Castes and Scheduled Tribes
5.	Beneficiaries of Differential Rate of Interest (DRI) scheme
6.	Self Help Groups
7.	Distressed farmers indebted to non-institutional lenders
8.	Distressed persons other than farmers, with loan amount not exceeding Rs 1 lakh per borrower to prepay their debt to non-institutional lenders
9.	Individual women beneficiaries up to Rs 1 lakh per borrower
10.	Persons with disabilities
11.	Overdraft limit to PMJDY account holder upto Rs10,000/- with age limit of 18-65 years.
12.	Minority communities as may be notified by Government of India from time to time

There are certain targets set by RBI to various commercial banks. The targets and sub-targets for banks under priority sector are as follows:

Categories	Domestic scheduled commercial banks (excluding Regional Rural Banks and Small Finance Banks) and Foreign banks with 20 branches and above	Foreign banks with less than 20 branches
Total Priority Sector	40 per cent of Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher.	40 per cent of Adjusted Net Bank Credit or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher, to be achieved in a phased manner



		by 2020.
Agriculture	18 per cent of ANBC or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher. Within the 18 percent target for agriculture, a target of 8 percent of ANBC or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher is prescribed for Small and Marginal Farmers.	Not applicable
Micro Enterprises	7.5 percent of ANBC or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher.	Not applicable
Advances to Weaker Sections	10 percent of ANBC or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher	Not applicable

Source: www.rbi.org.in

ANALYSIS OF TARGET-ACHIEVEMENT OF PSL BY COMMERCIAL BANKS IN LAST FIVE YEARS:

The Reserve Bank's mission is to improve the availability of formal financial services in unbanked areas with the goal of ensuring access to financial services for all. Agriculture and micro, small and medium enterprises (MSMEs) are key sectors for which the flow of institutional credit remains a top priority. Efforts towards achieving this objective are guided by the recommendations of the Expert Committee on MSMEs and an Internal Working Group (IWG) to review agricultural credit.

Table-1

(In Billion)

Financial Year	Public sector Banks		Pvt sector Banks		Foreign Banks	
	In Figure	Target-achievement Percentage(%)	In Figure	Target-achievement Percentage(%)	In Figure	Target-achievement Percentage(%)
2015-16	19850	39.30	6480	44.10	1104	35.30
2016-17	19889	39.50	7110	42.50	1238	36.90
2017-18	20723	39.90	8046	40.80	1402	38.30
2018-19	23060	42.55	10190	42.49	1543	43.41
2019-20	23142	41.05	12727	40.32	1671	40.81

Source: www.rbi.org.in

The Table-1 indicates that even though public sector banks ,private sector banks and foreign banks are showing a positive growth in achievement of PSL target figure wise,



still there are some fluctuation in target to achievement percentage. Public sector banks and Foreign banks are showing an increasing trend from Fy 2015-16 to 2018-19 and declined in 2019-20. Private Sector banks are showing a fluctuating trend throughout the analysis time period.

CONCLUSION:

Priority sector lending plays a vital role for economic growth of a country as it intends to support weaker section of the society to get bank credit. Various types of credit linkages such as Kissan Credit Card, Self Help Group/Joint liability group linkage, Prime minister's MUDRA yojana, Prime minister's Awas Yojana etc are helpful in GDP growth of our country. Commercial banks must encourages for such type of financial assistant to needy weaker section people along with their regular large corporate lending for creating a new India. But the banks must assess the borrower properly before sanctioning of credit support under PSL as so many borrowers are taking negative advantage to diversify the funds and thus the loans becoming NPA. In order to achieve the PSL target banks must not compromise in selection of right borrower. Priority sector lending if utilise properly can be a great tool to improve the per capita income and GDP of our country.

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A STUDY OF CSR SPENDS IN SELECT REGIONS OF INDIA

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Abstract:

The Companies Act, 2013, for the first time, devoted a section of the act, viz. Sec 135, (*and Companies (Corporate Social Responsibility) Rules, 2014*), towards the social responsibility of the corporate houses. With introduction of the above section 135, India become the first country in the world to introduce statutory Corporate Social Responsibility (CSR) through the new Companies Act, 2013. The present study highlights the main idea behind introduction of the Act, and underlines important rules incorporated under the Act and the Rules. The study further highlights the alarming disparity in the regional growth in the country, seen from the point of view of CSR spends of the companies.

Key words: CSR, companies act 2013, India, CSR spends

JEL Classification Code: M14 - Social Responsibility

INTRODUCTION:

United Nations Industrial Development Organization defines ‘Corporate Social Responsibility’ as under:

‘Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives, while at the same time addressing the expectations of shareholders and stakeholders.’

Thus, CSR is a responsibility voluntarily assumed by a company in its enlightened self-interest. It is not something imposed by law. Rather, it is something which a business does beyond what is required by law.

The Companies Act, 2013, for the first time, devoted a section of the act, viz. Sec 135, (*and Companies (Corporate Social Responsibility) rules, 2014*), towards the social responsibility of the corporate houses. With introduction of the above section 135, India become the first country in the world to introduce statutory Corporate Social Responsibility (CSR) through the new Companies Act, 2013. The Act specifically mentioned that every company:

1. having net worth of rupees five hundred crore or more, or
2. having turnover of rupees one thousand crore or more or
3. having a net profit of rupees five crore or more

shall spend in every financial year, at least two percent of the average net profits of the company made during the three immediately preceding financial years. The Act does



not specify any upper limit on the CSR spends. If any company fails to spend the minimum amount earmarked as CSR expenditure then the company needs to explain the reasons behind not spending on the board of director's report.

CSR pooling by many companies helps avoid duplication of managerial efforts, infrastructure, personnel etc. Companies may collaborate with other companies to undertake projects or programs or CSR activities in such a manner that the CSR activities are in a position to report separately on such projects or programs in accordance with these rules [Rule 4(3) of the CSR Rules].

The Board of Directors of the company shall, after taking into account the recommendations of CSR Committee, approve the CSR Policy for the company and disclose contents of such policy in its report and the same shall be displayed on the company's website, if any, as per the particulars specified in the Annexure. [Rule 9 of the CSR Policy/Rule 9 of Companies (Accounts) Rules, 2014]

The Act and rules made there under, have not prescribed any penalty regarding not spending the prescribed amount. But it has been observed that the companies which failed to spend the amount were served with the notices by the respective registrar of companies and were asked for an explanation for not spending the amount along with documentary evidence. Further, they may impose a penalty if deemed fit by them

As per the provisions of the Act, any company which fulfils any of the criterions mentioned above during any financial year shall constitute a 'Corporate Social Responsibility Committee'. The Committee should consist of three or more directors, out of which at least one director must be an independent director.

The said Corporate Social Responsibility Committee shall:

- (a) formulate and recommend to the Board, a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII;
- (b) recommend the amount of expenditure to be incurred on the activities referred to in clause (a) above; and
- (c) monitor the Corporate Social Responsibility Policy of the company from time to time.

The Board of every company under reference shall:

- (a) approve the Corporate Social Responsibility Policy for the company and disclose contents of such Policy in its report and also place it on the company's website, if any, after taking into account the recommendations made by the Corporate Social Responsibility Committee, and
- (b) ensure that the activities as are included in Corporate Social Responsibility Policy of the company are undertaken by the company.
- (c) ensure that the company spends, in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy.
- (d) give preference to the local area and areas around it where it operates, for spending the amount earmarked for Corporate Social Responsibility activities,
- (e) ensure to specify in its report, the reasons for not spending the amount (if the company fails to spend such amount).



DEVELOPMENT SECTORS UNDER CSR SPENDS:

Followings are the main sectors identified for the purposed of Expenditure which will be considered for CSR spends:

1. Clean Ganga
2. Education, Differently Abled, Livelihood
3. Encouraging Sports
4. Environment, Animal Welfare, Conservation of Resources
5. Gender Equality, Women Empowerment, Old Age Homes, Reducing Inequalities
6. Health, Eradicating Hunger, Poverty and Malnutrition, Safe Drinking Water, Sanitation
7. Heritage Art and Culture
8. Other Sectors (Technology Incubator & Benefits to Armed Forces & Admin Overheads)
9. Prime Ministers National Relief Fund
10. Rural Development
11. Slum Area Development
12. Swachh Bharat Kosh
13. Any Other Recognised Fund

Expenditure incurred by Foreign Holding Company for CSR activities in India will qualify as CSR spend of the Indian subsidiary if, the CSR expenditures are routed through Indian subsidiaries and if the Indian subsidiary is required to do so as per section 135 of the Act.

EXPENDITURES NOT CONSIDERED AS CSR SPENDS:

The CSR Rules specify the expenditure which will not be regarded as CSR spends as follows.

- a) **Expenditure in activities undertaken in pursuance of normal course of business:** Activities undertaken in pursuance of the normal course of business of a company shall not be regarded as CSR activities. Hence, expenditure on such activities shall not be counted as CSR spends. [Rule 4(1)/Proviso below Rule 6(1)(b) of the CSR Rules].
- b) **Expenditure outside India:** Expenditure on CSR activities undertaken within India is considered as CSR spend. Thus, expenditure on CSR activities undertaken outside India are not counted as CSR spends. [Rule 4(4) of the CSR Rules].
- c) **Expenditure exclusively for the benefit of employees of the company or their families:** Activities which are not exclusively for the benefit of employees of the company or their families shall be considered as CSR activity. Thus, expenditure on activities which are exclusively for the benefit of employees of the company or their families is not considered as CSR spends. [Rule 4(5) of the CSR Rules]



- d) **Political contributions:** Contribution of any amount directly or indirectly to any political party under section 182 of the Act is not considered as a CSR activity [Rule 4(7) of the CSR Rules].
- e) **Expenditure not in line with activities within the purview of Schedule VII:** It does not include any expenditure on any item which is not in line with activities which fall within the purview of Schedule VII of the 2013 Act [Rule 7 of the CSR Rules].
- f) **Expenditure on one-off events does not qualify as CSR spend:** MCA has further clarified that CSR activities should be undertaken by the companies in project mode [as referred in Rule 4(1) of Companies CSR Rules, 2014]. One-off events such as marathons/awards/charitable contribution/ advertisement/ sponsorships of TV programmes, etc. would not be qualified as part of CSR expenditure. - MCA's Circular No. 21/2014 dated 18-6-2014.
- g) **Expenses incurred for fulfillment of any statute is not CSR spend:** Expenses incurred by companies for the fulfillment of any Act/statute of regulations (such as Labour Laws, Land Acquisition Act, etc.) are not counted as CSR expenditure under the Act.

REGION-WISE CSR SPENDS OF COMPANIES:

A close look on the total expenditure made by all the companies in different regions of India, unfolds a true story of unbalanced regional growth in the country. For the purpose of the section, all the states of India has been classified into 6 regions, as classified by RBI in connection with banking region. **Northeastern Region** includes Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. **Central Region** includes Chhattisgarh, Madhya Pradesh, Uttar Pradesh and Uttarakhand. **Eastern Region** covers Andaman & Nicobar, Bihar, Jharkhand, Odisha, Sikkim and West Bengal. **Northern Region** includes Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu And Kashmir, Punjab and Rajasthan. **Southern Region** covers Andhra Pradesh, Karnataka, Kerala, Lakshadweep, Puducherry, Tamil Nadu and Telangana. **Western Region** covers states viz. Dadra & Nagar Haveli, Daman & Diu, Goa, Gujarat and Maharashtra.

Table 01: Region-wise CSR Spends of Companies

(INR Cr.)

S. No.	Region	2014-15	2015-16	2016-17
1	North Eastern Region	155.26	184.34	313.98
2	Central Region	526.87	910.74	769.77
3	Eastern Region	564.75	1259.88	781.38
4	Northern Region	836.59	1569.95	1290.01
5	Southern Region	1529.57	3041.08	2390.28
6	Western Region	1810.92	2616.83	3044.83



7	PAN India	4,614.89	4,783.26	4,867.42
8	NEC/ Not mentioned	26.94	0.00	6.72
	Grand Total (in Cr.)	10,065.79	14,366.08	13,464.39

The companies are expected to prefer the region near to their area of operation. Most of the big companies are concentrated in the western region of India, specially Maharashtra and Gujarat. As against this, Northeastern Region of the country hosts the least number of companies, and thus resultant spend in this region is the least. This is a kind of vicious cycle which is an outcome of unbalanced regional growth, and the unbalanced regional growth causes deepening and widening divide between the prosperous region and the regions lagging behind in the run for development (See Table-01)

STATE-WISE CSR SPENDS OF COMPANIES IN THE NORTH EASTERN REGION:

A close look on corporate spends in connection with CSR in the states of northeastern region highlights on the acute regional disparity in growth. Total expenditure observe in 2016-17 in the northeastern region is mere 2.33% of total spends at national level. Out of this 2.33%, Assam derives benefits upto 85.63% of total spends in the NE Region. The remaining less than 15% of the total spends is being shared by the remaining six states. Mizoram got the least share out of CSR spends, it is just 0.03% of total CSR spend in the region (see Table-02)

Table 02: State-wise CSR Spends of Companies in the North Eastern Region

(INR Cr.)

S. No.	States	2014-15	2015-16	2016-17
1	Arunachal Pradesh	11.04	1.48	23.61
2	Assam	134.78	167.47	268.87
3	Manipur	2.44	6.27	11.71
4	Meghalaya	3.53	5.62	7.54
5	Mizoram	1.03	1.07	0.08
6	Nagaland	1.11	0.96	0.92
7	Tripura	1.33	1.47	1.25
	Grand Total	155.26	184.34	313.98

DEVELOPMENT SECTORS IDENTIFIED FOR CSR SPENDS:

Following is the identified development sectors for CSR spends along with total spend during last three financial years:



Table 03: Development Sectors Identified for CSR Spends

(INR Cr.)

	Development Sectors	FY 2014-15	FY 2015-16	FY 2016-17
1	Clean Ganga Fund	5.47	32.65	24.23
2	Education, Differently Abled, Livelihood	3,188.09	4,881.26	5,123.83
	Education	2,589.42	4,032.46	4,149.06
	Livelihood Enhancement Projects	280.17	394.57	490.66
	Special Education	41.43	123.85	128.11
	Vocational Skills	277.07	330.38	356
3	Encouraging Sports	57.61	137.58	172.53
	Training To Promote Sports	57.62	137.58	172.54
4	Environment, Animal Welfare, Conservation Of Resources	853.99	963.22	1,282.34
	Agro Forestry	18.12	57.61	42.84
	Animal Welfare	17.29	65.41	75.63
	Conservation Of Natural Resources	44.6	38.14	114.6
	Environmental Sustainability	773.99	802.07	1,049.28
5	Gender Equality , Women Empowerment , Old Age Homes, Reducing Inequalities	189.92	337.44	434.75
	Gender Equality	55.21	73.23	71.8
	Senior Citizens Welfare	8.94	20.74	24.7
	Setting Up Homes And Hostels For Women	8.74	28.67	62
	Setting Up Orphanage	5.12	17.36	14.69
	Socio-Economic Inequalities	39.04	74.61	130.17
	Women Empowerment	72.87	122.84	131.4
6	Health, Eradicating Hunger, Poverty And Malnutrition, Safe Drinking Water , Sanitation	2,525.92	4,545.00	3,397.00
	Health Care	1,847.74	2,538.51	2,284.94
	Poverty, Eradicating Hunger, Malnutrition	274.7	1,222.69	568.33
	Safe Drinking Water	103.95	165.51	138.39
	Sanitation	299.54	618.29	405.34
7	Heritage Art And Culture	117.37	117.58	296.85
8	Other Sectors (Technology Incubator And Benefits To Armed Forces And Admin Overheads)	9.5	37.15	58.71
	Armed Forces, Veterans, War Widows/	4.76	11.13	35.79



	Dependants			
	Technology Incubators	4.74	26.02	22.92
9	Prime Ministers National Relief Fund	228.18	213.7	150.7
10	Rural Development Projects	1,059.34	1,369.52	1,507.45
11	Slum Area Development	101.14	14.3	49.81
12	Swachh Bharat Kosh	113.86	324.72	165.09
13	Other Central Government Funds	277.09	326.88	412.38
14	NEC/ Not Mentioned	1,338.39	1,065.22	388.86
	Grand Total (in Cr.)	10,065.93	14,366.29	13,464.60

The highest spends has been registered in the Education sector (Table-03).

SUMMING UP:

India is the first country in the world which has came forward and made it obligatory on part of corporate houses to spend a minimum 2% of their profit on various identified developmental projects, if they fulfill certain criterions. This is a welcome idea, and has shown encouraging results in recent past.

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Hkjr; l ekt l nñ iq 'k izku l ekt jgk gß tgklyMedh dh vißk yMeda dks egRo inku fd; k tkrk jgk gA vkt Hk vf/kdñk i fjojkka ea yMed; ka dh vißk yMeda dks gß {s= ea egro inku fd; k tkrk gA yMeda ykM&l; kj l s j[kk tkrk gS muga vPNh l s vPNh f'k{k nus dh 0; olFk dh tkrk gS tle ds cin l s gh l ekt ds) kjk efgykvla vlg i q 'kka ds eu ea HkñHko dk tks cht cls fn; k tkrk gS fd iq 'k efgykvla l s gß {s= ea JSB gS rFk efgykvla dh nñ; k Åj dh pñjñhokjard gh l ffer gA vlg /kfeZ -f'V l s; g Hk ekuk tkrk gA fd iq= ds fuk Jk] vlg firjka dk riZk ugha gS l drka okLro ea Åjywfã k ds vlrñr ; g ckr e[; : l s -f'Vxkpj gñk gS fd vf/kdñk"ka% Åjywfã k dk f'kdñj efgyk; a gh gñk djrh gS D; kñd muga T; knk l s T; knk ngst , oa Hkñk gR; k ds fy, etoj fd; k tkrk gA vkt ds le; ea efgyk; a l j f(kr ugha gA efgykvla ds j[kd gh muds Hk[kd cus gq s gA l ekt ea; g /kñ.kk cuh gñZ gS fd T; knrj xjhc Ajkula l s rkYñd j[kus oky] vui< efgyk, a gh Åjywfã k dk f'kdñj gñk gS ySdu l PPkñZ rls; g gS fd n'sk ea dñkñk efgyk, a Hk Åjywfã k dk f'kdñj gñk gS oS bl ds f[kyQ vkot mBkus l s Hk Mjrh gA gekjs; gñW efgyk; a i kphu dky l s gh voekuuk i r kñk] ; kruk rFk "kks.k dk



f"kdj gkrh vk jgh gA djk.k dñ Hkh jgk gk bl sudkjk ugha tk l drkA Efgykva dsfo:) "Ajywfda k" , d xEhkhj l kftd l el; k cu xbz gA Ajywfda k dh f"kdj gkus okyh efgykva dk ifr"kr yxkrkj c<+ jgk gA jkVh; Lrj ij bl l el; k l s fuiVus ds fy, dñæ l jdkj us Ajywfda k l s efgyk l j{k.k vf/kfu; e 15 vDw; 2005 dks ijs Hkjr o'iz ea ylxw dj fn; kA bl ds vfrfjDr l jdkj ds) kjk efgykva dks iq "kha ds vR; kpkj] fga k vlg vU; k; l scpkus ds fy, jkVh; efgyk vk; ksc dk Hkh xBu fd; k x; k A Ajywfda k efgykva dsfo:) gkus okyh , d iæ[k l el; k gA ftl a ifjokj ds vUrxr futh ekeyk ekurs gq ckj dh tkb iMrky l s fNkdj j[k tkrk gA gky ds n"kdha ea efgykva dh l fLfr ea dñ gn rd l Hkh gkus vlg efgykva ds l kztud: l l l l fØ; gkus ds djk.k Ajywfda k dh tkudkjh /hjh/hjs vc ckj ylxla ds l kaus vkus yxh gA

Efgykva ds fo#) fga k mudh obdfgd l fLfr ds l kFk Hkh l Ec) gs fookg ds i"pkr-efgykva dks vius tle ds ifjokj dks NkMej vius ifr ds Aj tkuk iMrk gs ylxla ds) kjk ; g ekuk tkrk gs fd ifr dk Aj gh gj yMeH dk viuk Aj gkrk gs fdUrq dbZ ckj ; gh mudk viuk Aj mRiMue dk dñæ cu tkrk gA ; g l R; gs fd fd l h Hkh fga k ds fy, dñæ , d gh ugha vfrfjDr fofHk" dkjd rFk ifj l fLfr; m mUkjnk; h gkr gA

Efgyk, aykdykt o vU; dbZ ckj.kha l s vius l kFk gks jga Ajywfda k dks pñpki ; g l kpdj l gu dj yrh gA fd , d fñu /hjh/hjs l c Bhd gks tk, xk exj ifj l fLfr Bhd gkus ctk; vlg Hkh T; knk fcxMrh pyh tkrh gA Ajywfda k dh tMgekjs l ekt vlg ifjokj ea cgr xgkbZ rd tetagbZ gA os rks fd l h Hkh 0; fDr ds fy, ml ds Aj dks l cl s ifj l fLfr LFku ekuk tkrk gs yfdu ; g dguk t#jh ugha gs fd efgykva ds ekeys ea ; g geHk l gh gA ykMl Mmu l s iMz Hkh nfu; k Hkj ea efgyk, a Ajywfda k ckj dh f"kdj gkrh vk jgh gA

Ajywfda k dk vRZ &

Ajywfda k l a rRi ; Z ; g gs fd ; fn fd l h efgyk dks ml 0; fä) kjk ftl ds l kFk og Aj ea jgrh gs rFk l k fkdj d l c k j[krh gs "kkjhj d] ekufl d] eukokkfud] vkfkd] vFok ; kA : l l s ArkfMr fd; k tkrk gs rks ; g Ajywfda k dgykrh gA efgyk ds l kFk fd l h Hkh Adkj dh ekj iM] mRiMue] vFok /kedh] Ajywfda k ea "kfeey gA

fl eku n cñokj ds vuq kj & L=h dgta >M cukdj ugha jgrh og ijh ekuork dk vk/kk fgl k gks gq Hkh ijh , d tkr ugha xgke viuh xgkeh l s ifjpr gs vlg , d dky vkneh vius jk l s ij L=h Ajkh vyx&vyx oxk, oa fHk" & fHk" tkr; kae fcl khj gpbZ gA ml ea Økkr dh pruk ugha D; khd og viuh l fLfr ds fy, Lo ftEnkj gA og iq 'k dh l gvi kf/kuh gA vr% l ektok dh l Fk iuk ek= l s L=h eDr ugha gks tk; xA l ektok Hkh iq 'k dh l odfjrk dh gh fot; cu tk; xA

Ukj nñ bZ ds vuq kj & " oñd ; q ea vU; dky o n'skha dh efgykva dh rgyuk ea Hkjr; efgykva dks vf/kd vf/kdj ikr Fk fdUrq ; g Hkh l R; gs fd fir & l UkkRed l ekt ds <kb ds vUrxr efgykva ds vf/kdj l fher gh Fk " ifjokj ea du; k f"kr dk Lokx fd; k tkrk FkA ml l e; iæ dh Akfr , d vfuok; Z vko"; drk ugha FkA fo/kokva dks i fobkg dk vf/kdj Fk tS k eufefr ea mfyf[kr gs fd " tg, L=h dk l Eeku gkrk gs og, AHkq Al "k gks gs vlg tg, dk vieku gkrk gs og, l kjs iq; deZ 0; Fk gks tkr gA

Ajywfda k ds idj

lkfjokj dk dñæ Hkh iq 'k l nL; vxj efgykva dks ekjrk ; k iMvk gs ; k muds l kFk vHæ 0; ogkj djrk gs vlg ml s fd l h pht ds fy, foo"kr djrk gs rks og efgyk Ajywfda k l s efgyk l j{k.k vf/kfu; e ds vUrxr ml ds f[kyQ ekeyk ntZ dj l drh gA efgykva ds ifr gkus okys vij/kha dks fuEu Hkxha ea ckWk x; k gA

- 1- "kkjhj d fga k & iR; FkZ ; k ml ds l EcU/k; kA dk dñæ Hkh , d k dk; Z ; k vkpj.k tks fd efgykva dks "kkjhj d {kr , oa thou dks [krkj mRi" dkjA
- 2- ykx d nq; dgj & dñæ Hkh , d k dk; Z ; k vkpj.k tks efgyk ds Lokfheku dks dyfdr djrk gA
- 3- ek[kd , oa HkoulRed fga k & fo"ksr% mu efgykva ds l EcU/k ea ftuds dñæ cPpk ; k yMeH ugha gs ftl ds djk.k mlgami gkl r , oa frj L—r ukeha l s i pñkj tkrk gA
- 4- vkfkd fga k & efgykva dks foUk; , oa vkfkd l L=kra o gdh l s oñpr j [kukA



YKWMkmu eafgykvkdsfo:) gksokyh Äjywfgd k dh fLFMr &

vkt ijk nsk djkuk ok; j l uked egkekjh l s i h f m f g a x j h c i j c j k s t x j h j o v l j ; d b z l a d v l a l s f u j r j t w j g s H k j r d s l k e u s d j k u k o k ; j l d s i l k j o m l s j k u s d s f y , y x k , x , y k W M k m u u s d b z u b j p u k s r ; k W [k M k d j n h g a H k j r l j d k j d s j k j y k x w f d ; s x ; s y k W M k m u d s f o f h k " k p j . k l a u s y k s k a d s L o k L F ; , o a v k t h f o d k d s l k k u l a i j H k h v k f F k z l l a d V m R i " k d j f n ; k g a o k L r o e a b l v k f F k z l e n h d h H k f o ; o k . k h d l s n s k r s g q j y k [k l a & d j k W l a y k s k a d h u k d f j ; k W [k k u s v k s 0 ; o l k ; f o Q y g l s t k u s d s d k j . k j H k j h e k = k e a c j k s t x j g l s t k u s d s d k j . k j y k W M k m u d s n g k u v f / k d h " k y k s b l e k u f l d r u k o l s i f j r g k d j e f g y k v k a d s l k f k n q ; b g k j , o a Ä j y w f g d k d j r s g a

b l r j g d s c < r a Ä j y w f g d k d s i h N s d k d k j . k y k s k a e a / k s 7 d h d e h g k u k g S D ; k i d d k f o M & 19 u s , d k i j f - " ; A L r n f d ; k g a f t l l s g j , d b a k u v n j g h v n j Ä v j g k g a o g c k j u g h a t k i k j g k g s u k g h y k s k a l s f e y i k j g k g s f t l l s o g / k h j & / k h j s v o l k n e a t k j g k g s v k s ; g h v o l k n f g d k R e d d k : l k y s j g k g a " l q l s g h l k e l f t d < k p k , d k j g k g s f d i q ' k o x l c k j j d s d e k a d k s i j k d j r s g s t c f d e f g y k , a Ä j d s d k e l a e a 0 ; L r j g r h g s y f d u y k W M k m u d s d k j . k i q ' k l a d k s Ä j i j j g u k i M k j g k g s f t l l s d n i q ' k l a d s v l n j f p M f p M k g V v k s f g d k R e d A o f r c < + x b z g a

g j n s k v k s g j l e k t d s f y , d j k u k l Ø e . k , d b f e r g k u g s v k s b l l s y M u s d h l c l s c M k d k s " k k y k W M k m u g a ; s y k W M k m u , d r j Q i f j o k j l a d s , d t v g k u s d k u k e c u x ; k j y f d u n h j h r j Q b l l a e f g y k v k a Ä j y w f g d k d k f " k d k j g l s j g h g a v l r j k z V h ; , t a l ; k a d s e r k f c d i k f j o k j d f g d k d s e k e y s ; j i k l s y d j n f { k . k h v e f j d k j p h u t s f o d f l r n s k a v k s v l ; f o n s k a e a H k h e k e y s c < + j g s g a m l k j i n s k j f n Y y h f c g k j e e ; i n s k j v k s e g k j k V " e a H k h Ä j y w f g d k d s e k e y s l c l s T ; k n k c < + j g s g a t g , e f g y k v k a u s b e y ; k l n s k d s t f j , j k V h ; e f g y k v k ; k s r d v i u h c k r i g b k u s d h d k s " k k d h Ä j y w f g d k l s t w j g h ; s e f g y k , a v c u r k s v k e f n u l a d h r j g v i u s e k r k & f i r k d s i k l t k l d r h g s v k s u g h f d l h n k r d k s e n n d s f y , c y k l d r h g a

H k j r n s k e a e f g y k v k a d s f [k y k Q Ä j y w f g d k l c l s c M k v i j k / k g a u s k u y Ø k b e C ; j i k s v k d M s d s v u d k j e f g y k v k a d s 4.05 y k [k v i j k / k n t z f d , x , A b u e a l s 1.26 y k [k ¼ 30% ½ l s T ; k n k Ä j y w f g d k d s e k e y s F k A l c l s T ; k n k d l j k t L F k k ¼ 18 j 432 ½ l s n t z f d , x , t c f d m l k j Ä n s k l s ¼ 18 j 304 ½ d l l k e u s v k , A u s k u y Ø k b e C ; j i k s d s M s / k d s v u d k j n h j s u e j i j ; k a m R i h M u d s e k e y s g a 4 y k [k n t z v i j k / k l a e a 8 Ø h l n h e k e y s j i t q l s F k A t g k W r d i f r y k [k e f g y k v k c k n h i j v i j k / k n j d k l o k y g s r k s 2019 e a 6.24 F k k t c f d 2018 e a b l d k v k j r 58.8 g h F k A , u Ø t h Ø v k d d s Ä s k e d s n g k u d g k x ; k g s f d Ä j y w f g d k l e k t e a g j t x g g s i h f m f k d h N k h & e k h p k / v k s t y u s d s e k e y l a d s n t z d j u s l s e k u k f d ; k t k r k g a d j k u k d k y u s e f g y k v k a d h f L F k r d k s [k j c d j f n ; k j f t l l a e f g y k , a v i u s i f r ; k a d s f [k y k Q f " k d k ; r H k h u g h a d j l d r h A D ; k i d m l g a i f r d s) k j k v k s T ; k n k Ä r k f m f g k u s d k M j j g r k g s r F k k v k e r i g j i j f j o k j d s l n L ; k a o l e k t d s) k j k H k y k & c j k d g k t k r k g a j k V h ; e f g y k v k ; k s r d s v u d k j y k W M k m u d s n g k u Ä j y w f g d k d s e k e y l a e a < k b z x u k c < k l k j h g l s x b z g a

d j k u k l l a d V l s f u i v u s d s f y , y k x w f d , x , y k W M k m u d s n g k u n s k k j e a Ä j y w f g d k d s e k e y a 95 Ø h l n h r d c < + x ; s g a j k V h ; e f g y k v k ; k s r u s y k W M k m u l s i g y s v k s c k n d s 25 f n u k a e a f o f h k " k " k g j l a l s f e y h f " k d k ; r k a d s v k / k j i j ; g n k o k f d ; k g a e f g y k v k ; k s r d h e k u s r k s e f g y k v k a d s Ä j y w f g d k d s e k e y a y x h k x n l o x u s c < + x , A e f g y k v k ; k s r u s b l l k y 27 Q o j h l s 22 e k p z d s c h p v k s y k W M k m u d s n g k u 23 e k p z l s 16 v i s y d s c h p f e y h f " k d k ; r l a d h n g y k d s c k n v k W M s t j h f d , g a v k W M l a d s e r k f c d y k W M k m u l s i g y s e f g y k v k ; k s r d s Ä j y w f g d k d h 123 f " k d k ; r a f e y h F k h t c f d y k W M k m u d s n g k u v k l u y k b u o v l j ; e k ; e l a l s Ä j y w m R i h M u d s 239 e k e y a n t z d j k , x , A i g y s 25 f n u k a e a 117 e f g y k v k a u s v i u s l k f k g l s j g s H k s H k o d k v k j k i y x k ; k a o g h a y k W M k m u d s n g k u 166 e f g y k , Ø ; Ø f r ; k a u s l e k t o i f j o k j e a l e e k u d s l k f k t h u s d k v f / k d k j f n y k u s d h c k r d g h a b l h r j g l k b c j v i j k / k d s H k h t g , i g y s 396 e k e y a v k , a o g h a c k n e a 587 f " k d k ; r a f e y h A b l h r j g i g y s 25 f n u k a e a N M f k u h d s 25 e k e y a l k e u s v k , t c f d y k W M k m u d s n g k u 15 f " k d k ; r a f e y h A j k V h ; e f g y k v k ; k s r u s e f g y k v k a d h e n n d s f y , Ø g k V I , l k u e j 21771713537 H k h t j h f d ; k g a

Y k d e a e f g y k v k a d s f y , d o k f u z f l L V e " l q f d ; k x ; k A ; s f l L V e e f m d y L V i j v k s l i j j e k d l e a y x s g q g a i h f m f e f g y k v k a d s , d h t x g l a i j t k d j d k M o M z e k L d e a 19 " d g u k g l r k g s f t l l s ; g l n s k v f / k d k j ; k a r d i g b t k r k g s L i u e a H k h , d h 0 ; o L F k y k x w f d x ; h g a d k M o M z o k y h



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tkurh Flh fd bl iq 'k Á/kku l ekt ea ml dh 0; Flk dkbZ ugha l qskA bl fy, vius bl h thou dks viuh fu; fr ekurh gbl l c dñ l gu djuk gh vius vñs vius ifjokj ds cgrj l e>rh gA cipu l s gh yMeh; ka dks ; g f'k'kk nh tkrh gSfd fookg ds lk'pkr-ifr dk Áj gh yMeh dk viuk Áj gskk gA ifr ds ekrk&firk Hkh ml ds ekrk&firk gksr gS ifr vñs ml ds ekrk firk dh l ok djukj , oa cPpla dh n'skHky djukj ml ds ifjokj ds l nL; ka dh vkKk dk ikyu djukj yMeh dk l cl scMk /keZ gskk gA yMeh ds fy, ml dk ifr nork ds : i eaekuk tkrk gA

Ájywfda k u doy fodkl "khy ; k vYi fodfl r n'skka dh l el; k gScfyd ; g fodfl r n'skka ea Hkh cgr Ápfyr gA lH; l ekt ea fga k dkbZ LFkku ugha gA yfdu ÁR; d o'kz Ájywfda k ds ftrus ekeys l keus vkrsgA os , d fpruh; flFkfr dks jg'kkadr djsr gA Ak; % n'sk'kk tkrk gSfd efgyk, a ifjokj ds Hkhrj gh dHkh firkj rks dHkh ifr] fdl h uk fdl h : lk ea iq 'k ds neu vñs "kksk.k dk f'kdj gks tkrh gSftl dk l cl scMk dkj.k ; g gSfd Á-fr us efgykvla dks iq 'kka dh vi'skk "kkjhjd rñs ij detlj cuk; k gS ftl dh otg l sog iq 'kka ds Øskk vñs bz; kZ dh f'kdj cu tkrh gA yfdu vc ifjflFkfr; ka bl ds Bhdl foijhr gks pñh gSgekjh l Øskkfud 0; oLFk efgykvla ds Áj gkus okyh fga k vñs muds "kksk.k ds Áfr l pr gks xbz gSftudh l gk; rk l s dkOh vcyk vñs vl gk; l e>s tkus okyh efgyk, avkt vius vf/kdkjka ds Áfr vkokt mBkus yxh gA Hkjr l jdkj ds)kjk Ájywfda k l s efgyk l j {k.k vf/kfu; e 2005 ykxw fd; k x; k] ftl ds vuq kj efgyk] o)] vFkok cPpla ds l kFk gkus okyh fdl h Hkh Ádkj dh fga k vijk/k dh Js kh ea vkrh gS vñs bl ds nskh ik, tkus ij dMk l tk dk Hkh Áko/kku fd; k x; k gA bVytj Li u vñs vl; n'skka ea Ájywfda k ds f[kykQ jk'v0; kih dk; Øe LFkfr dj ykoka dks bl ds fo:) tkx: d djus dk dke fd; k tk jgk gA

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- 1 deyk nñh] efgykvla ij gks jgh Ájywfda k dk l ekt "kk=h; v/; ; u] jk/kk dey epItH%fpLru ijEijK] o'kz 19 vñd 1] tuojh&tñ 2017A
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GONADAL HISTOARCHITECTURE AND REPRODUCTIVE HORMONES STUDIES OF FEMALE ALBINO RATS TREATED WITH AZADIRACHTIN

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Abstract:

Azadirachtin, a bioactive compound of *Azadirachta indica* is biodegradable and show very low toxicity to mammals along with minimal disturbance to the ecosystem. The objective of present study was to observe the effects of azadirachtin on histoarchitecture of gonads along with the alterations in estrous cycle and serum level of reproductive hormones (FSH, LH, Estrogen and Progesterone) in female albino rats. The animals were divided in two groups as G1= test group was administered with azadirachtin (0.2ml/day/rat) and G2= control group administered with corresponding dose of 70% alcohol. The animals were kept under observation up to 30 days. At the end of the period the animals were sacrificed. The histoarchitecture study of ovary and uterus showed degenerative effect. Reproductive hormones (FSH, LH Estrogen and Progesterone) estimation was carried out in serum samples of both the groups and compared. Vaginal cytology revealed a notable disturbance in estrous cycle with a significant increase in duration of diestrus phase in experimental female rats. These alterations were associated with significant decrease in the serum levels of the female reproductive hormones (Estrogen and Progesterone) indicating anti-fertility potential of azadirachtin in female albino rats.

Key words: Azadirachtin, Histology, Estrous Cycle, Hormones, Female rats.

INTRODUCTION:

Azadirachta indica A. Juss (Sy: Melia Azadirachta L. Meliaceae family) commonly known as neem is one of the most popular tree in traditional medicinal system and is increasingly becoming important in herbal alternative therapy (Koul et al., 1990; Subapriya and Nagini, 2005; Jin et al., 1995). In agriculture it is documented to be used in insect and pest control (Koul et al., 1990; Jin et al., 1995; Mahmoud 2008). The neem tree has long been recognized for its unique properties both against insects and in improving human health. The environment compatibility of neem products, lack of resistance development to them, their harm less nature against non -target organisms and lack of toxicity, all have significantly enhanced the integrated use of neem in medicine. In fact, it is considered to be the “village pharmacy” in many parts of India and has played a key role in Ayurvedic medicine since time immemorial.

A. indica constituents exhibit immune-modulatory, anti-inflammatory, anti-hyperglycemic, anti-diabetic and anti-carcinogenic properties and can induce cellular immune reactions (Murkherjee et al., 1999). The bark extract of this tree has been reported to be useful in the control of gastric hyper-secretion, and gastro-esophageal and gastro-duodenal ulcers (Akpantani et al., 2010). Extracts of different parts of *A. indica* reported to possess antifertility potential. Gbotolorun (2008) reported the use of neem flower as an antifertility agent. It has been reported that the crude oral



administration of *A. indica* leaves exhibit antispermatic, antiandrogenic (Aladikatti and Nazaeer Ahamed, 2005 a, b) and such effects appeared to be reversible (Joshi *et al*; 1996). Naqvi (1998) referring the history and importance of this plant has mentioned that Sadhus of India used to chew neem leaves to suppress their libido during their meditation. Various studies on *A. indica* have proven that the seed extract of this plant has reversible infertility properties. Most reported antifertility effects of neem extracts are centered on the males (Akpantah, et al., 2009).

General properties of *A. indica* are attributed to the individual effects of various alkaloid content of the plant like nimbitin, azadirachtin and salanin (Koul, et al., 1990). Modern science has isolated and identified Azadirachtin as the chief ingredient in neem seed (0.2 to 0.8 percent by weight) responsible for the pharmacological action. Azadirachtin, belongs to the limonoid group and the empirical formula is $C_{35}H_{44}O_{16}$ and molecular weight is 750. Azadirachtin present in neem seed, is the key bioactive component, responsible for therapeutic role of neem. Hence, reports on the seed and oil extracts as researched on the males necessitated this study on the effect of the azadirachtin on the gonadal histoarchitecture, reproductive hormones and reproductive cycle in the female albino rats.

Materials and Methods:

Animals: Healthy adult Wistar female albino rats weighing 165 ± 14 g were procured from animal house of the Dr. Panjabrao Deshmukh Memorial Medical College, Amravati (MS, India). The animals were housed under controlled condition ($28 \pm 2^\circ\text{C}$; 12:12hr L:D). The animals were kept in the experimental room for one week prior to the commencement of study, for acclimatization of experimental conditions. The care and management of experimental animals was followed strictly as per ethical committee guideline. The animals were fed with standard pellet diet and water *ad libitum* for a period of 30 days. Vaginal smear was taken daily, and only female rats displaying at least two consecutive 4- day estrous cycle were used.

Drug: Azadirachtin (NEERI, Nagpur)

Experimental Setup:

- G1= Experimental female rats=6 rats, administered intramuscularly (im) with azadirachtin, 0.2ml/day/rat up to 30 days (0.2ml contains $1.5 \mu\text{l}$ azadirachtin).
- G2= Control female rats = 6 rats, injected intramuscularly (im) with 0.2ml 70% alcohol /day/rat up to 30 days as vehicle control.

Estrous cycle study:

Daily the vaginal cytology of the control and experimental rats was studied by vaginal- smear technique as described by Hafez, 1970. Rats exhibiting 4-5 days estrous cycle of proestrus, estrus, metestrus and diestrus were considered as normal while any deviation from this pattern in terms of duration and sequence was categorized as abnormal (Gbotolorun, 2008).



Hormonal Analysis:

After 30 days blood sample was taken from the orbital sinus of the rats for assessment of serum hormone levels (FSH, LH, Estrogen and Progesterone) from both the groups. The hormones were assayed by RIA using the method given by Shille, *et al.*, 1983.

Histological Study:

After period of treatment ovary and uterus, from both the sides, were isolated from the rats and excess blood was removed using filter paper. They were quickly weighed on a digital balance and fixed for 24 hrs.in Bouin's fluid. The tissues, embedded in paraffin, were cut in 5µm thickness, and stained with regular hematoxylin-eosin solution for histological study. Histological study was done under light microscope at 100X.

Statistical Analysis:

Students "t" test was used, $P < 0.05$ was regarded as moderately significant and $P < 0.01$ as significant.

Result and Discussion:

Estrous cycle study:

The vehicle control rats exhibited regular estrous cycle and normal duration of each phase of the estrous cycle. Administration of azadirachtin to female albino rats exhibited an irregular pattern of estrous cycle. These rats showed significant decrease in number of estrous cycles and duration of proestrus, estrous and metestrus phases. Experimental rats showed a prolonged diestrus phase in each cycle as compared to control (Table -1).

Female Reproductive Hormones:

Follicle Stimulating Hormone (FSH):

Mean serum FSH concentration in experimental female rats was 4.96 (MIU/ml). The FSH concentration in control rats was 4.25 (MIU/ml). The FSH level in azadirachtin treated rats is 16.70% higher and statistically nonsignificant ($p < 0.05$) when compared to control (Table -2).

Luteinizing Hormone (LH):

Mean serum LH concentration in treated female rats was 6.52 (MIU/ml) and the LH level in control female rats was 6.20 (MIU/ml). The values show a nonsignificant rise (5.16 %) when compared with control readings (Table-2).

Estrogen(EH):

Mean serum estrogen concentration in azadirachtin treated female rats was 22.64(ng/ml) while the estrogen concentration in control rats was 30.20 (ng/ml). The level of estrogen in treated female rats is about 31.92 % lower and statistically significant ($p < 0.05$) as compared to controls (Table-2).

Progesterone (PH):

Mean serum progesterone concentration in azadirachtin treated female rats was 9.74 (ng/ml) while the progesterone concentration in control rats was 12.50 (ng/ml). The level of progesterone in treated female rats is about 22.08 % lower and statistically significant ($p < 0.05$) as compared to controls (Table-2).

Histological Study:

Ovary: The rats from control group showed normal developing graafian follicles, mature graafian follicles and corpus luteum in the ovarian sections (Fig.-2). The intramuscular administration of azadirachtin exhibited hemorrhage, distortion of follicle



and fibrosis of ovarian stroma. Corpus luteum also showed signs of degeneration (Fig.-1).

Uterus: The uterus of control group showed normal morphological structure. The histological section of control uterus revealed regular myometrium and endometrium layers (Fig.-4). The female albino rats of the experimental group presented marked damage to the epithelial layer of the endometrium, vacuolated myometrium, separated smooth muscles and hypertrophied nuclei were seen (Fig.-3) when compared with that of the control.

Discussion:

In the present study effect of azadirachtin on the histology of ovary and uterus of both the control and experimental female rats were studied. Daily examination of the reproductive cycle and estimation of serum levels of the reproductive hormones FSH, LH, EH and PH were reported.

The control rats exhibited regular 4-5 days estrous cycle. Cyclic changes of the vaginal smear observed in the estrous cycle gave a reasonable index of ovarian activity and hormonal synthesis of EH and PH. The level of EH and PH are controlled by pituitary gonadotropins and hypothalamus-releasing gonadal hormone (Lerner LJ, 1969). A normal histoarchitecture of the ovary and uterus and normal levels of these hormones is indicative of the normal sexual processes in the female.

The ovaries are a pair of ova-producing organs that maintain the health of the female reproductive system. Being an endocrine gland ovary produce and release two groups of sex hormones—progesterone and estrogen. These hormones are vital to normal reproductive development and fertility. Female reproductive functioning is regulated by intricately balanced mechanism involving the hypothalamus-pituitary-ovary axis and accessory sex organs. The changes in the histological architecture of the ovary depends upon the pituitary gonadotropins, FSH and LH which are in turn regulated by their respective releasing factors (Lerner, 1969).

The present study demonstrated that the administration of azadirachtin alters the reproductive cycle of female albino rats by prolonging the duration of the diestrus phase, and subsequent lowering the frequency of the estrous. The remarkable extension of diestrus indicates prolongation of life of corpora lutea (Devi, 1992) and arrest of further development of follicles. The FSH and LH are essential to normal reproductive function—including regulation of the menstrual cycle. No significant rise in the serum FSH and LH level in the azadirachtin treated female rats were noted. However, administration of azadirachtin up to 30 days resulted into decreased level of EH. The results reveal the antiestrogenic activity of azadirachtin.

Progesterone hormone prepares the female body for pregnancy by causing the uterine lining to thicken. Significant decrease in the serum PH level of the experimental rats caused marked damage to the epithelial layer of the endometrium, vacuolated myometrium with no blood vessels. These observations are in line with reports by Gbotolorun *et al.* (2004), Roopet *et al.* (2005). They reported inhibition of folliculogenesis, prolonged diestrus and partial blockage of ovulation with seed and oil extracts of *A. indica* in albino rats. Azadirachtin treatment resulted into disturbed reproductive cycle by blocking the biogenesis of ovarian steroids in any intermediary stage (Mazumdar, *et al.*, 1992).



Conclusion:

Intramuscular administration of azadirachtin disrupts the normal estrous cycle in Wistar female rats and causes a partial block in ovulation. The imbalance in reproductive hormones and gonadal histoarchitecture milieu suggest the potential of azadirachtin as an antifertility agent.

Group	Number of Cycles	Duration In Days (M \pm S.E.)			
		Proestrus	Estrous	Metestrus	Diestrus
Test	2.18 \pm 0.20	1.33* \pm 0.16	3.74* \pm 0.22	2.28** \pm 0.19	22.14** \pm 0.34
Control	6.17 \pm 0.76	5.12 \pm 0.12	7.81 \pm 0.18	4.13 \pm 0.16	12.19 \pm 0.08

Table 1: Effect of Azadirachtin on Estrous Cycle of female albino rats.

Table 2: Effect of Azadirachtin on serum level of sex hormones of female albino rats.

Group	Serum FSH (MIU/ ml)	Serum LH (MIU/ ml)	Serum EH (ng / ml)	Serum PH (ng / ml)
Test	4.96 ^{NS} \pm 0.03 (+16.70)	6.52 ^{NS} \pm 0.06 (+5.16)	22.64** \pm 1.08 (-31.92)	9.74* \pm 0.04 (-22.08)
Control	4.25 \pm 0.07	6.20 \pm 0.05	30.20 \pm 1.15	12.50 \pm 0.44

Values are mean \pm SE of six animals per group.

* p<0.05, **<0.001, NS-Not significant.

Figures in parenthesis indicate percent change over control.

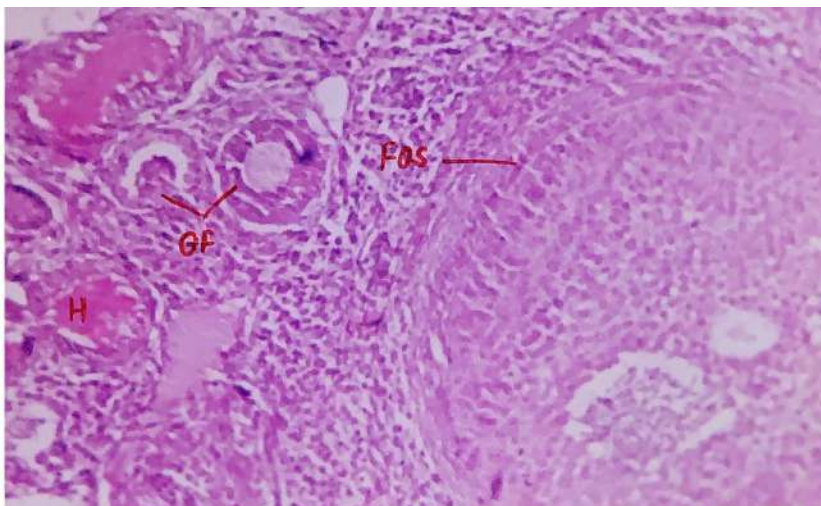


Fig.1 T.S. ovary of female albino rat after 30 daysim administration of Azadirachtin showing *hemorrhage (H)*, distortion of follicle(GF) and fibrosis of ovarian stroma(FGS)
Hematoxylene-eosin, X100.

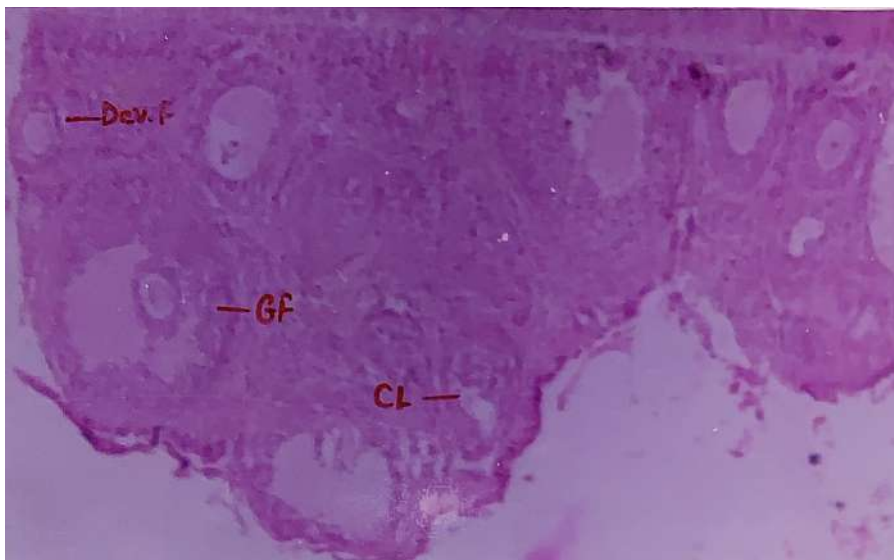


Fig.2. T.S. of ovary of control female albino rat showing normal developing follicle(Dev.F.),
graafian follicle (GF)and corpus luteum (CL)
Hematoxylene-eosin, X100.

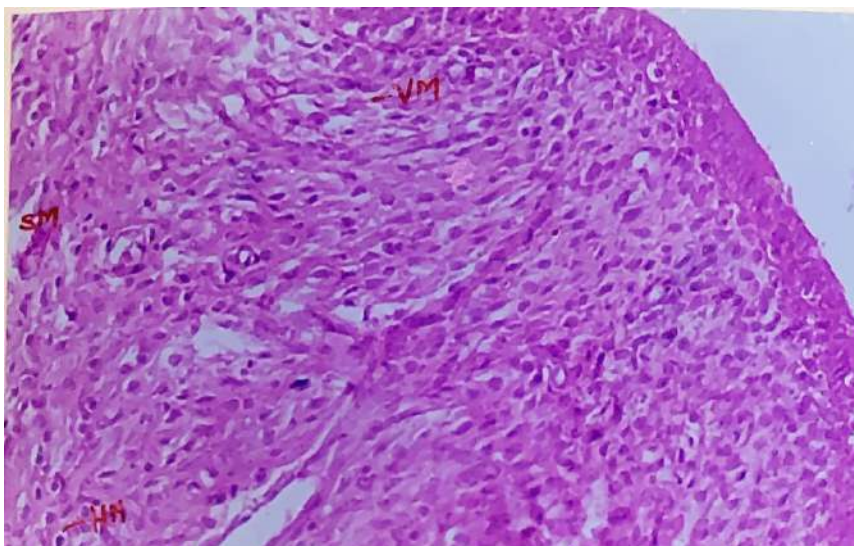


Fig.3. T.S. uterus of female albino rat after 30 days intramuscular administration of azadirachtin showing vacuolated myometrium (VM), separated smooth muscles (SM) and hypertrophied nuclei (HN) Hematoxyline-eosin, X100.

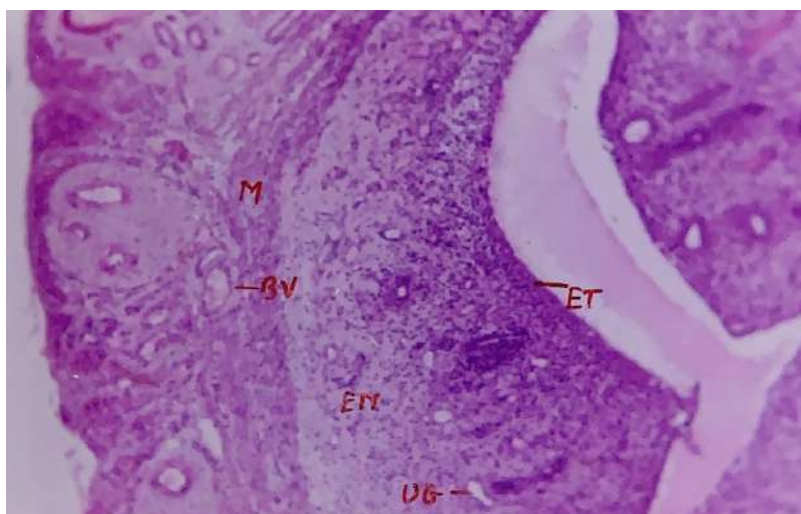


Fig.4. T.S. uterus of control female albino rat showing normal epithelium, endometrium, myometrium, uterine gland and blood vessels Hematoxyline-eosin, X100.



Acknowledgement: I deeply acknowledge Dr. A.D. Chaudhari, Department of Botany, R.T.M. Nagpur University, Nagpur for his help to get Azadirachtin from NEERI, Nagpur.

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I oð Fke l "kDrhdj.k "kñ dk iz kx 1970 ds n"kd ea fodkl dk; k dsl kfk fl=; k dks tkMUs rFkk 1980 ds n"kd ea fyx vlg yxkd l ækka ds v; ; u ea fd; k x; kA xhrk l u vlg dju xA u us l u 1987 ea viuh iðrd 'fodkl l l dV vlg oðfvið nfV; k ea l oð Fke EMPOWERMENT "kñ dk iz kx fd; k gA cñ ea fodkl kled l ekt "kfl=; k, oa efgykvla ds thou ea l ðkj; ea : fp j[kus okys fo}kula us bl dk iz kx fyx l ækka ea fd; kA dñ vlnkyudkj fo}kula vlg fl } lardkjla dk er Fk fd efgykvla dk fodkl rc rd l Hko ugha gß tc rd mlga 'firra' l s Nv/dkj ugha feryr rFkk oð v l eukr dls pukkñ nus grqmlga l (ke vlg l cy ugha cuk; k tkrA xhrk l u vlg dju xA u us vius bl h ykku dsl mHkz ea bl in dk iz kx fd; k gß vlg vk"kk 0; Dr dh gß fd jktufird vlnkyu l dkuu h ifjorðl pruk tixr vlg tu l y/Hk f"kk ds } kjk efgykvla dh flFkr ea : ilanj.k yk; k tk l drk gA JhyFk ckVyhokk us 1994 ea "kDr vlg l "kDrhdj.k dh 0; k[; k Hkdrd l Ei fVl) ckS) d l a k/kuk vlg fopkj/kkj ij fu; æ.k ds : lk ea dh gA mucs vuð kj "l "kDrhdj.k l s rRi; Zfojeku "kDr l ækka dls pukkñ vlg "kDr dsl kka ij v f/kdk fd vu; æ.k ikr dju l s gA bl idkj ge nqkrs gß fd l "kDrhdj.k dk l æk iEij l s gfl ; sij [kva l e] fo"kk dj efgykvla ds epnkA vRre l Eku) vkr fo"okl vlg "kDr dh vutkñ ½ l s gA nñ js "kñ ea Lo; a vlg nñ jka l s l Eeku ikr ds v f/kdk dls ; k; re ekuus ds Hko dk epnk gh l "kDrhdj.k gA

efgyk l "kDrhdj.k dsl g; kx djd %

foxr dñ n"kd l s jkVh; Lrj ij efgyk l "kDrhdj.k l d kjh uhr; k fodkl dk; Øek l ekt l ðkj dka , oa ukj hokñ fprda ds fopkj dk dñ&fclnq jgk gA clotm bl ds vkfkdj jktufird l i'kl fud) oKkfud l j{k (k, oa jkV^a ds v; egroiwz {s=ka ensk dh yxHx vk/h vlnkñ dh m l flFkr l arsktud ugha dh tk l drh gA l ekt d , oa jkVh; Lrj ij fdl h Hh dk; Z; kstuk dh l Qyrk ; k foQyrk ogk; dh l ekt d l k dfrd jktufird vkfkdj l i'kl fud) "k(kd vkñ ifj l Fkr; k ij fuHk d jrh gA l ekyu l ekt efgyk l "kDrhdj.k dh l Qyrk dsfy, ftu l Fkk; : ifj l Fkr; k ij fuHk gß mual s dñ i e f k djd bl idkj gA &

1- l ekt djd % efgyk l "kDrhdj.k ea l ekt djd dk Hkdek vr; Ur egroiwz gA l ekt ea f"kk dk Lrj , oa l ekt d l k dfrd iEij k; efgykvla dh orðku l ekt d ifj l Fkr , oa fodkl dk vk/kj gA bl dh cñ; kn ifjokj ij fvdh gA ifjokj l ekt dh l cl segroiwz l kFk gA ; gh og l Fku gß tgla l s cPpla yMek , oayMelh ds l ekt d jk dh ifø; k i kjk gkñ gA bl s cPpla dh iFke i k B"kyk dgk tkrk gA ifjokj gh og l Fku gß tgla cPps tle yrs gß l ekt drk dk i k B l h krs gß vlg ; gha l s cPpla ds Hko; dh uñ j[kh tkrh gA ifjokj ds bl dk; Z ea f"kk dk egroiwz; kñku gkñ gA f"kk l ekt dk vkbuk gA ; g l ekt dh n"kk , oa f"kk ds fu/kk; k ea egroiwz Hkdek fuHkrh gA vkj ðkd le; l s v k fud le; rd ds bngl ij xlg dju l s ; g Li'V gk tkrk gß fd le; , oa l ekt dh ek ds vuð lk [kñ dks <kyus ea f"kk dh Hkdek egroiwz jh gA ; g l ekt , oa jkV^a ds Hko i h< k dks ogla dh dkuu 0; o l Fk l ekt d 0; ogkj l ekt d eñ; , oa ifreku vkñ l s voxr d jrh gA oðohdj.k , oa m l Hkdrkñ l k dfr dsc<rs i Hko us l ekt ea f"kk ds egro dks c<kok fn; k gA 1980 ds vk d Mla ds vuð kj oð od Lrj ij dñ 795 fefy; u fu jkj ykx Flg ftuea efgykvla dh l ð; k yxHx 60 ifr"kr FlhA bl h vk/kj ij fo"o dñ , oa ; m dks } kjk 1989 ea "cñ; kñ f"kk l ekt fy, " uhr dh ?kss.k dk x; hA Hkjr ea f"kk ds Lrj ea vk; s l ðkj ds ifj.kkLo: i efgykvla dh flFkr ea 0; ki d l ðkj vk; k gA vkt efgykvla ea dksky fodkl dj m l s Lojst xj l s tkMUs dh igy py jh gA f"kk gh og ek; e gß tku dñ efgykvla dsekufl d : i l s l "kDr d jrh gß oju m l s vius v f/kdk ds ifr tkx: d dj "l "kDr ukj l "kDr l ekt" dh dYiuk dsewz : i inku dj jh gA efgykvla us vkt 0; o l k; [l y] euljatu l j{k) fprdl k f"kk foKku vkñ fofo/k {s=ka ea fuk; u; s dh rEku l Fkr dj viuh vlrufgr "kDr dk t s ifj; fn; k gß og efgyk l "kDrhdj.k dh ifø; k dsfy, , d vln"z ifj l Fkr , oa ekñ "kd dk dk; Z d jrk gA

MW iñ k k "k k z } kjk fd, x; s "k k dk; Z l s Hh ; g Li'V gkñ gß fd vkt efgykvla dls mudh f"kk ds vuð lk i k fjd fu.kz ea egro inku fd; k tk jgk gA Hkjr ea efgyk i q'k dh f"kk ds Lrj dk ngyukRed fopj.k l kj.kh l ð; k 01 ea fn; k x; k gA



I kj .lh l f; k&01

fofHklu d{kkvkae l = 2010&2011 , oa 2013&2014 ea ukeklud yusokys fo| kfhz ka dh l f; k dk rgyukRed
oxhhdj .k , oa l kj .lh; u

Ø- la	ukeklud l =	f"kk dk Lrj	lkq 'k	Ekgyk	dy Nk=
01	2010&2011	i kFkfed	70468000	64849000	135317000
02		mPp i kFkfed	32808000	29248000	62056000
03		Ekk/; fed	17453000	14326000	31779000
04		mPprj ek/; fed	10848000	8568000	19416000
05		mPp f"kk	15466000	12033000	27499000
01	2015&2016	i kFkfed	66873000	62250000	129123000
02		mPp i kFkfed	34720000	32874000	675940000
03		Ekk/; fed	20547000	18598000	39145000
04		mPprj ek/; fed	13002000	11733000	24735000
05		mPp f"kk	18594000	15991000	34585000

I k- % Educational Statistics at a Glance, Government of India

2- I pj ek/; e % vk/hud I pj ek/; e l ekt ea tkx: drk ykus dk l "kDr ek/; e gA vkt l ekt ifjorZ ds ftl
nš l s xqtj jgk gš ml ea l el kef; d jkVh; , oa varjkZVh; ?kVukvka dh tkudkj j[kuk furlar vio"; d gA fdl h
?kVuk ds ifr ykxka dh ftkk k dls c<kuk , oaml ds ifr , d u; h l kp fodfl r dj ml ds l ek/kku dh jgk fudkyuk
gh l pj&Øh dh fo"ksrk jgh gA vk/hud I pj ek/; eka ds i e{ k l kku fi v/ ehfM; k ¼ ekpj i =] i f=d k l i fud
vkn/ byðVNUd ehfM; k ¼ ehfM; k Voh vkn/ os ehfM; k , oa l kšy ehfM; k gA fi v/ , oa byðVNUd ehfM; k vkt "kgj
l sydj nj njkt ds xkard viuh igp LFkfi r dj ppk gA 1991 ds ckn Voh ds {e= ea dñi kj V/ ?kjula ds vkus
ds dkj k c<h ifrLi /kZ us bl ds i l kj dh xir dls c<k fn; k gA vkt ; g f"kk euljatu l ekpj vkn l s voxr
dj kus ds l kFk&l kFk i k"pkR; , oam l HkDrkknh l dfr l s Hk voxr dj k; k gA dEl; Wj l eakbby , oa bV/juV ds : i ea
oc , oa l kšy ehfM; k us l ekt dls l okZkd i Hkfor fd; k gA fnl Ecj 2019 ds vkpMla ds vuq kj Hkjr ea yMykbu
, oa eakbby Oku mi HkDrkva dh l f; k 1-1724 fefy; u gš ftuea yMykbu ds 21-00 fefy; u , oa eakbby Oku ds 1-
1514 fefy; u mi HkDrk gA ftl ea l s 344000 mi HkDrk doy fnl Ecj 2019 ek g ea tM gA Hkjr dh dty l pj l ok ea
yxllx 89 ifr"kr dh Hkxhnhj futh {e= dh gš tcf d ek= yxllx 11 ifr"kr Hkxhnhj l koZfud {e= dh dElu ch
, l- , u- , y- , oa, e- Vh- , u- , y dh gA fnl Ecj 2019 ds vkpMla ds vuq kj Hkjr fo'o dk ml jk l cl s cMk Vyh Oku
, oa bV/juV mi HkDrk nš gA bl l e; ; gk bV/juV ; utj dh dty l f; k 687-62 fefy; u gA ftuea dñi cM ; utj dh
l f; k 661-94 fefy; u gA vkt oš od Lrj ij efgyk fodkl l s l a/kr dk; Deka dh tkudkj yuh gš ; k viuh
; k; rkuq l Lojstxj ds fy; sekxh"u bV/juV ij ij Hk eafey tk jgk gA vkt f"kk l jstxj ds vol j 0; ol k;]
vf/kdj , oa dkuu l a k dh tkudkj l ekt dh vkn"Z efgykva , oa iq "ka dh thoh vkn bV/juV ij miyCk gA
l kšy ehfM; k ds fodkl us rls l kelft d l a k ds rku&ckus dls gh cny fn; k gA l kšy l kbV , oa bV/juV ds fodkl
l s l ekt ea i e fookg , oa vrt k h; fookg dls c<kok feyk gA bl ds }kj k mi HkDrkknh l dfr l kelft d ttx: drk
dk; D e rFk l ekt dh f"kk (kr , oa vkn"Z efgykva dh thoh , oa muds fopjka dk i pj&i l kj dj bl s fodkl dh
ef; /kjk l s tkMvas dk iz kl fd; k tk jgk gA

3- I jdkjh ufr % Hkjr , d ykdri=d jkV" gA ykdri=d 0; oLFk ea l ekt ds oipr , oa "kšr oxZ ds l j (k.k , oa
l "kDrhdj .k dk nkf; Ro l jdkj dk gA o"ka l s l ekt ds "kš .k , oamRi Hk d k nš -y jgh efgyk; a vkt l ekt dh
ef; /kjk l s tM+jgh gš bua l jdkj }kj pyk; h tk jgh ; kstukvka dk cgr cMk ; kxnu gA orēku i zkueh ujnZ
eksh l ekt ea yMe&yMfd; ka ds clp c<+jgh HkRkko yMfd; ka dh Lora=k , oa l j (k dls ydj viuh fpark 0; Dr dj



ppts gā vkt Hh ylx cšv; la dks cšv l e>rs gā vlg tle l s i m z ; k tle yrs gh mlga ekj nrs gā l ekt ea efgykva ds ifr Hh hko dk , d cmlk dkj .k gš vkt fkd l el; ka mi Hh d r k o k n h l d f r l e g x k b l d h e k j v l g . " k n h d s l e ; n g s t d h , d e k h j d e p d l k u k , d l k e k j ; i f j o k j d s f y , c g r e f d y g l o k g ā l k f k g h / k e z x h k a e a i e : d l e k e k d k j k l r k v l g l k e k f t d e k j ; r k d s v u d k j y m e d i d s i j k ; k / u c r k ; k x ; k g ā b l g h e k l ; r k v l a v l g e t c j ; k a d s d k j . k v k t H h l e k t e a y m f d ; k a d h r y u k e a y m e l a d s e g r o f n ; k t k j g k g ā v k d m l a d s e r f k d 0 & 6 l k y d h m e r d s c h p i f r 1000 y m e l a i j y m f d ; k a d h l f ; k 1/2 t l e d s l e ; 1/2 1/4 h , l v k j 1/2 e a o l z 1961 l s y x r k j f x j o v v k j g h g ā o l z 1991 e a y m f d ; k a d h l f ; k t g l a 945 f h o g h a 2001 e a ; g l f ; k ? v d j 927 v l g . 2011 e a 918 g l s x ; h a , d r j Q y m f d ; k a d s i f r c < r k H h h k o v l g n l j h r j Q l e c) m i d j . k a d h m i y c / r k , o a m u d s c < r s n q l k ; k s d k g h ; g u r h t k v t g e k j s l k e u s g ā ; g v k d m l k v l g u c < b l f y , l j d k j u s y m f d ; k a d s v l r R o d l s c p k u j m u d l j j (k . k v l g l " k d r h d j . k d l s l f u f " p r d j u s d s f y , " c v h c p k v l a c v h i < k v l a v f h k ; k u d h ? k s k . k k d h a v s y f o t u j v [k e k j] o c l k b v l s y d j g j t x g l j d k j b l d k i p k j d j j g h g ā b l v f h k ; k u d s e k ; e l s l j d k j l H h j k t ; k a , o a d l n z " k k f l r i n s k a e a l s o s 3 100 f t y l a d k p ; u d j j g h g ā t g l a d k f y a k u i k r l c l s d e g ā p ; f u r { s - k a d h v y x & v y x i f j l f k f r ; k a d s v l k j i j o g l a d s f o h l u { s - k a i j / ; k u d l n r d j ; k s t u k v l a d l s f o ; k l o r f d ; k t k , x l a b l d s v l k h e a p ; f u r 100 f t y l a e a g j ; k . k k d s 12 f t y l a d k H h p ; u f d ; k x ; k g ā ; g h o g t x g s t g l a l s i z k u e a h u s t u o j h 2015 e a " c v h c p k v l s c v h i < k v l s ; k s t u k d h " l q v k r d h a b l d k ; z d s f y ; s g j ; k . k k d k p ; u b l f y , f d ; k x ; k D ; k i d j k v h ; L r j i j g j ; k . k k g h , d k j k t ; g s t g l a d k f y a k u i k r l c l s d e g ā ; g l a d s f y x u i k r e a v i f k r l k j j d s f y , x k e i p k ; r L r j i j " l y Q h f o n M W " ; k s t u k d h " l q v k r d h x ; h g ā b l e a c v h d s l k f l y Q h f [l p k u s i j b u k e d k i t o / k u f d ; k x ; k g ā b l h i d k j f c g j i a 11 l s 18 l k y r d d h y m f d ; k a d s i k s . k r f k l o k f ; L r j e a l k j j y k u s , o a v u l s p k f d f " k k d s e k ; e l s m l g a v l j , o a v d k l u n u s d s m n s ; l s f d k j h c k f y d k ; k s t u k d h " k q v k r d h x ; h g ā y m f d ; k a d s v l s p k f d f " k k l s t i m l u s d s f y , c k f y d k l k b i d y , o a i s k k d ; k s t u k d h " l q v k r d h x ; h g ā b l d s v i r f j d r e g k i v a e a d k e / k u ; k s t u k e l ; i n s k e a i p k j k ; k s t u k , o a x e h . k b a t h u ; j ; k s t u k v l a z i n s k e a c k f y d k l j j (k . k ; k s t u k m l k j i n s k d h l o l f k l [h ; k s t u k , o a l s i v h e k z ; k s t u k v k f n j k t ; L r j i j e f g y k l j j (k . k , o a l " k d r h d j . k d s f y , m B k , x , d n e l a d s m n k j ; k g ā u ; w e k m y p [k z ; k s t u k 1987 1/2 u k s i m i f " k (k . k ; k s t u k 1989 1/2 e f g y k l e k ; k ; k s t u k 1989 1/2 e k r , o a f " k l q l o k f ; d k ; D e 1992 1/2 j k v h ; e f g y k d k s d h e l ; _ . k ; k s t u k 1993 1/2 _ . k i k l l g u ; k s t u k 1993 1/2 L o ; a l g k ; r k l e m ; k s t u k 1993 1/2 j k v h ; e k r l o y l k ; k s t u k 1994 1/2 e k f t u e u h _ . k ; k s t u k 1995 1/2 x e h . k e f g y k f o d k l i f j ; k s t u k 1996 1/2 j k t j k s o j h c h e k ; k s t u k 1997 1/2 l o k f ; l [h ; k s t u k 1997 1/2 m e k d j k ; k s t u k 1997 1/2 f o i . k u f o k ; k s t u k 1999 1/2 f d " k j h " k d r ; k s t u k 2001 1/2 e f g y k L o ; a f l) ; k s t u k 2001 1/2 e f g y k l o k l j ; k s t u k e f g y k m f e ; k a g r q _ . k ; k s t u k l o " k d r ; k s t u k v k f n d l n h ; L r j i j e f g y k l " k d r h d j . k , o a l j j (k . k ; k s t u k v l a d s m n k j . k g ā b u ; k s t u k v l a d s d k j . k g h v k t e f g y k v a d h i f l f k r e a o ; k i d i f j o r u f n [k b z n s k g ā

efgyk l "kdrhdj.k dh pñl; k %

efgyk l "kdrhdj.k efgykva ds ifr l ekt ds i k j a f j d u t f j ; s e a v k ; k c n y l o g ā ; g c n y l o j k r l a j k r g b z d k b z p e r d k f j d " k v u k u g h a g s c y d o " k a r d p y s l a k l z , o a c f y n k u d k i f j . k e g ā ; g l a k l r c r d t j k j j [k u h g l o x t c r d m l g a v i u s v f / k d j v l g l e e k u i k l r u g h a g l s t k r a H k j r d s d n d i c y k b l l e k t d l s N k a + n a r l s l H h l e k t l a e a f i r l y m e d 0 ; o l f k i k ; h t i r h g ā b l 0 ; o l f k e a e f g y k v a d s d k ; z i o z f u / k f j r i j a j k d s v u q l k g l a r a g ā m l g a m u 0 ; o l f k l s v y x d n H h d j u s d h v k t k n h u g h a g l a h v k t k n h d s c k n o " k a r d g k f l ; s i j [k m l e f g y k v a d h f l f k r e a l k j j y k u s d s m n s ; l s l j d k j h , o a x s & l j d k j h l k f k v l a j k j v u d i z k l f d ; s x ; s g ā b u i z k l a d s d k j . k g h i q " k a d s , d k f / k d j o k y s v f / k d k k { s - k a e a v k t e f g y k v a d h m i y c / r k n s h k t i r h g ā t s i k j a f j d l a h . k z f o p k j / k j j d s d e t j i m u s d k l a d s g ā v k t e f g y k ; a f t l l k g l v l g / s z d s l k f k " k j s y d k e d s l k f k & l k f k " k j d s c k j j d h f t e e n k j ; k f u l k j g h g s o g i q " k o k n h j : < e k n h , o a l d i p r e k u f l d r k o k y s 0 ; f d r ; k a d s f y , v l g u h ; g l s x ; k g ā e f g y k ; a o " k a d s l a k l z d s c k n v k t f t l e p k e i j [k m l e g ā o g l s v i u s y c ; d l s g k f y d j u s d s f y , m l g a v x s c g r l h c l / k , i j k d j u h g l o x h l e k t d s v f / k d k k 0 ; f d r v k t H h f l = ; k a d s d o y i k f o k f j d f t e e n k j ; k a r d g h l f e r j [l u s d s i k / k j g ā o r e k u l e ; e a f l = ; k a d s f o :) < r k v i j k v , o a e f g y k v i j k f / k ; k a d h l f ; k e a g q h o f) u s H h e f g y k l " k d r h d j . k d h x f r d l s u d k j k r e d : i e a i H k f o r f d ; k g ā

f d l h l e k t d h l k e f t d & v k f f k d f l f k r m l l e k t d s f o d k l d k i r h d g ā f o d k l d h x m l a d s l e ; d h e l a d s v u q i x r e k u c u k ; s j [l u s d s f y , o k k f u d r j h d s l s d k ; z i g y e k u o l a / k u d k l o d k e m i ; k s d j u k v k o ; d g ā H k j r h ; l e k t v k t f t l n i g k s i j [k m l e g s o g l a s m l s v i u s i k j a f j d f o p k j l e e r j k l r a d l s r ; k x d j v k / k f u d , o a o k k f u d j k l r a i j p y u s d h v l o ; d r k g ā g e v a k f o " o k l v l g : < e k n h i j a j k l s x l r l e k t e a r h o z f o d k l d h d i y u k u g h a d j l d r s g ā l j d k j , d v l g f o k k u l j j (k k , o a v k f k d f o d k l d s f u r u ; s n k o s i l r a ; d j r k g s r l s n l j h r j Q ; g k j d h v l h v k t k n h l e k t i k j a f j d v a k f o " o k l d h t k y l s e p r u g h a g l s i k ; h g ā > k m & Q u d l t k n & v k u l c k y f o o k j n g s t g r ; k , o a l r h i f k t s h l k e f t d d i f k ; a v k t H h H k j r h ; l e k t e a v i u k [k l l f k l u c u k ; s g q g ā , u - l h v k j - d h d s v k d m l a d s v u d k j o l z 2014 e a 160 v l g r a d l s l e k t u s d o y b l f y ; s e k j f n ; k D ; k i d m u d s v u d k j o k s v l g r M k ; u f h a g r ; k d h b u ? k v u k v a d h f " k d j e f g y k v a e a > j [k . M d h 54] v k m l k d h 24] r f e y u k m q d h 16] v l a z i n s k d h 15 v l g e / ; i n s k d h 11 v l g r a " k f e y g ā b r u k g h u g h a f o k u , o a l p u k & o k a r d s



bl ; q eadby NYhl x< eafi Nys, d n"kd ea >km&Qnd djusokysvls-k dh ckr ekudj 40 vlgria dh cfy nsppls gA gfj; k.kk , oamYkj&iwiz jktLFku ea ikjksuked ipfyr dñFkk ea efgykvla dh fcDh dh tkrh gA cky foolg vkt dsle; ea, d xllhj lEl; k cu ppkl gA ; g , d , f h lEl; k gSftl dk nñHko u dby de mez dh yMfd; ka dks Hkqrk uk Mfrk gS oju bl l s jkV" dh fodkl uhr dls Hh >Vdk yxk gA vkbZl h-vkj-MCY; w dh fji kZ/ ds vuq kj Hkjr cky foolg ds ekyk ea fo"o ea 13 oa LFku ij gA jkVh; Lrj ij cky foolg dh dñ ?kVukvla ea l oZ/kd fcgkj ea 68-2 ifr"kr cky foolg glrk gA 2005 l s 2013 ds chp 43 ifr"kr yMfd; ka dk foolg 18 o'Z dh mez rd gS ppkl FkA l a q r jkV dh , d fji kZ/ ds vuq kj os"od Lrj ij gj rhl jh ckfydk o/kw Hkjr ea gA angst i Fkk orëku Hkjr; l ekt ds fy, ykbykt fceky cu x; k gA ; g l ekt ea efgyk l a dñ vuq lEl; kva dk tud gA vkbZl dhfyak dh c<rh ?kVuk; a efgyk l "kDrhdj.k , oa fodkl ds c<rs dneka dks vk/kfud cMh l s t d Mlus dk dk; f d; k gA ; g l ekt dh l dñ kZ ekuf dñk , oa l d dñrd l dñe.k dk gh ij f. kke gA bl idkj ds vij/k/ ifjokj l ekt ; k l eñk; dh ifr"Bk dsuke ij fd; k tkrh gA

jkVh; Lrj ij fodkl dk; z ea efgykvla dh Hkxhnhkj l fuf"pr djus ds mnas; l s l koZt-fud {s- ea vj k.k k ds l kF&l kF ml dh f"kk , oa dñky fodkl ij Hh fo"ksk ?; ku fn; k tk jgk gA bl ds cnotw dñdñth efgykvla dh l f; k l arksktud ugha dñ tk l dñh gA orëku l e; ea dk; j r efgyk&iq "k dh l f; k l dñ , oa ifr"kr fñdñrk dñ l k j. kh l f; k k&02 ea oxhñr fd; k gA

I kj .kh l f; k k&02

Hkjr eadkexkj Jfedka dk fyax , oa {s- oñj foj .k

"fñdñ	{s-	lkq "k	L=h	; ks
Tkul f; k	Xlkeh. k	42]76]32]643	40]58]30]805	83]34]63]448
Jfedka dh l f; k		22]67]63]068	12]18]34]467	34]85]97]535
Jfedka dk ifr"kr		53-03	30-02	41-83
Tkul f; k	"kgjh	19]54]89]200	18]16]16]925	37]71]06]125
Jfedka dh l f; k		10]51]02]862	2]80]42]914	13]31]45]776
Jfedka dk ifr"kr		53-76	15-44	35-31
Tkul f; k	; ks	62]31]21]843	58]74]47]730	1]21]05]69]573
Jfedka dh l f; k		33]18]65]930	14]98]77]381	48]17]43]311
Jfedka dk ifr"kr		53-26	25-51	39-79

l kr % Labourbureau.nic.in

mi; q r oxhñdñ k l s; g Li'V gñstkr gSfd vkt Hh dkexkj efgyk Jfedka dh l f; k i q "k Jfedka dh rñyuk ea cñr de gA fLoVtjyM dh xj&l dñkj l l Fkk fo"o vkfñd ep %World Economic Forum% jkñk o'Z 2020 ds fy, tkñh Xyky tñj xS l pñdñ ea 153 ns'ka dh l pñh ea Hkjr dñs 112 oa LFku feyk gS tñd 2012 ea 105 oñ 2013 ea 101 oñ Fk 2014 ea 114 oa LFku feyk FkA ; g jñdñ vkfñdñ jktufñdñ "kñd , oa LokLF; vkñfñr {s-ka ea yñd vñjky dñs inf"kr dñrk gA Xyky tñj xS l pñdñ fu/kñj.k dk dk; z 2006 ea fodñ r fd; k x; ka bl dk fodkl yñd l ekrk ds fy, , d l fñr vñj 0; ki d mñk; ds fu/kñj.k ds fy, fd; k x; k FkA o'Z 2013 ds Xyky tñj xS fji kZ/ ea dñk x; k gSfd yñd vl ekrk l ekt ea efgykvla dh detñj fLFfr dñs vfñk; Dr dñrh gA 110 jkVh ds vñk o'kñ ds vñdñ dñs fo"ysk.k ds vkñj ij bl fji kZ/ ea dñk x; k gSfd vfñdñ jkVh us yñd vl ekrk dñs de djus ea ñhñ i xñr dh gA

efgyk l "kDrhdj.k ds fy, efgyk vij/k/ , oa efgyk fñdñ dh c<rh ?kVuk; a , d xllhj lEl; k gA ikjñfjd fñr lñdñ l ekt dñs fey jñh pñdñ , oa Vñrs ikjñfjd eñ; bl dk , d iñdñ dñk.k gA l ekt ea c<rh mi HkDrñkñh l dñr , oa l pñj ek; e ds c<rs iñko us efgyk dñs vi us vfñdñ dñs ifr tñxñr fd; k gA vkt , d vñj tñkj efgykvla ds fodkl ds fy, fuñ; u; s dñu , oa; kñtñk dh ?ñsk.k dh tñrh gS oñh nñ jñh mñdñ fo;) vij/k/ dh ?kVukvla ea Hh of) gñh gA MCY; w , p vñs dh fji kZ/ ds vuq kj os"od Lrj ij ifr'o'Z 15 dñkñ+yMfd; k 18 l ky l s de meñññdñ; k ; kñ fñdñ k tñs vñ; vij/k/ dñ l ekt dñrh gA 30 ifr"kr efgyk; a iññññ dh fñdñ



u fdl h fgd k dk l keuk djrh gā efgyk dh gr; k ds 38 ifr"kr ekeyla ea gr; kj dkbz djhch gkrk gā efgyvla ds fo:) ?krVr vij/k/ dks mudh idfr dsvk/kj ij eē; : lk l snks oxtā ea fohkfr fd; k x; k g&

1- ?kjsyqfgd k % ?kjsyqfgd k efgyvla ds fo:) fgd k dk og : i gsf t l ea vf/kcdk vfhk; Ør , oa i hmf; , d gh ifjokj dsl nL; gkrsgā bl idkj dh fgd k eadōy "kjhfd gh ughoju ekul d irkMuk dsk Hh "kfev fd; k x; k gā cy iz kx jkjk efgyvla ds "kss.k , oa mRi hMe dh ?kVuk; a "kjhfd irkMuk ds varxtr vkrh gā bl ea i hmfk dsk "kjhfd d'v igpkus dsl kfk&l kfk mudk var&Hh& dj ; kruk fn; k tkrk gā fcuk "kjhfd plv igpk; s efgyvla dsk irkMf djus dh ?kVuk ekul d irkMuk ds varxtr vkrh gā bl idkj dh fgd k ea iq 'k l s vf/kd efgyk; a gh efgyk dsk irkMf djrh gā bl ea vfhk; Ør i hmfk dsk Mjk&/kedkdj ifjokj ea viekr dj vfhk; : i l s r& dj vkrn vudh&d rjh&l s viuh ckr ekuus ij etqj djsr gā bl idkj dh fgd k dh f"kdj efgyk; a vke rīš ij ekul d : i l sfof(kr gsk tkrh g; k vkrh gr; k dj yrh gā

2- ckg; fgd k % ixfr"ky l ekt ea efgyvla ds fo:) ckg; fgd k ea rhoz of) gq h gā bl idkj dh fgd k ea vigj.k cykrdkj NMNMf gr; kj ; k& "kss.k vkrn dsl l fefyr x; k gā bl s vij/k/ fgd k Hh dgk tkrk gā vk, fnu l eplkj pāyā , oa l eplkj i=8if=dkvā ea efgyvla ij gq geys dh [kca vkrh jgrh gā ; g efgyvla dh ekuokf/kdj guu dk l c l s ?kuk& : lk gā ekuuh; l o k p l ; k; ky; us vxLr 1997 ea; k& fgd k dsk Li'V djsr gq dgk gsf d "efgyvla ds fo:) fgd k dk og : lk f t l eadk; ZLFky ij fdl h efgyk dsk vuko; d : lk l s Li "kz djuk ; k& l a&k& dh el& djuk v"yhy Øfrr; k d l uk i k&k&Qh fn[kuk] fdl h Hh vl; idkj dk Hk&rdj el&[kd] v&k&[kd ; k& d pR; djuk vkrn "kfev gā; k& fgd k ekuk tk, x&l 13 vxLr 1997 dsl l qhe dk&Z us vius, d fu.kz ea dk; Z LFky ij efgyvla dh l j[k dh fteenkjh l k f&k dsk l k& h gā bl vkrn& dsk i Hh& dsk tkus ds fy, jkVh; efgyk vk; l& us n&k ds fohk& byk& ea dke djsr okyh 1200 efgyvla l s dbz l oky i n& f t l eal s 50 ifr"kr dledkth efgyvla us mRi hMe dh f"kd; r dh& 40 ifr"kr efgyk; a, s l a&ria dsk utjvnt dj nrh gā 3-54 ifr"kr efgyvla us vius mpp vf/kcdj l s f"kd; r dh t&d 7-8 ifr"kr efgyk; a gh Fk&rd igph& 4 ifr"kr vīš r l a us ekuk fd dēiuh jkjk dkbz dk; b&gh ugha dh tkrh gā 84-97 ifr"kr efgyvla dsk bl l a&k ea fdl h idkj ds fn"kk&fun&k dh tkudkj h ugha Fh& ?kj gsk; k v&Q l vkt efgyvla ds fo:) fgd d vij/k/ dh ?kVuk; a, d l k≪ ckr gsk x; h gā bl vij/k/ dh Hk; kog fLFkr bl ckr l s vīš Hh Li'V gsk tkrh gsf d os vkt x&H& ea Hh l j f f (kr ugha gā l ekt ea ?kVrk fy&ku i kr buds fo:) vR; kpkj dk l k Q l a&r nrh gā f p d R l k o k f u d k ds vu& kj l k≪ rīš ij 100 yM& i j 105 yM&d; k tle yrh g& c&otm bl dsl ekt fy&ku i kr dh l el; k l s x f l r gā bl dk , d cMk& dkj.k fy& tlp dj yM&d; k& d tle l sigys gh ml dh gr; k dj n&k gā

vkt l ekt ea cykrdkj dsl kfk&l kfk , fl M vV&l , oa v&llj dh fy& dh ?kVuk& ea Hh viR; k f"kr of) g&Z gā o"z 2020 ea idf"kr Øbe LV&VfLV&l bu b&M; k 2019 ea idf"kr v&H&M& ds vu& kj H&jr h; l ekt ea efgyvla ds fo:) vij/k/ dh idfr , oa l &; k dk fo&j.k l kj.kh l &; k&03 ea fn; k x; k g&

l j . k h l &; k&03

H&jr ea efgyvla ds fo:) ?krVr vij/k/ dh idfr , oa l &; k % o'z 2019% dk oxt&j . k

Ø- l a	vij/k/ dh idfr	vij/k/ dh l &; k	ifr"kr
01	cykrdkj	32033	7-90
02	cykrdkj dk iz kl	3944	0-97
03	cykrdkj vīš gr; k	283	0-07
04	vigj.k o viorū	72780	17-94
05	ngst gr; k	7115	1-75
06	mRi hMe % ifr , oa muds ifj tula jkjk&	125298	30-87
07	yM&d; k& dh [kjhn Qj& r	966	0-23
08	vkr&R; k ds fy, i k&l k&gr djuk@mdl kuk	5009	1-23



09	ngst mleyu	13297	3-28
10	Lkbcj vij/k	1625	0-40
11	?kjqfkd k l j/k. k vf/kfu; e 2005	553	0-14
12	vufrd ; krk; kr fujkkd vf/kfu; e	1185	0-29
13	, fl M vVd	150	0-04
14	vu; vij/k	141623	34-89
dy		405861	100-00

I k % Crime Statistics 2019

vk/kfu d l ekt ea if "pehdj. k f"kk , oa Lorark dh flFkr usftl l keltfd ifjosk dh LFkiuk dh gs ml eam iHkDrkohn l k dfr] 0; fDrkohn fopkj/kjk , oa LokfMjrk dk clycky gA vkt l ekt ds l e(k efgyk vij/k ftl fodjky : i ea [kMk gs og : i i k j a f d , oa vk/kfu d l keltfd flFkr ds chp l Øe. k dk gh ifj. kke gA bl l Øe. k dkyhu volFk usu dny efgyk vij/k dks Qyu&Qyus ds fy, vuqhy ifj flFkr inku fd; k gs cfyd efgyk vij/k/k; ka dh l ; k ea Hk btiQk fd; k gA o'kz 2014 ea fxj qrkj efgyk vij/k/k; ka dh l ; k 338611 Fkh tcd 2019 ea 300988 gA bl ea vkbz i h- l h- dh /kjk ds rgr 191508 rFk , l- , y- , y- dh /kjk ds rgr 109480 efgykvla dks fxj qrkj fd; k x; k gA

efgykvla jkjk fd; s x; s dN egroi w k z vij/k , oa muea fxj qrkj efgyk vij/k/k; ka dh l ; k dk fooj. k l kj. kh l ; k & 04 eafn; k x; k gA

Lkj. kh l ; k & 04

fofHkdu vij/k ea fxj qrkj efgykvla dh l ; k dk oxh d j. k

Ø- l a	vij/k dh idfr	fxj qrkj efgykvla dh l ; k
01	gR; k	4077
02	gR; k dk iz kl	5051
03	j i	389
04	vigg. k	1034
05	gVZ	48919
06	ngst gR; k	3348
07	; k u ' k k s k. k	548
08	vigg. k o vioru	1034
09	ngst fujkkd vf/kfu; e	3690

I k % Crime Statistics 2019



fu'd'iz%

efgyk l "kDrhdj.k vk/mqud l ekt dh l otk/kd egroiwl t: jrk ea ls ,d gA efgyk l "kDrhdj.k ds l mhz ea vjlrwus fy[tk gs "ukjh dh mlufu rFk vofur ij gh jkV^o dh mlufu o vofur fulh djrh gA^o bl h l mhz ea if" k) nk"kdud cukMZ "kkuus hkh fy[tk gsfd "fdl 0; fDr dk pfj= ds k gs ; g ml dh ekr dls nskdj crk; k tk l drk gA^o mi ; Dr foj.k vlg bu nksula fopkjla ds vk/kj ij ge ; g dg l drsgfd jkV^o ds fodkl dsfy, efgyk dk l otk.k fodkl le; dh elac cu x; h gA efgykvla ds l otk.k fodkl dsfy, l kelftd ttx: drk vlg efgyk f"kk dls c<lok fn; k tkuk vfrvko"; d gA vkt dh m h kDrkolnh l l dfr us l ekt ea vkfkd i fLFkr dls tks egro inku fd; k gs ml ds ifj.kklo: i l ekt ea de ls de le; ea vf/kd ls vf/kd /ku dekus dk , d fjokt l k cu x; k gA bl ifjLFkr us , d vlg tgl l kelftd xfr"mhyr dls c<lok fn; k gs ogha efgykvla dls ?kj dh pkjnhokjh l s ckj fudyus dk vol j hkh inku fd; k gA vkt efgyk l "kDrhdj.k ds vko"; d dkj dka ea l kelftd vkfkd i fLFkr f"kk , oa l jdkjh ; kstukvla dk egroiwl LFku gA yfdu ; gh ; kstuk; a vkt efgyk l "kDrhdj.k dsfy, l c l s cMh ppsk hkh cu x; h gA orzku le; ea efgykvla dls f"kk dls ds (s= l s tkMus dsfy; s l jdkjh , oa xj l jdkjh l l Fkkuka }kj vuod ; kstuk; apy; h tk jgh gA bl ds ckotm efgyk iq 'k ds cho l k(kjrk nj ea 0; ki d vl ekrk ik; h tkrh gA 2011 dh tux.kuk ds vuod kj ; gk dh l k(kjrk nj 74-04 ifr"kr gs ftl ea efgyk l k(kjrk nj 65-46 ifr"kr rFk iq 'k l k(kjrk nj 82-14 ifr"kr gA l ekt ea 0; klr ; g "k(kd vl ekrk vuod l kelftd l el; vko dk dkj.k gA efgyk l "kDrhdj.k dh egroiwl ppsk ; ka ea "kfey efgyk vij/k , oa efgyk vij/k ; ka dh c<rh l ; k rFk l kelftd vkfkd hkh hko dk vlrRo hkh vfr"kk vlg vafko"okl ij gh fvdk gA efgyk l "kDrhdj.k dsfy; s ; g vko"; d gsfd l ekt ea f"kk dk vy[k ttx; k tk, A ; g u dpy vius vf/kdjla dh tkudkj dh dsfy, vko"; d gs cfd l gh vlg xyr dh ij[k dsfy, hkh vko"; d gA bl dsfcuk u rsl ekt ea efgyk vij/k ij fu; a. k ik; k tk l drk gs vlg u gh efgyk vij/k ; ka dh c<rh l ; k ija vkt t: jr bl ckr dh gsfd efgyk l "kDrhdj.k dh ppsk h l l ekt ds voxr dj; k tk; s l kfk gh ml ds l kelftd , oajkVh; nqi hkhka l s hkh voxr dj; k tk; A

l mhz%

- 1- d[kj] MKW eulst jktuhfrd l ghkfxrk , oa efgyk l "kDrhdj.k jk/kk dey eptih % fpru i jEij] l ekt foKku fodkl l l Fkkul cjsyh mYkj insk] tuojh&tu 2015
- 2- d[kj] iou j[tk] efgyk , oacky fodkl % ixfr dh vkl] ; kstuk] tgykbz 2015
- 3- r[kj] MKW l jst , oa d[kj] MKW v"kd] ipk; rh jkt , oa efgyk l "kDrhdj.k % , d vkuhkfod v/ ; u] jk/kk dey eptih % fpru i jEij] l ekt foKku fodkl l l Fkkul cjsyh mYkj insk] tuojh&tu 2010
- 4- jkor] gfjd' . k] mPpYkj l ekt "kkL= fo"odsk] jkor ifcydskul t ; i j] 2011
- 5- "ke] MKW i f. k] hkhjr ea ukjh l "kDrhdj.k dk 0; ogkfjd Lo: i] fodkl idk'ku] dku i j] 2015
- 6- "ke] th , y] l kelftd epn] jkor ifcydskul t ; i j] 2015
- 7- "kpy] MKW vf[kysk , oa "kpy] MKW l d ; k] l edkyhu hkhjr; l ekt ea vij/k] xk ; =h ifcydskul] jhok] e/ ; insk] 2015
- 8- fl g] ds ds , oa d[kokg] fdj. k] efgyk l "kDrhdj.k ea f"kk dh hkhedk] fjl pz tjuy vMD vkv/] eustew , oa l sky l kbui d] xk ; =h ifcydskul] jhok] e/ ; insk] fl rfcj 2014
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A STUDY ON SOCIO-ETHICAL DISCOURSE OF ENVIRONMENTALISM FROM INDIAN AND WESTERN PERSPECTIVES

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Abstract:

An inquiry concerning the need for global environmental protection or global environmentalism and propose a way for an integrated way of life within the environment has become incumbent upon the human community and the philosophical community at large. Although studies related to environmentalism as a major, independent, and multidisciplinary academic area has been globally accepted out of sheer concern for the existence of every living being on earth yet it is not limited within the academic boundaries. In a broad sense, it systematically studies the interrelatedness between man and nature. The early development of environmental ethics as a part of applied ethics primarily emerged in the early 1970s in the West. The issues associated with environmental ethics is a global problem but these issues have been interpreted both from Indian as well as Western standpoints. The Indians have been dealing with it since the Vedic period in the Indian philosophical framework. From the western standpoint, nature has been exploited since the Platonic and scholastic era, until recently they have focused upon environmental issues. But it is high time that we should probe into the significant realization in the Indian and the Western traditions to deal with the associated problems.

Keywords: Environment, Nature, Indian, Western, Environmentalism.

An inquiry towards the need for global environmental protection or global environmentalism and propose a way for an integrated way of life within the environment has become incumbent upon the human community and the philosophical community at large. Although studies related to environmentalism or rather, environmental studies, as a major, independent and multidisciplinary academic area has been globally accepted out of sheer concern for the existence of every living being on earth yet it is not limited within the academic boundaries. In a broad sense, it systematically studies the interrelatedness or communion between man and nature. The early development of environmental ethics as a part of applied ethics primarily emerged in the early 1970s in the West. It developed in response to the works of renowned marine biologist and conservationist, Rachel Carson and social ecologist, Murray Bookchin, which exhorted philosophers to reconsider the philosophical aspect of environmental problems. However, this paper will be restricted within a comparative study between the socio-ethical significance of environmentalism from the Indian perspective and Western standpoint as well. As discussed earlier, the issues associated



with environmental ethics is a global problem but these issues have been interpreted from different standpoints. The Indians have been dealing with nature since the Vedic period. From the western standpoint, nature has been exploited since the Platonic and scholastic era. But it is high time that we should probe into the ecological perspectives of the Indian and Western traditions to deal with the associated problems. In this regard, it must be noted that the Indian socio-cultural and ecological heritage is more enriched than the western environmental ethics. Since, Indian environmentalism developed during the old Vedic era people worshipped Mother Nature, not only out of concern for human sustenance or due to surging environmental issues but out of environmental awareness, spiritual connectedness and reverence towards nature and non-human beings. So, it has been practiced by the Indians for centuries. In other words, Indian environmental philosophy is such an application-based philosophy, which embraces ecological view towards nature. Simultaneously, from the western standpoint, starting from the Platonic and scholastic era, people were too anthropocentric until the recent emergence of environmental crisis, climate change, natural resource depletion etc. which sparked a sense of need for sustainable development. But it is high time that we should probe into the significant realization in the Indian tradition to deal with the associated problems. This acumen is richly available in our Indian tradition.

Our cave-men ancestors lived in communion with nature, animals and community. They used the natural resources efficiently because they realized that they cannot exist without nature. From the pre-Vedic era, people worshipped numerous lands and places, various trees and plants, several rivers and mountains, celestial planets and events, even many animals as they thought those to be sacred. In other words, since the Vedic era, Indians observed a spiritual connection between man and nature and embraced a rich socio-cultural heritage and revered nature. Simultaneously, different schools of Indian philosophy followed the same path, even more stringently. Moreover, these schools though *nāstika* or atheists, yet practiced non-violence towards all. In a similar way, the *āstika* or theist schools of Indian philosophy, claim that God alone has absolute power over all creatures. He is considered to be the omnipotent, omnipresent and omniscient Being. Hence man is nothing but an 'object' of the Almighty whereas he himself is the 'subject'. We exist as we have been created by God and sustained by Him as well. Human beings along with other creatures have a right to exist too and hence must be protected.

In the West the scenario was surely different. The anthropocentric human beings went with the idea of appropriating nature to the ends and needs of themselves. In the Holy Bible, there is evidence of non-humans as possessor of wisdom which implies the divine presence of holy spirit in non-human nature and hence should be respected. But Ancient Greek philosopher, Aristotle in his *The Politics* said that "nature has made all these things specifically for the sake of man" and that the value of non-human things in nature is merely instrumental. Aristotle and renowned Italian philosopher, St. Thomas Aquinas both believed that only human beings have moral standing. Since they possess an intellect capable of thinking and non-humans lack this capacity, hence they can have no moral standing. In other words, they failed to understand that non-human nature and human beings are intricately related. In reality, man, society, animals, nature, and the whole earth belong to the same continuum and form a natural moral community



which they all must sustain for their own sustenance. Moreover, nature does not alienate man. It is we who alienate nature from us.

In this connection, the Buddhist principle of conditional existence must be examined. It is the principle of interdependence of all beings or everything is causally linked and this doctrine can serve in a most significant manner in handling the issues related to environmental ethics. In other words, the reality is in unity in diversity and its coexistence. Infact, the primordial existential concern from the ecological point of view advocates reverence for all on Earth, be it living or non-living. But nowadays the natural human tendency is to ignore these facts. Both Jaina and Buddhist schools of philosophy focuses upon *ahimsā* (non-violence) towards all the sentient and non-sentient beings. Though Jainism is much older than Buddhism yet, there are several evidences which indicates that Jainism existed prior to the Indus Valley civilization. The *Vedas* bear claim that there were several Jaina tirthankaras. The Jainas were strict ascetics who practiced *ahimsā* (non-violence) towards all. In other words, they extended non-violence not only towards animals but towards every micro-organism as well. Jainism establishes an intricate and mutual connectedness between man and environment, and spiritually provides a framework to realize it. Hence, human beings as a rational thinking animal should maintain a balance between body and mind to perpetuate an equilibrium in the environment through an environmental awareness. Jaina environmentalism balances human needs, irrespective of their caste, creed and sex. It protects the natural and socio-cultural heritage for the future generations through the practice of self-restraint. Jaina environmental awareness involves the principle of equality and propounds that everyone has the right to live. *Parasparopagraho Jīvānām* is a common Jaina aphorism which indicates souls render service to one another. In other words, it means that all life is bound together by mutual support and interdependence.

Simultaneously, the socio-ethical discourse of Buddhism focuses upon the four Buddhist virtues of sublime attitudes. These are *maitrī* (benevolence), *karuṇā* (compassion), *muditā* (empathy) and *upekṣā* (equanimity). This is the Buddhist theory of *brahmavihāra* which may be referred to a 'conscious state of mind'. In *Aṅguttara Nikāya*, Buddha claims that those who espouse these four immeasurable virtues and follow these principles are destined for a heavenly realm in their next life. A person who realizes these principles, after this heavenly life, attains *nirvāṇa* (salvation). Indian philosophy is practical and realistic in so far as it attempts at decreasing human pain and suffering. They identified the reason of this suffering in ignorance about reality. Brahman is the only reality, so one must sincerely try to achieve Him and avoid all sorrow. Realizing this is considered as the ultimate ethico-philosophical end of life and one must try to achieve it throughout one's life. Hinduism, Jainism and Buddhism embraces traditional environmental values have affected the discourse and oriented practices of environmentalism. *Yajur Veda* indicates that man should live with *Suhṛd-bhāvena saveshu*, which means, friend to all creation. In other words, a view that we should share this earth and life on it with all creatures and life is easier when there is mutual respect for each other. While Hinduism is an environment-sensitive philosophy, Buddhism embraces mutual harmonious living and is completely different from the competitive, opposing living and fighting against nature as seen in the West



and also in an increasing number of countries in the East, which tend to destruction for selfish gains (Bilimoria, 1997).

One of the most fundamental applications of *ahimsā* (non-violence) emerged with the non-violence movement generated by Mahatma Gandhi before the mid-twentieth century. Gandhi proposed the need for such an ethic which will embrace the human beings as well as the non-humans as well. Prominent Bengali religious thinker and philosopher, Rabindranath Tagore deliberated on *Upaniṣads*, *Bhāgavad Gītā*, *Vaiṣṇavism*, Christianity and Buddhism. He was particularly influenced by Buddhist teaching of self-restraint, moral conduct, and the ultimate goal of life or *nirvāṇa*. Tagore talks about the Buddhist concept of universal love or love for all. Tagore states that our daily worship of God is not really the process of surrendering ourselves to Him. But it is the process which helps us in eliminating all obstacles to union with Him and extending consciousness towards Him in devotion and service, in goodness and love. All these are evident through his works.

There is an urgent need for environmental protection for a healthy livelihood. Since it is human beings who pollutes the Earth. Consequently, our environment suffers serious adverse impacts of toxic wastes on the living environment of human beings, non-humans and nature as a whole. However, very recently the awareness of protecting the environment has been generated whereas in Buddhist philosophy it started centuries before the birth of Jesus Christ. Buddha exhibits compassion towards all beings and insisted his fellow followers to choose the path of *ahimsā* (non-violence). He indicated others to practice loving-kindness, not to harm the life of any beings and to live in harmony with all beings and with nature. Lord Buddha suggested his followers not only to safeguard the mankind, but also to protect non-humans and vegetation. All beings in the universe are equal and contend that all human beings, non-humans and nature are mutually inter-connected and inseparable from one another. But we have failed to understand this intricate relation among these entities. We have misused and abused the natural resources and have consequently destroyed the ecological balance by polluting the nature which lead to environmental damage.

In this connection, eminent scholar Purushottama Bilimoria rightly claims that, ‘the external environment is seriously polluted because the internal environment in the mind is seriously damaged. The bottomless greed has pushed mankind to satisfy excessive and unnecessary demands, and take them into endless competitions, leading to self-destruction and environmental damage’. In other words, Buddhists have practiced harmonious living with nature and acknowledged that there was a communion between man and nature. Thus, it must be admitted that Buddhism follows naturalism. Since, it encompasses human behaviour in relation to all living beings and it follows the basic sublime virtues of *brahmavihāra* which are compassion, love, kindness, sympathy, empathy, equanimity and joy in other’s happiness, as discussed earlier. Human beings are endowed with infinite amount of compassion, generosity and gratitude, and that all creatures, great and small, should be the subject of our moral sensibility. The Buddhist codes of ethics is similar to the Jaina ethics, with much emphasis placed on self-control, abstinence, patience, contentment, purity, truthfulness and right attitudes. Buddha’s



teachings include generosity or compassion and communion towards human beings and animals. Thus, practicing the Buddhist ideology of non-violence and *brahmavihāra* is a way towards maintaining ecological balance and a way towards a better environment.

Almost all the schools of Indian philosophy, the *Vedas* and *Upaniṣads*, the *BrahmaSutras*, *AdvaitaVedāntins*, especially Shankaracharya worshipped nature. Their understanding and realization of nature is compatible with 'deep ecology'; later this term has been coined by Norwegian philosopher Arne Næss. Both *BhāgavataMahāpurāṇa* and *Bhāgavad-Gītā* observe the whole of nature, such as rivers, air, trees, oceans, etc., as the body of the *Virāṭpuruṣa*, the Cosmic Being, hence are considered sacred. Similarly, Vedānta philosophy envisages environment a dimension of Self. Nature is inextricably related with Hindu worshipping of God who is the only omnipotent, omniscient, omnipresent and primordial Being aware of all the nuances of nature.

In the contemporary scenario, human beings are becoming too materialistic and are ignoring their responsibilities and duties towards the environment; rather, they are exploiting natural resources. However, it is still not too late for all religions, all strata of the society and all nations to come together, jointly participate in the protection of the environment for all living species, based on the harmonious model which theories of Indian environmentalism had always advocated since time immemorial.

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GANDHI'S PHILOSOPHY OF SOCIAL ACTION

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ABSTRACT:

Analytically, the details of Gandhi's philosophy of social action comprise his 'individual action' in the form of personal 'experiments'. 'Community action' conducted at his different Ashramas, and action carried out at the 'mass level' in the form of Satyagraha and Constructive Programme. In Gandhi's philosophical discourse what is striking is the primary of action. Although scholars have noted that action plays a pivotal role in Gandhi's philosophy but they overlook one of the important facts that Gandhi's action has its own philosophy. This paper is centered on this theme Gandhi's philosophy of social action. What are the elements that really constitute an action in Gandhi's world view? It points out that his philosophy of social action comprises 2 essential components; universal love and responsibility. In Gandhi's world view, while universal love is motive and intention of action, responsibility, both to oneself and others, is a dynamic process by which action takes a shape and detachment shows the attitude towards the result of the action. Gandhi's notion of universal love logically leads him to the notion of responsibility. Gandhi's idea of Social action and responsibility also offers the critique of modern and prevalent response to human sufferings. The paper deals with these questions and it attempts to explore and construct Gandhi's philosophy of social action through a discursive journey of his writings.

Key words: Social Action, Philosophy, Universal love, Responsibility, & Detachment

Introduction:

In Gandhi's philosophical discourse what is striking is the primary of action. Although scholars have noted that action plays a pivotal role in Gandhi's philosophy but they overlook one of the important facts that Gandhi's action has its own philosophy. This paper is centered on this theme Gandhi's philosophy of social action. I am not built for academic writings. Action is my domain... all my action is actuated by the spirit of service (CWMG: 83:180). The fact that I have affected the thought and practice of our times does not make me fit to give expression to the philosophy that may lie behind it. To give philosophical interpretation of the phenomenon must be reserved for men like you (Gandhi to S. Radhakrishnan qtd, in Gopal 1989). Well, all my philosophy, if it may be called by that pretentious name, is contained in what I have said. You will not call it Gandhism, there is no ism about it... all that I have written is but a description of whatever I have done. And my actions alone are the greatest expositions of truth and nonviolence. (CWMG:62:224)

Yet, it does not mean that Gandhi was bereft of an analytical attitude. Rather it was through meticulous reasoning and conducting tests in the different field he developed his own philosophy. His philosophical goal was self-realization or Moksha that he



sought to achieve through the service of humankind which always engaged him the relentless action. He explicitly proclaimed that all his political and other actions are intended for self realization. Thus he established a unity between action and liberation. In short, in Gandhi's philosophical discourse what is striking is, the primacy of action. Although scholars have noted that action plays a pivotal role in Gandhi's philosophy but they overlook one of the important facts that Gandhi's action has its own philosophy. This paper is centered on this theme. Gandhhi's philosophy of action. The study primarily intends to illustrate what elements really constitute Gandh's action. These extracts show that Gandhi was hesitant to designate himself as a philosopher and he was more engaged with the action. Indeed, Gandhi was not a philosopher in the sense in which the word is understood today in the academic field. The reason is that he was not concerned with the abstract metaphysical, moral and epistemological questions about reality. He is in fact, defined the function of philosophy only in the context of action. H once noted, "philosophy to be worth anything has got to be applied in one's own life" (CWMG:40:135)

Universal Love: Gandhi was converted to non-violence by Tolstoy's Christian conception of it as love for all. He valued it, whether used in resistance, or not. Supplementing Tolstoy, he selected resisters who could face suffering, prepared them through emotional detachment, and saw the suffering as opening ears. But he designed alternatives for non-resisters. Deliberate killing could only be non-violent if for the sake of the killed. But it was a counsel of perfection to treat even protective killing, as otherwise wrong. Where others lacked the preparation, or the conviction, to refrain, or had undertaken duties requiring violence, he would rather they pursued the best conduct compatible with individual duty (*svadharma*), even if that put them in a moral double-bind. Thus he was not, like Tolstoy, a pacifist. Non-violent resistance to rulers has been attempted in dozens of countries since Gandhi. But against inter-communal violence, he tragically found it harder to prevail.

Analytically, the details of Gandhi's action comprise his 'individual action' in the form of personal 'experiments'. 'Community action' conducted at his different Asharamas, and action carried out at the 'mass level' in the form of Satyagraha and Constructive Programme. It needs to be pointed out that these three levels of action were not separate for him and there was inherent unity among them as all his actions were derived from his metaphysical supposition of Truth.

His action, at the mass level, has two significant but interrelated dimensions; Satyagraha and Constructive Programme. Satyagraha provides practical expression to Gandhi's metaphysical and ethical ideas of truth and non violence in the public sphere. For him, Satyagraha is not merely the desire to see truth, but the insistence on truth. The Satyagraha is therefore motivated by the commitment and action to truth. Truth –in-action Like Satyagraha, Gandhi's Constructive Programme ia also a significant dimension of his social action. It is based on his notion of society as 'larger family' his model of society in the form of 'oceanic circle' and his critique of the liberal state. The Constructive Programme which aims to create society through nonviolence and truth is also based on his notion of truth which recognizes " the essential unity of man and for that matter all that lives" Gandhi argues that truth has to be realized through the service



of mankind, thus, his conception of truth is not static entity but a process of becoming and widening through action. In short Gandhi's actions have a substantial metaphysical basis and in no way, they are only contextual. Universal love is not a theoretical abstraction on which Gandhi pondered, for him, it is a positive concept that can be experienced through active service of humankind. Service in his view is a positive love, 'love in action' or active love or 'ahimsa'. It is on this ground Gandhi argued that Universal love meant placing oneself at the service of all living beings and devoting all one's energies to 'wiping every tear from every eye'. He noted "We may not know God. But we know his creation is the service of God" (CWMG:63:233). Thus, in Gandhi's perception, love is the way to Truth as well as the way to identify oneself with God.

The love that Gandhi refers to is not love based on passion or desire or instinct. For him, love is also not an emotional stage of mind, as generally perceived. He also does not view love as emotion based on the attraction for what is ephemeral or momentary or unreal. Again for him, love does not refer to 'possession' also. On the contrary, he mentioned that perfect love means perfect non-possession. In his words, "love and exclusive possession can never go together. Theoretically, when there is perfect love, there must be perfect non-possession. In his worldview, love is also not selective or restrictive but it is 'universal' in nature. In his view, love changes one's attitude, thus, the human being can use love to transform one's attitudes as well as to nourish other beings.

Love, thus is a spiritual force in Gandhi's worldview, and a supremely active and constructive force. True love, for him, does not arise from the body or mind, but from the heart which is the seat of comprehension through compassion or feeling. Thus for Gandhi love is based on compassion and identification with others. However, Gandhi's perception of love does not permit one to overlook or tolerate the wrongs of those whom one loves. On the other hand, he believed that his love compelled him to dissociate from or cooperate with, and even resist, the wrong acts of those whom he loved. He noted "My goal is friendship with the whole world, and I combine the greatest love with the greatest opposition to wrong"

Gandhi also shows how universal love can be put into action in the realm of politics, society and economics. He argued that we must first love those who are most disadvantaged. For example, in the context of using Khadi for the betterment of immediate neighbors, he argued that "instead of talking of universal love, it would be enough if we give up the calico made in the mills of Ahmadabad, Japan or England and win instead the simple love of the poor wearing cloth spun and woven by our own brothers and sisters" (CWMG:26: 324). He also observes that national action or national service is not contradictory to universal love. Rather National action or national service is an important fact of universal love. He mentioned "Love of one's country is not opposed to the love of mankind, but is a concrete instance of it. In the Context of Indian society, Gandhi finds that abolishing the untouchability is one of the facts of universal love. Referring to Swami Shradhananda, in one of his condolence messages, he noted, "A great hero and patriot Swami Shradhanandji died for the sake of the untouchables. He loved them as dearly as his own life. He regarded them as his own children, and if it was in his power, he would have banished untouchability from the



shores of India. And what does that banishment mean? It means universal love” (CWMG:32:510)

Principles of Social Action: A principle is a general law (normative and empirical) or rule adopted or professed as a guide to action; a settled ground or basis of conduct or practice. Here we describe the principles of social action. Considering Gandhian principle of mobilization as a typical example of the direct mobilization model of social action,

The modern industrial civilization is characterized by rationalism, secularization, science, technology, and globalization. Gandhi saw the impact of modern civilization essentially through the eyes of its victims. For him, all civilizations are inspired and energized by specific human conceptions, which, if corrupted could become sources of evil. The corruption he spoke of related to the neglect of the soul as a consequence of the emphasis on materialism and reason. It made for an aggressive, violent, and exploitative world sustained by regimentation and abuse of the natural environment in which the poor and the weak were treated with contempt.

The modern state tends to promote the idea those ordinary individuals—especially the poor and the "weak"—are not able to solve problems on their own. This has destroyed stable and long-established communities; devalued personal autonomy; and has undermined the individual's sense of identity and continuity. It could destroy the moral foundation of the individual, and this could lead to indifference, alienation, and hostility.

Gandhi was prepared to accept the role of the state as a trustee within defined limits in which the local community could determine its own needs. In India's case, the village community was a basic unit of economy. Large-scale industries were necessary, but they should be located in a city and restricted and redefine their own institution.

Gandhi's notion of a good society held that human beings are informed by the spirit of piety and recognize their interdependence. They are governed by moral and spiritual powers. They cherish plurality of reason, intuition, faith, and traditions, and appreciate the individual's need for autonomy. It places morality at the center of individual behaviour. The spirit of reverence and broad-minded tolerance is the hallmark of a society that Gandhi helped us to see.

Social Responsibility: The close reading of Gandhi's notion of responsibility, which is one of the constituents of his action, is radical and infinite in nature. Gandhi's notion of universal love logically leads him to the notion of responsibility. As Gandhi believed in the 'essential unity of man and for that matter of all lives' (CWMG:25:289), it was natural for him to claim a universal responsibility that binds us all through our common transcendence. He claimed that he was 'part and parcel of the whole' and he cannot find(God) apart from the rest of the humanity, thus if one gain, all gain , if one fall, all fall (CWMG: 63:240). Therefore one cannot stand by and watch the suffering of other fellow humans as we are all involved in realizing our oneness. In fact , the under laying structure of Gandhi's thought that we are all responsible for each other compels one to the vision of moral commitment that is fundamentally rooted in protecting the sanctity and value of human life. For Gandhi, the dignity of the self-arises in and through a



feeling of moral responsibility to the other person, which eventually leads to a demand for justice for all humanity. Thus in his world view, responsibility is placed absolutely in a way that one cannot refuse without surrendering a part of his/her own self; since the self becomes the sole measure of responsibility. In short, for him, an individual's responsibility is an ever-present metaphysical and ethical fact rather than simply a formulated political social ideal. In other words, Gandhi's notion of responsibility is moral and ethical in nature.

The close reading of Gandhi's notion of responsibility, which is one of the constituents of his action, is radical and infinite in nature. There are two reasons for it. First for Gandhi, responsibility for the other is infinite not because there is an infinite amount of suffering in the world, and not because there are infinite numbers of people for whom one is responsible, but because infinite responsibility is the core constitutive element of individuation. For Gandhi ethical responsibility is fundamentally non-reciprocal. In the next part we will see in detail that Gandhi views responsibility in terms of selfless service and Anasakti. For him, to be in selfless service to others is to be responsible for other's sufferings irrespective of his/her being right or wrong, good or evil. In fact, Gandhi's articulation of responsibility stands outside of reciprocity and modernity and at the same time, it differs from charity, benevolence, pity and or assimilating the other into the same. In his view, one is responsible not because one has a mission to spread the truth, and not because one is impelled to act by a sense of charity, but because other is suffering and that other is not separate from me.

Gandhi's notion of responsibility is not confined only to structural analysis and intervention, but equally, it offers a philosophy of self-transformation. For him, the individual's task is to make a sincere attempt to live a life according to the principles of truth and non-violence. Although it seems to be very much personal and moral, yet in implications (consider Satyagraha and the Constructive programme) it becomes public. Thus Gandhi cuts the binary of personal and public morality as well as personal and public responsibility that include, resisting injustice, developing a spirit of service, selflessness and sacrifice, emphasis on one's responsibilities rather than rights, self-discipline, simplicity of lifestyle and endeavour to maintain truthful and nonviolent relations with others. Thus Gandhi's notion of responsibility represents a multi-dimensional responsibility.

Gandhi's idea of responsibility also offers the critique of modern and prevalent response to human sufferings. His writings suggest that he was not satisfied with the contemporary response to different forms of human sufferings: exploitation, tyranny and political and economic violence. He was critical of the private or public charity, redemptive violence for liberation and state's impersonal and bureaucratic machinery that claim to minimize or eradicate the human sufferings. His world view offers a radical objection to both the violence that is launched in the name of liberation and anaesthetization of the people in the name of democracy. Considering prevalent responses to human sufferings as ineffective and insufficient, he invited individual and mass to muster courage and fearlessness to act for truth and justice.

The notion of courage or fearlessness is fundamental to Gandhi's idea of responsibility. His philosophy of action in the form of resistance or Satyagraha and reconstruction or the Constructive Programme is grounded in it. His Satyagraha can be viewed as a



fearless nonviolent response and a moral responsibility against injustice which accepts self-suffering and non-violence as a source of strength. Similarly, his ideal of Sarvodaya also speaks much more closely to the issue of moral responsibility in the notion of universal welfare. What is important to note is that for Gandhi, felling of responsibility for other is not a rational choice but a metaphysical obligation and ethical call. The ethical call is; serve the other and to suffer from his suffering, an imperative that precedes all other consideration.

Gandhi's notion of responsibility puts a heavy burden on the individual. From his perspective 'we are not responsible for what we do but also what we tolerate'

Detachment: On the basis of his understanding of the Gita, which he considered his spiritual guide; Gandhi shows the path by which one can bear out responsibility. It is the path of "voluntary service" of others. As a man of action, Gandhi believed that selfless service to the other was essential. According to Geetha selfless service is restraint of the senses is essential, as it gives us a clearer and clearer vision of the god of truth. Service rendered with selfish motives ceases to be sacrifice. Hence the urgent need for the spirit of detachment. He further argues that where service is rendered for service's sake, there should be no room for attachment likes or dislikes. For him, life is given to us for service and not for enjoyment. Drawing a link among, selfless service, love and sacrifice (yajna) Gandhi notes that selfless service must be rooted in love and it should be only through bread labour. When a man or women has done bodily labour for the sake of service that he or she has the right to live. He epitomizes his notion of service in the following way, "Voluntary service of others demands the best of which one is capable, and must take precedence over service of self. In fact the pure devotee consecrates himself to the service of humanity without any reservation whatever, "We may note that for Gandhi, service must be voluntary and to be the best of one's capability. Moreover, he puts the service does not exclude anyone as it is 'without any reservation' and this should be taken as service of humanity.

Expanding the traditional notion of detachment, Gandhi writes " By detachment I mean that you must not worry whether the desired results follows from your action or not, so long as your motive is pure, your means correct. Really, it means that things will come right in the end if you take of the means and leave the rest to him. We may note here that 'purity of intention and purity of means play a central role in performing any action in Gandhi's philosophy of action.

Gandhi's views on detachment or Anasakti has lineage to the Gita. Gandhi formally interpreted the Gita and produced his own interpretation, published under the title of Anasakti yoga in 1930. Anasakti Yoga means yoga of freedom from attachment. His interpretation informs us that he understand Anasakti to be central to the Gita. He defined Anasakti both in terms of positive and negative connotations. He wrote " Anasakti certainly means freedom from attachment to anything concerning oneself and one's relations, but also such deep attachment to the other that is to Truth to God, so much so that one must lose oneself in Him, become one with him" (CWMG;50;88). Thus in Gandhi's view detachment is not a negative notion or disconnection, generally perceived, but it also inherently implies the connection or deep attachment to truth which is his metaphysical position.



When detachment governs our action, even the weapon raised in order to strike an enemy down falls out of our hand. But a mere presence of detachment serves no useful purpose. If only we persevere in our effort, detachment may come to us, perhaps the very first day, or maybe only after a thousand years. We must not worry over the time this takes, for the effort carries with in itself the seeds of success. We must however be on our guard and make sure that it is a genuine effort, and that there is no self deception. And this is certainly possible for us all. In his view, the man attached to the world seeks happiness from outside himself, on the other hand, he who acts in a spirit of selfless detachment discovers the spring of eternal peace in himself having withdrawn his mind from external objects. Gandhi notes that it is through this kind of attitude and mindset if one performs action one becomes an instrument in the hands of god. He marks out that he who acts in a spirit of detachment, having destroyed his egotism and renounced the fruit of action, becomes a mere machine moving at the will and pleasure of master mechanic or an instrument in the hands of god. Thus, one can serve others in the right way only when one is detached. He recognized detachment as an active state of conscious awareness of the unity of life and one works to weed out the private, selfish attachment and the obsession about the results of one's actions. Gandhi argues that when we couple the sense of selfless detachment with a burning passion. The apparent paradox becomes a brilliant power. In his view " A burning passion coupled with absolute detachment is the key to all success." (CWMG:85:p.370.)

Conclusion: The core of Gandhi's philosophy of action can be summarized in three words; Universal Love, Responsibility and detachment. In Gandhi's world view, while universal love is motive and intention of action, responsibility, both to oneself and others, is a dynamic process by which action takes a shape and detachment shows the attitude towards the result of the action. Moreover, Gandhi extends and attaches special meaning to these terms. These three notions as coherent whole are the essence of Gandhi's philosophy of social action and responsibility is more relevant to modern day world.

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A STUDY OF AGRICULTURAL FINANCE PROVIDED BY BANKS IN SEDAM TALUKA, KALABURAGI DISTRICT OF KARNATAKA

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ABSTRACT

Finance in agriculture is as important as development of technologies. Technical inputs can be purchased and used by farmers only if sufficient money (funds) is available with farmers. Most of the times farmers suffer from the problem of inadequate financial state. This situation leads to borrowing from an easy and comfortable source. Professional money lenders were the only source of credit to agriculture till 1935. They used to charge unduly exorbitant rates of interest and follow serious practices while giving loans and recovering them. As a result, farmers were heavily burdened with debts and many of them are left with perpetuated debts. There were widespread discontents among farmers against these practices and there were instances of riots also. The modern agriculture has increased the use of inputs especially for seed, fertilizers, irrigational water, machineries and implements, which has increased demand for agricultural credit. The adoption of modern technology, which is capital intensive, has commercialized agricultural production in India. Besides, the farmers' income is seasonal while his working expenses are spread over time. In addition, farmer's inadequate savings require the uses of more credit to meet the increasing capital requirements. Furthermore, credit is a unique resource, since it provides the opportunity to use additional inputs and capital items now and to pay for them from future earnings. In this context, this study is an attempt to find out the farmers' perception towards agricultural finance provided by various sectors of banks in Sedam taluka, Kalaburagi district of Karnataka.

Key words: Finance, Bank, Farmers, Income, Agriculture

INTRODUCTION

Agricultural production in this country depends upon millions of small farmers. Their intensity, effort and efficiency have helped in raising yields per acre¹. Finance in agriculture act as a key to farmers. But farmers' money is always inadequate and he needs outside finance or credit. Because of inadequate financial resources and absence of timely credit facilities at reasonable rates, many of the farmers, are unable to go in for improved seeds and manures or to introduce better methods or techniques.² The farming community must be kept informed about the various sources of agriculture finance. Agricultural finance possesses its usefulness to the farmers, lenders and extension workers. The knowledge of lending institutions, their legal and regulatory environment helps in selecting the appropriate lender who can adequately provide the credit with terms and related services needed to finance the farm business.³

Institutional credit, which played a vital role in the development of agricultural sector, was instrumental in the development of Indian agriculture. It showed all signs of resilience to natural shocks like droughts and famines. In fact, credit has acted as a means to provide control over resources to enable the farmers to acquire the required capital for increasing agricultural production



SIGNIFICANCE OF THE STUDY

Most of these large farms have processing plants located in nearby facilities for finalizing their agricultural products and developing the by-products.⁴ Most of the modern farms and agriculture-related industries make good use of today's modern equipment as well as the principles of science and technology.⁵ The use of technologies in farming is determined by finance and competence of farmers towards coping with these advancements relating to agriculture.⁶ These are the current issues of the agriculturists and farmers. In this regard, this study gets prominence in focusing farmers' perception towards agricultural finance provided by various sectors of banks for the development of agriculture in Sedam Taluka Kalaburagi District of Karnataka.

STATEMENT OF THE PROBLEM

Agriculture is the backbone of the Indian Economy"- said Mahatma Gandhi six decades ago. As we have entered the new millennium, the situation remains the same, with almost the entire economy being sustained by agriculture, which is the mainstay of the villages. Not only the economy, but also every one of us looks up to agriculture for our sustenance too.

In Sedam Taluka, agriculture is the most overriding sector in the economy. Farmers actively participate in cultivation at the age of 18 to 20 years. On an average, throughout the country, farmers have committed suicide at the age of 35 to 45. The reasons are non-availability of credit, sub standard inputs and non-availability of extension services. There is accumulated debt on the bank loans and private loans. They sell their entire gold, mortgage all their lands. Ultimately, at the age of 35, 40 and 45 when their children are grown up, when the question of their marriage comes, they feel that there is little hope to handle the critical family situation.

OBJECTIVES OF THE STUDY

- To study socio-economic conditions of the farmers availing agricultural loan from banks through various schemes.
- To draw the opinion of the farmers about receiving agriculture finance and the problems faced in settling the same.
- To offer suggestions to the banks and the beneficiaries for the efficient sanctioning and effective use of the loan sanctioned.

SCOPE OF THE STUDY

This study is confined to the cultivators mainly engaged in cultivation of land in Kalaburagi district of Karnataka. It provides the details of the status of farmers, perception of the farmers about agricultural finance and problems encountered by farmers for receiving agricultural loan and socio economic background of the farmers. It covers the farmers' perception towards agriculture finance provided by various sectors of banks in Sedam Taluka Kalaburagi district.

METHODOLOGY

Sources of the study

The data required for the study have been collected from both the primary and secondary sources. The primary data have been collected directly from Farmers by using Interview schedule. The secondary data have been collected from the published journal, books, magazines and websites.

Sampling Design

Two sampling methods, viz., stratified random sampling and purposive sampling have been adopted for selecting samples of the respondents. The farmers are selected by purposive sampling technique. The data have been collected from 100 (farmers) respondents.

PROFILE OF THE RESPONDENTS

Gender classification is of paramount importance as women are participating on all aspects of profession in line with men and hence this question is asked and the results are given below;



Table: 1. Gender wise Classification

Particular		Male	Female	Total
Marginal Farmer	Number of respondents	45	05	50
	Percentage	90	10	100
Small farmer	Number of respondents	44	06	50
	Percentage	88	12	100
Large Farmer	Number of respondents	45	05	50
	Percentage	90	10	100
Total	Number of respondents	134	16	150
	Percentage	89	11	100

Source: Field Study

The table .1 explains the gender wise classification of the respondents. In case of 50 marginal farmers 90 per cent are male and remaining 10 per cent are female. In relation to the 50 small farmers 88 per cent are male and remaining 12 per cent are female. As far as the 50 large farmers 90 per cent are male and rests of the farmers are female. The general observation relating to gender reveals that out of 150 farmers 89 per cent are male and the remaining 11 per cent are female. Majority of the farmers are male.

Age is one of the most important factor for human living and age also serves as a yard stick to participate or discontinue any occupation or profession, thus the questions relating to the age of the farmers are gathered and the results are given in the following table.

Table: 2. Age wise classification

Particular		Below 25 Age	26-50 Age	Above 50 Age	Total
Marginal Farmer	Number of respondents	8	20	22	50
	Percentage	16	40	44	100
Small farmer	Number of respondents	9	15	26	50
	Percentage	18	30	52	100
Large Farmer	Number of respondents	--	12	38	50
	Percentage		24	76	100
Total	Number of respondents	17	47	86	150
	Percentage	11	31	58	100

Source: Field study

Table.2 reveals the age wise classification of the respondents. Of the 50 marginal farmers 44 per cent belong to the age group above 50 years of age, 40 per cent of the respondent belong to the age group from 25 years to 50 years and the remaining 16 per cent of the respondents belong to the age group of below 25 years. In the 50 small farmers category 52 per cent belong to the age group of above 50 years of age, 30 per cent belong to the age group from 25 years to 50 years and the remaining 18 per cent from in the age group of below 25 years. In relation to the 150 large farmers category 76 per cent belong to the age group of above 50 years, 24 per cent belong to the age group from 25 years to 50 years of age. The overall observation relating to the study provides information that out of 150 farmers is that 58 per cent belong to the age group above 50 years of age, 31 per cent belong to the age group from 25 years to 50 years and the remaining 11 per cent from in the age group of below 25 years of age. From this it is viewed that majority of the aged people engage in agriculture operations.



Education is one of the most important factors that influence the society to a larger extent and so the professions and hence an attempt is made to analyze the level of education of respondents.

Table: 3. Education wise classification

Particular		No for mal	Belo w high scho ol	Higher Seconda ry-	U. G	P. G	Professio nal	Tot al
Marginal Farmer	Number of respondents	25	10	09	05	01	--	50
	Percentage	50	20	18	10	02	--	100
Small farmer	Number of respondents	22	13	12	03	--	--	50
	Percentage	44	26	24	06	--	--	100
Large Farmer	Number of respondents	19	16	07	04	02	02	50
	Percentage	38	32	14	08	04	04	100
Total	Number of respondents	66	39	28	12	03	02	150
	Percentage	44	26	19	08	02	01	100

Source: Field study

The table .3 gives the information about the education wise classification of the farmers. In the case of the 50 marginal farmers category 50 per cent have no formal education, 20 per cent have studied below high school level, 18 per cent have higher secondary school level, 10 per cent are under graduates and the remaining 02 per cent have post graduate level qualifications. As far as 50 small farmers category is concerned, 44 per cent of the respondents have no formal education, 26 per cent have studied below high school level, 24 per cent have studied higher secondary school level and 06 per cent have undergone under graduate level. In this category there are no representations from post graduate and professional farmer respondent. From the total of 50 large farmers category 39 per cent have no formal education, 32 per cent have studied below high school level, 14 per cent have undergone higher secondary level, 08 per cent have studied under graduate level 04 per cent have studied post graduate level. The overall observation relating to the study provides information that out of 150 farmers 44 per cent have no formal education, 26 per cent have studied below high school level, 19 per cent have studied high school level, 08 per cent have studied under graduate level, 02 per cent have completed their post graduate levels and the remaining 01 per cent have professional courses. Naturally those who studied are engaged in other business and jobs. Hence, very poor ratios of educated people are engaged in the agriculture farming.

Nature of family is plays a vital role in increasing the agriculture production. Thus the question relating to the nature of family of the farmers are gathered and given in the following table.



Table; 4.Nature of the Family

Particular		Nuclear	Joint	Total
Marginal Farmer	Number of respondents	30	20	50
	Percentage	60	40	100
Small Farmer	Number of respondents	27	23	50
	Percentage	54	46	100
Large Farmer	Number of respondents	30	20	50
	Percentage	60	40	100
Total	Number of respondents	87	63	150
	Percentage	58	42	100

Source: Field study

The table .4 shows that the nature of family of the farmers. In case of 50 marginal farmers category 60 per cent are living in nuclear family and 40 per cent are living in joint family. As far as 50 small farmers category 54 per cent are living in nuclear family and the remaining 46 per cent are living in joint family. From 50 large farmers category 60 per cent are living in nuclear family and 40 per cent are living in joint family. The overall observation relating to the study provides information that out of the 150 respondents 58 per cent are living in nuclear family and 42 per cent are living in joint family.

Communication for agriculture is also not seen as a major priority at both national or international level and the role of the media as an effective player in agricultural development. Therefore this question is relating the ways to know about formal source are gathered and given in the following table.

Table: 5. Knowledge about the financial sources

Particulars		Fellow Farmers	News Papers	Others	Televisions	Total
Marginal Farmer	Number of the Respondents	33	04	06	07	50
	Percentage	66	08	12	14	100
Small Farmer	Number of the Respondents	30	05	10	05	50
	Percentage	60	10	20	10	100
Large Farmer	Number of the Respondents	27	07	10	06	50
	Percentage	54	14	20	12	100
Total	Total	90	16	26	18	150
	Percentage	60	11	17	12	100

Source: Field study

The table.5 views the knowledge about the financial sources. Of the 50 marginal farmers 66 per cent have known about the financial sources through fellow farmers, 12 per cent through others,



14 per cent through televisions and 08 per cent have known through news papers. In case of 50 small farmers category 60 per cent have known about the financial sources through fellow farmers, 20 per cent have known through others, 10 per cent have known through news papers and the remaining 10 per cent have known about through televisions. From the 50 large farmers category 54 per cent have known about the financial sources through fellow farmers, 20 per cent have known through others and 14 per cent have known through news papers. The overall observation relating to the study provides information that out of the 150 farmers 60 per cent have known about the financial sources through fellow farmers, 17 per cent have known through others, 12 per cent have known through televisions and 11 per cent have known through news papers. Majority of the farmers have known the financial sources through fellow farmers, because it is an easy way to provide information.

The subsidy reduces costs to farmers and indirectly increases income of poor farmers. Due to the income transfer, farmers can increase the use of inputs, which, in turn, contributes towards increased output. Thus this question relating to subsidy is gathered and given in the following table.

Table: 6. Opinion about Subsidy

Particular		Satisfied	Not satisfied	Total
Marginal Farmer	Number of respondents	9	41	50
	Percentage	18	82	100
Small Farmer	Number of respondents	12	38	50
	Percentage	24	76	100
Large Farmer	Number of respondents	22	28	50
	Percentage	44	56	100
Total	Number of respondents	43	107	150
	Percentage	29	71	100

Source: Field study

The table.6 indicates the opinion about subsidy. In case of 50 marginal farmers category 82 per cent have responded 'No' about subsidy and 18 per cent have responded 'Yes' about subsidy. As far as 150 small farmers category 77 per cent have responded No about subsidy and 24 per cent have responded 'Yes' about subsidy. From 50 large farmers category 56 per cent have responded 'No' about subsidy and 44 per cent have responded 'Yes' about subsidy. The overall observation relating to the study provides information that out of the 150 farmers 71 per cent have responded 'No' about subsidy and 29 per cent have responded 'Yes' about subsidy. Majority of the farmers have responded 'No' about subsidy. It is because there is lack of awareness among the farmers about subsidy

Agriculture is facing a serious crisis and some productive measures have to be undertaken by the government in this regard. The loan waive scheme targets a selected group of farmers being benefited. Thus the question relating to loan waive is gathered and given in the following table.

Table: 7.Opinion about Loan Waive

Particular		Satisfied	Not satisfied	Total
Marginal Farmer	Number of respondents	05	45	50
	Percentage	10	90	100
Small Farmer	Number of respondents	09	41	50
	Percentage	18	82	100
Large	Number of respondents	25	25	50

Former	Percentage	50	50	100
Total	Number of respondents	39	111	150
	Percentage	26	74	100

Source: Field study

The table 7 shows the opinion about loan waivers. In case of 50 marginal farmers category 90 per cent have responded 'No' opinion about loan amount waived and 10 per cent have responded 'Yes' opinion about amount waived. As far as 50 small farmers category 82 per cent have responded 'No' opinion about loan amount.

Table: 08. Problems faced for receiving agricultural finance

Particular	Marginal formers			Small formers			Large former		
	Agree	Disagree	Total	Agree	Disagree	Total	Agree	Disagree	Total
Not aware of the facilities available	32 (34)	18 (36)	50 (100)	22 (44)	28 (56)	50 (100)	15 (30)	35 (70)	50 (100)
Complex documentation	19 (38)	33 (66)	50 (100)	18 (36)	32 (64)	50 (100)	10 (10)	40 (80)	50 (100)
Not satisfied with area approach	30 (60)	20 (40)	50 (100)	20 (40)	30 (60)	50 (100)	24 (48)	26 (52)	50 (100)
Lack of service/co-operation from the bank	20 (40)	30 (60)	50 (100)	24 (48)	26 (52)	50 (100)	12 (24)	38 (76)	50 (100)
No faith in schemes / institutions	24 (48)	26 (52)	50 (100)	22 (44)	28 (56)	50 (100)	24 (48)	26 (52)	50 (100)
Lack of educational knowledge	35 (70)	15 (30)	50 (100)	32 (64)	18 (36)	50 (100)	15 (30)	35 (70)	50 (100)
Not satisfied with indemnity level	24 (48)	26 (52)	50 (100)	29 (58)	21 (42)	50 (100)	22 (44)	28 (56)	50 (100)
Banker's behaviour not encourage	15 (30)	35 (70)	50 (100)	15 (30)	35 (70)	50 (100)	08 (16)	42 (84)	50 (100)
Loan has taken from sources other than banks	26 (52)	24 (48)	50 (100)	20 (40)	30 (60)	50 (100)	20 (40)	30 (60)	50 (100)
Loan amount is not in time	22 (44)	28 (56)	50 (100)	21 (42)	29 (58)	50 (100)	22 (44)	28 (56)	50 (100)
Scale of finance inadequate	28 (56)	22 (44)	50 (100)	27 (54)	23 (46)	50 (100)	23 (46)	27 (54)	50 (100)
High interest rate	30 (60)	20 (40)	50 (100)	20 (40)	30 (60)	50 (100)	14 (28)	36 (72)	50 (100)

Source: Field study Figure in the bracket is Percentage

The table 8 shows that out of the 50 marginal farmers, 70 percent of respondents agreed the lack of educational knowledge and 60 percent are agree about high interest rate, no faith in schemes / institution (48), Out of 50 small formers (4.59), not satisfied with indemnity level (42), not aware of the facilities available (44), high rate of interest (40), Out of 50 large formers 52 percent are not faith in schemes.

Table: 9. Opinion on loan waiving scheme

Particulars	Marginal Farmer		Small Farmer		Large Farmer		Total	
	Number of Respondents	%	Number of Respondents	%	Number of Respondents	%	Number of Respondents	%
Good for agriculture development	0	0	0	0	23	56	28	19
Facilitates further loans	0	0	0	0	22	44	22	15
Induces wilful default	10	20	08	16	0	0	14	12
Waiving is the way to cheat farmers	40	80	42	84	0	0	82	54
Total	50	100	50	100	50	100	150	100

Source: Primary Data

The table 9 shows that opinion on loan waiving scheme. In case of 50 marginal farmers category 80 per cent farmers loan waiver scheme is the way to cheat farmers and 20 per cent farmers that loan waiver scheme induces wilful default. As far as 50 small farmers category 92 per cent farmers have the opinion that loan waiver scheme is the way to cheat farmers and 16 per cent farmers have the opinion that loan waiver scheme induces wilful default. From 50 large farmers category 56 per cent farmers have the opinion that loan waiver scheme is good for agriculture development and 43 per cent farmers have the opinion that loan waiver scheme facilitates further loans. The overall observation relating to the study provides information that out of the 150 farmers 54 per cent have the opinion that loan waiver scheme is the way to cheat the farmers, 19 per cent have the opinion that loan waiver scheme is good for agriculture development, 15 per cent have the opinion that loan waiver scheme facilitates further loans and 12 per cent have the opinion that loan waiver scheme induces wilful default. Majority of the farmers feel that loan waiver schemes is a cheating mechanism by farmers.



SUGGESTIONS

1. The agricultural finance should be provided for fairly long period and it should be commensurate with the operations for which it is designed to facilitate and it should be provided at lower rate of interest.
2. Crop loan should be given under the bank's lending programme and almost all needy farmers especially small and marginal farmers should be given crop finance for raising crops with recommended package of practices for higher returns. Farmers should be provided guidance for improved farming techniques, balanced fertilization, use of water saving devices and proper plant protection measures
3. Banks should undertake hydrological surveys on priority basis, formulate area based schemes, update land records and organize finance camps for on the spot sanction by the bank.
4. The loan should be advanced only to the needy and deserving farmers who have high degree of integrity and are equipped with the honest sense of finance use.
5. The exposure of finance users with mass media of communication, particularly radio and farm publication may be increased. The field officers of the bank should also develop more contact with their clientele
6. The crop loan availed by the farmers did not entirely cover the cost of cultivation. Finance given on the basis of cost of cultivation rather than on the basis of scale of finance can reduce the existing crop loan gap.

Conclusion

The farmers are the most hapless victims of the private money lenders who are free to recover their loans by high handedness and attachment of the crop of the poor farmers as well as their personal belongings, land and living quarters. Available resource base and the capacity to generate sufficient levels of financial resource within the rural sector particularly in agricultural sector are, however limited at present. Institutional financing is viewed from this angle as a principal resource of external finance to support in a planned manner. Institutional finance enables the farmer to procure the necessary wherewithal of production and creates conducive climate for enhanced output. Since institutional finance exerts a "push effect and has a catalytic role in development process, provision of adequate, timely and liberal finance to the farmer becoming an integral part of the agricultural development policy in India. As a result, agricultural finance in the country is provided through three main channels, viz., commercial banks including private sector banks in the recent years, regional rural banks and cooperatives. From this study farmers view banks do not provide finance in time and there is no sanction of sufficient amount. A special care should be given to provide finance in time which will facilitate better growth in agriculture production and also farmers' social conditions in this study area.

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