Editorial Board

C O N T E N T S

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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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BUSINESS RE-ENGINEERING AND RESTRUCTURING UNDER IBC

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Introduction

Business restructuring is the redesigning of existing business strategies and aspects for various reasons. Usually a corporate's varied challenges and financial adjustments to its assets and liabilities necessitates this process.In India, corporate restructuring is governed by a multitude of legislations.[1] The focus of this article is on the process and avenues provided under the Insolvency and Bankruptcy Code 2016. It should be noted that there exist different forms of business restructuring exercises such as mergers, acquisitions,amalgamations, compromises, andarrangement. IBC mainly deals with re-engineering the business to reach compromises, arrangements via its resolution process (CIRP). It is aimed at helping a business stay afloat as a going concernduring the insolvency process, to prevent the destruction of organisational capital and protect the assets and liabilities until they can be reallocated. This is significant since it allows a higher chance of reaching a resolution at the conclusion of insolvency proceedings, as envisioned by the Code. IBC carries out this unique restructuring by maintaining an upper-hand on the Debtor (the business) and affirming its creditor-in-control locus.

As of March 2020, the IBC has admitted 3774 CIRPs[2], of which it facilitated the restructuring of 3617 businesses,[3]and rescued 221 businesses from liquidation (refer to Chart 1)[4].The Code provides an effective formal two-fold re-engineering of the business when a CIRP is initiated, which has helped in the recovery of INR 1.7 trillion.[5] Interestingly,this introduction in itself has sparked an active market of pre-insolvency negotiations between the debtors and creditors, and self-restructuring among businesses which has resulted in increased securitisation and secondary trading of debt of INR 4trillion (approx.) in the past 4 years.[6]

We will discuss how an Insolvency Professional (IP) is appointed to take charge of the business operational and organisational management, who in turn carries out financial restructuring of the business to facilitate value maximisation of assets including raising interim finances. Also important aspects of business restructuring process under the IBC during the resolution period will be elaborated, such as obligation of a moratorium, and

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[1] Companies Act 2013, the Companies (Compromises, Arrangements and Amalgamations) Rules 2016, Income Tax Act 1961, the Competition Act 2002, the Foreign Exchange Management Act 1999, the Indian Stamp Act 1899, and Insolvency and Bankruptcy Code 2016.

[2] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

[3] Ibid. (Removing the 157 CIRP withdrawals)

[4] Figures provided by IBBI

[5] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

[6]*IBC process helps creditors recover Rs 1.6 trn, revives 160 companies.* Dec 20, 2019. Business Standard.

cooperation of the business,its promoters, and other associated corporate personnel towards to the IP; the prohibition of suspension/termination of supply of essential services, and raising of interim finance.
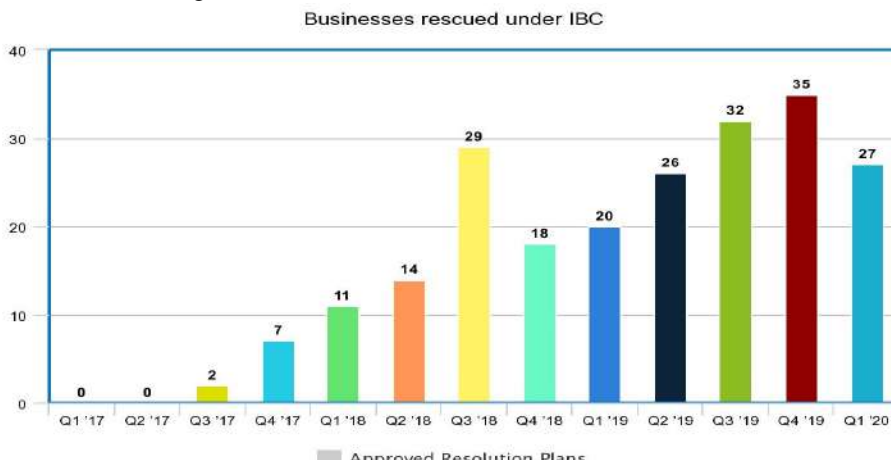
Chart 1

Pre-restructuring

Moratorium

Once the CIRP application is admitted[7], the first step of business restructuring under IBC calls for a halt of a few activities.The Adjudicating Authority (NCLT) declares a moratorium prohibiting any initiation of proceedings, continuation of pending suits, execution of any judgement, decree, or order of any judicial authority against the corporate debtor.[8]To avoid the possibility of potentially conflicting outcomes of related proceedings. Furthermore, any asset, security interest, or legal right transference, disposal by the corporate debtor is barred.[9] This ensures that the assets of the business are together during the CIRP to be able to maximise the value and reach an orderly completion of the process. The NCLT also orders a public announcement to be made for the CIRP and invites submission of claims by creditors of the business,[10] after appointing the Interim Resolution Professional (IRP).[11]The effect of the Moratorium lasts till the completion of the CIRP[12], or when liquidation order is approved by the NCLT.[13]As of March 2020, 3774 CIRPs were admitted[14], and thus 3774 moratoriums

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[7] Under Section 7, 9 & 10 of the Insolvency and Bankruptcy Code 2016

[8] Ibid Section 14 (1) (a)

[9] Ibid Section 14 (1) (b) & (c)

[10] Ibid Section 13 (1) (b) & Section 15

[11] Ibid Section 13 (2)

[12] Ibid Section 14 (4) & Section 31 (1)

[13] Ibid Section 14 (4) & Section 33

[14] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

were declared; Chart 2 provides a breakdown of moratoriums declared since IBC commencement.

Supply of essential goods or services

An important part of the business restructuring under IBC requires for the business to continue its operations and affairs during the insolvency process to protect the value of assets from deterioration. This is achieved in the pre-restructuring process by prohibiting the termination or suspension of essential goods and services to the business, as may be to keep the business running as a going concern.[15]However, the costs for such goods or services will have to be paid in priority to other costs as part of a resolution plan or during distribution of assets, in case the corporate debtor goes into liquidation. Interestingly, in March 2020, an important update at the Lok Sabha surfaced which recommends that the supply of "critical services" to the business undergoing CIRP should not be mandatory on the supplier as it might cause an undue burden on the latter.[16]

Chart: Moratoriums Declared under IBC

Quarter	No. of CIRPs admitted
Q1 '17	37
Q2 '17	130
Q3 '17	235
Q4 '17	144
Q1 '18	196
Q2 '18	249
Q3 '18	242
Q4 '18	276
Q1 '19	382
Q2 '19	301
Q3 '19	582
Q4 '19	613
Q1 '20	387
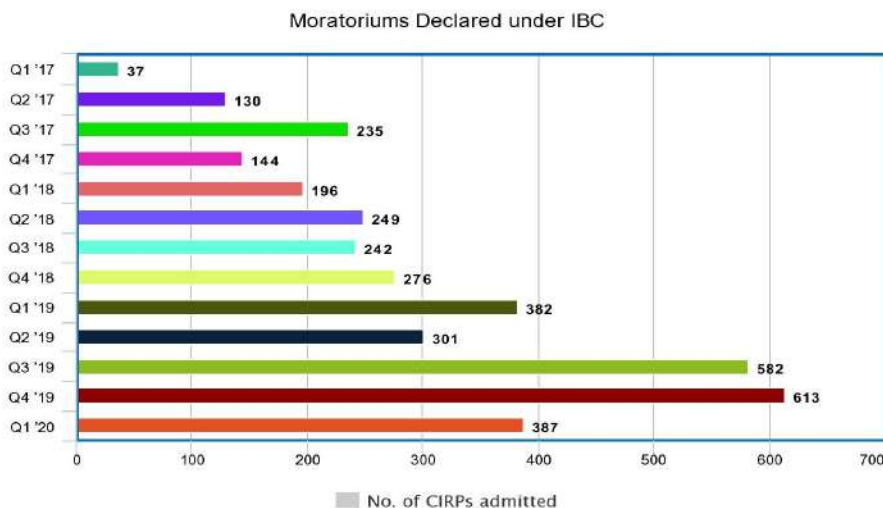
Chart 2

Organisational Re-engineering

Functions of an IP

Once the NCLT declares a moratorium and appoints the Interim Resolution Professional (IRP),[17]the powers of the board of directors or the partners of the business in consideration are suspended[18], and the management of operations and affairs is vested in

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[15] Ibid Section 14 (2)

[16] Sixth Report of the Standing Committee on Finance (2019-2020). Ministry of Corporate Affairs. March 2020.

[17] Section 13 (1) (c) of the Insolvency and Bankruptcy Code 2016

[18] Section 17 (1) (b) of the Insolvency and Bankruptcy Code 2016

the IRP as the Officer of the Court,[19] toprotect and preserve the asset value of the business as a going concern.[20] This shift in the business management structure is ensured to prevent any malpractice that might surface during the insolvency process if the corporation was to maintain its current managerial infrastructure.

The IP has the power to take any action necessary to keep the business as a going concern,[21] and to continue to manage the business operations after the expiry of the CIRP until the Adjudicating Authority (AA) passes an order.[22] The IP can appoint accountants, legal or other professionals as per required in the effective management of the business,[23]and has the authority to enter into, amend/modify contracts or transactionson behalf of the corporate debtor, including the ones entered into before the commencement of CIRP.[24]The authority extends so much so, that the IP has to represent and act on behalf of the corporate debtor with third parties, and exercise rights for the benefit of the business in judicial, quasi-judicial or arbitration proceedings.[25]The personnel of the business and the financial institutions attached with the business are to follow the instructions given by the IP in furnishing all information related to the business.[26]

While the IP conducts the array of business-related duties for the corporate debtor, they also have to conduct the entire insolvency process from maintaining an updated list of claims against the corporate debtor,[27]convening and attending all meetings of the committee of creditors (CoC),[28] preparing information memorandum,[29]presenting all resolution plans at the CoC meetings,[30]to most importantly, raising interim finances for covering the cost of the ongoing CIRP.[31]The table below provides an overview of the number of ongoing business organisational restructuring currently facilitated by an IP under CIRP until March 2020.[32]

Status of Ongoing CIRPs	No. of CIRPs
>270 days	738
>180 days < 270 days	494
>90 days <180 days	561

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[19] NCLT Order of Feb 18, 2019 in the case of *Asset Reconstruction Company (India) Pvt. Ltd. Vs. Shivam Water Treaters Pvt. Ltd.* C.P. No. (IB)1882(MB)/2018

[20] Section 17 (1) (a) & Section 20 of the Insolvency and Bankruptcy Code 2016

[21] Ibid Section 20 (2) (e)

[22] Ibid Section 23

[23] Ibid Section 25 (2) (d)

[24] Ibid Section 20 (2) (b)

[25] Ibid Section 25 (2) (b)

[26] Ibid Section 17 (1) (c) & (d)

[27] Ibid Section 25 (2) (e)

[28] Ibid Section 25 (2) (f)

[29] Ibid Section 25 (2) (g)

[30] Ibid Section 25 (2) (i)

[31] Ibid Section 25 (2) (c)

[32] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

<90 days	377
Total	**2170**

Source: IBBI

Power of CoC

Although the power of an IP during a CIRP is immense, the Code provides that the IRP appointed by the NCLT is subject to replacement with a different Resolution Professional (RP) if the Committee of Creditors, in its first meeting, reach a majority vote of 66%.[33] The CoC do not have to justify the reasons for doing such.[34] If not, the IRP is retained as the RP for the rest of the insolvency process. The CoC suggests an RP to the Adjudicating Authority for approval. A database of all the IBBI-registered IPs is shared with the AA, so the IP to be appointed as an RP can be verified against any pending disciplinary proceedings. Till March 31, 2020, a total of 826 IRPs have been replaced with RPs.[35]

Status of IP to function as RP	No. of CIRPs
IRP became RP	2631
IRP different from RP	826

Source: IBBI

Business personnel co-operation

To ensure a proper flow of managerial restructuring, the Code mandates all personnel, including promoters related to the business to cooperate with the IP and provide access to documents and records of the business as and when required by the IP to manage the affairs of the corporation.[36] The non-compliance of this obligation causes a hindrance in the duties of the IP and as noted in the matter of *Ajay kumar. Vs. Shree Sai Industries Pvt Ltd &Anr.*,[37] necessary steps can ensure obligation via legal enforcement authorities and, if necessary, via criminal action against such business personnel or promoters.

Financial Restructuring

Interim Finance

Financial restructuring under IBC is particularly important, as a business entering insolvency proceedings is often financially distressed for a certain period of time and finds it extremely difficult to obtain credit from hesitant lenders. The IBC addresses this issue by allowing the IP to raise "interim finance"[38] while managing the operations and

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[33] Section 22 (2) of the Insolvency and Bankruptcy Code 2016

[34] *Bank of Baroda Vs. M/s Maa Tara Ispat Industries Private Limited Through Mr. Pramod Kumar Singh.* NCLAT. Company Appeal (AT) (Insolvency) No. 868 of 2019

[35] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

[36] Section 17 (1) (c) & Section 19 of the Insolvency and Bankruptcy Code 2016

[37] Company Appeal (AT) (Insolvency) No. 616 of 2019

[38] Section 25 (2) (c) of the Insolvency and Bankruptcy Code 2016

affairs of the corporate as a going concern- basically, any financial debt raised by the IP during the period of CIRP.[39]

The IP requires prior approval of the creditors whose debt is secured over an encumbered property if the interim finance is raised byproviding security of such property of the business.[40]Such interim finance is treated as a part of the costs incurred during CIRP and is repaid in priority to other debt as part of resolution plan. Such priority also applies in distribution of assets in case the business goes into liquidation.[41] As of March 2020, INR 6.34 crores have been raised in interim finances.[42]

Conclusion

The approach under the IBC towards reviving a "sick" business in a time-bound manner of 180-270 days, by restructuring it organisationally and financially is unique. The importance of an Insolvency Professional in achieving this goal is immense and if a business restructuring plan is not agreed to, or implemented by the CoC, the business goes into liquidation. Till date, business re-engineering under IBC has revived 221 business, while constant updates in the legislation increase the chances of more business revivals.

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[39]Ibid Section 5 (15)

[40] Ibid Section 20 (2) (c)

[41] Ibid Section 53

[42] The Quarterly Newsletter of Insolvency and Bankruptcy Board of India. Jan-March 2020, Vol.14.

ऋग्वेदीयांशे असुरेति शब्दस्य अर्थबैचित्र्यम्

ड. दिलीपकुमारपण्डा

सह्योग्यध्यापकः

संस्कृतविभागः

घाटालरबीन्द्रशतवार्षिकी महाविद्यालयः

पश्चिमवङ्गः

भारतबर्षः

सारांशः

चतुर्धाविभाजितेषु वैदिकवाङ्मयेषु ऋग्वेदः प्राचीनतमः मन्त्रैः ऋद्धश्च । वैदिकृषयः समग्रवेदेष्वेव शब्दक्रीडायां मत्ताः आसन् । एतदर्थं ते एकस्य शब्दस्यैव भिन्नार्थे प्रयोगं कृतः। तेषु शब्देषु "असुर" इत्येकः शब्दः यस्य प्रयोगकौशलं प्रयोगवैचित्र्यञ्चात्र मया संकलितम् , परन्तु शब्दानुसन्धानमिदं न तु वेदचतुष्टये केवलं ऋग्वेदे एव अस्यानुसन्धानं मया कृतम् ।

प्रथममण्डलम् :

१)   ऋग्वेदस्य प्रथममण्डले द्वादशवारमसुरपदस्य प्रयोगो भवति ।तेषु एकः निम्नरूपः –

"अवतेहेलवरुण्णमोभिरवयज्ञेभिरोमहेहविर्भिः ।

क्षयन्नस्मभ्यमसुरप्रचेतारजन्नेनांसिशिश्रथः कृतानिः ॥"इति

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः –"अनिष्टक्षेपनशीलः"इति । अतः असुरपदमत्र वरुणस्य विशेषणरूपेण व्यवह्रतमस्ति ।

२)   प्रथममण्डलस्य अयमेकः मन्त्रः –

"विसुपर्णो अन्तरिक्षाण्यख्य्यद्गभीरवेपा असुरः सुनीथः ।

क्वेऽइदानीं सूर्यः कश्चिकेनकतमांद्यारश्मिरस्याततान ॥"इति।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः –" असुरः सर्वेषांप्राणदः तथाचान्यत्राम्नायते –सर्वेषां भूतानां प्राणानादायोदेतीति"।

अत्रासुरपदं प्राणवायुरित्यर्थे प्रयुक्तं भवति ।यतः प्राणवायुना एव सर्वेषां भूतानां प्राणाः रक्षिताः सन्ति ।

३)   प्रथममण्डलस्य अयमेकः मन्त्रः –

"हिरण्यहस्तो असुरः सुनीथः सुमृलीकः स्ववायात्र्वाङ् ।

अपसेधन्नक्षसोयातुधानानस्थादेवः प्रतिदोषं गृणानः"॥इति।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः –" असुरः प्राणप्रदाता "इति। अर्थात् अत्र प्रयुक्तस्य असुरपदस्यार्थः यः प्राणप्रदानं करोति स एव असुरः ।

४)   प्रथममण्डलस्य अयमेकः मन्त्रः –

"अर्चादिवेबृहतेशूष्यं वचःस्वक्षत्रंयस्यधृषतोधृषन्मनः ।

बृहच्छ्रवा असुरोबर्हणाकृतः पुरोहरिभ्यांवृषभोरथोहिषः ॥"इति।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः –" असुरः शत्रूणांनिरसिता यद्वा असुः प्राणोबलं वा तद्वान् रोमत्वर्थीयः अथवा असवः प्राणाः तेनचापोलक्ष्यन्ते प्राणा वा आप इति श्रुतैः । तान् राति ददातीत्यसुरः " इति ।

अत्र असुरेति पदस्यार्थः **प्रथमतः** यः शत्रूणां निष्काषणं वधम्वा करोति ।**द्वितीयतः** असुः इत्यस्यार्थः प्राणवलम् । अतः यः प्राणवलयुक्तःस एव असुर ।**तृतीयतः** असवः अर्थात् प्राणाः ।तेन उपलक्षितवस्तुरपि प्राणा इति शव्देनाभिधीयते। यतः प्राणा वा आप इति श्रुतिरस्ति ।तान् राति अर्थात् ददाति ।अर्थात् यः प्राणदानं करोति सः असुरः ।

५) प्रथममण्डलस्य अयमेकः मन्त्रः –

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"ते जज्ञिरे दिवऋष्वास उक्षणोरुद्रस्यमर्या असुरा अरेपसः ।

पावकासः शुचयः सूर्या इव सत्वानोनद्प्सिनोघोरवर्पसः ॥"इति ।

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अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः –"असुराः शत्रूणां निरसितारः" इति । अर्थात् अत्रापि असुरपदस्यार्थः शत्रूणां हत्याकारी ।

६) प्रथममण्डलस्य अयमेकः मन्त्रः –

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" यदव्रवंप्रथमंवंवृणानोऽयं सोमो असुरैर्नोविह्व्यः ।

तां सत्यां श्रद्धामभ्याहियातमथासोमस्यपिबतंसुतस्य "॥इति ।

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अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – असुरैः हविषांप्रक्षेपकैः ऋत्विग्भिरयम् " इति । अत्र असुरपदस्यार्थः यैः हविः प्रक्षिप्तं भवति अर्थात् ऋत्विक् एव असुरः ।

७) प्रथममण्डलस्य अयमेकः मन्त्रः –

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" तत्सवितावोमृतत्वमासुवदगोह्मंयच्छवयन्त एतेन ।

त्यंचिच्चमसमसुरस्यभक्षणमेकंसन्तमकृणुताचतुर्वयम् "॥इति ।

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अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – असुरस्यत्वष्टुःसंवन्धिनं तेन निर्मितमित्यर्थः "इति । अत्र असुरपदस्यार्थः त्वष्टानिर्मितः वस्तुः (सोमपात्रम्)।

८) प्रथममण्डलस्य अयमेकः मन्त्रः –

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" ओम् प्रवःपान्तं रघुमन्यवोन्धोयजंरुद्रायमीढुषे भरध्वम् ।

दिवो अस्तोष्यसुरस्यवीरैरिषुध्येवमरूतोरोदस्योः "॥इति ।

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अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – "असुरस्य निरसितव्यानामसुराणां निरंसितुः"इति । अत्र असुरपदस्यार्थः यः असुराणां हननं करोति अर्थात् देव एव असुरः ।

९) प्रथममण्डलस्य अयमेकः मन्त्रः –

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" शतं राज्ञोनाधमानस्यञ्छमभ्वान्प्रयतान्त्सद्य आदम् ।

शतंकक्षीवाँ असुरस्यगोनांदिविश्रवोजरमाततान " ॥ इति ।

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अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " असुरस्य धनानां निरसितुः दानशीलस्य " इति । अत्र असुरपदस्यार्थः यः धनक्षयकारी दानशीलः वा ।

१०) प्रथममण्डलस्य अयमेकः मन्त्रः –

इन्द्राय हि द्यौरसुरो अनम्रतेन्द्रायमहीपृथिवीवरीमभिर्द्युम्नसातावरीमभिः " इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरः निरशनशीलः शत्रूणामपुण्यकृतामेव तन्निवासात** " इति । अत्र असुरपदस्यार्थः यः शत्रूणां अपूण्यं कृत्वा वासं करोति ।अयमासुरः देवविरोधी ।

११) प्रथममण्डलस्य अयमेकः मन्त्रः –

" **प्रसाक्षितिरसुरयामहिप्रियऋक्तवानावृतमाघोषथोबृहत् ।**

युवंदिवोबृहतोदक्षमाभुवंगानधुर्युपयुञ्जाथे अपः " ॥इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरौ बलवन्तौ मित्रावरुणौ युवयोः**"इति । अत्रासुरपदस्यार्थः बलवान् । बलवत्त्वात् मित्रावरुणौ अत्र असुरौ इति पदेनाभिधीयेते ।

१२) प्रथममण्डलस्य अयमेकः मन्त्रः –

त्वंराजेन्द्रयेचदेवारक्षानृन्पाह्यसुरत्वमस्मान् ।

त्वंसत्पतिर्मघवानस्तरुत्रस्त्वंसत्योवसवानः सहोदाः "॥ इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुर शत्रूणाण् निरसितः**" इति । अत्रासुरपदस्यार्थः शत्रूणां हिंसकः ।

द्वितीयमण्डलम् :

ऋग्वेदस्य द्वितीयमण्डलेऽपि द्रश्यते असुरपदस्य अर्थवैचित्र्याणि ।तत्र वारत्रयं शब्दोऽयं प्रयुक्तो भवति । तेषु अयमेकः मन्त्रः –

१) " **त्वमग्नेरुद्रो असुरोमहोदिवस्त्वंशर्धोमारुतंपृक्ष ईशिषे ।**

त्वं वातैररुणैर्यासिशंगयस्त्वंपूषाविधतः पासिनुत्मना ॥" इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरः शत्रूणां निरसिता** " इति ।अस्मिन् शत्रुध्वंसकारीत्यर्थे पूर्वेऽपि पदमिदं व्यवह्रतमस्ति ।

२) द्वितीयमण्डलस्य अयमप्येकः मन्त्रः –

" **त्वं विश्वेषांवरुणासिराजायेचदिवा असुरयेचमर्ताः ।**

शतंनोरास्वशरदोविचक्षेश्यामायुंषिसुधितानिपूर्वा "॥ इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरः शत्रूणांक्षेपकः** "इति ।अत्रापि शत्रूध्वंसकरूपेण असुरशव्दस्य प्रयोगो भवति ।

३) द्वितीयमण्डलस्य अन्तिममन्त्रोऽयं यत्र असुरेति पदं प्रयुक्तम् भवति –

" **बृहस्पतेतपुषाश्रेवविध्यवृकद्वरसो असुरस्यवीरान् ।**

यथाजघन्थधृषतापुराचिदेवाजहिशत्रुमस्माकमिन्द्र "॥ इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरस्य** "इति –अर्थात् अत्र असुरपदेन देवारि एव वोध्यः ।असुरस्य पुत्रान् छेदनविषये अत्र उक्तः ।

<div align="center">

तृतीयमण्डलम् :

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ऋग्वेदस्य तृतीयमण्डले सायनाचार्येण असुरेति पदस्य वहुर्थेन प्रयोगं कृतः। तेषु मन्त्रोऽयम् –

१)   "पितायज्ञानामसुरोविपश्चैताविमानमग्निर्वयुनंचवाघताम् ।

आविवेशरोदसीभूरिवर्पसापुरुप्रियोभन्देतेधामभिः कविः "॥इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरो बलप्रदः** "इति। अतःअत्र यः एव बलीयान् स एव असुरः इति वोध्यः ।

२)   तृतीयमण्डलस्यैकः मन्त्रोऽयम् –

" तनुनपादुच्यतेगर्भ आसुरोनराशंसोभवनियद्विजायते ।

मातरिश्धायदमिमीतमातरिवातस्यर्गो अभवत्सरीमणि ॥" इति।

अत्र आसुरेति पदं प्रयुक्तमस्ति यस्यार्थविषये सायनेन उक्तम् –**आसुर् कर्मविघ्नकारिणामसुराणां हन्ता** "इति। अतः अत्रापि असुरश्चदस्यार्थः यः कर्मविघ्नं करोति सः असुरः।यतः तेनोक्तं कर्मविघ्नकारीणाम् असुराणामिति।

३)   तृतीयमण्डलस्य अयमेकः मन्त्रः –

" प्रससहोतासनकादरोचतमातुरूपस्थेयदशोचदूघ्नि ।

न निमिषतिसुरणोदिवेदिवेयदसुरस्य जठराद जायत ॥" इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरस्याग्नेःप्रेरकस्यारणीरूपस्य काष्ठस्य** "इति ।अत्र विचित्रार्थेण आसुरपदं प्रयुक्तमस्ति। अरणीरूपकाष्ठं येन अग्निः प्रेर्यते स एव असुरः। अतः अत्र असुरः एकः काष्ठविशेषः ।

४)   तृतीयमण्डलस्य अयमेकः मन्त्रः –

" आतिष्ठन्तं परिविश्थे अभूषञ्ज्रियोवसानश्चरतिस्वरोचिः ।

महत्तवृष्णो असुरस्य नामाविश्वरूपो अमृतानितस्थौ "॥ इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरस्य अस्यति प्रेरयति सर्वान्नन्तर्यामितयेत्यसुरः तस्येन्द्रस्यतत्ताद्दशमभुतपूर्व** "इति। अतः यः सर्वानाम् अन्तर्यामि यश्च सर्वान् प्रेरयति स एव असुरः। न केवलमेतत् अत्र असुरः इन्द्रेन सह तुल्यते इन्द्रसमो वा अभूतपूर्वः ।

५)   तृतीयमण्डलस्य अयमेकः मन्त्रः:-

"इमेभोजा अङ्गिरसोविरूपादिवस्पुत्रासो असुरस्यवीराः।

विश्धानित्रायददतोमघानिसहस्रसावेप्रतिरन्त आयुः"॥ इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरस्य देवेभ्योऽपिवलवतो रुद्रस्य** "इति । अतः अत्र असुरेति पदं रूद्रस्य वोधकं यश्च वलेन देवेभ्यो अपि वलवान्।

६)   तृतीयमण्डलस्य अयमेकः मन्त्रः –

क)   " उषसः पूर्वा अधययुषुर्महद्विजज्ञे अक्षरंपदेगोः ।

व्रतादेवानामुपनुप्रभुषन्महद्देवानामसुरत्वमेकम् "॥इति।

ख) " मोषूणो आत्र जुहुरन्तदेवामापूर्वे अग्नेपितरः पदज्ञाः ।

पुराण्योः सद्मनोझ् केतुरन्तर्महद्देवानामसुरत्वमेकम् ॥"

ग) " समानो राजाविभृतःपुरुत्राशयेशयासुप्रयुतोवनानु ।

अन्यावत्संभरतिक्षेतिमातामहद्देवानामसुरत्वमेकम् ॥"

घ) " आक्षित्पूर्वास्वपर अनूरुत्सयोजातासुअतरुणीष्वन्तः ।

अन्तर्वतीः सुवते अप्रवीतामहद्देवानामसुरत्वमेकम् ॥"

ङ) " शयुःपरस्तादधनुद्विमाताबन्धनश्चरतिवत्स एकः ॥

मित्रस्यतावरुणस्यव्रतानि महद्देवानामसुरत्वमेकम् ॥"

उक्तमन्त्रपञ्चकेषु तथा एतदुत्तरवर्तीषु पञ्चदशमन्त्रेषु प्रयुक्तः असुरेति पदस्य सायनेन अर्थः कृतः इत्येवम् –"असुरत्वमस्यतिक्षिपतिसर्वानित्यसुरः प्रबलः तस्यभावोसुरत्वप्राबल्यं महदैश्वर्यम्" इति। अर्थात् यः तस्य प्रबलबलेन सर्वान् पदार्थान् अतिदूरं क्षिपति स एव असुरः ।

चतुर्थमण्डलम् :

ऋग्वेदस्य चतुर्थमण्डले सायनाचार्येण असुरेति पदस्य वह्वर्थेन प्रयोगं कृतः। तेषु मन्त्रोऽयम् –

१) " गोमाँ अग्नेविमाँ आश्रीयज्ञोनृवत्सस्वासदमिदप्रमृष्यः ।

इलावाँ एषो असुरप्रजावान्दीर्घोरयिः पृयुबुध्नः सभावान् ॥"इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुर बलवन्**" इति. अर्थात् बलबानित्यर्थे एवात्रासुरशव्दस्य प्रयोगो भवति । अस्य मण्डलस्य अपरैकः मन्त्रः –

२) तद्देवस्यसवितुर्वार्यमहद्वृणीमहे असुरस्यप्रचेतसः ।

छर्दिर्येनदाशुषेयच्छतित्मनातन्नोमहाँ उदयान्देवो अत्तुभिः ॥" इति ।

अत्र प्रयुक्तस्य असुरपदस्य सायनेन अर्थः कृतः – " **असुरस्य असुर्बलं तद्वतः** "इति। अर्थात् असु इति शव्दस्यार्थः बलमिति । अनेन बलयुतः एव असुरः ।

एवम्प्रकारेण सायनेन असुरेति पदस्य यद्वैचित्र्यार्थ प्रकाशितं तदत्र मया केवलं समुद्धाटितं अनुसन्धानकारीणां दिग्दर्शनार्थम् ।तेषां कृते मया इयं प्रचेष्टा ।

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शोधसारः

शास्त्रेषु इन्द्रियनिग्रहस्य अतिमहत्त्व स्थानं विद्यते।
यस्तु इन्द्रियाणि वशे स्थापयति तेन सर्वं जगत् जितम्।
इदमेव महत्तप इति मुनीनां महात्मनां आशयः।
तत्रापि मनोनिग्रहनैव दुश्क्यम्।
अतएव मनं अन्तःकरणम् इति आक्रियते।
परन्तु मनसः आलोचनं वक्तुं वाचा अनुमातुं सुलभम्।
अतः वचसा नियन्त्रणम् नाम मौनं खलु।
तत्रजिह्वायाः त्रित्रित्वां मौनं अवधार्यं महत्फलं प्राप्ताः महात्मानः सन्ति केचन एव।

अन्ये तु वागिन्द्रिय निग्रहाभावत् भ्रष्ट स्थानाः अनवरतं अवहेलिताः कालवशात् कलंकीभूताः कालकवलीकृताः दृश्यन्ते। ये तु सम्मानितम्।
नैव तेषां वचनत्वर्थैः भविष्यति। तेषां वचः शापः वा वर वा भविष्यति।
"शापानुग्रह शक्तोऽन्यो राघवेन्द्रान्नविद्यते" इति प्रथा श्रूयते।
अतः मनः निगृह्य आत्मशक्तिं संपाद्य चिन्तनं कार्यम् इति सिद्धान्तः। "
वाचम् अर्थोऽनुधावति" इति भवभूति भणितं भाति सत्यं पुनः पुनः।
एतद्विषये साहित्यप्रपन्च: किम् अभिप्रेति। मौनं केन साध्य। कथा अनुप्रेय। कदा अनुसरणीय।तस्य महत्वं किय कियत्पर्यन्तम्। इति निरूपणं लेखनस्य उद्देशः।
वागुसिः। वाचः रक्षणम्। उद्विग्नः। अपृष्टः। निरयः। नितरां। चित्तेन्द्रियक्रियः। मनोनिग्रह निमीलनं इत्यादि।

प्रस्तावना

यथा वाचा क्लेशाः परिह्रियन्ते तथा क्लेशाः तत्रत्रा आपाद्यन्ते।
मूर्ख्यस्य हृदयं वाचिव सति पण्डितस्य वचनं हृदय्येविलसति।
इति विदुषा विश्लेषणम्। अतः वागिव मौनम् अपि महत्तरम्।
मौनम् सर्वार्थ साधकम् इति अनुभववाणी।
यस्तु मौनेन गुरुकुले बहुवर्षपर्यन्तम् अध्येति सवत् काभवेत्।
तस्य वचनं सभायां सहस्रसाधिकाः जनाः मौनेन एकाग्रतया श्रृण्वन्ति।
एवं सति मौनं अन्यमेव। मुनीनां अयं बुदानवाः विघ्नम् उत्पादयन्ति।
तथा अपि मुनयः क्रोधेन शापवचनं विसृजन्ति।
यदि वागुक्तप: सर्वे शापवचनात्वि तेन इष्ट इति भीति: मुनीनाम् मनसि।
मौनस्य महत्वं केवल आत्मशक्तिवृद्धौ, लोककल्याणाय च भवति।
अतः मौनं कदा। केन। कथं।
कल्याणाय कमनीयतया आसम्भव्य सनीय साहित्यस्य यशस्व समूहस्य सन्देशः कः। इति विवरणं कर्तुं अयं प्रयत्नः।

चक्षुरपि स्पृष्टं वक्ति

भारतीय संस्कृतौ इन्द्रियाणाम् निग्रहस्य महत्त्वपूर्णं स्थानं विद्यते।
तत्रापि सर्वेषु बुद्ध इन्द्रियेषु मनःप्रधानम्।
इन्द्रियाणाम् मनश्चास्मि इति भगवद्गीताभाव: इमम् एव शर्द्धी करिष्यति।
यस्तु "अहम् एनः निगृह्णीत वा न इति" वदति तस्य वचसि विश्वासः दुश्शकः।
परन्तु इन्द्रियनिग्रहेण मनोनिग्रहः अनुमातुं शक्यते।
अत्रापि इतराणि इन्द्रियाणि कथं चिन्तयन्ति तुं शक्यानि।
नेत्रान्य वागिन्द्रियस्य निग्रहः दुश्शकः।
चक्षिग्व्यक्तया वाचि इति संस्कृते चक्षुः शब्दः वाच्यपिविद्यते।
तद् अपि व्यक्तया वाचिनाम् स्पष्ट वचसि इति प्रतिपाद्यते।
यस्य दुःखं वाचा वक्तुं न शक्यते दाने त्रं अश्रुणिविसृज्य दुःखं व्यक्ती करोति।
आनन्दे अतिशयं अनुभूते सति आनन्दाश्रु बिन्दु नेत्रात् निर्गत्य आनन्दं प्रतिबिम्बयन्ति।

अन्येषां गोचरं अथवा अगोचरं वक्तुं पुरुषः स्वइच्छया दुःखं वा सुखं वाच क्षुसा अभिव्यज्यते।
एवं वागिन्द्रियादपि स्फुटतरं, यद् वक्तव्यं तत् प्रतिपाद्य तेन नेत्रेन्द्रियम्।
अतएव सर्वेन्द्रियगणने तारं लोचनं प्रतिनेत्रं इति तिसार्थकं नाम विद्यते।
तत् पश्यति वदति च। वक्तव्य वक्यवि ये विषये नेत्रे निमील्य नितरां आलोचयति च।
एवं नेत्रं वागिन्द्रियस्य कार्यम् अपि करोति।
अतः नेत्र निमीलनं वागिन्द्रिय निग्रहण साधनम्।

अतः ध्यानं समारभ्यमाने "तत्रैकाग्रमनः कृत्वा यत चित्तेन्द्रियक्रियः"[2] इति इन्द्रियनिग्रहण सामान्यतः साधनाय उक्तम्।
अनन्तरं "दिशश्चानवलोक्य" इति पार्थसारथिः प्रत्येकेन त्रिनिमीलनं निरूक्तवान्। उद्घाटितेन त्रेणमनः क्षुभ्यति।
वागपि उद्वेगाय उट्टंकिताभविष्यति।
अतः वाचः नियन्त्रणे नेत्र नियन्त्रणम् अपि आवश्यकम्।
२मनोनियन्त्रणम् अपि वाचि वर्तते।
एवमेव वागिन्द्रियम् अपि। रसनार चिमपि गृह्णाति। वागपिवक्ति।
अतः कार्यद्वय कारि इन्द्रिय द्वयं नामन् तरं सनाच।
तत्र वागिन्द्रियस्य निग्रहः अवश्यम् सम्पादनीयः।
कृष्ण स्तुर सनायाः बलित ते भगवद्गीतायां एवं वक्ति। निराहारेण इतराणि इन्द्रियाणि निरूत्सा हित सहितानि भवन्ति।
आहारा ऽभावे आर्तः आपाद्यन्ते।
परन्तु रसनानि राहारे पि नितरां बलिष्ठाए वतिष्ठति।
व्योऽपि चिक्यरूप विशेष कारणं इष्टतराणि इन्द्रियाणि नितरां निर्विण्णानि भवन्ति। सारसनातु वृद्धाजीर्णनान भविष्यति।
परन्तु काले समतीते पि आत्मनुभवसंपन्ना परमबलाद्यइति बलवद्धि रप्यनुभूयते। गीयते च ज्ञानिभिः।
परमबलिष्ठासातुर परमर सवत रंपर मात्मानं दृष्ट्वात दन्ते मेवनियन्त्रिता भवति।
अतः तावत् पर्यन्तरसनायाः उपरि अस्मत् स्वाधीनत्वं एव।
तद् एवोक्तं भगवता गीतायां-
विषयाविनिवर्तन्ते तेन निराहारस्य देहिनः।
रसवर्जं रसोऽप्यस्य परं दृष्ट्वा निवर्तते॥4
अतः रसनानि ग्रहणकार्यी वचसः नियन्त्रणम् अपि सुलभं।
परन्तु "वाग् मेमनसि प्रतिष्ठिता"
"मनोमेवाचि प्रतिष्ठितम्"[3] इति एतत् वाचा वदतितरां सः भावनां प्रकाशयति। मनसि यदस्ति तद्वाचा अभिव्यज्यते इति वाण्या, वचसः मनसः परस्पर संबन्धोऽस्ति।
अतः वाक्प्रवाह नियन्त्रणेन मनोनियन्त्रणं साध्यमेव।

३वाचाटोबध्यते मूकोमुच्यते-
" आत्मनोमुखदोषेण बध्यन्ते शुकसारिकाः।
बकास्तत्रन बध्यन्ते मौनं सर्वार्थ साधनम्" ॥6

इय सूक्तिः मौनस्य महत्त्वं प्रतिपादयति। शुकाः तथा सारिकाः मधुरं कूजन्ति।
अतएव ते पन्जरे बध्यन्ते। बकाः भक्षणे निरताः नैव रटन्ति।
ते तु अनु किमस्ति इति कियद् अस्ति इति।
आलोचनेन निरताः, तद् ध्यानमग्नाः सन्तः नरटन्तिनजल्पन्ति।
नापिबतु अटन्ति। अतः ते कदापिन बद्धाः।
बकादृष्ट्वा बुद्धिमान् मौनं आचरेत्।
जिह्वायाः वाग्व्यापार नियन्त्रण निपुणैः नितरां सम्पादनीयमेव।

४मौनीआरोहति जल्पन्जडःअधःपतति

यस्तुमौनीसः जानातिसर्वंकिन्तुनजल्पति , तेनयोगेनमनसिद्धेहचकाचनकान्तिःसमुद्भवति. तयोगिनसमाजः उपरिस्थापयति , पूजयतिच ।

यस्तुपदेपदेशब्दकरोतितजनाः अधःस्थापयन्ति।अतएवमौनंनकान्तिमत्सुवर्णं , हाटकस्यहारः वाकण्ठस्यपरितः अलंकारत्वेनधार्यते।

किरीटत्वेनशिरःअलंकरोतिच ।

पदेपदेशब्दकुर्वन्नूपुरअधःएव तिष्ठतुइतिपादयोःएवधार्यते।

अतःमौनीभवइत्युच्यते। एवं "मौनंसुवर्णम्"

मौनदात्युक्तमस्थानजल्पतानीचतादिशेत्।

सुवर्णोधार्यतेकण्ठेनूपुरेपादयोस्तथा॥७

एवमेवरघुवंशीयराजानःवाक्पटवःआसन्।

परन्तुउक्तवचनअनृतयदिभवेत्दानीचितादिशेत्इतिभीत्यातेअल्पभाषिणःआसन्। कालिदासोकथयति "सत्यायमितभाषिणाम्" ८इति ।

पुनःसहकविकुलगुरुःकश्यपद्धराः

"भाग्यायततमत्परन्खलुतत्वाच्यवधूब्रुभिः "९ ।

वधूब्रुधुभिःबहुनवक्तव्यम्। मौनमेववरमिति।

अतःअतिवचननमतिमज्जनकार्यम्।

५शोधितमशोभते-प्रसूतप्रहरति

मनसियाया आलोचनाजायते। सासवैनैवप्रकाशया।

बुध्याविशोध्यवयाचप्रकटीकर्तव्या। सकुनासाक्षात्किमपिखायानेवाक्रियते।

तत्सर्वविशोऽयतेनसकुनासवदर्थायविरते।

एवमनसानितसूतवाक्पवाहबुध्या शोधनीय , तेनप्रयुक्तेनवचसाशत्रुरपिमित्रभवति। अमित्राणिमित्राणिभविष्यन्ति , एषालक्ष्मी यातिनिवसति।

सकुमिवउनापुनन्तोयं रथीरामनसावाचमक्रत।

अत्राःसखासखुनजानत, भद्रैषालक्ष्मीर्निहिताधिवाचि ॥१०

एषावेदवाणयेवक विमुखेआगत्यअन्तेरसन यैवश्च रुरपिजायतेइतिप्रतिबोधयति।

लक्ष्मीर्यसतिजिह्वाग्रेजिह्वाग्रेमित्रबान्धवाः

जिह्वाग्रेबन्धनप्रासंजिह्वाग्रेमरणंधुवम्। ११

शत्रुरपिमित्रंभवतिवाण्या। पिबवीपूषं

पिबविषइत्येतयोःव्यत्यासःबहुनासि। तथाऽपिस्द्राणिमैत्रीसंपादयति।

कर्तांडनकारयति। कर्कशवाणीकरेणकपोलयोः ताड्नआह्वयति।

कर्कशवाणीकृपाणीवखेदजनयतिपुरःस्थितानाम्।

सद्राणिसरस्वतीस्वरूपिणीधीणाद्वपुरःस्थितानां प्रमोदंजनयति।

अतःशोधितावाक्शारदेवविशोभते।

६वाक्मनइवनिगूढत्यासंरक्ष्या

वाक्मनसासंजायते। अतःचितवत्सरहस्यंसारक्ष्या।

चिशेषेणतुराजा।

यतःसर्वेराष्ट्रमन्त्राणिमन्त्रितस्यसंरक्षणेतिष्ठतिखलु ।

चाणक्यस्तुएवमाहः

मनसाचिन्तितंकर्मवचसानप्रकाशयेत्।

अन्यचिचिन्तितकार्यस्ययत्सिद्धिर्नजायते॥१२

मनसाचिन्तितंअन्यस्यपुरतःनवक्तव्यम्।

यदिसःसमवर्तीसः अपितल्क्ष्यंकुर्यात्।

तेनःसिद्धिःनलभ्ते।यदिप्रतिस्पर्धीतदातलक्ष्यसःघातयेत्।

अतःनप्रकाश्यम्।

७गुरोःचरमवाणी-

चीनादेशेएकः महान्तत्वज्ञानीआसीत्।

तस्योपदेशःश्रोतुंजनाःदेशविदेशादप्यागत्यसेवांकृत्वाउपदेशंश्रुत्वाधन्यभावनांप्राप्यानिर्गन्च्छन्तिस्म।

तस्यपरितः शिष्याः समावृत्यस्यात्कृत्याज्ञान्तेमिनरे।

गुरोःकालेऽतीतेसतिमरणासन्नंगुरुष्टियेप्त्यःशिष्याःप्रार्थयन्तगुरोःअन्तिमसन्देशंअनुगृह्णअस्मान्तारय'इतिपुनःयाचिरे।

उपदेशश्रवणेएवसलोलुपान्, अनुष्ठानेअलसान्तान्चिचित्तत्वकिन्चित्यहस्यस्वस्यदन्तविहीनंमुखव्यादायध्यानमग्नोबभूव।

शिष्याः तत्रैवतुष्णीबभुः। पुनःपुनःप्रार्थयामासुः।

तदागुरुःममवित्वदनएवसर्वेषांममसन्देशंविवृणोतिइतिप्रत्यावदत्।

तत्रैवलिज्ह्वाद्रश्यते। वयोवृद्धस्यममवदनेदन्ताःनसन्ति।

जिह्वाद्राप्रवर्तते।

तत्रपूर्वमेजाताः दन्ताः विगलिताः केचनचूर्णिता। परेपतिताः।

तेभ्यःपूर्वंभिविद्यमान्जिह्वादृढा, सक्रियाः।

दन्तेभ्यः पूर्वंसजाताजिह्वाशक्ता, सरसा, स्वादिष्टा।

अनन्तरजाता दन्ताःएकाःभग्नाःविगलिताःबभुः। किन्कारणं?

दन्ताः आगतान्तान्भक्ष्यान्लिर्दयाचूर्णिकृत्यपिशाःकृत्वादर्षद्दर्शयामासुः।

प्रायःतैः भक्ष्यैंशसाः दन्ताःकालात्पूर्वमेवाचनश्यन्।

जिह्वातुमार्दवेनसर्वभक्ष्यित्वाभक्षितानित्तानिशब्दान्अन्तःप्रेषयित्वाप्रेष्टब्रभूव।

अरेशिष्याः दन्ताःइवाभवद्भिःकर्कशमार्गः नानुसर्तव्यः।

जिह्वाइवमार्दवंवृत्तिःअनुसर्तव्या। तदामावत्चिरजीवितेःभवेयुः।

अन्यथादन्ताः इवअवश्यमल्पायुरेवमयेरन्इत्यवादीत्। अतः

"जिह्वामेधंधुनातमम"१३इतिवेदवाणियात्सरसंभाषणीयम्।

कर्कशवाणीनैवप्रयोज्या।

८प्रमाणविजानीहिः प्रमादजहि

जिह्वेप्राणजानीहिभोजनेभाषणेऽपिच।

अतिभुक्तिः अतीवोक्तिः सद्यःप्राणापहारिणी। १४

जिह्वेन्द्रियहेतोईव्यवापादौईव्यवादोर्षन्नास्ति। सामन्यतःनैवश्रयतेच।

तथापिभोजनसमयेभाषणसन्दर्भेतस्यचलनजनऽहितुशवयंपुरस्थितैःजनैः जनाःपुरतःश्रुण्वन्तःसन्तीतिविदितेनविशारदेन।

युक्तंअयुक्तमपिआनालोच्यबहुउच्यते। तेनमित्राणिशत्रवःभविष्यन्ति।

कोलाहलद्वाराकलहः अपिअकुरितोभवेत्।

अतिभाष्णेनअसंगतभाष्णेनकृद्धाःश्रोतारःक्रोधेनयक्तःप्रणान्हरेयुः।

अतःप्रमाणं, परिणामंचविविच्यजिह्वाउपयोक्तव्या।

जिह्वायाःअन्यत्कार्यंभोजनम्।

यदिमितेअतिकमन्येभुक्तेदाअजीर्णेन्उदरवेदन्यारोगपीडितोऽपिभवेत्।

अपथ्यभोजनेनजातेनमहारोगेनिरन्तरदुःखमपिसंभवेत्।

दैन्यावस्थाम्प्रिप्राप्नुयात्।

यतःवाचाटस्यवाचपल्यंरसनंचापल्यंचसकटकरः अतःमौनमेववरम्।

९मौनंमूर्खमपिरक्षति ।

पक्षिणांबलमाकाशमत्स्यानांउदकबलम्।

बलमूर्ध्वस्यमौनित्वंचोराणामनृतबलम्। १५

यथापक्षिणःमनुष्येभ्यःभूतलेभ्योसमुत्पन्नेसतिआकाशंश्रयन्ति।

तत्रक्षेमंअनुभवन्ति। एवमत्स्याःजलेलीलांजालेनआनन्दमनुभवन्ति।

यथाचोराःअनृतवचनमेवबलेमइतिमन्यन्ते।तथामूर्खानांमौनमेवरक्षाकवचम्।

यदिसःयदित्तदातस्यमौढ्यंबहिरागत्यतमूढमितिमुदुमुहुःप्रचारयन्ति।

यदिस:मौनमाश्रयति्तदातंमहामेधाविनमितिमत्वा| इतरेमानयेयुः।
अत:मौनम्पण्डितलक्षण" इतिजना:यदन्ति।
१०विवदन्नैवविवेकी
मनुष्य:नकदापिविवादंकुर्यात्। जनानुरागप्रभवा:हिस्मप्द:इतिनीति:।
यदाविवादास्पद:भविष्यतिदातेनसंघटनंसाध्यं।
तदास:सर्वसंप्रतिपन्न:नभविष्यति।
अत:विवाद: ,वित्तत्याग:एत्योर्मध्येविवित्तत्याग:एववरीयान्।
धननंश्येत्। परंतुवाक्यर्थानभवेत्। अत:विवेकीधनंजहाति।
वाचनजल्पति। मूर्ख:धनमपित्यजतिक्ललहद्वारेणवाचमपिविसृजति।
शतम्द्यात्सविवदेत्इतिप्रानास्यलक्षणम्।
विनैवहेतुंद्वद्वचलतत्स्यान्मूर्खस्यलक्षणम्। । १६
११सत्यवचनकामी:निष्ठयेननिरगामी
कौशिक:नामकश्चित्तन्मान:स्वाश्रमेतप:कुर्वन्नासीत्।
केचनयात्रिका:चोराणांभयात:तस्यसमीपंदद्रुः।
तत्रैवलतापुत्रेनिलिल्यु:स्वात्मरक्षणार्थम्।
तेतुयात्रिकान्अपश्यन्त:समीपेस्थितयोगिनंगौतमंप्रप्रच्छुः।
गौतमस्तु:स्वयस्तत्यवचनपरिपालक:इतिकीर्तिकामी।
अहम्सत्यवदिस्यमीतिदुरभिमानीस:तान्प्रतिउवाच। अहंहृयान्तान्।
तेसर्वेतेनैवमार्गेणगत्वाप्रत्रैविनिलीना:इतियथास्थितंप्रोवाच।
तेतुतन्मार्गेणगत्वायात्रिकान्हत्वाधनं आहृत्यगतवन्त:।
तेनसत्येनयात्रिका:मृता:। चोरा:लब्धधना:सहृष्टा:बभूवु:।
अत:सत्यवचनेनगौतम:निरयप्राप्नान्।
अत:सत्यवचनचापलादपिमौनमेवयरम्।
कौशिकाद्यब्राह्मणोहिलीनंग्रामजनकन्चित्।
तस्करेष्वभिधायैवनिरयप्रत्यपप्त॥१७
१२मौनंहिद्वढमबोधकम्
" तदलंबहुलोकविचिन्तनयापवणकुर्महासंसमीशपदे"
इतिशाङ्खयाण१८॥ लोकचिन्तनंअतिनंकुर्यादित्यतितुसत्य।
परंतुब्रह्मविचारेऽपिमौनमेवशरणम्। "
यतीवयोनिवर्तन्तेअप्राप्यमनसासह" १९॥
इतिउपनिषद्वाणीब्रह्मशब्दातिरिक्तंइतिवेदयति। "
" अवचनेनैवप्रोवाच"२०इत्यपिशास्त्रीयवचनम्।
अन्तरनुभवेसम्पूर्णसतिसंशयलेशोऽपिनावतिष्ठति। "
गुरोस्तुमौनंव्याख्यानंशिष्यास्तुच्छिन्नसंशया:"-(दक्षिणामूर्तिस्तोत्र-२१)
इत्यपिपाद्यात:श्रूयते। अत:मौनंमहत्तरंसाधनं। भगवन्तमपिबोधयति मौनम्।
१३मौनंहीनवेमौनिन:
यस्तुअतिवदतितदाकाल:खमपिस्पृशतितारकस्वरेण।
यस्तुमौनीतदातत्स्वकलह:"अतृणेपतितोवह्नि:स्वयमेवोपशाम्यति"तित्रै वशान्तिमाप्नोति।
यथाजायत:भयंनास्ति,पठत:मूर्खत्वनैवलिप्यतेतथामौनिन:कलह:नैवभ वतीतिस्पष्टीकृतम्। अत:मौनंवरम्।
मौनिन:कलहोनास्तिनभयंचास्तिजायत:।
पठतोनास्तिमूर्खत्वंजपतोनास्तिपातकं। २२
१४द्विग्नेउपदेश:नशामक:-
प्रकोपितस्यपुरत:मौनंवर। यदिमूर्खायउपदिश्यतेतस्यरोष:ज्वलति।
तदास:तंद्विष्टि। मारयतिच।

अत:उपदेश:तस्यकृत:यथासर्पस्यपय:पानेनविष:वर्धतेतथाद्वेषमेवद्विगुणी करोति। अत:तत्रमौनंवरम्।
उपदेशोहिमूर्खाणाप्रकोपायनंशान्तये।
पय:पानंभुजगानांकेवलंविषवृद्धये॥२३
यथाप्रतप्तलोहेपरिसिन्चिता:जलबिन्दव:अपित्यवलद्ग्निकणवर्धका:भवि ष्यन्तितथासामवाद:अपिअसतांअसहनाअभिवर्धयते।
सामवाद:प्रकोपस्यतस्यप्रत्युतदीपका:।
प्रतप्तस्येवसहसासंपिषैस्तोयबिन्दव:॥२४
१५अपृष्ट:त्वमौनीभव
जानतांजनानांहिअयंदोष:सामान्यत:श्रूयते। वयंतत्त्वविद:इतिशीघ्रं उत्तरंकुर्वगृहयन्ति। तेतिरस्कृता:भविष्यन्तिपुन:खिदन्ति। मनुस्तु प्रतिबोधयति। अपृष्ट:मावद, अपमार्गेपृच्छत:पुरत:मौनीभव। मेधावी बहिजानंऽइवतिष्ठेत्।अन्त:आनन्दमयोस्थास्यति।
नापृष्ट:कस्यचिद्ब्रूयान्नचान्यायेनपृच्छत:। ।
जानन्नपिहिमेधावीजडयल्लोक:आचरेत्। २५म:स्मृ:२.१००स्मृ१९
अपृष्ट:सन्स्वयमेवउत्तरनकेनाऽऽपिवक्तव्यम्।
यदिदंदातिस:अत्यायेनपृच्छत:पुरुषस्यबुद्धिजालेबन्धितोभवेत्।अथवाअ तिमानिनामप्येअनाहूत:प्रविशतिइति:तिरस्काराऽऽर्हीभवेत्।
अत:मौनिंभवइतिमनुर्वदति।
जानन्नपिजडवदाचरित:पुरुष:देवताप्रतिमावत्पूज्यतेएव।
१६) त्रिकालेमौनं: त्रयीहृदयम्
स्नास्तोवरणं:शक्तिजुद्धतोऽग्नि:श्रियंहरेत्।
भुजतोमृत्युरायुर्यतस्मान्मौनंत्रिषुस्मृतम्॥२६
पापपरिहारक:व:रूण:स्नानसमयेजल्पत:पुरुषस्यश्रंकिअपहरति।
यागसमयेअत्यवचनंयाहरत्तंयजमानजीर्णकारक:देवदूतंषअग्निनसहत ते। तस्यमुखकान्तिअपहरति।
भोजनकालेवदत:भोक्तु:आयुष्यमृत्यु:अपहरति। भोजनआयुर्वर्धनाय।
यदिएतदेवनलभ्यतेस:मृत्युसमीपग:सुतराखलु। अत:मौनंआवश्यकम्।
१७मंगल्यबन्धनेऽपिवाग्बन्ध:-मुनीन:अनुवन्ध:
प्रायश:इदानीमेवव्यूढानांदम्पतीनांवाग्निनिमयायावाग्विलासायवाथृंगा रकीडानांवाप्रतिबन्धिकाशक्ति:त्रैलोक्येकापिनास्ति। परंतुमुनय: विवाहितदप्त्यो:नियमंअपिनिधापयन्ति।
अतएवतस्यजीवनमहोत्सवसमारम्भस्यविवाह:उपयम:इतिइन्द्रियनिब हस्मारका:शब्दा:सन्ति।
अतएवदम्पत्यो:अरून्धतीनक्षत्रदर्शनपर्यल्तंमौनव्रताचरणंविवाहानन्तरम पि
विशेषत:विहितम्।
ससर्षिमण्डलमधस्स्थयशिछन्नक्षत्रसमीपवर्तिहिनक्षत्रंअरून्धतीनक्षत्रम्।
तद्दर्शनान्तरमेवदम्पत्योव्याहरेतइतिमुनीनांवाणी।
"दंपतीन्व्याहरेतयावद्ध्रुविनिरीक्षणम्"२७"तान्दृष्ट्वासृजतोर्चतयोराशि षउत्तमा:"२८। अत:मौनव्याहृ:पिविशेषत:शोभते।
परीक्ष्यता:परंतुमौनंसमाश्रीयताम्
दोषा:गुणा:वाभविष्यन्तित्रेत्रगोचरा:। तथापितन्नप्रशंसय। नापिगर्हय।
तत्सर्वेतस्यकमानुसारीतिनिश्चित्यनान्तोभव।
मुनि:समरगितिकीर्तित:।
प्रकृति:पुरुषेणबद्धा,सत्रीप्रक्रियासहजा, कुतोत्वयितत्रविक्रिया?
सानकार्यइतिभगवत्कृष्ण:।
नस्तुवीतननिन्दीतंकुर्वत:साध्चसाध्वुवा।

वदतःगुणदोषाभ्यावाजितःसमद्गमुनिः॥२९
सर्वविवदन्मौनीभवति। नितरानिपुणःनिरुद्धिनोशोभते।
अल्पस्तुअट्टहासकृत्वास्वयपरेषाचऽउद्देगजनयति।
स्वस्यआतंकम्,परेषामनःकम्पंचजनयतिअल्पीयान्मानवः।
अतएवसाधुऋक्तम्-
सम्पूर्णकुम्भःनकरोतिशब्दःसार्धोघटोजल्पतिसाट्ठहासाम्। ३०
१८शुभयदःस्यान्मगलकस्यचित्
केषुचित्सन्दर्भेषुअस्माकलाभःनास्ति।
तथापियस्यकस्यचित्समीचिनंफलनामभद्रइत्येयवद।
यदिमंगलःस्पष्टरतिदिवाकरप्रभवतदाभद्रभद्रइतिद्विवारवद।
कदापिकेनचिद्पिकस्मिंश्चिद्दिषयेऽपिशुष्ककलहनकुर्वीत।
तदर्यैकलहनिवारकमहद्वसननाममौनमेव।
मौनअथवाशुभयचनमाऋमेयइतिमनोःअन्तरंगः।
भद्रभद्रमितिब्रूया।भद्रमित्येयवादत्।
शुष्कयैरनकुर्वीतकदाचित्केनचित्सह॥३१
१९मूकतामुनिभिरपिमान्यते
वचसःगुसिरपिकार्या। मुक्तिश्चकरगतमभयति।
पुण्यश्रेण्यतिद्रूमप्यनुदिनम्यनुदिनमूकस्तादृष्णेश्वन्धंमीनद्गीक्षणेषुवधिरंत्वद्धि
त्नगोष्ठीचुमा.३२
इतिकविःवादिराजमुनिःस्वीयेकाव्येपरमात्मानंप्रार्थितवान्।
मासःजनन्निन्द्राप्रसंगेमैक्कुर।
मीनाक्षीणावीक्षणंविषयेऽअन्चकुरुद्वतिप्रार्थयते।
२०वाग्गुसिःमुक्तिपद्धतिः
यदावाग्मिसःसाध्यते,मनोगुसिःप्राप्यते,
तदासर्वेवेदान्तफलतस्यप्राप्तिमित्येवमनुजेनभाव्यमितिमनुःबोधयति-
यस्यवाड्मनःसीशुद्धेसम्यग्गुमेचसर्वदा। \
सर्वोसर्वमयाप्नोतिवेदान्तोपनगतफलम्॥३३
हितोपदेशचनमिदमेव-मौनम्यवरम्
वरंकार्यमौननचयचनमुक्तमनृतं
वरंकैलव्यमपुम्सानचपरकलत्राभिगमनम्
वरंप्राण्त्यागोननचपिशुनवादेष्वभिरतिः
वरंभिक्षाशित्यंचनचपरधनास्वादनवलम्॥३४
अतएववृष्णिधनप्रदीपःकृष्णःयःष्णिधयेतप्रकारमेवमाह-
अनुद्वेगकरंवाक्यंसत्यम्प्रियहितंचयत्।
स्वाध्यायाभ्यसनंचैववाच्मयंतपउच्यते। । ३५
उपसंहारः
अतःअनुरूपिमौनःयचनयोःसामरस्यसाधयन्लोकसूत्रिमिदमह
सत्यंब्रूयात्प्रियंब्रूयात्नब्रूयात्सत्यमप्रियम्।
प्रियंचनानृतंब्रूयादेषधर्मःसनातनः॥३६
सत्यमेवदद,तच्चापल्येनअप्रियमावद।
प्रियकाश्रीभवितव्यमितिबुद्ध्याअनृतमावद। एषःसनातनःधर्मः।
अनेनलोकखधार्यते। आत्मापितारितोभविष्यति।
अतःमौनंसर्वथासमभ्यसनीयमितिफलितोऽर्थः।

------प
सन्दर्भसूची-
पादानुक्रमणिका

१]भगवद्गीता-१०-२२२] भगवद्गीता०६-१२३] भगवद्गीता०६-१३४]
भगवद्गीता०२-१५६]त्रिपुरोपनिषत्:१-१
६]सुभाषितमजरी-श्लोक-६४७]वाग्मात्रप्रचलितम्]रघुवंशः-१०-१७१]अभि-
नशाकुन्तलम्०४-१६-१०-१४_xर्वेदः-१०-१७-०२
१२]चाणक्यनीतिसारः-०२-१३१३]तैत्तिरीयोपनिषत्-०५-
०१४]युनिव-र्ल्सस्कृतश्लोकाः-१४३१५]सुभाषितमजरीप्र२६१
१६]शाखलिखितस्मृतिः-०१-२९१]महाभारततात्पर्यनिर्णय-२७-
११७१८]द्वादशस्तोत्रम्-०३-०२. १९]तैत्तिरीयोपनिषत्-०३-४-२२
२०]ब्रह्मसूत्रभाष्यम्-११-
५]ग्मा]भ्ग]ड]ब्राष्कलश्रृति२१]द्द्क्षिणामूर्तिस्तोत्रम्]श्लोकः-१३]
२२]शाखलिखितस्मृति१-२९
२३]सुभाषितमजरी२४]शिशुपालवधम्२-५५२५]मनुस्मृतिः-अ-२-
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३०]सुभाषितम्- ३१]मनुस्मृति३अ४श्लोक१३६
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३६]मनुस्मृति:]अ४श्लोक१३८-
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२.उपनिषद्ग्राम्यम्
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६]मनुस्मृति:]संतुलसीरमस्वामि]स्यामिप्रेस्स्]श्रीरल्ता]१९००
७.विवाहचन्द्रिका, संडा, प्रभजजनचार्य, प्राद्व्यासमध्यसंशोधनप्रतिठानम्
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११]अध्वाचार्यकृतब्रह्मसूत्रभाष्यम्-स-आर्]वेंस]पंचमुख्वि]गुरुसार्वभौ-
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TEENAGEENTREPRENEURSHIP – A NEW OPPORTUNITY FOR TEENAGERS

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Abstract
Youth's natural disposition for innovation and change make young people well suited for entrepreneurship provided the community can give youth the right support to overcome their challenges and improve their odds of success. A city's economic development benefits from youth entrepreneurship in terms of employment creation, product and service innovation, market competition, community revitalization, and income generation. Youth entrepreneurs face greater challenges then adult entrepreneurs, and therefore would benefit from talent development programs to support them with skills, mentoring, networking, and access to resources in order to increase their rate of success. In this study we have to introduce some teenager entrepreneurs.

⊹ Real Success Stories of Young Entrepreneurs In India
Ritesh Agarwal
Age – 25 years
Founder & CEO – OYO Rooms

This man is one of the youngest entrepreneurs in India and the founder of an affordable space service provider called OYO. He started his first start-up called Oravel Stays Pvt. In 2012 at the age of 18. After much research, in 2013 he moved Oravel to OYO. This company is mainly active in over 5 countries, including the United Arab Emirates, England, Singapore and Malaysia.

He never liked to study, so he dropped formal education from the plans. The OYO rooms are funded by Lightspeed Ventures and Green Oaks Capital. Ritesh started its journey from OYO with 1 hotel in May 2013, but has now grown to over 8,500 hotels. OYO theaters have revenues of $ 360 million, according to a 2016 report. Agarwal has had great entrepreneurial characteristics since childhood.

He was voted into the top 50 entrepreneurs by the TATA First Dot Awards in 2013. He was added to the Forbes 2017 list among young entrepreneurs around the world.

Indrajeet Singh
Age – 25 years
Founder & CEO – iQuanta

Indrajeet Singh is the founder of iQuanta and the youngest entrepreneur in India who comes from Bihar. It made it great in the education sector. He inspired many from a city boy to a successful entrepreneur. His revolutionary ideas and ability to solve a complex

quantum problem called him "Wizard of Quant". He got off to a humble start and is now the CEO of a successful online giant preparing for CAT. Since he was an aspirant himself, he understood the difficult situation of the students and therefore had the revolutionary idea of iQuanta 3 years ago. He started out small, just answered questions and helped students, and later founded iQuanta.

He is a gifted mathematician and has surprised many with his ability to solve complex quant problems without using a pen or document. He used this gift to educate aspirants and provide them with abbreviations, materials, and the right guide to do so through the doors of respected B-schools. Thanks to his idea and his team, Indrajeet has made the dreams of various aspirants come true and plans to help more and more every day.

Farrhad Acidwalla
Age – 25 Years
Founder – Rockstah Media

At the age of 16, he borrowed $ 500 from his father to purchase an online domain and started organizing a web community and website design focused specifically on aviation and flight modeling. He later sold this business for $ 25,000. With this money, he founded a web development company called Rockstah Media.

Although this company is 1 or 2 years old, it has clients and developers of complete teams, designers and market strategists all over the world offering web design and advertising services. Farrhad is one of India's most intellectual and youngest class entrepreneurs in 2019 and his success is unbeatable.

Rohit Kashyap
Age – 17 Years
Founder & CEO – Maytree School and Foodcubo

Rohit Kashyap, founder and CEO of the Maytree School of Entrepreneurship. He started his journey in the small town of Bihar, where he did not have sufficient resources, but successfully completed the Olympic Games and was below 1000 in the ICAI trading assistant. Rohit also has an impact on Quora and millions of people read his answers regularly. He started off at just 14 years old and collected two rounds of money. Many cabinet ministers, including IT minister Ravi Shankar Prasad, praised his work.

MAYTREE SCHOOL PROGRAM A complete guide to setting up, expanding and scaling the launch. Rohit Kashyap will contact you and teach you all about entrepreneurship step by step. You will receive videos, Rohit tutoring and even tasks that you have to do within the program.

Shravan Kumaran and Sanjay Kumaran
Age – 17 and 15 respectively
Co-founder, President & Co-founder, CEO respectively – Do Dimensions

Sanjay and Sharavan (biological brothers) are the youngest entrepreneurs in India. Together they are the brain behind the founding of Go Dimensions in 2011 at the age of

12 and 14. Both are the youngest mobile application programmers in the world who have developed more than 11 apps, received over 70,000 downloads and an average rating of 4.5.

These apps are easily available on both major platforms such as the Apple App Store and the Google Play Store. Both brothers were added to the Forbes 30 under 30 list in 2017 and had the opportunity to share the TedxTalk phase and held the presentation at the IIM-B.

Deepak Ravindran
Co-founder and CEO of Innoz Technologies

He is one of the youngest Indian entrepreneurs he has successfully co-founded and currently heads three companies that offer mobile messaging services. Innoz's mission is to connect people who are not connected to SMS by providing offline services through Innoz, the world's largest offline search engine.

Another is Quest, a mobile messaging platform used by over 500 startups to send SMS offline, and more recently, Lookup, an app that enables conversation between customers and resellers so they can chat . funded by Khosla and Biz Stone.

Recognized as one of the outstanding innovators under 35 by MIT Technology and one of the 21 emerging Asian leaders under 40 according to the Asia Society.

King Sidharth
Founder and CEO – Friendz

At the age of 19, he and his friends started organizing small competitions and events among teenagers. They made money by charging small entry fees for these competitions.

Today Sidharth organizes conferences called Createens that provide young students with a platform to learn about blogging, entrepreneurship, etc. He is also now a speaker, author and editor of a magazine. He writes e-magazines called Friendz for teenagers.

Arjun Rai
Age – 20 years
Founder & CEO– Canvs+ and Odyssey Ads

Arjun has had entrepreneurial skills since he was seven. This can be seen when he started managing garage sales and selling items from his home and later flowers for weddings. In 2010, he became COO of the online advertising company that left and launched his Odysseys ads that offer solutions for 21st century marketers.

He had already founded two successful startups when studying and graduating from the New York Institute under the names BizDen and FuelBrite. He is also working on a visual project management startup called Canvs +. Without a doubt, we can consider him one of the youngest entrepreneurs in India.

Trishneet Arora
Age- 23 years
Founder and CEO – TAC Security Solutions

The boy who failed in grade 8 and lost hope of securing the future. Even when he applied through distance learning, he failed again in 12th grade. However, everything has changed for him. He is currently one of the youngest ethical hackers in the country. Arora was only 19 when he started TAC Security in 2013.

Trishneet is currently a book author at the young age of 25 and has published books such as "Hacking Talk with Trishneet Arora", "Hacking Era" and "Hacking with Smartphones". He is a self-described friendly hacker and the founder and CEO launches TAC Security Solutions that offer cyber security. He has written books on cyber security, ethical hacking, and web defense. Arora was listed by GQ magazine as one of the 50 most influential young Indians in 2017 and entered the Forbes rankings 30 under 30.

Advait Thakur
Age: 15 Years
Founder & CEO – Apex Infosys India

Advait is an Indian computer programmer. It is certified by Google and Bing and ranks 4th on the Wikia list for young entrepreneurs in 2017. In 2015, at the age of 12, he founded Apex Infosys India, which is now a registrar for domain names and solutions digital for various Offers customers worldwide.

At the age of 14, he developed an app called "Technology Quiz" which allows children to learn about science and technology.

📑 Top Business Ideas for Teenagers

❖ **Social Media Consultant**
As a teenager growing up in the internet age, you have a huge advantage over many adults. Their familiarity with the World Wide Web makes learning and understanding social networks, search engines and blogs considerably easier. Companies pay good money for those who have experience in these areas, and there are many teenagers and young adults who make a living as social media consultants.

Getting started: There are books and websites where you can learn how to use social networks effectively as an advertising medium. You can even sign up for a social media marketing course at Udemy. These teach you basic and advanced topics. Learn how to apply these skills to small businesses near you and offer your services by creating, managing, and managing a blog, Facebook page, and Twitter account at monthly cost.

❖ **Etsy Retailer**
Do you know how to make big necklaces? Do you paint, knit scarves, take photos or make your own soap? Do you have a big eye when it comes to choosing vintage clothes?

Selling works of art, jewelry and other clothing and crafts on Etsy is a great way to make money and you can do it right from your home. There are many artists who earn enough on Etsy to practice their profession full time. So if you're "smart", you should consider selling on Etsy.

To start: discover the art, jewelry, clothes or vintage objects you have. Is it good enough to sell? If you like it, it is likely that someone else will like it too. Remember that you can also sell gourmet cookies, cupcakes, sauces, candies and chocolate on Etsy.

A great resource on how to turn your hobby into a successful Etsy company is the Etsy-Preneurship book: everything you need to know to turn your handmade hobby into a thriving business.

If you are not currently creating a job, but want to get started, search the Internet for simple DIY projects. For example the fashion blog Honestly, WTF has a fantastic DIY section and BLDG 25.

❖ **Babysitter**

Babysitting is a great way to make money as there are hardly any start-up costs. All you need is a good reputation or excellent references and the ability to find local parents.

Get started: Publish flyers in your neighborhood by promoting your services. Join websites like Sittercity and Care.com to profile and find work. Remember that you stand out from the pack if you have special skills such as CPR training or certified childcare training.

❖ **Kids' Taxi Service**

Parents are looking forward to the time. So why not take your kids to ballet, violin, karate or football training? Parents can stay longer at work or spend more time relaxing and cooking dinner while driving their children after school.

To start: there are some things needed for this business idea. First, teenagers are often seen as unreliable drivers. Therefore, you need a reliable car and the ability to prove that you have never had an accident or have suffered a driving injury. You also need good auto insurance from a company like Liberty Mutual. Ideally, you want the policy to offer your passengers high health insurance. And you probably want to invest in two high-quality car seats when you transport children who need them.

Note that in some states, you must be at least 18 years old to carry people under the age of 20. Make sure to check your state's laws to determine if you're eligible.

❖ **IT Tutor**

You could use a computer for as long as you remember. They know how to fix bugs, organize files and find what you need with Google. Although these are essential modern skills, not all of them have them. Therefore, you have the opportunity to pass on your knowledge and work as a computer teacher for older adults to teach them how to set up an email account, surf the Internet or subscribe to RSS feeds.

Getting Started: Talk to your local public library or community center about creating an IT tutoring course. Ask questions to find out what people need and want to learn. Often, residents come to places that offer adult education to inquire about specific

classes or ask questions. You can also distribute flyers in senior citizens' centers or in communities of older people. First, check if they allow advertising.

Another option would be to create a course through Udemy. You have full control of the course materials and set your prices.

❖ **Errand Runner**

The more people have limited time, the more they hate running errands. Therefore, you can start a business to run errands for them. For example, you can shop, take the dog to the vet, pick the kids up from kindergarten, and take older kids to the mall or a friend's house. You have to be a handyman, but it's actually a pretty easy job.

First steps: Seniors, upper middle-class families and busy parents are part of this target market. You need a reliable car and good references, as some of your functions can include managing someone else's money. You can also offer a "senior discount" to have your foot in front of the door, or even work on the first jobs for free to get great testimonials. Use TaskRabbit and Craigslist to look for opportunities. If you are 18 years old, you can become an Instacart buyer and offer your customers groceries.

❖ **Academic tutor**

For students who perform excellently in certain subjects, you can offer support to other students who need help in this area by founding a company as an academic tutor.

❖ **SAT / College Prep Tutor**

Or you can explain your tutoring in more detail and focus specifically on helping students and college candidates prepare for SAT or other standardized tests.

 Handmade shopkeeper

If you have artistic or craft skills, you can open your own shop that sells handmade products online on websites like Etsy.

 craft fair seller

Or you can sell your items personally to customers at local craft fairs or other events that promote craft sellers.

❖ **Social media influencer**

For those familiar with social media, you can create a fan base and then work with brands as influencers to promote different products and services.

 YouTube personality

YouTube is also a popular platform for entrepreneurs. You can start your channel and then earn revenue from advertising shares if you win followers and views.

❖ **Podcaster**

If you're more likely to create audio, you can start your podcast and then make money from the advertisers on your podcast or website.

❖ **Blogger**

The blog is also a viable business opportunity for people of all ages. You can start your blog on a topic that interests you and then make money through ads, product sales, affiliate links, or other methods.

❖ **Cake decorato**r

If you want to start a creative business or work with food, you can offer your cake decorating services for events, bakeries or other customers.

❖ **Car wash service**

You can also start a mobile car wash service where you visit customers to wash and detail their vehicles.

❖ **Household cleaner**

Or you can verbally build a customer base and regularly offer cleaning services for your home.

❖ **laundry service**

You can also be more specific with your services and offer to do laundry for your local customers.

❖ **Inventor**

People of all ages can invent new products. If you have a great idea for a new invention as a teenager, you can build a prototype yourself or work with companies or tutors to find a way to produce it.

❖ **Lawn care**

Lawn care is a fairly simple and simple activity. If you have transportation and equipment, you can build a customer base of local homeowners near you.

✦ **Importance of Teenagers Business**

- **Next to no responsibilities:** A new start-up is like a child in his growing years, has little or no element of responsibility. Because of his carelessness, he can make many trials and mistakes before making a final decision.
- **Learning is easy**: young minds have been scientifically shown to be more sensitive to their senses, making them more sensitive to learning and absorbing everything around them. This offers them a variety of opportunities that increase their creativity.
- **Time and the tide are waiting for you**: since young people still have a long way to go before taking responsibility or sneaking into static working life, they have less homework and more time. Time they can invest to collect ideas.
- **Networking**: due to the presence of social media, networking has not been easier for any generation. This may be the most important tool for promoting, winning and selling your ideas and without leaving your place.
- **Family support**: if parents / family do not tolerate going into bad company, they will provide all the support they have for you when you talk about your business plan.

- **Ready to do, not something, but everything**: young people have an infinite will to think outside the box, to oppose the authorities and to do something with themselves. Your competitive attitude helps them achieve what is not possible.
- **Risk tolerance**: every young entrepreneur knows that "not all startups will make it", even if you invest time and money. However, they focus more on the "Can do it" part than on the first one.
- **Autonomous attitude**: the youthful spirit associated with heroic actions offers young entrepreneurs an advantage over their elderly.
- **Less economic pressure**: as a young entrepreneur you can choose whether you want to live with your parents or share an apartment. In this way, the economic pressure lies only on you and not on your family. The costs are lower and you can survive with minimal capital
- **Nothing to lose**: young people usually have nothing to lose, but have a lot to expect. Suppose we don't have a job to meet deadlines, we don't have a spouse to occupy and we don't have any responsibility. Even if they fail on their first appearance, they can switch to another at any time.

Conclusion

Youth entrepreneurship benefits an economy by creating jobs, increasing competitiveness, creating innovative goods and services, creating a strong community and cultural identity, and producing income.Youth's natural disposition for innovation and change make young people well suited for entrepreneurship, provided the community can give youth the right support to overcome their challenges and improve their odds of success.

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Key Words;
1. Youth entrepreneurship benefits an economy,
2. Youth entrepreneurship,
3. Teenager,
4. Teenager businessmen,
5. Minority Business.
6. Successful Minor Entrepreneurs

IMPACT OF MUSIC THERAPY ON CHILDREN WITH SPECIAL NEEDS

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Abstract

Music therapy has been recommended by maestros as instrumental in healing of the soul. Expressive arts therapy has been gaining momentum as an alternate form of psychotherapy which helps in helping the individuals find themselves, develop insight into the workings of their own self with the ultimate goal to heal themselves. This paper dwells on the significance of using music therapy with special needs children who are also cherubic who need to understand their own soul and find their own means to happiness in life. Various skills can be taught to them through music therapy which impacts their personality development in their formative years. The significance of OAM (Optimism Attitude Model) as one of the means to achieve this end has also been dwelt upon.

Keywords: Music Therapy, Special Needs Children, OAM Therapy, Formative Years

Introduction

Music therapy helps stabilize moods, increase frustration tolerance, identify a range of emotions, and improve self-expression along with much more. The visual and auditory sensory system is responsible for interpreting sounds and images. Music soothes the body, mind and soul Rembrandt, painted masterpieces which expressed healing and instigated the soul to investigate unto self – even though he was poor and alone towards the end of his life. Michelangelo elucidated sculpting as a means to release self and find oneself. These master artists do illustrate that art plays an important function in finding self through immersion of soul in the art on dwells on. This leads to healing. Art helps not only the healer but the one receiving it too. Thus art therapy has a historical role in multiple contexts as a therapy.

There is a felt need to explore the importance of expressive art therapy in various populations especially on children with special needs. Music is something which all of us can relate to. It releases us from our low moods and makes us free to welcome the whiff of the fresh air which music brings in its wake and soothes the soul. In schools people look forward to their music classes and enjoying the fun and frolic which music room emanates.

For children with special needs, music plays still a bigger role and an important function in connecting each student with the music in one form of the other. How else can one explain that the moment music starts playing, even special needs children start swaying

to the music and just let themselves go in the sheer sheen of musical sounds. In the case of children with special needs, music tends to reinforce academic material and promotes psychomotor skill, social skills training, mood elevation , higher self esteem, behavior management and leads to reduced negative emotions as anxiety (Darrow, 2011, (Hillier, Greher, Poto & Dougherty, 2011).

This present work is a review of literature research on the impact of music therapy on children with special needs. In this digital era, information was gathered from online resources and search engines. Most of the researchers pertain to the positive impact of music on students in normal classrooms but not much is there about the effect of music therapy on children with special needs. Although this paper is an examination of the research literature on music and students with special needs. Information was gathered from academic library searches of peer-reviewed articles using online resources.

While much research exists on the general benefits of music with students, little is known about the impact of music on students with special needs. Hence, the present work was conducted to know more about this dimension.

Simpson and Keen (2011) did A comprehensive work to study articles which related positive impact of music on adults and children with Autism. In all, they studied 128 articles with the following criteria for screening ;

- Articles were published in peer reviewed journals.
- Participants were in the age range of 0-18 years and were individuals with autism
- None of these participants were musical savants
- The studies demonstrated experimental approach with music therapy as an interventional measure

Dimensions studied in these concentrated on were communication, socialization, and behavior skills. Only 20 articles could relate with these criteria out of 128 papers studied.
Once again emphasizing upon the need for more work to be done in this regard.

The use of improvisational music versus play were studied in South Korea behavior Kim, Wagram & Gold, 2008 in South Korea, studied the use of improvisational music versus play on groups of children with autism, ages 3 to 5, to examine the effect on nonverbal social communication and joint attention. Joint attention behavior pertains to joint engagement that involves the child, therapist, objects or events in either musical form or play. In this qualitative study over a period of 7-8 months, each student had 12 weekly 30- minute improvisational music therapy sessions and 12 weekly 30 minute play sessions with toys. 2 music therapists, 1 play therapist, and 3 graduate students conducted the research. The student population were taken from the Department of Child and Adolescent Psychiatry at Seoul National University Hospital, and the clinical trials took place at Kim's clinic in Seoul, Korea. Data were collected in two ways: by

video recording each session and then reviewing and analyzing the DVD, and by both participants' mothers and researchers completing a behavior rating scale before, during and after the study.

It was evinced quite thoroughly in this comprehensive study that music therapy is a more effective tool to improve joint attention behavior and communication in children than play. It was seen that both turn taking and eye contact duration were increased in students through music therapy as compared to the play condition. It was also evinced from the anecdotal reports of the music therapists with parents that 3 of the 5 participants who were non-verbal at the beginning of the study began to develop some initial language skills during and after the music
therapy condition.

Markworth(2014) in his work evinced that music therapy works successfully to enhance communication in children with Autism. In this qualitative study, children between the ages of 3-6 underwent music therapy sessions with music therapist. Data were compiled by videotaping and analyzing each therapy session. The music therapist was also interviewed by Markworth at the conclusion of the study. It was seen that three categories of communication emerged from the data: Music Language, Music Expression, and Music as a Shared Experience.

Thus, this study conclusively adds to the research milieu of the effectiveness of music which may be used with children who have autism and have limited language skills to enhance their communication competence. Some sort of music language gets developed between teacher and students during the music therapy sessions. "Through this trusting partnership and shared language, the client and therapist were able to communicate ideas, validation, questions, invitations, preferences, conversations, disagreements, personality traits, emotions, humor, and acknowledgement" (Markworth, 2014, p. 34).

Katagiri in 2009 studied the impact of background music and the use of songs with text has onstudents with autism with regards to enhancing emotional understanding and socialization. This comprehensive qualitative study was done in Osaka, Japan .12 students with autism, ages 9-15 were included in the study. Sessions were held twice a week. In all, there were eight thirty-minute such sessions. During each session, the participants were given verbal praise and a sticker at the end of each session. The student groups were taught 4 emotions over 4 different control conditions. The emotions were: happiness, sadness, anger and fear. Control conditions were as follows:
A. Emotions were not taught in any way.
B. Emotions were taught using verbal instruction only.
C. Background music that correlated with a specific emotion was played as the verbal instruction for that emotion was taught.
D. Songs with lyrics were used to teach emotions.

Data were collected by conducting pre and post tests which contained four subtests each. Three of the subtests were based on the student's skill in decoding emotions. The

last subtest measured the student's ability to encode emotion. Results from this study showed an increase in participants' understanding of emotion from pre- to post test measures.

Kern, Wolery & Alldridge(2006) in their study t see the impact of music on socialisationm worked on to evaluate the impact that personalized morning greeting songs have on students with autism
This study focused on two boys with autism, three years old who had limited speech challenges and had limited social interactions. The work was innovative in the way that an individually composed greeting song was created for each of the participants, and sung upon their entry to the classroom. These songs were created to speak to each child's personality and lyrics conveyed
the five-step morning routine that was already in place.   The teachers and peers sung this morning greeting upon two boy's arrival The results from the study show that the greeting songs helped facilitate smoother transitions in the mornings for both these participants. This work is indicates of the power of merging music and technology to create increased socialization among participants.
Hillier, Greher, Poto & Dougherty (2011) in their study on adolescents with autism spectrum disorder tried to investigate the impact of music therapy on their self-esteem, anxiety, and peer relationships This qualitative study took place over 8 weeks, and involved 22 adolescents and young adults between the ages of 13 and 29. Pre and post test results evinced clearly that there was significant improvement in self esteem which rose, anxiety levels lowered significantly and positive attitude towards peers ensued. (Hillier at al., 2011, p. 209).

In their study to investigate how music therapy is helpful for children who have gone through traumatic experiences Davis, (2010) , found that it works beautifully with such children. Music therapy for children who have experienced trauma is really impactful even if the child does not possess the language or ability to express themselves properly Davis states, "Because young children are frequently at a loss for words and do not always have the vocabulary to articulate experiences or feelings, I chose to use an expressive arts activity that focused on processing feelings through…music" (Davis, 2010, p.129).

Students with Autism Spectrum Disorder generally   have difficulty expressing themselves or difficulty with social communication; thus music therapy is a way for these students to do so non-verbally. "Creative and expressive arts activities are well suited for children who often do not have the words or vocabulary to explain or express complex feelings and experiences. The use of music as a medium to express feelings was a simple and concrete way for them to communicate such complex inner experiences" (Davis, 2010, p. 131).

The author with her team of clinical psychologists did an exploratory work with children with special needs in an NGO in Gurgaon, Delhi NCR with music therapy as the picture also evinces. The children in the age range of 6 – 12 years responded very well

to express arts therapy in general and to music therapy in particular. The results have been very encouraging in terms of improvement in their symptoms like communication, shyness, speech issues and concentration concerns. More work is being done in this area and gradually the results will be shared with the academia.

Another interesting challenge which is being handled is the use of OAM therapy along with music therapy (Banerjee and Puri, 2018) to instill positive behavior patterns in the children with special needs like confidence, optimism, self esteem, compassion and being a good team player. Encouraging results are accruing in this regard too and more work is in progress.

To **conclude**, one can say with confidence that review studies do point significantly toward the positive impact that music has on communication, socialization as also in the processing of feelings. This has many implications for school management, teachers, parents , mental health professionals and community stakeholders. Music is an interactive tool which enhances socialization and interactions.

Special education teachers can utilize the positive elements of music therapy regarding enriching the classroom climate to deal with students having special needs . Some of these elements include the use of a morning greeting song or simply the use of music to aide in transitions. Music is a tool that can be used to elicit emotions in the classroom— to calm down, to excite, or signal the start or   close of an activity. Also, using background music to help teach or simply discuss emotions with students can be a valuable and simple tool (Katagiri, 2009(Legutko & Trissler, 2012).

Music therapy is one of the popular form of expressive therapy where the therapist uses music and its facets in helping the clients to enhance their physical and mental health. Research has proven that music therapists help their clients to improve their health in various domains like cognitive functioning, motor skills, emotional and social skills and also to enhance their quality of life by using music experiences like free improvisation, singing, listening to music and even discussing the aptness of the lyrics.

All these help in de stressing the distressed individual considerably. Referrals to music therapy are made by other helping professionals as physicians, psychologists, physiotherapists, occupational therapists and other medical doctors from various disciplines. Music therapy does seem to expedite the healthy prognosis in the individual and this is a comparatively new area of scientific study today. Much more work needs to be done in this area.

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ASSESSMENT OF DRUG PRESCRIBING PATTERN USING WHO PRESCRIBING INDICATORS IN MEDICINE WARD OF TERTIARY CARE TEACHING HOSPITAL

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Abstract

Background: Assessment of drug prescribing is important using standard guidelines to ensure better health practice and patient care. The study aims to assess the prescribing pattern using WHO prescribing indicators in a tertiary care teaching hospital. **Method:** A prospective single centred observational study was designed to claim data. A total of 190 prescriptions was randomly collected to determine the prescribing pattern written by resident and senior doctors for six months. The data was analyzed and summarized using descriptive statics. **Result:** In total 190 prescription total number of drug prescribed was 1145. An average number of drug prescribed was found to be 6.02, Percentage of drug prescribed by Generic name was found 15.89%, Percentage of Drug prescribed from Essential medicine list (EML) was found 68.12%, and Percentage of Injection prescribed was found 38.68%. **Conclusion:** Based on the findings from the study, there is a need for improvement in prescribing practice. There were differences in values of drug prescribed by generic name, a drug prescribed from EML, total no. of Injectables and average no. of drugs.

Keywords: Prescription, Rational Use, Prescribing Indicators, EML, WHO, Prescribing Pattern.

Introduction

Assessment of the drug prescribing pattern helps in understanding the current trend of prescribing in practitioners as well as it also helps in the follow up of implementation of standard guidelines. Improper prescribing habit leads to inappropriate use of medication. Over and under prescribing affects patient health in different ways. [9-11] adverse reactions, drug resistance are common issues associated with irrational prescribing. There are different factors which affect the practitioner from prescribing according to the need of a patient. [12] Rational prescribing helps in the prevention of disease properly and it also retains the faith of a patient in the system. [13] It is defined as "use of least number of drugs to get the best possible effect in a short period with less expenditure." Rational use can be achieved by selecting the proper drug formulation, availability, convenient and inexpensive.[14, 15] WHO and INRUD together develop a set of indicator which measures drug utilization pattern in a health care facility. Patient care indicator, facility indicators and prescribing indicators. Assessment of Five key areas in prescription using WHO prescribing indicators are:[16, 17]
1. Average number of medicines per encounter.

2. Percentage of drug prescribed by generic name.
3. Percentage of encounters with an antibiotics.
4. Percentage of encounters with an injection prescribed.
5. Percentage of medicine prescribed from an essential medicine list or formulary.

Material and methods

Study area and period
The study was carried out in medicine ward of tertiary care teaching hospital for a time frame of February to July 2019.

Ethical approval
Approval for study was collected from institutional ethical committee (IEC).

Study design
A prospective single centred observational study using WHO prescribing indicators for assessment of prescribing pattern.

Data collection
A total of 190 prescription was randomly selected on the basis of inclusion and exclusion criteria and data was entered in data collection forms for assessment of prescribing pattern in health facility.

Data analysis
Data was analysed using WHO prescribing indicators and presented using SPSS version 22.0in form of descriptive statics for mean, percentage, and total number. Expressed as graphs wherever applicable.

Result

Number of the patients in a different age group was found to be 18-38years (64) patients, 39-58years (62) patients, 59-78years (62) patients and 79- 98 years (2)patients shown in fig 1. The no. of patient in 18- 38 years age group was found higher.
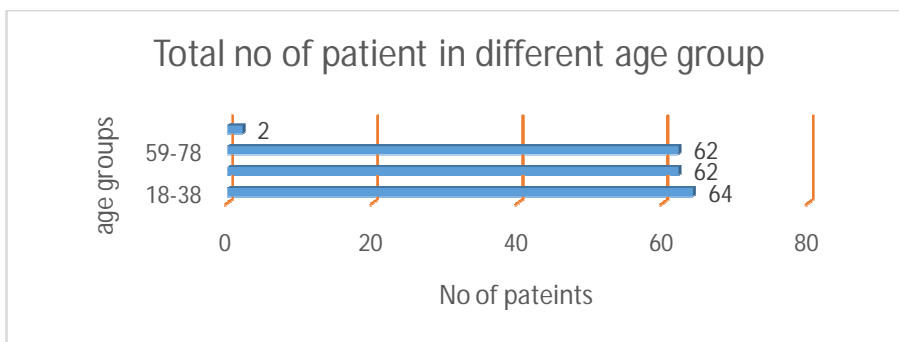
FIGURE 1: Percentage of patient in different age groups.

Percentage of prescriptions containing 2-4 drugs (24.21%), 5-7 drugs (53.68%), 8-10 drugs (18.94%) and 11-13 drugs(3.15%) shown in fig 2.
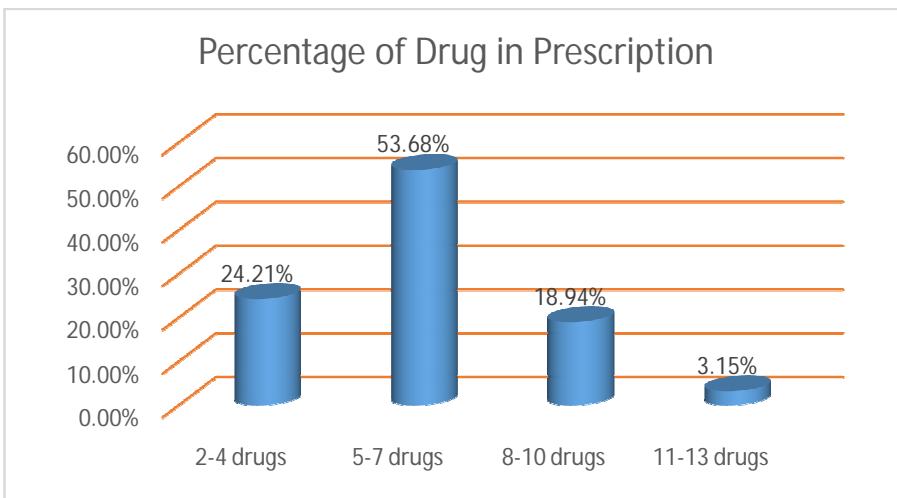
Figure 2: percentage of drug in prescription.

Routes of administration

The most common route preferredwas oral54.75 % followed by Parenteral 38.68 %, Topical 1.39%, and Nasal 5.20 %. Shown in fig 3.
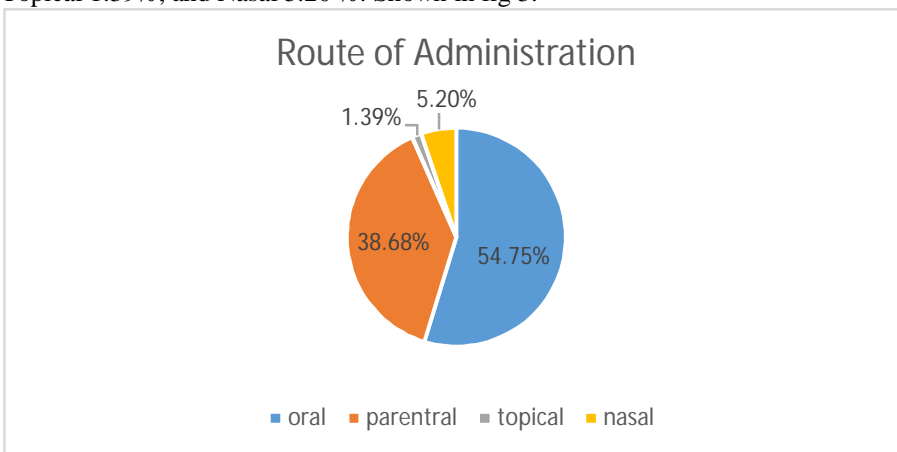
Figure 3: Percentage of different route of administration.

The total number of drugs prescribed was 1145. The average number of drug prescribed/encounter was found to be 6.02, Percentage of drug prescribed by Generic name 15.89%, Percentage of Drug prescribed from Essential medicine list (EML) 68.12% and Percentage of Injection prescribed 38.68%. Shown in fig 4 and fig 5.
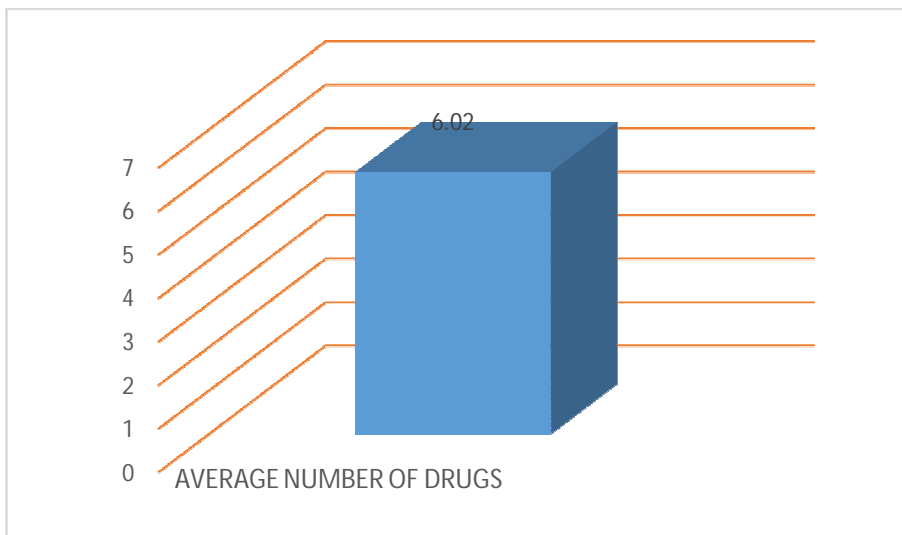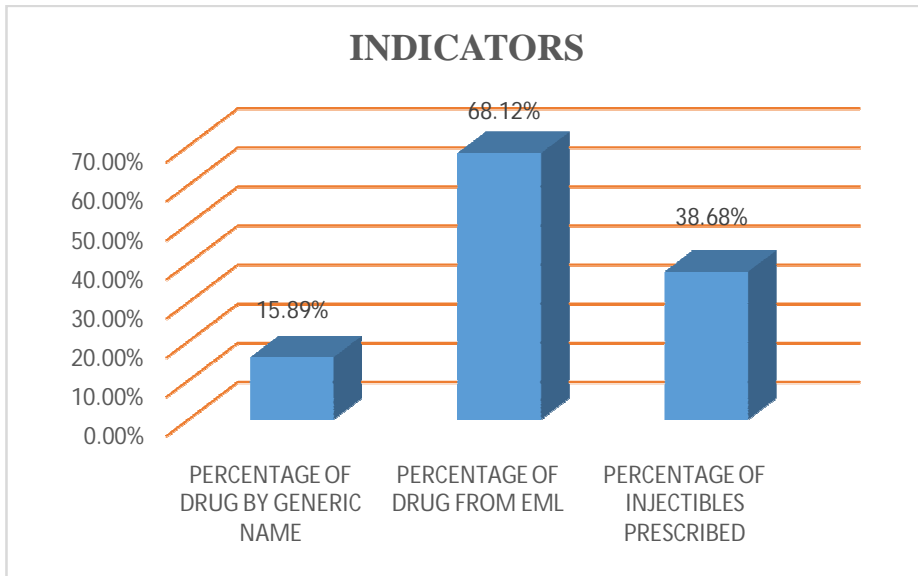
Figure 4&Figure 5: average and percentage of different indicators

Discussion

Sample of 190 prescriptions was assessed prospectively in the Medicine ward of the hospital in which a total of 1145 drugs were prescribed.

In our study, the average number of drugs per prescription was found to be 6.02, but the range was from 2-13 drugs. This study was similar to the study conducted by Pathak A. et al.2016 [1], and Narendra p. et al.2017 [2], i.e. 5.11 and 5.20. This value was higher than the study conducted by Ulhas K. et al.2014[3], Hussain S. et al.2018[4], Farzana S. et al.2015[5], Durga P. et al.2017[6], Singh G.et al.2018[7] and Bansal A. et al.2017[8] which was around 1.84, 2.91, 4.89, 3.45, 3.41 and 2.15.

Percentage of drug prescribed by generic name was found to be 15.89% which was lower than the study conducted by Pathak A. et al.2016 [1], Durga P. et al.2017 [6], Singh G.et al.2018 [7] which was around 89.88%, 97.7%, and 49.02%. The value was higher than the study conducted by Narendra P. et al.2017[2], Ulhas K. et al.2014[3], Hussain S. et al.2018[4], Farzana S.et al.2015[5] and Bansal A. et al.2017[8], I .e.13.88%, 0.05%, 10.05%, 0%, and 2.4%.

Percentage of drug prescribed from the EML (essential medicine list) was found to be 68.12% which was higher than the study conducted by Pathak A. et al.2016 [1], Hussain S. et al.2018 [4] and Durga P. et al.2017 [6] which was found to be 23.04%, 22.57% and 24.3. The value was found to be lower than the study conducted by Narendra P. et al.2017[2], Ulhas K. et al.2014[3] and Bansal A. et al.2017[8] i.e. 72.36%,99.67% and 96.5%.

The percentage of injection prescribed was found to be 37.81%. This was found to higher than the study conducted by Pathak A et al.2016[1], Ulhas K. et al.2014.[3], Hussain S. et al.2018[4], Farzana S. et al.2015[5], Durga P. et al.2017[6], Singh G.et al.2018[7] and Bansal A. et al.2017[8] i.e. 24.05% ,18 %, 2.20bv 17.18%,7.76%,4% and 0.9%. The value was lower than the study conducted by Narendra P. et al.2017 [2], which was found to be 93.50%.

Conclusion

The present study shows that there was a difference in the values of an average number of drugs, percentage of drugs by generic name, percentage of drugs from essential medicine list and percentage of Injectables prescribed. The drug prescribing behaviour of practitioners should be assessed at all levels in health care facilities for better management and patient care. Such studies may contribute to the preparation of better modules and guidelines. The availability of standard prescribing guidelines, formulary and essential medicine lists will help in the rational use of drugs.

Limitations
This study was done in academic practice that may differ from community practice. Due to a single centered study result from the study cannot be generalizable. Lack of local guidelines and adherence to such guidelines was also a limitation to study. The different prescriber has different mind-set and different approaches which makes it more complicated.

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Conflicts of interest

There are no conflicts of interest.

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NORTH EAST RURAL LIVELIHOODS PROJECT (NERLP) WITH SPECIAL REFERENCE TO SELF HELP GROUPS AMONGST THE ZEILIANRONG TRIBES OF PEREN DISTRICT, NAGALAND

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Abstract:

This study looks into a detailed account of the procedural aspects of the North East Rural Livelihoods Project (NERLP) in Peren, a World Bank (WB) sponsored program and its functions according to the guidelines stated in accordance with the Development of Northeastern Region Ministry, Government of India. There are four sponsored Northeastern states under this program, are Mizoram, **Nagaland,** Sikkim and Tripura. The districts covered under the State of Nagaland are **Peren** and Tuensang.

Keywords: SHG, Microfinance, NERLP.

Introduction:

In Northeastern India, there are many rural development programmes due to major hardships in the livelihood sector and extreme poverty. North East Rural Livelihoods Project (NERLP) was designed in the year 2011 based on the lessons learnt from the projects like North Eastern Region Community Resource Management Project (NERCORMP) and other successful projects in this regard. Its main objective is to improve rural livelihoods of women; the unemployed youth; and the most disadvantaged people in the four states, Nagaland, Mizoram, Tripura and Sikkim. It is a World Bank (WB) funded project, and under the North East Livelihood Promotion Society, under the implementation of the Ministry of Development of the North East Region (DoNER), Government of India.

Universe of the study:

Peren District is the 11th and the newest district of Nagaland; it was formed in the year 2003 by bifurcating the district of Kohima into two. Peren, Jalukie and Tening are the main towns of the district and it is headquartered at Peren. It is surrounded by the Dima Hasao District, Karbi Anglong District and Dimapur District in the west and northwestern part respectively. With Kohima District in the eastern side and the Tamenglong District of Manipur in the southern side of Peren District. Therefore, two states and two districts bound it on either side. Peren District has a total area of 2300sq

k.m.[1] Peren District is inhabited by the Zeliangs who originated from Nkuilwangdi, presently in Senapati District of Manipur. As mentioned earlier each district has a dominant tribe; in case of Peren it is the Zeliangrong. Uncertainties, myths, legends, and folklores surround the Zeliangrong society due to which the place where the Zeliangrong people have once lived cannot be indicated convincingly. According to the Naga traditional belief, Makhel in north Manipur has been their original homeland.[2] The Zeliangrong tribe consists of three tribes namely Zemei, Liangmai and Rongmei. Just as the name suggests it is an amalgamation of the initials of all the three tribes – Ze for Zemei, Lian for Liangmai and Rong for Rongmei tribes. Like other parts of Nagaland, Christianity is the main religion; few households follow the traditional Naga religion Heraka (Animism).[3]

Research Methodology:

The Survey Field study was conducted in 2016 in three existing official blocks of villages of the Peren District, namely the Tening Block, the Peren Block and the Jalukie Block. There are on an average 20 villages in each block. The sampling method broadly used was the probability sampling method, two villages were chosen from each block. The Chosen villages were Nkialwa and New Tesen from The Tening Block, New Jalukie and Samizuram from the Jalukie Block and lastly, Heningkungla and Mhainamtsi from the Peren Block. Once the villages were selected, we chose 10 SHGs from each village by using the same method and the random number chosen was 5th. Moving on, we chose 2 members from each of the selected 10 SHGs on the basis of Systematic Sampling Method. The questionnaire was explained and so also the parameters ("pansutra") that we were checking that mark the main purpose of the study. The total number of people who answered the questionnaires were 2 SHG members from a total of 10 SHGs of 2 chosen villages in each block, i.e. 40 SHG members from each block, and 120 SHG members in total. Some of the analysis is based on qualitative data collected during the interaction that went beyond the questionnaire.

North East Rural Livelihoods Project (NERLP):

NERLP has three major approaches towards livelihood strengthening of the rural poor as well as for sustainable development. These are societal empowerment, economic

[1] Google, 2016. "Nagaland Geography"; http://www.peren-district.nic.in/geo.htm, Government of Nagaland, last accessed on August 11, 2016 (6:03am).
[2] Riamei, Gaikhamsin., "Social structure of Zeliangrong society", available at http://www.e-pao.net/epSubPageExtractor.asp?src=manipur.Ethnic_Races_
Manipur.Social_structure_of_Zeliangrong_society_part_1, last accessed on August 30, 2016.
[3] Rongmei, Kamei Sanjit., and Kapoor Satwanti., 2005, *Zeliangrong Today: A Naga Tribe of Manipur,* Department of Anthropology, University of Delhi, India.

empowerment and linkage development.[4]

- Societal Empowerment signifies elevating the condition of females, youth, and the underprivileged. This can be achieved by forming associations. The main objective is to help these people reap the benefits of the poverty alleviation program. They also aim to increase women's participation in decision-making processes. Additionally, it advances the banking ability of the Self Help Groups (SHGs); [5]

- Empowering economically signifies enhancing the ability of various groups by fueling knowledge and expertise concerned with the execution of the economic developmental programmes. It trains the village youth and prepares them for employment. Another aspect is to create micro businesses around the value addition activities and the establishment of effective markets for better price realization of the products produced. Development of enterprises around the never-ending market demands and initiatives for asset increment built around the SHGs and the Producer Groups;[6] and

- Linkage development signifies the building up for various collaborations and alliances with the concerned Governmental and Non-Governmental bodies. The NERLP also aims to link and develop coalitions with banks and various monetary establishments. The government or private institutes may own these. Both are beneficial as it enhances the chances of gaining access to credit for different group members.[7]

The NERLP has an approach to accomplish the above-mentioned objectives; by developing Community based Organizations, Community Development Groups, SHG's, Self Help Group Village Federations (SHGVFs) and Youth Groups.[8]

* Community Based Organisations: Community-based organisations of the poor themselves involved in the organisational structure as opposed to the various institutions for the poor. One of the main goals of NERLP is to grow these organizations based on self-reliance and effective management. Teamwork gives the poor a chance to get together and work utilizing their skills to the maximum. The group also acts as a source of strength in terms of support.[9]

* Community Development Groups: This group is formed at the village level for the

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[4] Government of India (2011): *North East Rural Livelihoods Project – Community Operation Manual*, available at http://nerlp.gov.in/notice/NERLP-COM_June12011z.pdf, last accessed on September 3, 2016.

[5] North East Rural Livelihoods Project (2011): *Project Approach* available at www.nerlp.gov.in, http://www.nerlp.gov.in/approach.asp, last accessed on August 15, 2016

[6] *Ibid.,*

[7] *Ibid.,*

[8] North East Rural Livelihoods Project (2011): *Project Strategy*, available at www.nerlp.gov.in, http://www.nerlp.gov.in/strategy.asp, accessed on August 15, 2016.

[9] *Ibid.,*

advancement of the entire village. The main aim is to have an expert group that will only focus on how to grow the village and enhance the livelihood of the people living there. If the village size is bigger than usual, two such groups can be formed for effective management.[10]

* SHGs: These groups only involve women. Such groups are another area of focus of the NERLP. The primary level SHGs are to be organised at the village by forming SHG Federations amongst themselves.[11]

* SHGVF: SHGVF are formed when a group of SHGs from the surrounding villages come together. The aim behind the formations of such federations is to advance autonomy and independent group of women. This is expected to working in the direction of monetary independence and communal upliftment in an endurable way. These associations act as monetary mediators enabling an association of SHG's with the banks.[12]

* Youth Groups: The NERLP also focuses on Youth Groups to achieve their aims. They endeavor to form the youth organisations of the North East into an organized entity, which will towards progressing the lives of the youth.[13]

Producer Organizations: This is a crucial group, the presence of which is essential at the village level. This organization concentrates on livelihood activities as well as economic growth. They aim to achieve this by assembling for different marketing opportunities, gaining insights, the knowledge/technology access / gap, fair pricing for the agricultural produce of the Village, etc.[14]

We will only concentrate on SHG's in this article. As on December 31st 2014, there are a total of 977 SHGs with an involvement of 10262 households in the Peren District. Along with that, Jalukie Block has a total of 453 SHGs with an involvement of 4741 households under it that makes the highest amongst the other blocks. Peren Block has a total of 331 SHGs with an involvement of 3529 households under it. Tening Block has a total of 193 SHGs with an involvement of 1992 households under it that marks the lowest.[15]

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[10] *Ibid.,*

[11] *Ibid.,*

[12] *Ibid.,*

[13] *Ibid.,*

[14] *Ibid.,*

[15] Mr. Ruuvilie Kotsu, Pers. Comm., District Project Manager (Peren), District Project Management Unit (Peren), North East Rural Livelihoods Project (Email, 25th May, 2016).

Structure of the NERLP Project in the Peren District:

Table 1

Ministry of Development of North Eastern Region (DONER)
Regional Level Head Office – North East Rural Livelihood Promotion Society (NERLPS)
Regional Project Management Unit (RPMU)
Nagaland State Nodal Officers – 4 Nos.
District Project Management Unit (DPMU)
District Project Advisory Committees (DPAC) – 11 Nos.
Block Project Facilitation Team (Headed by the Block Project Coordinator, Area Coordinator who are assigned 4 – 5 villages)
SHG Facilitator, Bank Facilitator and Para Professionals
Project Village: Community Development Groups, Producer Organisations and SHG Federations

Table 1 describes the hierarchical structure of the NERLP. Each has their own respective functions for the improvement of the rural livelihoods.[16]

Grading of the SHGs:

The grading of the SHGs is carried out by the NERLP since the project started. It is done on the basis of the "Pansutra" for the disbursement of funds and they are as follows:

- Regular Savings;
- Regular meetings;
- Regular inter loaning and repayment;
- Leadership on rotation basis; and
- Regular maintenance of registers.[17]

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[16] Government of India (2011): *North East Rural Livelihoods Project – Community Operation Manual,* http://nerlp.gov.in/notice/NERLP-COM_June12011z.pdf, last accessed on September 3, 2016.
[17] *Ibid.,*

SHG Funding:

The SHGs soon after formation that are about 3 – 6 months old go through a grading process. This is carried out by the NERLP, to check the functioning, administrative procedures, maintenance of books, etc. according to the rules and regulations formulated by the Reserve Bank of India (RBI). Grade 'A' SHGs are those where proper functioning, books maintenance, regular attendance, internal lending, etc. is carried out conscientiously. So, the first seed fund, which is Rs. 20,000/- is released to the SHG. Soon after the release of the first seed fund, after 4 – 6 month, another grading process takes place, and the second seed fund of Rs. 40, 000/- is released to the second 'A' graded SHGs. Here, the SHG repays the money back to the Village Federation with an interest charged by the Self Help Group Village Federation (SHGVF) that is 2 per cent per month. The second seed fund belongs to the SHG Federation, which is directly given to the SHGs by NERLP. The Village Federation makes money on the repayment of the second seed fund.[18] After a gap of 6 months, the third grading takes place based on the repayment of the SHG Federation. If graded A, they are eligible for the Tranche 2 funding for livelihood projects. These livelihood funds belong to the village Federation Fund, mainly for inter loaning to the groups and the group loans the money to its members.[19]

Findings:

Some of the major findings of the conducted study are:

- The procedural aspects of SHGs are by and large met. However, when it came to its functioning some discrepancies were noticed. The most important being that leadership continued to be in the hands of few. The very fact many women did express apprehensions about it can be taken as an indicator of their willingness to express their views and awareness.
- The families continue to be patriarchal wherein the head of the family is the male member. This is being tempered by the fact than most women now feel they are being consulted and that they have a say in decisions. Many of them attributed it to their membership of SHGs.
- A very large percentage of women felt that SHGs did make difference as they do take decisions regarding utilization of loans, getting bank account, and meeting officials. It is also noteworthy that they made it clear that even if men were present in some of the SHG meetings they did not play an important role.
- One significant finding that is likely to have a long term functioning of the SHGs is that presently money is primarily used to overcome emergencies or their day-to-day needs.

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[18] *Ibid.,*
[19] *Ibid.,*

This in turn means that they are not developing any entrepreneurial skills or generating money. In other words, they are likely to be left with loans that has to be paid but with no means to generate to do so. This has been the main criticism of SHGs in other parts of the world as well.

- Microfinance is a broader concept and Microcredit is under the umbrella of Microfinance. Microcredit is the practice of providing thrift, credit and other financial services by the financial institutions to the SHGs at very low rates of interest. SHG-Bank Linkage Programme (1992)[20] is one such aspect of Microcredit in the Indian context, and is not practiced in the Peren District, Nagaland till now. The modification, SHG (2012)[21] also states that in the purpose of bank loan all the banks are required to provide credit facilities to the SHG members for various needs like, housing, education, marriage, income generation activities, dept swapping, etc.[22] The sustainability of the SHGs entirely depends on the seed funds that they have received from the NERLP via the World Bank and the monthly regular savings by the SHG members. So far, only one SHG, called the 'KELUNGCHI' in the Village called Nkialwa in the Tening Block of Villages has been recommended for external bank linkage in the year 2015. This does hinder the functioning of SHGs.

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[20] The objectives of the SHG-Bank Linkage Programme (1992): To build trust and confidence between the bankers and the rural poor; to encourage both banking activities in thrift and credit systems. They are doing it with the segment of populated that the formal institutions of any structure find very difficult to reach; and To evolve supplementary credit strategies for meeting the needs of the poor, by combining the advantages of the formal banking and credit system with the technical administrative capabilities and financial resources of all the formal institutions.

[21] SHGs are essentially a savings led credit invention there are still many loopholes that require amendments to make the product more efficient. Firstly, fixed sums of savings are quintessential for the meetings held weekly, fortnightly and monthly. Schemes like MGNREGS have had a constructive impact over the potential of the SHG members to save and simultaneously enhanced rural economic growth. There is a considerable amount of increase in the saving capacity of the SHGs but often curbed by the bottom most capacity of an SHG member. There is no similarity in the saving ability of the SHG members. Hence, the concept of voluntary savings by SHG members over compulsory savings opens up possibilities for the banks. SHG members are inculcated with the values of banking by opening their individual accounts to keep a track of their monetary savings. This is expected to enable them to move gracefully from group banking to individual banking. There is a need of an alternative model until the members open their individual bank accounts. SHG members who have larger monetary potential must be allowed to keep their savings within the groups fund as voluntary savings, in additional to their compulsory savings. A compatible account system may be required for the sustainability for such a system in place. The individual members need to decide whether or not; the voluntary savings can be used as inter loaning to other members, their share of interest or dividend from the group. Although, by this extra bit of voluntary savings doesn't mean that the SHG members will earn or expect extra credit from the SHG. The SHG2 (2012) is the new name for the SHG Bank Linkage Programme (1992).

[22] Reserve Bank of India (2011-2012): Circular (Ref: RPCD. FID. BC.No.06/ 12.01.001/ 2011-12) available at ,https://www.rbi.org.in/scripts/BS_ViewMasCirculardetails.aspx?id=6531 last accessed on August 21, 2016.

Recommendations:

It has to be noted at the outset that this study is very limited in that it has covered one state and one district within that. The findings of this study cannot lead to generalization but can be used as an indicator for further studies. Given this stipulation we would like to make the following observations:

- Group members should be encouraged to begin with small and economical viable activities. This could include activities like running canteens, mid day meals, stitching and the like. Traditional crafts like weaving, bamboo basket making should be given a fillip.

- The programmes should keep cash flow such that their day-to-day needs are met. In order to facilitate that government should arrange private training institutions, guidance and assistance with regular and adequate credit. Also government could buy the products directly from the SHGs.

- There is need of training programmes for SHGs women for marketing of products maintaining day-to-day transaction in systematic manner.

- The rate of interest needs to be relooked and made user-friendly. While the issue of 'loan sharks' might have been resolved the respondents to the survey did point out that the present rate is higher than that of the banks.

- While the autonomy of the SHGs should be protected every effort should be made to ensure basic democratic norms like rotation of leadership is ensured.

- Gender sensitization programmes should be conducted for all officials. This is necessary as many women did complain about officials not being very cooperative.

- Women should be encouraged to benefit from all government schemes such as Mahatma Gandhi National Rural Employment Generation Scheme (MGNREGS). Since SHGs is a forum where women do meet and discuss various issues this easily available forum could be utilized for this purpose. If SHGs are meant to be means to empower women it should be used a facilitator and not as an end in itself.

- Greater involvement of women's groups and Non-Governmental Organisations (NGOs) are necessary. This studies shows that apart from the church not many non-state actors are involved.

These are necessary as most of the present knowledge is based on stand-alone case studies. In conclusion longitudinal studies need to be conducted to measure the long-term impact of SHGs.

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भारतीयहिन्दुसंस्काराणामर्वाचीनमुपयोगः अस्ति नवेति –समीक्षणमेकम्

पियाली बेरा

स्नातकोतरोतीर्णा-सेट्तीर्णा च
छात्री

भूमिका

संस्कारेति शव्दः यथा अनेकेषु अर्थेषु प्रयोगो दृश्यते तथैव तस्य प्रकारभेदेऽपि मतानैक्यमस्ति ।**संस्कारः** ईदृशैका प्रक्रिया यया मानवानां नेतिवाचकं चिन्तनं दूरीभूतं भूत्वा मानविकमूल्यवोधः, विचक्षणता, कर्त्यव्यसचेतनता, स्वं प्रति समाजं वा प्रति दायवद्धता व्यक्तित्वञ्च स्फुटितं भवति । अनया च मानवाः समाजगठने सहायकाः भवन्ति ।**संस्कारः** शैशवे मानवानामवचेतनमनसि मूल्यवोधस्य वीजवपनसदृशः येन मानविकमूल्यवोधसमूहः तेषां प्रकृतिरूपेण परिणतो भूत्वा तान् आजीवनं परिचालनं करोति ।अपि च येन अनुभूतयः, अन्तर्चैतन्यानि, चिन्तनानि ,कर्माणि च शुद्धानि संस्कृतानि वा भवन्ति स एव **संस्कारः** ।एतदर्थमुक्तम् –**"धर्मेण हीनाः पशुभिः समानाः ”**-अत्र धर्मस्तु समाजस्य धारणप्रक्रिया ।अतः यया प्रक्रियया मनुष्यः मनुष्यरूपेण परिगण्यते, पशोः मानवस्य पृथक्त्वं सूच्यते सा प्रक्रिया एव **संस्कारः**। कथं संस्कारात् मानवः संस्कृत्य मनुष्यपर्यायवाचकः भवति तदत्र वर्ण्यते ।

संस्कारश्दस्य संज्ञा

संस्कारपदस्य प्रयोगो **जैमिनीयसुत्रेषु** एव प्रथमो प्राप्यतेति मन्ये । यद्यपि वैदिकसाहित्ये सम्पूर्वकात्कृधातोः निष्पन्नस्य संस्कृतश्दस्य प्रयोगो दृश्यते तथापि अतिशयविशेषे अर्थे संस्कारश्दस्तु जैमिनीयसूत्रे प्रथमः एव दृश्यते इत्येवम् –

१) द्रव्यगुणसंस्कारेषु वादीरः (जैमिनीयसूत्र -3 .१.३)
२) संस्कारास्तु पुरुषसामर्थ्यं यथावेदं व्यवतिष्ठेरन् (जैमिनीयसूत्र -3 .८.३)
३) परार्थे न त्वर्थसामान्यं संस्कारस्य तदर्थत्वात् (जैमिनीयसूत्र -९.२.४४)
४) अपि वा शेषभूतत्वात्संस्कारः प्रतीयत (जैमिनीयसूत्र -१०.१.११)

एतेषु उद्धृतेषु वाक्येषु प्रायशः एव संस्कारशब्दः पवित्रकरणार्थे प्रयुज्यते परन्तु **"संस्कारस्य तदर्थत्वाद् विद्याया पुरुषश्रुतिः ”** (जैमिनीयसूत्र -६.१.३५) इत्यत्र शब्दोऽयं उपनयनार्थे प्रयुक्तो भवतीति दृश्यते ।सुवोधिन्यामपि शव्दस्यास्य उपनयनार्थे एव प्रयोगो भवति ।

"द्रव्यगुणसंस्कारेषु वादीरः” इति जैमिनीयसूत्रस्य **शावरभाष्ये** सूत्रास्यार्थः दृश्यते –**संस्कारो नाम स भवति यस्मिन् जाते पदार्थो भवति योग्यः कस्यचिदर्थस्य** ’इति ।**तन्त्रवार्तिककारेणोच्यते** –**"योग्यताञ्चादधानाः क्रियाः संस्कारा इत्युच्यन्ते** ” इति ।**मित्रमिश्रेणोक्तम्** –**"आत्मशरीरान्यतरनिष्ठो विहितक्रियाजन्योऽतिशयविशेषः** ” इति । **बैशेषिकदर्शने** संस्कारस्तु चतुर्विंशतिगुणेषु अन्यतमः । तत्र स च त्रिविधः –वेगस्थितिस्थापकभावनाभेदात् ।अत्र व्युत्पत्तिर्भवेत् संस्क्रियते अनया इति संस्कारः क्रिया बा ।एवम्प्रकारेण संस्कारशव्दः विभिन्नेऽर्थे प्रयुज्यते संस्कृतशास्त्रेषु ।**हरिवंशानुसारतः** संस्कारशव्दस्यार्थः परिच्छदः शरीरं वा परिस्कारम् ।रघुवंशे प्रशिक्षणं ,शिक्षणं चित्तशुद्धिर्वा संस्कारशव्दस्यार्थः ।

विभागः

यथा संस्कारस्य विभिन्नार्था दृश्यते तद्वत् अस्य विभागविषयेऽपि शास्त्रान्तरेषु मतानैक्यमस्ति । केषाञ्चिन्मते षोडशः, अपरेषां मते पञ्चविंशति चत्वारिंशद्धा । तत्र षोडश यथा **जातुकर्ण**णाह –

" आधानपुंसीमन्तजातनामान्नचौलकाः ।
मौञ्जी व्रतानि गोदानसमावर्तविवाहकाः ।

अन्त्यं चैतानि कर्माणि प्रोच्यन्ते षोडशैव हि ”॥

अङ्गिरास्तु आग्रहायणाष्टकश्रावणीकर्माध्ययुजीकर्मप्रत्यवरोहणदर्शश्राद्धवेदारम्भवेदोत्सर्जनदेवपितृभूतमनुष्यब्रह्म-यज्ञाश्चेति संगृह्याधिकत्वेन पञ्चविंशतिसंस्कारानाह ।केनचिदुकं **गौतमस्तु** चत्वारिंशत्संस्कारानाह परन्तु केनचित् मन्यते गौतममते चत्वारि वेदव्रतानि ,पञ्चमहायज्ञाः ,सप्तपाकयज्ञसंस्थाः , सप्तहविर्यज्ञसंस्थाः , सप्तसोमज्ञसंस्थाः , अष्टवात्मगुणाश्चेति अष्टचत्वारिंशत् संस्काराः ।यत्र कुत्र कर्णवेधस्यापि संस्कारत्वेनोल्लेखः ।यथाऽऽह व्यासः –

“ गर्भाधानं पुंसवनं सीमन्तो जातकर्म च ।
नामक्रिया निष्क्रमोऽन्नप्राशनं वपनक्रिया ॥
कर्णवेधो व्रतादेशो वेदारम्भक्रियाविधिः ।
केशान्तः स्नानमुद्वाहो विवाहाग्निपरिग्रहः ॥
त्रेताग्निसंग्रहश्चेति संस्काराः षोडश स्मृताः ।
नवैताः कर्णवेधान्ताः मन्त्रवर्जं क्रियाः स्त्रियाः ॥
विवाहो मन्त्रतस्तस्याः शूद्रस्यामन्त्रतो दशः ॥”

यद्यपि संस्कारा एते स्मार्तास्तथापि तेषां वैदिकत्वमपि ,**तेषां वै मन्त्रतः क्रियाः** 'इति याज्ञवल्क्यवचनात् ।

संस्काराणामुद्देश्यम् :

अस्मिन्विषये मनुना उक्तम् –

“गार्भैर्होमैर्जातकर्मचौलमौञ्जीनिबन्धनैः ।
बैजिकं गार्भिकं चैनो द्विजानामपमृज्यते ॥ ” (मनुसंहिता -२/२७)

अर्थात् गर्भाधानजातकर्मचूडोपनयनादिसंस्कारैः बीजगर्भसम्बद्धदोषपरिहारो भवति द्विजानामिति ।अतः गर्भाधानसंस्कारो हि गर्भस्थं शिशुं वेदज्ञानार्हं सम्पादयति ।पुंसवनं गर्भं पुंसीकरोति ।सीमन्तोन्नयनं गर्भस्थं पित्रोः पापात् मोचयति ।जातकर्मसंस्कारः समस्तगर्भदोषं परिहरति ।एवमेव नामकरणान्नप्राशनचूडाख्यैः संस्कारैः रेतोरक्तगर्भोपघातजसमस्तदोषाः परिह्रियन्ते ।उपनयनेन द्विजत्वमुत्पद्यते ।व्रतैश्च स्वाध्यायः सिध्यति । विवाहेन गार्हस्थ्यं सम्पद्यते दारपूर्वको व्यवहारात् ।न केवलं दुरितापहारका एव संस्कारा अपि तु योग्यताधायकाश्च । पूर्वे पूर्वे संस्कारा उत्तरोत्तरस्याधिकारसाधकाः। यथा –अकृतजातकर्मसंस्कारो हि नामकरणसंस्कारं नार्हति न च अविहितनामकरणसंस्कारो हि चूडामर्हति , अकृतचूडश्च नार्हत्युपनयनाय ,अनुपनीतो हि नार्हति व्रताय ,अव्रतो हि नार्हति विवाहाय , अकृतदारो हि नार्हति गार्हस्थ्याय नैव चान्त्यसंस्काराय च, अलब्धान्त्यसंस्कारो हि नाप्नोति पितृलोकं न च पुण्यकृतान् लोकान् भजते प्रेत्त्वमेवेति सर्वेषामेव संस्काराणां सप्रयोजनत्वम् ।तथा चोक्तम् –

“जन्मना जायते शूद्रः संस्कारात् द्विज उच्यते '।इति ।

याज्ञवल्क्येनाप्युच्यते –

“मातुर्यदग्रे जायन्ते द्वितीयं मौञ्जीवन्धनात् ।
ब्राह्मणक्षत्रियविशस्तस्मादेते द्विजाः स्मृताः ॥”(आचाराध्यायः -३९)

अथ एतेषां षोडशसंस्काराणां संक्षिप्तविवरणं अर्वाचीनकाले च तेषां कीदृशं प्रयोजनं तदत्र वर्ण्यते –

१) गर्भाधानम् :

हिन्दुविध्यनुसारेण षोडशसंस्कारेषु प्रारम्भिकसंस्कारः गर्भाधानमिति ।शक्तिधरेण पुरुषेण गर्भपुष्ट्यर्थं स्त्रीयोनिः रक्षतु इति अथर्ववेदस्य षष्ठकाण्डान्तर्गतस्य ८१संख्यकस्य सूक्तस्य द्वितीये मन्त्रे उल्लिखितास्ति ।अर्थात् एतेषु एतज्ज्ञायते

यत्, गर्भधारणं गर्भाशये च वीर्यस्थापनं हि गर्भाधानम् –**गर्भस्याऽऽधानं वीर्यस्थापनं स्थिरीकरणं यस्मिन् येन वा कर्मणा तद् गर्भाधानम्** "इति । गर्भाधानविषये स्मृतिग्रन्थेऽपि दृश्यते –

"निषेकाद् बैजिकं चैनो गार्भिकं चापमृज्यते ।

क्षेत्रसंस्कारसिद्धिश्च गर्भाधानफलं स्मृतम् ॥"इति ।

पतिः चतुर्थ्यां स्नातां भार्या प्रयतवस्त्रामलंकृतामाचम्य कृतस्वस्त्ययनो मैथुनार्थमुपह्वयेत् ।कथमुपह्वयेत् इत्यस्मिन्विषये उक्तम् ,सुलग्ने रात्रौ भर्ताऽऽचम्य प्राणानायम्य गणेशादीन् नत्वा सुखसुसायाः पत्न्याः **"विहितां द्यावापृथिवी"** इति मन्त्रेण ऊरू विश्लिष्टौ कृत्वा योनौ प्रजननेन्द्रियं प्रविश्य हरिं स्मृत्वा रेतः निक्षिपेत् ।पुत्रार्थी युग्मासु दुहित्रर्थी अयुग्मासु रात्रिषु संविशेत् ।पुरुषस्य वीर्ये अवस्थितः जीवः स्त्रीगर्भं प्रविश्य संस्कारात् संस्कारान्तरेषु यथाकाले भूमिष्ठः भवति ।स्त्री-पुरुषयोः प्रासवयःकालः एव गर्भाधाने उपयुक्तः इति वैदिकऋषिभिः तदुत्तरकालस्य च वैयैरुक्तम् ।तेषां प्रासवयःकालस्तु पञ्चविंशतीति पुरुषाणां स्त्रीणाञ्च षोडशवर्षः ।अस्मात् वयःकालात् ऊर्ध्वकाले नास्ति दोषः परन्तु न्यूनता सन्तानधारणार्थमनुपयुक्तः । यतः न्यूनतायां यथा पुरुषाणां वीर्यः तथैव स्त्रीणां गर्भाशयः सुस्थसन्तानस्य भूमिष्ठे अन्तरायो भवति। एतदर्थं प्राचीनवैयेन सुश्रुतेनोक्तम् –

"पञ्चविंशे ततो वर्षे पुमान् नारी तु षोडशे –

समत्वागतवीर्यौ तौ जानीयात् कुशलो भिषक् "(सुश्रुते सुत्रस्थाने -३५/१०)।

"ऊनषोडशवर्षायां अप्रासः पञ्चविंशतिम् ।

यद्याधते पुमान् गर्भं कुक्षिस्यः स विपद्यते ॥

जातो बां चिरं जीवज्जीवेद्वा दुर्बलेन्द्रियः ।

तस्मादन्यन्तवान्तवायां गर्भाधानं न कारयेत् ॥"इति ।(सुश्रुते सुत्रस्थाने -१०/४७ & ४८)

उपनिषद्यपि गर्भाधानं गर्भरक्षा चेति विषये विधानानि उल्लिखितानि सन्ति ।तत्र ऋतुदानस्योपयुक्तकालः,गर्भरक्षायाः नीतिभिश्च सह पत्न्याः आहार्यविषयेऽपि विधानं दृश्यते इत्येवम् –**आहारशुद्धो सत्त्वशुद्धिः सत्त्वशुद्धौ ध्रुवा स्मृतिः**"(छान्दोग्योपनिषद्-३/२६/२))।गर्भाधानकाले मादकद्रव्यानि ,अतिरिक्तमरिचादिविशिष्टद्रव्यानि परिहार्य ओदनं ,मिष्टद्रव्यानि, दुग्धजातीयद्रव्यानि गृहीतव्यानि येन सन्तानं सुस्थ ,सवलं रोगहीनञ्च शरीरं लब्धुमर्हति ।तदर्थमुच्यते –

"आहाराचारचेष्टाभिर्याद्दृशोभिः समन्वितौ ।

स्त्रीपुंसौ समुपेयातां तयोः पुत्रोऽपि ताद्दृशः ॥" इति ।(सुश्रुते शरीरस्थाने -४६)

अर्वाचीनकाले गर्भाधानस्य प्रासङ्गिकता :

प्रथमतः नारी-पुरुषयोः उपयुक्ते वयःकाले गर्भाधानं कर्त्तव्यम् ,आधुनिकचिकित्सकैः तथा भारतसर्वकारैरपि एतत् स्वीकृतम् । अपि च येन कारणेन गर्भाधानस्य कालः निर्दिष्टः अस्ति तेनैव कारणेन हि अर्वाचीनकालेऽपि वयःकालः निर्दिष्टो भवति ।उल्लङ्घनात् मृत्यु अपि संघटते यद्दृश्यते गणमाध्यमेषु ।**द्वितीयतः** गर्भाधानकाले याद्दृशी भावना नारी-पुरुषयोर्भवति सन्तानेषु तद्दृशी भावना जायते इत्यपि अर्वाचीनचिकित्सकैः समर्थिता यच्च ते Spermatoza इति कथ्यन्ते ।अनेन कारणेन चिकित्सकाः गर्भाधानकाले दुश्चिन्तयितुं वारयति वारं वारम्। अतः सुचिन्तनं तेषामपि समर्थितम् ।अपि च अनेन दुश्चिन्तनेन गर्भस्खालनमपि सम्भवेदिति ते कथ्यते ।**तृतीयतः** गर्भाधानकाले खाद्यद्रव्यविषये यत् यत् वर्णितमस्ति अर्वाचीनचिकित्सकैरपि तत् समर्थितम् ।अनेन कारणेन अस्मिन्कालस्य खाद्यद्रव्यविषये ते चिकित्सकाः खाद्यतालिका अपि दीयन्ते ,यतः ते अपि मन्यन्ते यत् खाद्येन सह सुसन्तानस्य जन्मनः सम्बन्धरस्ति ।सुखाद्याभावात् गर्भस्खालनमपि दृश्यते अधुना ।अतः प्राचीनकालस्य गर्भाधाननियमः आधुनिककालेऽपि प्रयोजनं चिकित्साविज्ञानैश्चापि समर्थितम् ।

२) पुंसवनम्

षोडशसंस्कारेषु द्वितीयसंस्कारोऽयम् ।गर्भस्थस्य भ्रूणस्य विघ्नापसारणमेवास्योद्देश्यः ।गर्भधारणतो द्वितीये वा तृतीये मासि पुंसवनं वीर्यवान् पुत्रकामनाय संस्कारोयं कर्तव्यम् ।वैदिकशास्त्रानुसारं गर्भधारणतः मासचतुष्टयपर्यन्तं भ्रूणस्य लिङ्गनिर्धारणं न कर्तुमर्हति ।संस्कारेऽस्मिन् ओषधिविशेषाणामाघ्राणं कारयति गर्भिनी पुत्रार्थम् यदुल्लिखितमस्ति सामवेदेष्वत्येवम् –

" पुमानग्निः पुमानिन्द्रः पुमान् देवो बृहस्पतिः ।
पुमांसं पुत्रं विन्दस्व तं पुमाननु जायताम् ॥" इति ।(सामवेदः -२)

मन्त्रेऽस्मिन् उक्तम्, यतः इन्द्राग्निबृहस्पतीति देवत्रयं पुरुषः तर्हि गर्भस्थसन्तानमपि पुरुषत्वं प्राप्नोतु । संस्कारोऽयं विनायकपूजनादिपूर्वकं चन्द्रमसि पुंनक्षत्रयुक्ते सति सूर्यभौमगुरुवारेषु पित्रा सम्पादनीयः।अत्रोषधिरूपेण वटवृक्षस्य नवीनाङ्कुर-पल्लवैश्च सह कुशं संमिश्र्य जलेन गोदुग्धेन वा पेषणं कृत्वा गर्भिण्याः दक्षिणनासिकया अनेन मन्त्रपाठेन सह सेवनं कर्तव्यम् -

"हिरण्यगर्भः समवर्तताग्रे भुतस्य जातः पतिरेक आसीत् ।
स दाधार पृथिवीं द्यामुतेमां कस्मै देवाय हविषा विधेम ॥"इति । (यजुर्वेदः -१३/४))

पुंसवनमित्यनेन नाम्ना ज्ञायते यत्, पुंकामनैवात्र उद्देश्यम् ।संस्कारोऽयं शुक्रः बलवान् भवति येन च प्रथमसन्तानं पुरुष एव भवति ।अनेन संस्कारेण गर्भस्थभ्रूणस्य लिङ्गपरिवर्तनमपि सम्भवेत् ।यतः मासत्रयात्परं शिशोः स्पष्टलिङ्गत्वात् लिङ्गपरिवर्तनस्यासम्भवत्वात् तत्पूर्वमेव इदं कर्म कर्तव्यम् ।अतः अस्य संस्कारस्य उद्देश्यद्वयं वर्तते –प्रथमतः पुत्रप्राप्तिः द्वितीयतश्च स्वास्थवान्, सुगुणी ,सुन्दरञ्च सन्तानप्राप्तिः । प्रथमोद्देश्यविषये स्मृतिग्रन्थे द्रश्यते –"गर्भाद् भवेच्च पुंसूते पुंस्त्वस्य प्रतिपादनम् "इति ।

अर्वाचीनकाले पुंसवनस्य प्रासङ्गिकता :

विषयेऽस्मिन् प्रथममेव वक्तुं शक्यते यत्, वर्तमानकाले कन्या-पुत्रयोः नास्ति प्रभेद ।अतः अस्य संस्कारस्य पुत्रप्राप्तिरिति प्रारम्भिकं यत् प्रयोजनं तत्तु अधुना निष्प्रयोजनम् ।परन्तु यत् द्वितीयप्रयोजनं तत्तु अधुनैव प्रयोजनमस्ति, यतः यदोषध्यत्र संस्कारे प्रयुज्यते तेषामोषधीनां द्रव्यगुणः अस्ति इति सर्वसम्मतम् ।अनेन द्रव्यगुणेन गर्भिण्याः गर्भावस्थायां यथा गर्भकालीनसमस्या न भवति तद्वत् गर्भस्यस्य भ्रूणस्यापि ।अतः आधुनिकं रासायनिकमौषधं परिहार्य्य उक्तायुर्वेदीयोषधसेवनमेव युक्तियुक्तम् ,यतः अत्र पार्श्वप्रतिक्रिया नास्ति यदस्ति रासायनिके ।अपि च अधुना गर्भिन्यः गर्भस्थस्य भ्रूणस्य उपयुक्तरक्षणं न कुर्वन्ति, एतदर्थं गर्भपातोऽपि बहुलांशे एव भवति। परन्तु अनेन कर्मणा गर्भिन्यः सतर्कीभवन्ति येन च भ्रूणस्य रक्षणमपि सम्भवेत्। एतदर्थं प्राचीनकालात् अधुना गर्भसञ्चारं गर्भपातञ्च बहुलांशे एव द्रश्यते ।

३) सीमन्तोन्नयनम्

तृतीयसंस्कारोऽयम् ।सीमन्तस्य केशविभाजनस्य उन्नयनमित्यस्यापि प्रायः । गर्भाधानात् चतुर्थमासि संस्कारोऽयं प्रवर्त्यते –"चतुर्थे गर्भमासे सीमन्तोन्नयनम् 'इति आश्वलायनगृह्यसूत्रे ।अत्र पतिः तस्य पत्न्याः केशगुच्छः स्वहस्तेन सुगन्धितैलसहयोगेन अर्जुन-उदुम्बरवृक्षजलेन च सीमन्तविभाजनपूर्वकं केशसज्जीकृत्वा यज्ञशालायां आनयिष्यति देवानामुद्दिश्य च होमं करिष्यति ।तत्र गर्भिन्यः मङ्गलार्थ डम्बुरजातीयोपकारकवनस्पतिना **ओं भुर्विनयामि, ओं भुर्विनयामि, ओं भुर्विनयामि** इति उच्चारणं कृत्वा पृथ्वकर्मणा सीमन्तोन्नयनं कर्तव्यम् । तथा चोक्तम् –

"ओं येनादितेः सीमानं नयति प्रजापतिर्महते सौभगाय ।
तेनाहमस्यौ सीमानं नयामि प्रजामस्यै जरदष्टिं कृणोमि ॥" इति ।(मन्त्रब्राह्मण-१/५/१)

अर्थात् यथा प्रजापतिः देवमातुः अदितेः सीमन्तोन्नयनं चकार तद्वत् अहमपि मम गर्भिण्यः पत्न्याः सीमन्तोन्नयनं कृत्वा तां तस्याश्च सन्तानं जरातः संरक्ष्य दीर्घजीविं करिष्यामि ।संस्कारान्तिमे घृतान्नभक्षणस्य विधानं दृश्यते गृह्यसूत्रे इत्येवम् –

"किं पश्यासीत्युक्त्वा प्रजामिति वाचयेत् तं सा स्वयं भुञ्जीत वीरसूर्जीवपन्तीति ब्राह्मण्यो मङ्गलाभिर्वाग्मि पासीरन्"
"इति ।(गोभिल् गृह्यसूत्रम्)।संस्कारान्तिमे सौभाग्यवत्यः,पुत्रवत्यःतथा च ब्राह्मण्यः प्रसन्नचित्तैः सन्तानसम्भवया मात्रा सह सन्तानस्य मंगलार्थ मनोरञ्जकानि वाक्यानि वदिष्यन्ति तदनन्तरञ्च "ओं वीरसूस्त्वं भव ,जीवसूस्त्वं भव, जीवपत्नी त्वं भव 'इत्यनेन मन्त्रेण आशीर्वादं करिष्यन्ति ।

अस्य संस्कारस्य अनुष्ठानकालविषये मतानैक्यमस्ति। यद्यपि आश्वलायनेनोक्तं चतुर्थे मासि कर्तव्यं तथापि केषाञ्चिन्मते तु चतुर्थे, षष्ठे अष्टमे वा मासि संस्कारोऽयं कर्तव्यम् ।परन्तु संस्कारस्यास्य उद्देश्यविषये सहमतमस्ति ।आस्मिन्मासि गर्भस्थस्य शिशोः मानसिकविकासस्य प्रारम्भिककालोऽयम् ।अस्मिन्काले मातृच्छा सन्ताने संक्रमितो भवति ।एदर्थं मातुः सुचिन्तनमपि काम्यम् ।मातुः सुचिन्तनार्थं सर्वे मातुः सकाशे सर्वदैव मंगलजनकं वार्तालापं कुर्वन्ति येन माताऽपि एतादृशं कल्पनं कर्तुं पारयति ।मातृचिन्तनैः सन्तानम्पि सुचिन्तकं भविष्यति ।

अर्वाचीनकाले सीमन्तोन्नयनस्य प्रासङ्गिकता :

अधुना "साधभक्षणम्"इति नामकम् अनुष्ठानमेकं भवति यच्च प्राचीनकालस्य सीमन्तोन्नयनम् केवलं नाम्ना पृथक्त्वम् ।परन्तु अस्यानुष्ठानस्य इदानीन्तनकाले प्रयोजनमस्ति न वा इति विचार्यम् ।यद्यपि गर्भिण्यः चिन्तनं गर्भस्थसन्ताने संक्रमितो भवति नवेति इत्यस्मिन्विषये गवेषणा प्रयोजनम् तथापि पौराणिकाहिण्यः विश्वासाय दृष्टान्तः भवितुमर्हति ।यथा –सती मदालसायाः वृत्तान्तम् , अभिमन्योः वृत्तान्तम् ,भक्तप्रह्लादस्य वृत्तान्तम् तथा शुकदेवस्य वृत्तान्तम् उल्लेखयोग्यम् । भवतु, अस्मात् संस्कारात् एतत् वक्तुं पारयामि यत्, अनेन संस्कारेण यथा प्रथमतः गर्भिणी सुचिन्तका भवति तथैव द्वितीयतः तस्याः अपुष्टिरपि न भवति ।कारणद्वयेन गर्भस्थसन्तानस्य क्षतिः भवतीति अधुनापि स्वीकृतमस्ति चिकित्साविज्ञाने ।यतः **प्रथमतः** मातुः यदि गर्भावस्थायां यथोपयुक्ता पुष्टिर्न भवति तर्हि शिशुरपि सुस्वास्थाधिकारी न भवितुमर्हति इति अधुनापि चिकित्सकैः मन्यते ।**द्वितीयतः** मातुः चिन्तनं सन्ताने संक्रमितो भवतु न वा तथापि एतद् आधुनिककालेऽपि स्वीकृतं यत्, कुचिन्तनेन सन्तानस्य वृद्धिः यथा नियमेन न भवति तथैव अनेन चिन्तनेन गर्भपातोऽपि सम्भवेत् ।अतः गर्भिण्यः सुचिन्तनार्थं सुपुष्ट्यर्थञ्च अस्य संस्कारस्य ईदृशसंस्कारस्य वा अधुनापि प्रयोजनम् इति वक्तुं पारयामि ।

४) जातकर्म

चतुर्थसंस्कारोऽयम् ।संस्कारोऽयं जातमत्रस्य शिशोर्नालच्छेदनात् पूर्वमेव क्रियते ।जाते जातक्रिया भवेत् । एतदर्थं मनुसंहितायमुक्तम् –

"प्राङ्नाभिवर्द्धनात् पुंसो जातकर्म विधीयते ।
मन्त्रवत् प्राशनञ्चास्य हिरण्यमधुसर्पिषाम् ॥" इति (मनुसंहिता -२/२९)

अत्र नान्दीश्राद्धानन्तरं स्वर्णशलाकया जातसन्तानं मधुघृतलेहनं कारयति ।गोभिलीयगृह्यसूत्रानुसारेण मधुघृतलेहनानन्तरं परिश्रुतजलेन तन्दुलं यवञ्च पेषयित्वा परिस्कृतवस्त्रेण निर्मलीकृत्वा च अङ्गुष्ठानामिकाभ्यां स्वल्पं स्वल्पं जातवालकस्य मुखे –**ओम् इदमाज्यमिदमन्निमदमायुरिममृतम्** "इति मन्त्रपाठेन सह दातव्यम् ।शिशोः गर्भाम्बुपानजनितसकलदोषनिर्वहणायुर्मेधाभिवृद्धिद्वारा बीजगर्भसमुद्भवैनोनिर्वहणार्थञ्चायं संस्कारः ।संस्कारानन्तरं सन्तानं मातृस्तन्यपानं तदनन्तरञ्च विद्वान्धार्मिकानामाशिर्वादग्रहणं करोति ।कुत्रापि जन्मतः षष्ठदिने शिशोरायुवृद्ध्यर्थं षष्ठीकर्म क्रियते ।

अर्वाचीनकाले जातकर्मसंस्कारस्य प्रासङ्गिकता :

संस्कारस्यास्यार्वाचीनकालेऽपि प्रयोजनमस्ति ।यतः, अनेन संस्कारेण प्रथममेव जन्मनः परं सन्तानं परिस्कारं क्रियते एतस्य यौक्तिकता सर्वजनस्वीकृता ।मातृजठरे स्थितावस्थायां ये दूषितपदार्थाः सन्तानस्य शरीरे लग्नीकृताः ते अनेन दूरीभूताः भवति ।अतः अस्य प्रयोजनमस्ति । **द्वितीयतः** अत्र सुवर्णशलाकया मधुघृततलेहनं कारयति ।अस्यापि अधुना प्रयोजनमस्ति ।यतः आयुर्वेदशास्त्रमते सुवर्णेन वातदोषः,मूत्रदोषः ,रक्तस्य ऊर्ध्वगामित्वदोषश्च दूरीभूतो भवति ।मधुघृतसंयोगः जिह्वायां यथा लालारसस्य सञ्चारं ,रक्तशोधनञ्च करोति तथैव बलपुष्टिकारकोऽपि भवति इत्यपि आयुर्वेदशास्त्राभिमतम् । यद्यपि अधुना घृतादिलेहनं विनाऽपि औषधेन उक्तदोषादिनिवारणं भवति तथापि अनया रासायनिकौषधापेक्षया प्राकृतिकौषधस्य महत्त्वमत्वमस्ति इति सर्वेषां स्वीकर्तव्यम्।

५) नामकरणम्

पञ्चमः संस्कारोऽयम् ।संस्कारोऽयं केचिद्दशमे परे एकादशे अष्टादशेऽहनि वा पूर्णे मासि वाऽपीच्छन्ति । ब्राह्मणस्य दशमे दिने, क्षत्रियस्य द्वादशे दिने, वैश्यस्य पञ्चदशे दिने शुद्रस्य च मासान्ते नामकरणं कर्तव्यम् इति पराशरः । मनुस्तु प्राधान्येन एकादशेऽह्नि गौणतया त्रयोदशेऽह्नि संस्कारमिमं निर्दिशति ।सामान्यतः एकादशेऽह्नि एवास्य प्रचलनं

> **"नामधेयं दशम्यां तु द्वादश्यां वास्य कारयेत् ।**
> **पुण्ये तिथौ मुहूर्ते वा नक्षत्रे वा गुणान्विते ॥"(मनुसंहिता -२/३०)**

इति मनुवाक्यस्य दशम्यामतीतायामित्यर्थमादाय ।

अस्मिन् संस्कारे नवजातकं स्नापयित्वा शुद्धवस्त्रं परिधाय नामकरणकार्यं कर्तव्यम् ।वर्णविशेषे नामकरणमपि विभिन्नं भवेदित्यस्मिन्विषये मनुना उक्तम् –

> **"मङ्गल्यं ब्राह्मणस्य स्यात् क्षत्रियस्य बलान्वितम् ।**
> **वैश्यस्य धनसंयुक्तं शूद्रस्य जुगुप्सितम् ॥ " इति ।(मनुसंहिता -२/३१)**

एतेषु वर्णचतुष्टयेषु येषां यद्यत् कर्म तदनुसारं नामकरणेऽपि भिन्नत्वम ।यथा ब्राह्मणाः मांगलिककर्मणि, क्षत्रियाः सर्वेषां रक्षणार्थ ,वाणिज्ये तु वैश्याः, उच्चवर्णानां सेवायां च शूद्राः नियुक्ताः अभवन् ।तदनुसारं नाम च ब्राह्मणस्य शर्मान्तं ,क्षत्रियस्य वर्मान्तं ,वैश्यस्य गुप्सान्तं शूद्रस्य च दासान्तम् । स्त्रीणां नामकरणविषये मनुना उक्तम् –

> **"स्त्रीणां सुखोद्यमक्रूरं विस्पष्टार्थं मनोहरम् ।**
> **मंगल्यं दीर्घवर्णान्तमाशीर्वादाभिधानवत् ॥" इति । (मनुसंहिता -२/३३)**

अर्वाचीनकाले नामकरणस्य प्रासङ्गिकता :

प्राचीनकाले नामकरणस्य कारणत्रयमासीदिति दृश्यते । **प्रथमतः** नवजातक-जातिकयोः ज्योतिषशास्त्रानुसारं भविष्यत् निर्धारणम् । **द्वितीयतः** सन्तानस्य सामाजिकी परिचितिः **तृतीयतश्च** वर्णनिर्धारणम् ।वर्तमाने नामकरणस्य प्रयोजनविषये प्रथममेव वक्तव्यं यत्, नामकरणस्य सर्वकाले प्रयोजनमासीत् अस्ति भविष्यति च ।यतः सामाजिकपरिज्ञानार्थं सर्वेषां कृते नामकरणस्य प्रयोजनमस्ति । पुनः

वर्तमाने ज्योतिषशास्त्रे येषां विश्वासः अस्ति तेषां कृते प्रथमकारणस्य प्रयोजनमस्ति परन्तु येषामविश्वासः तेषां कृते नास्ति प्रयोजनम् ।द्वितीयकारणस्य सर्वेषां कृते प्रयोजनमस्ति ।यतः दार्शनिकैः कथ्यते 'व्यवृत्तिर्व्यवहारो वा लक्षणस्य प्रयोजनम् ' इति । नामकरणस्य अपि इदं प्रयोजनद्वयमस्ति ,लौकिकव्यवहारः सजातीय-विजातीयेभ्यश्च व्यवृत्तिः । वर्णनिर्धारणार्थं नामकरणस्य प्रयोजनं वर्तमाने नास्ति ।यतः अधुना पूर्वानुसारं वर्णव्यवस्यायां मान्यता नास्ति ।

६) निष्क्रमणम्

गृहकोणात् शिशोः वहिरागमनमेव निष्क्रमणम् । कथं शिशोः वहिरानयनम् ?सूर्यदर्शनिमित्तमेतत् संस्कारः ।यद्यपि मतानैक्यमस्ति तथापि याज्ञवल्क्यानुसारेण जन्मतः चतुर्थमासि कर्तव्यं कृष्णपक्षेऽन्त्यत्रिकवर्जम् ।आश्वलायनगृह्यसूत्रेऽपि दृश्यते –"चतुर्थे मासि निष्क्रमणिका ।सूर्यमूदीक्षयति तच्चक्षुरिति "।(आश्वलायनगृह्यसूत्रम्)मनुनापि उक्तम् –"**चतुर्थे मासि कर्तव्यं शिशोनिष्क्रमणं गृहात्**" (मनुसंहिता – २/३४)।

तत्र दीपकलशगणेशपूजनस्वस्तिवाचनादिमांगलिककृत्यपूर्वकं शिशुमादाय गृहान्निष्क्रम्य सूर्यं सम्पूज्य शिशुना सूर्यदर्शनं कारयित्वा देवतालयं नीत्वा शिशुं सम्पूज्य देवताः प्रदक्षिणं कृत्वा च तं प्रतिवेशिगृहं सति सम्भवे मातृस्वसृगृहं वा मातुलगृहं नीत्वा तत्र क्षणं स्थित्वा सर्वैरभिनन्दितं दत्ताशिष्यञ्च तं गृहं प्रवेशयेदिति ।

अर्वाचीनकाले निष्क्रमणस्य प्रासङ्गिकता :

आधुनिककाले अस्य भूयः प्रयोजनमस्ति । यद्यपि वर्तमाने नवजातिका-जातिकयोः जन्मनः परं वैद्युतिकालोकेन तस्वा रासायनिकौषधञ्च दत्त्वा परदिवसे एव वहिर्निगमनं कारयति तथापि प्राचीनकालस्य निष्क्रमणसंस्कारः अधुनापि प्रयोजनमिति मन्ये ।यतः कोऽपि शिशुः जन्मनः परं तस्य चर्मादीन्द्रियाणि एतानि वलिष्ठानि न भवेयुः येन सः तत्क्षणात् वहिर्गमनं कृत्वा पर्यावरणेन सह योद्धुं शक्यते ।तदर्थं तस्य पर्यावरणसहनशीलत्वं भवेत् ।मासत्रयं गृहाभ्यन्तरे स्थित्वा सः क्रमान्वयेन गृहाभ्यन्तरस्थस्य पर्यावरणेन सह आत्मानं समन्वयितुं शक्यते ।तदनन्तरं चतुर्थे मासि यदा सः वहिरायाति वहिर्भागस्य पर्यावरण सह तस्य समन्वयं कर्तुं काऽपि समस्या न भवति ,शरीरमपि सहनक्षमं भवति परन्तु कस्यापि औषधस्य प्रयोजनं न भवति ।अतः औषधं परित्यज्य प्राचीननिष्क्रमणसंस्कारः एव अधुनापि ग्राह्यः ।

७) अन्नप्राशनम्

संस्कारेषु ससमोऽयम् ।पुत्रस्य षष्ठे वा अष्टमे मासि पुत्र्याश्च पञ्चमे मासि अन्नप्राशनं भवति ।आश्वलायनगृह्यसूत्रे एतद्विषये उल्लिखितमस्ति –"षष्ठे मास्यन्नप्राशनम् । घृतोदनं तेजस्कामः। दधिमधुघृतमन्नं प्राशयेत् "इति । मनुनापि उक्तम् –"**षष्ठेऽन्नप्राशनं मासि यद्वेष्टं मंगलं कुले** " इति ।(**मनुसंहिता – २/३४**) ।जन्मतः अन्नप्राशनपूर्वपर्यन्तं शिशुः केवलं मातृदुग्धपानं करिष्यति ।अन्नप्राशने प्रथममेव शिशुः दधि-दुग्ध-घृत-मध्वादिमिश्रितान्नभोजनं करिष्यति इति नियमः आश्वलायनगृह्यसूत्रे । अग्निस्थापनादिकर्मनिमित्तकहोमपूर्वकं शुभलग्ने सौवर्णं वा राजते पात्रे स्थापितं क्षीरमध्वाज्यसम्पृक्तमन्नं पिता मातान्ये च प्राश्येयुः ।तद्दिने एव जीविकापरीक्षाऽपि भवति ।प्राशितान्नस्य शिशोः पुरतो विविधानि जीविकाप्रतिकानि भाण्डानि वस्तूनि च स्थाप्यानि ।तत्र स्वयं शिशुर्यदेवं वस्तु प्रथमं संस्पृशेतेनैव तस्य जीविका भविष्यतीति शिष्टोक्तिः ।

अर्वाचीनकाले अन्नप्राशनस्य प्रासङ्गिकता :

शिशुः जन्मतः मासष्टकं यावत् मातृस्तन्यपानं करिष्यतीति अद्यापि पालनीयः ,यतः अनेन शिशोः शरीरे रोगप्रतिरोधक्षमतायाः वृद्धिर्भवतीति आधुनिकचिकित्सकैरुच्यते ।अतः षष्ठे अष्टमे वा मासि अस्य संस्कारस्य अद्यापि प्रयोजनमस्ति । अपि च दधि-दुग्धादिमिश्रितं यदन्नभोजनं कारयति तस्यापि प्रयोजनमस्ति आयुर्वेदानुसारम् ।अनेन प्रारम्भिके अन्नभोजने सत्यपि शिशोः वलप्राप्तिर्भवति न तु शारीरिकी क्षतिः ।

८) चूडाकरणम्

अष्टमः संस्कारोऽयम् । मस्तकमुन्डनात्परं शिखारक्षणमेव चूडाकरणम् । विधानानुसारतः जन्मतः प्रथमे तृतीये वा वत्सरे संस्कारोऽयं क्रियते –"जन्मतस्तु तृतीयेऽव्दे श्रेष्ठमिच्छन्ति पण्डिताः "इति प्रयोगपारिजाते नारदवचनस्मरणात् ।मनुसंहितायामुक्तं ,ब्राह्मणादीनां द्विजातीनां चूडाकरणसंस्कारः जन्मतः प्रथमे तृतीये वा मासि कर्तव्यम् –

"चूडाकर्म द्विजातीनां सर्वेषामेव धर्मतः ।

प्रथमेऽब्दे तृतीये वा कर्तव्यं श्रुतिचोदनात् ॥ " (मनुसंहिता – २/३५)

अधिकाम्शमनीषिणः तृतीये एव वर्षे एतदिच्छन्ति जन्मतः । एतत् कर्म जन्मनक्षत्रमासलग्नं विहाय शुभे दिने आभ्युदयिकादिपूर्वकं कार्यम् ।विधिवदग्निं संस्थाप्य होमपूर्वकं प्रथमं ब्राह्मणेन तत्श्चान्यद्वाराऽपि क्षौरकार्यं शिखां वर्जयित्वा कर्तव्यम् ।अयमेव द्विजत्वस्यारम्भद्वारम् ।

अर्वाचीनकाले चूडाकरणस्य प्रासङ्गिकता :

अस्य संस्कारस्यापि अर्वाचीनकाले प्रयोजनमस्ति ।जन्मतः शिशोः मस्तके ये केशाः चूडाकरणं यावत् आसन् अनेन कर्मणा ते केशाः दूरिताः भवन्ति ।अनेन नवीनाः केशाः समुत्पायन्ते ,क्षौरकर्मणा मस्तकस्थस्य शुष्कचर्मादयः जायन्ते ,रोमकूपाः परिस्कृताः भवन्ति ,घनकेशैश्च मस्तिष्कस्य सुरक्षा भवन्ति ।अतः परिष्कृते मस्तके सूर्यालोके प्रविष्टे सति तेन मस्तिकस्थस्य कोशाः यथा अतिसक्रियाः भवन्ति तथैव वुद्धिरपि ऊर्वरा भवन्तीति अधुनिकवैज्ञानिकैः स्वीकृता ।

९) कर्णवेधः

नवमसंस्कारोऽयम् ।अनेन संस्कारेण कर्णलतिकयोः छिद्रं कारयेत् ।जन्मतः षष्ठमासतः षोडशमासावधिः विषमवर्षे वा संस्कारोऽयम् कुर्यात् ।पूर्णस्त्रीत्वं पुरुषत्वम्वा प्राप्यते अनेन इति मन्यते ।परन्तु प्रथमतः भुषणपरिधानार्थं द्वितीयतश्च आकुपांचारार्थं संस्कारोऽयम् । कर्णयोः रक्तप्रवाहोऽपि संवर्धं श्रवणशक्तिरनेन वर्धितो भवति ।एतदपि कथ्यते यत् ,कर्ण सूर्यकिरणे प्रवेशे सति स्त्री-पुरुषयोः तेजस्वित्वं वृद्धिर्भवति ।शास्त्राणुसारतः कर्णवेधरहितस्य पुरुषस्य श्राद्धाधिकारो नास्ति ।ब्राह्मणस्य वैश्यस्य च रजतशलाकया ,क्षत्रियस्य सुवर्णशलाकया ,शुद्रस्य च लौहशलाकया कर्णवेधः कारयेत् ।शुभक्षणे देवतार्चनपूर्वकं सूर्यसम्मुखे कर्णभेदनकाले अनेन मन्त्रेण अभिमन्त्रयेत् –

"भद्रं कर्णेभिः शृणुयाम देवा भद्रं पश्येमाक्षभिर्यजत्राः ।

स्थिरैरंगैस्तुष्टुवांसस्तनुभिर्व्यशेम देवहितं यदायुः ॥ " इति । (यजुर्वेदः –२५/२१)

अर्वाचीनकाले कर्णवेधस्य प्रासङ्गिकता :

प्रथमतः नारी-पुरुषयोः अलंकरणार्थं अस्य संस्कारस्य यत् प्रयोजनमस्ति तत्तु सर्वैः ज्ञातम् ।**द्वितीयतः** आकुपांचारेण रोगनिरामयविषयोऽपि आधुनिकवैज्ञानिकैः स्वीकृतः। अतः अस्य संस्कारस्य अधुनाऽपि प्रयोजनमस्ति ।

१०) उपनयनम्

संस्कारेषु दशमसंस्कारोऽयम् ।ब्राह्मणादिषु यथाक्रमिकवर्णत्रयेषु उपनयनं भवति तेन च ते द्विजत्वप्राप्राः भवन्ति ।उपनयनं हि द्वितीयजन्म ।तेनोक्तम् –"जन्मना जायते शूद्रः संस्कारात् द्विज उच्यते "इति ।आचार्य निकषा प्रारम्भिकज्ञानं उपनयनेन एव लभ्यते शिशुः ।ब्राह्मणस्य गर्भतः अष्टमे वर्षे ,क्षत्रियस्य एकादशे ,वैश्यस्य च द्वादशए वर्षे उपनयनकालः मनुना निर्देशितः –

"गर्भाष्टमेऽब्दे कुर्वीत ब्राह्मणस्योपयनम् ।

गर्भादेकादशे राज्ञो गर्भात्तु द्वादशे विशेः ॥इति । (मनुसंहिता – २/ ३६)

आश्वलायनगृह्यसूत्रेऽपि एतादृशविधानं दृश्यते ।यद्यपि वसन्ते ब्राह्मणस्य ,ग्रीष्मे क्षत्रियस्य शरदि च वैश्यस्य यज्ञोपवीतधारणस्य विधिः तथापि सर्वर्तुष्वेव प्रातःकाले संस्कारोऽयं भवति । तदर्थमुक्तम् –

"वसन्ते ब्राह्मणमुपनयेत् ।ग्रीष्मे राजन्यम् ।

शरदि वैश्यम् ।सर्वकालमित्येके "॥ (शतपथब्राह्मणम् -२/१/३/५)

यद्यपि शतपथब्राह्मणे इदमुक्तं तथापि तत्र वाक्यमिदं न तु उपनयन्स्य अपि तु अग्न्याधानप्रकरणस्य दृश्यते ।ईदृशमुक्तिः पारस्करगृह्यसूत्रे बौधायनगृह्यसूत्रे चापि दृश्यते ।

कत्यव्दे अतिक्रान्ते वयसि उपनयनं न भवेदित्यस्मिन्निषये मनुना उक्तम् –

<div align="center">

"आ षोडशाद्ब्राह्मणस्य सावित्री नातिवर्तते ।

आ द्वाविंशात् क्षत्रवन्धोराचतुर्विंशतेर्विशः ॥" इति (मनुसंहिता – २/३८)

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अतिक्रान्ते वयसि वर्णत्रयं समाजे निन्दितं व्रात्यञ्च भविष्यन्ति –

<div align="center">

"अत ऊर्ध्वं त्रयोऽध्येते यथाकालमसंस्कृताः ।

सावित्रीपतिता व्रात्या भवन्त्यार्यविगर्हिताः ॥इति (मनुसंहिता -२/ ३९)

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गुरोः समीपे शिष्यस्यानयनमेव उपनयनम् । उपनीतो हि गुरुकुलं व्रजेत् ।तत्र गुरुमभ्युपेत्य स्वाध्यायं पठेत् ।ब्रह्मचर्यं वेदाध्यायनं भैक्षचर्या गुरुसेवा सावित्र्युपासनमग्नीन्धनपूर्वकं सायम्प्रातर्होमश्च ब्रह्मचारिव्रतानि । वृत्त्यर्थमहरहः भैक्षमाचरेत् ।सायं-प्रातः दण्डवत्स्नातः सावित्र्युपासनपूर्वकं जुहुयात् ।समासविद्यः गुर्वेऽभीष्टं सम्पर्याभ्यनुज्ञातः गोदानपूर्वकं क्षौरं विधाय स्नायादिति ब्रह्मचारिकृत्यसारः ।

अर्वाचीनकाले उपनयनस्य प्रासङ्गिकता :

अर्वाचीनकालेऽपि अस्य संस्कारस्य प्रयोजनीयता अस्ति ,यतः अस्माकं समाजे अस्मिन् षोडशसंस्कारकार्ये केवलं ब्राह्मणस्याधिकारः ।अतः उपनयनं विना कोऽपि ब्राह्मणः एतेषु संस्कारेषु उपयुक्तो न भवति सामाजिकानि मांगलिकानि कार्यानि च स्तव्धानि भविष्यन्ति ।"धर्मो रक्षति धार्मिकम् "इति नियमात् "धर्मेण हीना पशुभिः समाना "इति च नियमात् सामाजिकेषु धर्माचरणं अत्यावश्यकम् ।अतः एतेषु कार्येषु उपनयनसंस्कृताः ब्रह्मचारिणः एव आवश्यकाः ।धर्मकार्यैः कश्चित् भवतु न वा सामाजिकानां मानसिकी शान्तिः आगच्छति इत्यस्मिन्निषये नास्ति सन्देहः । मानसिक्या शान्त्या रोगाः अपि दूरीभूताः भवन्तीत्यपि सर्वैः ज्ञातम् ।अतः सर्वरोगविनाशाय मानसिकशान्त्यर्थं समाजस्य सुरक्षार्थञ्च उपनयनसंस्कारः कर्तव्यः ।

<div align="center">

११) वेदारम्भः

</div>

वेदारम्भो विद्यारम्भो वा एकादशसंस्कारः ।वेदस्य स्वाध्यायस्य आरम्भो हि वेदारम्भः ।कथं वेदारम्भो भवति इत्यस्मिन्निषये मनुना उक्तम् –

<div align="center">

"ब्रह्मारम्भेऽबसाने च पादौ ग्राह्यौ गुरोः सदा ।

संहत्य हस्तावद्वेयं स हि ब्रह्माञ्जलिः स्मृतः ॥" इति । (मनुसंहिता -२/७१)

</div>

अध्ययनविधिरपि मनुना निर्दिष्टः इत्येवम् –

<div align="center">

"प्राक्कुलात्पर्युपासीनः पवित्रैश्च पावितः ।

प्राणायामैस्त्रिभिः पूतस्तत ओङ्कारमर्हति ॥" इति । (मनुसंहिता -२/ ७५)

</div>

मन्त्रारम्भे पठान्ते च प्रणवमुच्चरेत् इति विधिः ।विना प्रणवं अधीतविद्या विस्मृता भवति अध्येता ।वेदपाठजनितपूण्यार्जनाय भ्वादित्यादयः व्यवहृतियुक्तोमक्षरमुच्चरेदिति मनुः –

<div align="center">

"एतदक्षरमेताञ्च जपन् व्याहृतिपूर्विकाम् ।

सन्ध्ययोर्वेदविद्विप्रो वेदपुण्येन युज्यते ॥" इति । (मनुसंहिता -२ / ७८)

</div>

अनेन कर्मणा ब्राह्मणाद्युपवेदेन सह साङ्गवेदः अधीतव्यः ।अनेन संस्कारेण सदाचारः सुस्थजीवनञ्च काम्यते ।एतदर्थमुक्तम् तैत्तिरीयोपनिषदि –

<div align="center">

"यान्यनवद्यानि कर्माणि तानि सेवितव्यानि, नो इतराणि ।

यान्यस्माकं सुचरितानि तानि त्वयोपाख्यानि नो इतराणि ।

ये के चास्मच्छ्रेयांसो ब्राह्मणाः ,तेषां त्वयासनेन प्रश्वसितव्यम् ॥"इति । (तैत्तिरीयोपनिषत् -७/११) ।

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अर्वाचीनकाले वेदारम्भस्य प्रासङ्गिकता :

अस्य संस्कारस्यापि महती प्रासङ्गिकता अस्ति ।उपनयनसंस्कारात्परमेव वालकस्य अस्य संस्कारो भवति येन सः वालकः वाल्यादेव वेदाध्ययनेन यथा भारतीयसंस्कृतिं जानाति तथैव वेदात् चरित्रगठनस्य रीतिं ज्ञात्वा आत्मचरित्रगठनं कर्तुं समर्थो भवति ।सुचिन्तकेनैकेनैव समाजगठनं कर्तुं शक्यते, सन्त्रासवादः दूरीभूतो भविष्यति, शान्तिमार्गमिष्यति च समाजे ।निर्मलायां वुद्धौ एव यज्ज्ञानं लभते सा एव आत्मनि प्रतिफलितं भवति शीघ्रमेव ।अतः सच्चरित्रगठने वेदारम्भस्य उपयोगिता अस्ति इत्यस्मिन्विषये नास्ति सन्देहः ।अपि च वेदः एव सर्वज्ञानस्याकरः वैज्ञानिकाधारश्च ।अतः वेदज्ञानं नित्यनवीनगवेषणायाः द्वारं यस्य अध्ययनेन विश्वे नवजागरणं भवितुमर्हति ।इदमपि अस्य संस्कारस्य प्रयोजनम् ।

१२) समावर्तनम्

द्वादशसंस्कारोऽयम् ।वेदस्य व्रतस्य वा उभयोर्वापि समास्यनन्तरं गुरवे दक्षिणां दत्वा स्नायादिति समावर्तनरहस्यम् । एतदनन्तरं बटुः बटुत्वं विहाय स्नातकत्वं लभते ।अयं संस्कारः बटुना स्वयमेव सम्पाद्यः ।स हि श्रुतिस्मृत्युदितं नित्यं कर्म समाचरेत् ।प्रायः पञ्चविंशति वयःकाले एव ब्रह्मचर्यव्रतपालनं विद्याभ्यासश्च समसो भवति ।तदनन्तरं गुरुणा इन्द्रियसंयम-श्रद्धा-भक्ति-दया-मानवकल्याणादिविषये शिष्यः उपदिष्टो भवति ।एतदर्थं अथर्ववेदे उक्तम् –

"तानि कल्पद् ब्रह्मचारी सलिलस्य पृष्ठे तपोऽतिष्ठन्तप्यमानः समुद्रे ।स स्मातो वभ्रुःपिङ्गलः पृथिव्यां वहु रोचते "इति। (अथर्ववेदः ११/२४/२६) ।

अर्वाचीनकाले समावर्तनस्य प्रासङ्गिकता :

वर्तमाने अस्य महतरा प्रासङ्गिकता अस्ति ,यतः अधुना समाजः मानविकता-सदाचारेत्यादीनां श्मशानभूमौ परिणतो भवति सुस्थचिन्तनाभावात् ।सुस्थचिन्तनं केवलमागमिष्यति सुशिक्षया ।सुशिक्षा आगमिष्यति सुपर्यावरणे सुगुरुणा शिक्षया एव यद्भवति समावर्तने । गुरुगृहे सतीर्थैः सह या शिक्षा विद्यार्थिनः प्राप्ता भवन्ति तेन न केवलं ग्रन्थस्था विद्या तैः आयत्तीकृता अपि च सर्वेषां सच्चरित्रस्य शिक्षा अत्र प्राप्यते ।अनया शिक्षया इतिकर्तव्यताविषये शिक्षानन्तरं गार्हस्थ्यजीवनविषये च ते शिक्षार्थिनः सिद्धान्तग्रहणे सक्षमाः भवन्ति यत्तु आधुनिकशिक्षया न स्म्भवेत् यतः आधुनिकशिक्षा केवलं ग्रन्थस्था विद्या ।विवेकानन्दोऽपि मन्यते – "Education is the manifestation of perfection already in men.''. अनया प्रथागतशिक्षया मनुष्य कदापि स्वनिर्भरः न भवितुमर्हति ,आत्मसम्मानञ्च न प्राप्यते ।अतः मनुष्यं मनुष्यरूपेण प्रतिष्ठार्थं वेदारम्भस्य समावर्तनस्य च प्रासङ्गिकता आसीत् अस्ति भविष्यति च ।

१३) विवाहः

"आश्रमादाश्रमं गच्छेत्'इति स्मृत्यनुसारं समावर्तनान्तरं शिष्यः गार्हस्याश्रमे आगच्छति ।अस्मिन्नाश्रमे विवाहात् परं कीदृशमाचरणं कर्तव्यमित्यस्मिन्विषये ते पूर्वसंस्कारे शिक्षा प्राप्यते ।गार्हस्थं विवाहमूलम् एतच्च व्रतं मूलञ्च सर्वेषामाश्रमाणाम् ।स्नातको हि वर्षमेकं स्नातकव्रतं कृत्वा द्वितीये वर्षे विवाहं कुर्यात् ।अस्मिन्विषये निर्देशः अनन्यपूर्विका कान्तामसपिण्डां यवीयसीमरोगिणीं भ्रातृमतीमसमानार्षगोत्रजां कन्यामुद्वहेत् ।नोद्वहेत् कपिलां कन्यां नाधिकाङ्गीं न रोगिणीं न श्मश्रुव्यञ्जनवतीं न चैव पुरुषाकृतिं न घर्घरस्वरां क्षामां तथा काकस्वरां न चेति ।अतः सुलक्षणयुतां समानवर्णजां कन्यां उद्वहेत् ।विवाहस्य उद्देश्यमस्ति –प्रथमतः इन्द्रियसुखम् प्रासिः द्वितीयतश्च सन्तानोत्पतिः ।मनुष्यजन्मनि सः ऋणत्रये वद्धः भवति –देव ऋणं ,ऋषिऋणः पितृऋणश्चेति ।ऋणत्रयं यथाक्रमं यज्ञादिकर्मणा शास्त्राध्ययनेन विवाहेन च शोधो भवति ।अष्टविधविवाहेषु ब्राह्मविवाहः श्रेष्ठः इति मनुना उक्तमित्येवम् –

"दश पूर्वान् परान्वंश्यान् आत्मनं चैकविंशकम् ।
ब्राह्मीपुत्रः सुकृतकृन्मोचयेदेनसः पितॄन् "इति । (मनुसंहिता – ३/३७)

अर्वाचीनकाले विवाहस्य प्रासङ्गिकता :

अस्य संस्कारस्य प्रासङ्गिकता अस्तीत्यस्मिन्विषये नास्ति सन्देहावसरः । पूर्वे सन्तानोत्पादनार्थं धर्मकार्यार्थञ्च विवाहस्य प्रयोजनमासीत् ।वर्तमानेऽपि उक्तकार्यद्वयार्थं अस्य संस्कारस्य प्रयोजनमस्ति ।विना उद्वाहं नारी-पुरुषयोः वार्धक्ये असहायावस्था भविष्यतः। परन्तु एतत् वक्तुं पारयामि यत्,अष्टविधोद्वाहस्य इदानीन्तकाले नस्ति प्रयोजनम् ।यतः अधुना रक्तपरीक्षादयः कारणैः प्राचीनकालस्य गोत्रादिविचारस्य नास्ति प्रयोजनम् ।

१४) वानप्रस्थः

चतुर्दशसंस्कारोऽयम् ।पुत्रेषु संसारभारं पौत्रस्य मुखदर्शनेन पितृऋणशोधानन्तरं यज्जीवनम् आरभ्य भवति तदेव वानप्रस्थः –

"व्रतेन दीक्षामाप्नोति दीक्षयाप्नोति दक्षिणाम् ।

दक्षिणा श्रद्धामाप्नोति श्रद्धया सत्यमाप्यते "॥ इति (यजुर्वेदः -१९/३०)

संसारं समर्प्य पुत्रेषु सांसारिकस्याध्यात्मिककार्येषु आत्मानं नियोजनमेव वानप्रस्थः ।अस्य संस्कारस्य मूख्योद्देश्यः सेवाधर्मः। भारतीयधर्म-संस्कृतयोः प्राणाः संस्कारोऽयम् ।मनुस्मृतौ विषयेऽस्मिन् उक्तम् –

"महर्षिपितृदेवानां गत्वाइनृण्यं यथाविधिः ।

पुत्रे सर्वं समाजस्य वसन्माध्यस्थमाश्रितः ॥" इति (मनुसंहिता -४/२५७)

अर्वाचीनकाले वानप्रस्थस्य प्रासङ्गिकता :

मनुष्यः सामाजिकः जीवः ।जन्मतः सः समाजे स्थित्वा सामाजिकीं सुधा गृह्णति परन्तु समाजं किञ्चिदपि न ददाति ।अनेन संस्कारेण समाजं प्रति तस्य कर्तव्यः सूचितो भवति ।वार्धक्ये समाजसेवया सः स्वोत्सर्गं करोति एतेन तस्य मानसिकी शान्तिर्यथा आगच्छति तथैव सङ्गीविहीने वार्धक्ये कालातिपातमपि भवति । एतेन सुस्थजीवनमपि अतिवाहयेत् ।अपि च पुत्रे सांसारिके अभारार्पणे यथा पुत्रस्य चित्ते पितरं प्रति क्रमान्वयेन अश्रद्धा जागरिता भवेत् तथैव भारार्पणं कृत्वा पिता मानसिकीं शान्तिं लभते ।अतः संस्कारस्यास्य प्रयोजनमस्ति ।

१५ परिव्राज्यः सन्न्यासो वा

पञ्चदशसंस्कारोऽयम् ।सम्यग् त्याग एव सन्न्यासः ।चतुराश्रमेषु अन्तिमाश्रमोऽयम् ।वानप्रस्थे अभ्यस्थस्य पुरुषस्य यदा संसारे अनीहा दृश्यते तदा एव अस्य संस्कारस्य प्रयोजनमस्ति ।अस्मिन्नाश्रमे ब्रह्मविद्योपासना भवति ।अनया ब्रह्मविद्यया मोक्षमार्गः प्रशस्तो भवति ।अत्र पुत्रैषणा-वित्तैषणा-लोकैषणेत्यादीनां सर्वप्रकाराणामेषणानां परित्यज्य सन्न्यासी स्वीयमोक्षमार्गः प्रस्तुयते ।

अर्वाचीनकाले सन्न्यासस्य प्रासङ्गिकता :

अस्य संस्कारस्यापि अद्य प्रयोजनमस्ति ।यतः वार्धक्ये ईश्वरसेवया मनुष्याणां मानसिकं स्थैर्यं लभते तेन च ते मनुष्याः दीर्घायुर्भवन्ति ।अपि च सर्वप्रकारकैषणात्यागेन पुत्रेभ्यो अनादरमपि न भवति ।

१६. अन्त्येष्टिः

षोडशसंस्कारेष्वन्तिमोऽयम् ।प्राणानां शरीरत्यागानन्तरं पुत्रादिभिर्यः खलु संस्कारो मृतशरीरदाहादिपारलौकिकः क्रियते स एवान्त्येष्टिः। पितृमेधः ,पुरुषमेधः ,दाहसंस्कारः ,श्मशानकर्मश्चेत्यादयः अस्य संस्कारस्य नामान्तरम् । शवदाहः प्रेतकर्मः सपिण्डीकरणं वार्षिकश्राद्धञ्चेति अस्य अङ्गानि ।सन्न्यासीनां भूमिसमाधिः जलसमाधिर्वा विधिः ।मरणान्ते शवदेहः स्नानान्तरं घृत-चन्दन-सौगन्धिद्रव्यैश्च लेपनं कृत्वा दाहकार्यं भवति ।दाहान्ते अशौचगृहमार्जनं ,प्रक्षालनं

,गोमयलेपनञ्च क्रियते । अन्न्तरं निर्दिष्टदिने गङ्गास्तिप्रक्षेपणानन्तरं आद्यश्राद्धं क्रियते ।इत्यस्मिन्विषये मनुना उक्तम् –"निषेकादिश्मशानान्तो मन्त्रैर्यस्योदितो विधिः "इति ।(मनुसंहिता – २/१६)।

अर्वाचीनकाले अन्त्येष्टिसंस्कारस्य प्रासङ्गिकता :

संस्कारोऽयमद्यापि अनुष्ठीयते ।एतेन ज्ञायते यत्, अस्य संस्कारस्य प्रयोजनमधुनापि अस्ति ।अनेन संस्कारेण न केवलं सूक्ष्मशरीरस्य अमरलोकयात्रा भवति अपि च मृतदेहात् रोगासंक्रमणात् अग्निसंस्कारेण सामाजिकसुरक्षाऽपि भवति ।एतद्व्यतिरिक्तं मृतदेहे यय्यत् लेपनं क्रियते तस्य सर्वस्य द्रव्यगुणाः सन्ति येन मृतशरीरात् किमपि संक्रमणं न विकीर्णं भवति ।अतः इदानीन्तने कालेऽपि अस्य संस्कारस्य प्रयोजनमस्ति नास्ति सन्देहः ।

उपसंहारः

यद्यपि सर्वेषां संस्काराणां वेदः एब मूलं तथापि कथं स्मार्ताः एतेषां संस्काराणं विषये चिन्तयन्ति स्म तच्चिन्तनीयम् ।यतः एतेषां संस्काराणां प्रयोजनं यथा पूर्वं आसीत् तथैब अधुनाऽप्यस्ति ।मानवानां सच्चरित्रगठनार्थं सुस्थसमाजपरिचालनार्थञ्च संस्काराणां अनुसरणं कर्तव्यम् ,तदभाबात् क्रमाण्वयेन मनुष्यसमाजः अधोगतिः प्रासो भविष्यति ।अतः एतेषां संस्काराणां न तु आधुनिकप्रयोजनमस्ति अपि च सार्बकालिकप्रयोजनमस्ति ।

सहायकग्रन्थाः

मनुसंहिता –अध्यापकः मानवेन्दुबन्द्योपाध्यायः –संस्कृतपुस्तकभाण्डारः

संस्कारः भास्करः –स्वामी विद्यानन्दसरस्वती –इन्तान्र्याशनाल् आर्यान् फ़ाउन्डेशन्

यजुर्वेदसंहिता –दुर्गादासलाहिडीशर्मा

अथर्बवेदसंहिता –दुर्गाप्रसाद् अध्यक्ष –श्रीदुर्गा प्रिन्टिं प्रेस

तैतिरीयोपनिषत् –स्वामी गम्भीरानन्दः

शतपथब्राह्मणम् –ज्ञान पाबलिशिअं हाउस्

सुश्रुतसंहिता –यशोदानन्दनसरकारः

जैमिनीयसूत्रम् –प्रेमनिधिशास्त्री

VISUALIZING   RANDOMNESS IN SOCIAL NETWORK USING RANDOM GRAPH

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Abstract
A network is a group of objects that use a set of common interconnections for the purpose of exchanging resources located on or provided by the network objects. Network theory is the study of graphs as a representation of connections between discrete objects. A real network is very high and multidimensional but it can be made tractable by random network models through various simplifications. Random graph is the general term used to refer to probability distributions over such networks. They may be described simply by a probability distribution or by a random process which generates them. From a mathematical viewpoint, random graphs are used to answer questions about many attributes of networks. It has many practical applications which can be found in several areas where complex networks need to be modeled. Networks that we use in daily life are modeled by large number of random graphs. The scope of this paper is to investigate a social network model with the help of random graph. Our random graph models of networks provide a yardstick against which actual networks are compared.

Keywords: Adjacency Matrix, Cluster Coefficient, Probability Distributions, Random Graph

Introduction
It is common knowledge that networks are omnipresent- from social networks such as Facebook, Instagram, Twitter, the world wide web and the internet to the complex and convoluted interactions between proteins in the cells of a human body or malignant cells in human body. It is challenging to understand their structure and development. Comprehending the structure of an actual network and analyzing its evolution has been a fascinating subject for scientists. It is interesting to note that in certain topological properties of networks, such as the number of social connections that one has, the least possible number of hyperlinks existing between two web pages, or the number of communities that a society forms. The evolution of a network can be studied to notice if the network, during its generation, converges to some particular state for a large number of nodes and if it can be solved analytically. However, large natural networks grow in an unpredictable manner and this is often modeled by random construction which is called a random graph**.**

Figure 1 shows Covid-19 spread all over the world. This infectious disease needs social interaction to spread its misery. This spreads randomly even when two people either do not know each other or even when there is low probability of them of knowing each other but still they are connected and hence infected. By incorporating social networks into models, we try to identify and analyze patterns of individual behavior that amplify or mute potential association. We are living in a society where the randomness lies in

the connection between people. With connection here we mean whether or not we know each other, we all are connected with some fixed probability. We live in a modern society that is characterized by complex and interdependent exchanges between various members of the public. If the probability of two people knowing each other is small then it would lead to a life of isolation. Our social setup would have been eroded if members of the society had working together and learning from each other. If the probability if assumed to be high then we can conclude that everyone knows or meets everyone else. If such were the case, the bliss of obscurity would not subsist.

Therefore, the question arises in our mind: for which probabilities do we see these extreme cases? For which probability do we see a phase transition from a connected world to an isolated world? These questions can be answered by using the random graph as a model for this random society. The Erdős-Rényi random graph exhibits a phase transition in the connectedness of the vertices on the graph. If the probability is above a certain critical value, then the graph has a giant connected component with high Erdős-Rényi probability and if it is below the critical value then, with high probability, the graph consists of small connected components. Thus the theory of random graphs lies at the intersection between graph theory and probability theory.

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Figure 1: Covid-19 spread network all over the world

The ability to analyze large networks is fundamental to study of complex network systems in many scientific disciplines and this study focuses to imitate real networks. Most networks, we encounter do not have the predictable nature, crystal clear idea of their architecture. Rather, at first inspection they look as if they were spun randomly. Random graphs manifest this perceptible randomness by constructing and characterizing networks that are genuinely random.

From a modeling perspective a network is a relatively simple object, consisting of only nodes and links. The real challenge, however, is to decide where to place the links

between the nodes so that we reproduce the complexity of a real system. This paper lights an introductory summary to the evolution and construction of random graph models for social networks. The likely ties among nodes of a network are regarded as random variables, and assumptions about dependencies among these random variables determine the general form of the random graph model for the network. In this respect the philosophy behind a random network is simple: We assume that this goal is best achieved by placing the links randomly between the nodes, that takes us to the definition of a random network.

Journey of Random Graph

Two mathematicians, Pál Erdős and Alfréd Rényi, have contributed a lot to develop and understand the properties of these networks. In their honor a random network is called the Erdős- Rényi network. A random graph is denoted by G(n;p), which includes any edge e in the edge set[V_2] with probability p, the probability distribution of the fraction of nodes with a given degree; or equivalently, the probability that a random node has a given degree. It is quite obvious that some nodes of real network gain numerous connections, though some acquire very less. The degree distribution P(k) here plays major role to decide or best fit probability distribution. So, journey of random graphs passes through many stages in form of various probability distributions.

Binomial distribution

If the number of connections in a network are less, then in Erdős-Rényi graph, the existence of each edge is a Bernoulli random variable with parameter p, the degree of a given vertex is a binomial random variable with parameters n-1 and p. The degree distribution $P(k)$ can therefore be written as

$$P(k) = C^n_k \, p^k (1-p)^k$$

The binomial distribution allows to calculate the network's average degree $<k>$ as well as its variance σ. The distribution is shown in Figure 2(online resources).
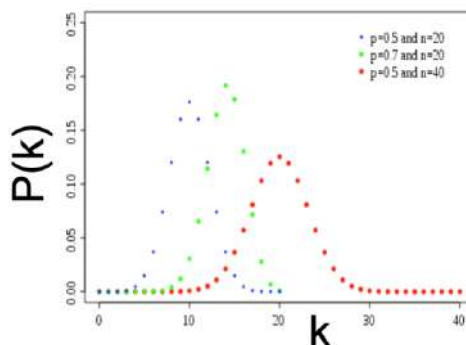
Figure 2: Binomial distribution of degrees of nodes

Poisson distribution

As the number of vertices becomes large, the degree distribution converges to a Poisson distribution with parameter (n - 1)p:

$$P(k) = \frac{((n-1)p)^k e^{-(n-1)p}}{k!}$$

where n = number of vertices, p = probability of each pair of vertices being connected, k=number of edges.
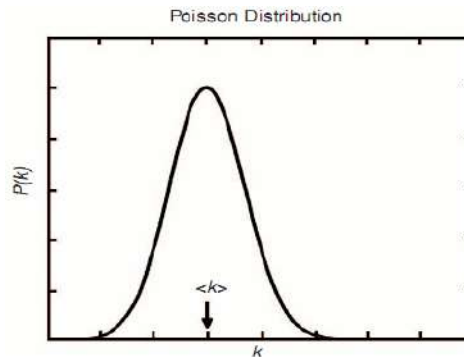
Figure 3: Poisson distribution of degrees of nodes

probability of finding a highly connected vertex decreases exponentially for k >> average k i.e. <k>.Figure 3(online resources) represents Poisson distribution of degree distribution of random network.

Till the time real networks are sparse, they can be approximated by binomial or Poisson distribution. Both the distributions have almost similar properties, still most of the network go with Poisson distribution. As average degree <k> increases, the network becomes denser, where not only average degree play important role for the best fit of probability distribution, in fact the dispersion of nodes i.e. variance also affects the selection of appropriate distribution.

The spread in the degrees of real networks is not same throughout the network and also it is much wider than expected in a random network. Social networks in human society or many complex networks ranging from biology to computer science, where there are some nodes with an anomalously large number of links and some are just with few links, means variation of degrees in a real network shows many fluctuations , which can not be handled by Poisson distribution. Also, Poisson fitted models have a big drawback with high degree nodes in network. In particular, no one longer needs to assume that the probability distribution of the number of connections each person has with others, obeys the Poisson law. So, in a Poisson fitted network most nodes have

equivalent degrees, restricting hubs. In contrast, social networks are comprised of a significant number of highly connected nodes and with large differences in node degrees.

This uneven distribution of connections where some nodes have very high degrees of connectivity (hubs), while most have small degrees form Scale free network. It means the description of a system does not change as a function of the magnification (scale) used to view the system. This is why the random network desires more than binomial and Poisson distribution.

Power law distribution

There are numerous real world networks where few centers, nodes and individuals are in high demand while others have small number of connections. Consequently, real world networks have a wide range of degrees; from degree one or two (for a small city), to degree 100 or more (for a major focal point). The degree distribution is not binomial or not Poisson distribution. Many large graphs that arise in various applications appear to have power law degree distributions .A power law degree distribution is one in which the number of vertices having a given degree decreases as a power of the degree ,i.e. power law distribution of degrees where high connectivity is unlikely but occurs more often than predicted by random network.

$$P(k) \, \alpha \, k^{-a}$$
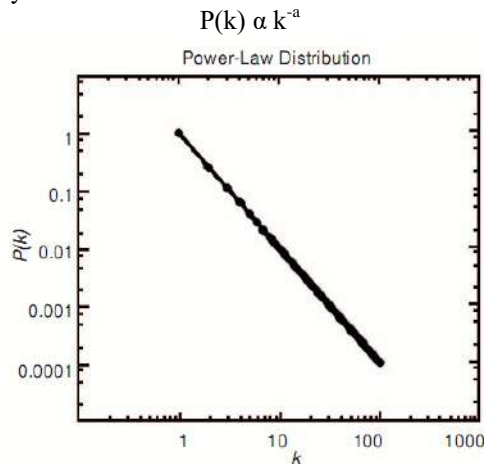
Figure 4: Power law distribution of degrees of nodes

Power laws show up as straight lines(Figure 4: online resources) when plotted on log-log coordinates, with the slope of the line = -a. Power laws are scale free because if k is rescaled (multiplied by a constant), then P(k) is still proportional to $k^{-a.}$

Growth of Social Network

When a person does not have a Facebook account then that individual is not connected to others. However, on creating an account the individual starts to make the

connections. So links are added gradually through random encounters between the guests. This corresponds to a gradual increase of p, with significant changes in the network topology .To quantify this process, we first inspect how the size of the largest connected cluster n_G within the network varies with average degree $<k>$ (Barabási, Albert-László ,2016).Two extreme cases are easy to understand:

• For $p = 0$ we have $<k> = 0$, hence all nodes are isolated. Therefore the largest component has size $n_G = 1$ and $n_G/n \rightarrow 0$ for large n.

• For $p = 1$ we have $<k>= n$-1, hence the network is a complete graph and all nodes belong to a single component. Therefore $n_G = n$ and $n_G/n = 1$ for large n.

It is observable that one can expect that the largest component grows gradually from $n_G = 1$ to $n_G = n$ if $<k>$ increases from 0 to n-1. Yet, indicates, this is not the case: n_G/n remains zero for small $<k>$, indicating the lack of a large cluster. Once $<k>$ exceeds a critical value, n_G/n increases, signaling the rapid emergence of a large cluster that we call the giant component.

Think of it like illness was never accepted as a valid reason to miss services at the Shincheonji religious group, in 2020 .The religious group an offshoot of Christianity is nowF the heart of South Korea's novel corona virus outbreak, particularly in the city of Daegu. South Korean authorities believe a large number of cases in the country. Also, as USA has emerged the most infected country by Covid-19, giving birth to giant component.

Taken together, in a random society all individuals are expected to have a comparable number of friends. Face book is a social media platform structured such that two people can only be friends if both people authorize it. Because of this built-in structure of face book, our social network graphs are all undirected. If the social media we were focusing on was Twitter or Instagram this would not necessarily be the case. The social network graphs representing Twitter or Instagram would be directed graphs. Friends share mutual friends, they share other friends and doing so we are some how connected to those whom we do not know, which develops randomness in Facebook network and also we are connected to somehow a very famous personality to become part of a hub. Most of the social network are highly clustered with positive pairing as we themselves create a social network where the friends of most of my friends are typically my friends, leading to undesirable pairing creating randomness. On the other hand technological and biological networks are most of the time negatively correlated(dissassortative) (Ioannides ,Yannis M,2005).

Social network have some special features like growth and preferential attachment. A Facebook user does not emerge with a big friend list all of sudden. In fact he/ she starts networking by adding friends one by one, so an individual friends list accumulates with time which gives birth to growth model. Also we observe that in a social network of some famous personality or politician who already has many connections but still attracts more people which results in still more connection. This is termed as a preferential attachment. Another example can be of well cited papers getting more citations, richer getting more rich, more infected people means sudden increase of

infected people in case of epidemic or pandemic spread etc. Assortatvity is higher in the densely connected network, and it can be concluded that preferential attachment toward similar degree nodes is higher in the some state than the normal state of any individual.
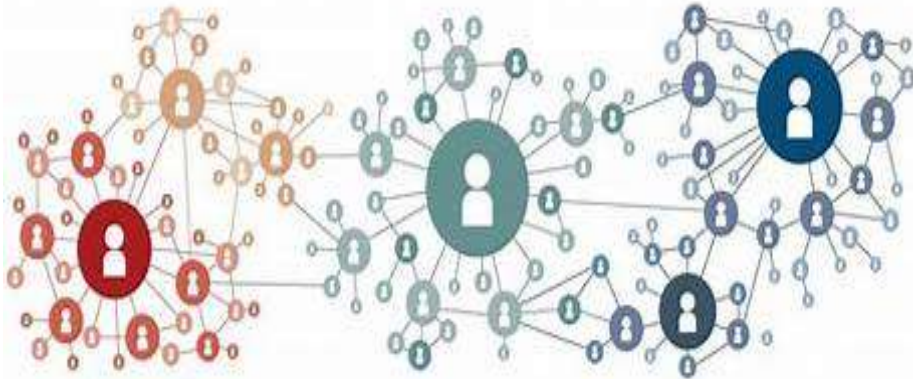
Figure 5: Social Network

The detailed study of random networks suggests important differences among different types of networks, ranging from scientific collaboration networks, protein –protein interaction in body, cancerous cells in body, increasing cases of corona virus throughout the entire world, to the networks of movie actors who have co-starred, web pages and their network. These networks resemble power laws with exponential cutoffs.

The fact that social links require energetic maintenance, appears to be an important property of social networks. Therefore, at least intuitively, optimizing over connections may imply sharply different distributions of social connections from those of other, subdued links.
(Jin *et al.*, 2001) used this observation as a beginning for social networks growth. Specifically, their theory emphasizes the following features:
(1) Network construction and its analysis is done by a fixed number of nodes , varying number of edges and varying degree of nodes as human connections are formed and broken at a timescale as compared to the time which is shorter than these are joined and left on social network.
(2) Studying social networks, one would expect that the more important are repeated costs of maintaining social relationships relative to one-time costs, the less right-skewed the degree distribution is.
(3) Usually in social network, preferential attachment is not as important as in case of web and an actor's network , as most of the individuals have similar number of friends..
(4) Social networks exhibit transitivity, that is one's friends are likely to be friends also of each other, which ultimately leads to clustering.

In particular, clustering is ensured by making the probability of two persons being connected increase in the number of links they have in common. The number of links grows very slowly once a certain level has been reached and the   role of links   in common is an important factor in the growth of social networks, roughly corresponding to the role that preferential attachment plays in the growth of the web or as happening in pandemic spread. Most importantly, communities appear, that is, groups of vertices with many connections among their members and few ones with those outside.

(Newman *et al.*, 2001) strongly said that even when the numbers of individuals' social network vary randomly across the population and are probabilistically independent, the set of an individual's friends are not a random sample of the population. We will refer to as the induced distribution of neighbors' degrees. It gives number of the friends of one's friends of one's friends and so on, that is, of one's neighbors's neighbors in the social network. All this kind of network emerge the power law and its attributes.

Different Performance Measures of Social Network

In general if we observe individual's Facebook account, it consists of friends' network, which may have one way or both way communication, pattern of maintained relationship consisting of people whose profile has been checked by the user more than once to maintain engagement.

 Visualizing randomness stirs many questions in our mind like how many friends an individual have, how many friends are also friends of each other, how many of them are connected to large number of friends and so on. These questions are answered by following statistics**:**

Diameter and average path length
Let d (i, j) denote the length of the shortest path (or geodesic) between node i and j (or the distance between i and j). The diameter of a network is the largest distance between any two nodes in the network:
Diameter = max d (i, j)
The average path length is the average distance between any two nodes in the network:
Average path length $= \dfrac{\sum_{i \geq j} d(i,j)}{\frac{n(n-1)}{2}}$

Average path length is bounded from above by the diameter; in some cases, it can be much shorter than the diameter. If the network is not connected, one often checks the diameter and the average path length in the network.
Clustering Coefficient
In graph theory, a clustering coefficient is a measure of the degree to which nodes in a graph tend to cluster together i.e. in most real-world networks and in particular social networks, nodes tend to create tightly knit groups characterized by a relatively high density of ties. This tends to be greater than the average probability of a tie randomly

established between two nodes, so it measures the degree to which nodes in a network tend to" cluster" or form "triangles"

Local Clustering Coefficient: The local clustering coefficient (LCC) gives an indication of the embeddedness of single nodes. It is the tendency of people who share connection in a social network to become connected.

As the local clustering coefficient C_i for a vertex X is then given by the proportion of links between the vertices within its neighborhood divided by the number of links that could possibly exist between them. It is defined as

$$C_i = \frac{\text{# of pair of X'friends who are friends}}{\text{# of pair of X'sfriends}}$$
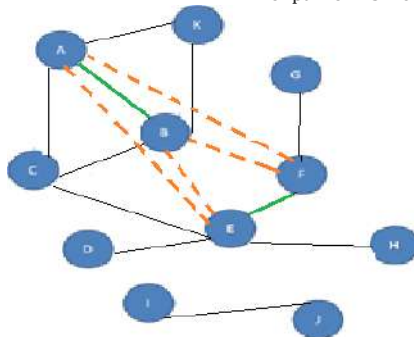
Figure 6: Local cluster coefficient evaluation

Here in Figure 6 , cluster coefficient of node 'C' is $= \frac{2}{6} = \frac{1}{3}$, which can be observed from the figure , where green lines show pairs of C's friends who are friends and green and orange combindly show all possible pairs of C's friends.

Global Clustering Coefficient: To measure clustering on whole network, the global clustering coefficient is designed to give an overall indication of the clustering. It is taken as

$$\bar{C} = \frac{\sum_i^n C_i}{n}$$

Centrality

In graph theory indicators of centrality identify the most important vertices within a graph. Centrality seeks identifying the most influential person(s) in a social network, key infrastructure nodes in the internet or urban networks, and super-spreaders of disease. Different Measures of centrality are as follows:

Degree Centrality: Degree centrality for node i , is given by $d_i(g)/(n-1)$, where $d_i(g)$ is the degree of node i .

Closeness Centrality : Tracks how close a given node is to any other node: for node i , one such measure is $\frac{(n-1)}{\sum_{i \neq j} d(i,j)}$, where $d(i,j)$ is the distance between i and j .

Betweenness Centrality : Betweenness centrality has wide applications in network theory; it represents the degree to which nodes stand between each other. It captures

how well situated a node is in terms of paths that it lies on so the number of shortest paths passing through a node v:

$$\text{and given as } C_B(v) = \sum_{s \neq v \neq t \varepsilon V} \frac{\sigma_{st}(v)}{\sigma_{st}}$$
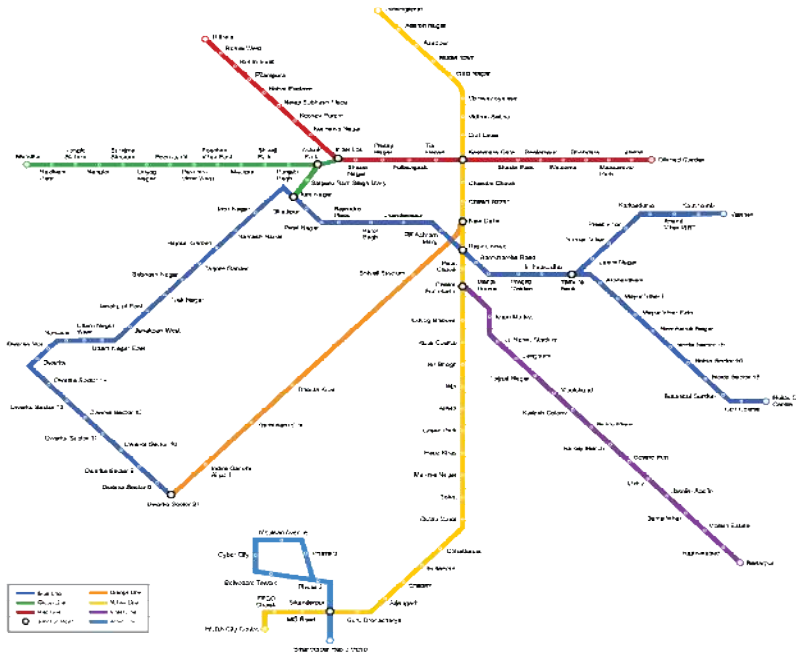
Figure 7: Delhi metro junctions map showing betweenness centrality

A network can be considered a description of the paths along which something flows, like a radio broadcast which provides the same information to many listeners at once. This allows a characterization based on the type of flow and the type of path encoded by the centrality. In social network, a person with many links has been traced by centrality. For example, in the above Figure 7 Delhi metro junction map is shown. Junction points, where two or more different colour metro line meet, show higher centrality, which have more control over the network.

Degree distributions
In a given realization of a social network some nodes gain numerous connections, while others acquire only a few or no connections. These differences are captured by the degree distribution P(k), which is the probability that a randomly chosen node has degree *k*.

The degree distribution P(k), of a network is a description of relative frequencies of nodes that have different degrees k, which follows a probability distribution.

Phase transition

The phase transition refers to the sudden change in the component structure of many random graph processes. In the random graph *G(n, p)* it happens around the time 1/n. Erdős and Rényi introduced this term to describe a significant change in a given property of a random graph as p crosses a threshold. Generally, analysis of statistical properties of Erdős- Rényi graphs is performed in the limit as n approaches 1, and the threshold value of p is calculated as a function of n. In the G(n; p) model this phase transition is around p = 1/n. If p is smaller than that, all components of the random graph will have size of order at most ln(n). If p > 1/n, a giant component of size of order n emerges, while all smaller components are of order ln (n).

Also, in the development of giant component , most important part is played by phase transition. This is the interval in the random graph model where the size of the largest component shows very rapid growth. Phase transitions in social networks play role as more and more connections are added to that network, meaning that having n nodes, in each time increment, a connection is placed between a randomly chosen pair of them, like requesting and accepting friend request increases the size of face book network. Social network does not emerge in single day, it is dynamical process and becomes larger and larger day by day, depending upon situation. The transformation from a set of disconnected nodes to a fully connected network is called the evolution of a network. If we begin with a network with n totally disconnected nodes (number of connections is zero), and start adding connections between randomly selected pairs of nodes, the evolution of the network begins. For some time we will just create pairs of nodes, after a while some of these pairs will connect, forming little trees. As we continue adding more links to the network, there comes a point when a giant component emerges in the network as some of these isolated trees connect to each other. This is called the critical point, i.e. average degree<k> becomes 1(Erdős, P. Rényi, A ,1959). Further adding nodes to the system, the giant component becomes even larger, as more and more nodes get a link to another node which is already part of the giant component.

Social Network development and its investigations

The social network shown in Figure 7 represents Facebook friendship network of 50 individuals which is constructed by online graph construction software. The graph shown here is undirected graph because of their mutual friendship.
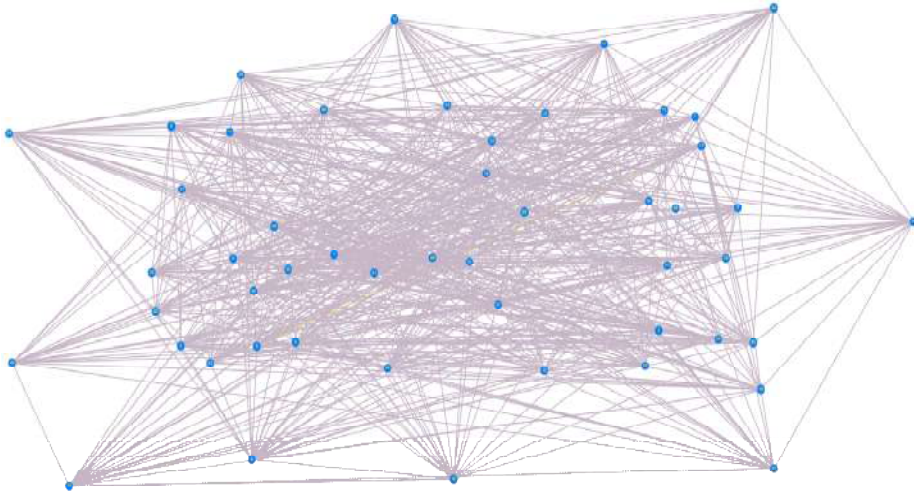
Figure 7: Friendship network of 50 individuals

The friendship data is organized as an adjacency matrix A. The characteristic of an adjacency matrix of an undirected graph is that the matrix, by construction, is symmetric. A symmetric matrix is a square matrix such that $A = A^{\mathrm{T}}$.

It consists of zeros and ones.'1' in (m,n) position represents that person m and person n are friends though '0' represents that person m and person n are not friends. Also, person m and person n are friends of each other, that is symmetric in relation, hence the adjacency matrix A is symmetric. Figure 8 is obtained by MATLAB programming, where '0' elements are highlighted as in blue colour and '1' in red colour. Also the matrix is symmetric about blue diagonal.
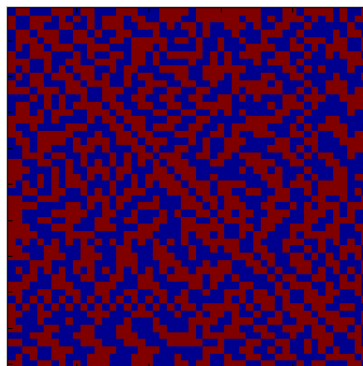
Figure 8: Adjacency matrix of friendship network

In Facebook individual is somehow connected to other person without actually related to that person. Graph in Figure 9 shows common friendship network, which has been obtained by squaring adjacency matrix A. It is very important feature of adjacency matrix. On taking power n of this matrix its individual entry number represents the number of friends acquainted to individual by a path of length n. By this feature we can peep into that random network which is somehow built with many persons whom an individual did not know. Figure 9 shows that common friendship of length 2 in following adjacency matrix.
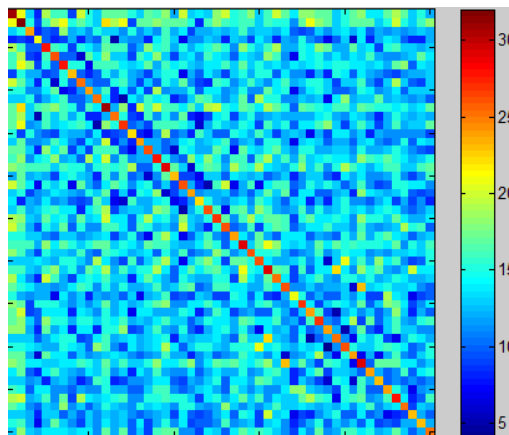
Figure 9: Common friendship network matrix of path length 2

This matrix is again developed in MATLAB, a colourbar is given in the right of adjacency matrix, showing different colours. Different colours show number of common friends an individual has. Darkest colour maroon in represents around 30 common friends with length 2.

Based on cluster coefficient of every node of friendship network graph from Figure 7, we plotted degree vs. cluster coefficient graph in MATLAB, which follows power law distribution taking a=-3,as shown in Figure 10. Joining probability P(k) shown on y – axis is calculated as p= <k>/(n-1) for every node, which is cluster coefficient of those nodes .The plot here obtained is very close to straight line. The graphs shows similarity between social network and random graph.
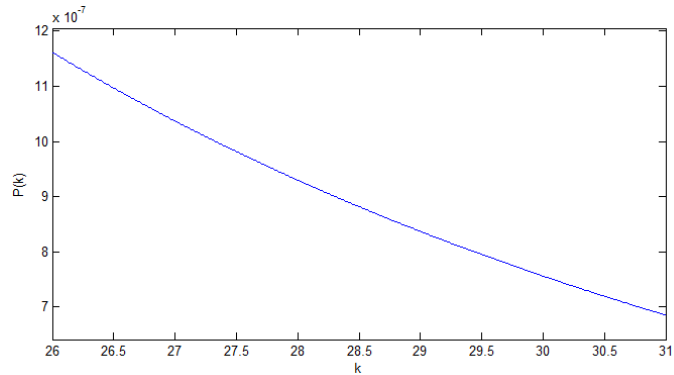
Figure 10: Power law distribution approximation built in 'MATLAB' for friendship network graph

In furtherance to our investigation, the network further here divided into different groups using cluster analysis. Figure 11 shows dendrogram of different cluster by which we can identify the cluster with more connections . i.e. hubs in a network, people with more social relationships, strong personalities, celebrities etc. It shows the hierarchical relationship between objects.   In fact this clustering can also used to detect hot-spots in Covid-19 infected areas, as big clusters may become further big to become giant network. It is most commonly created as an output from hierarchical clustering.
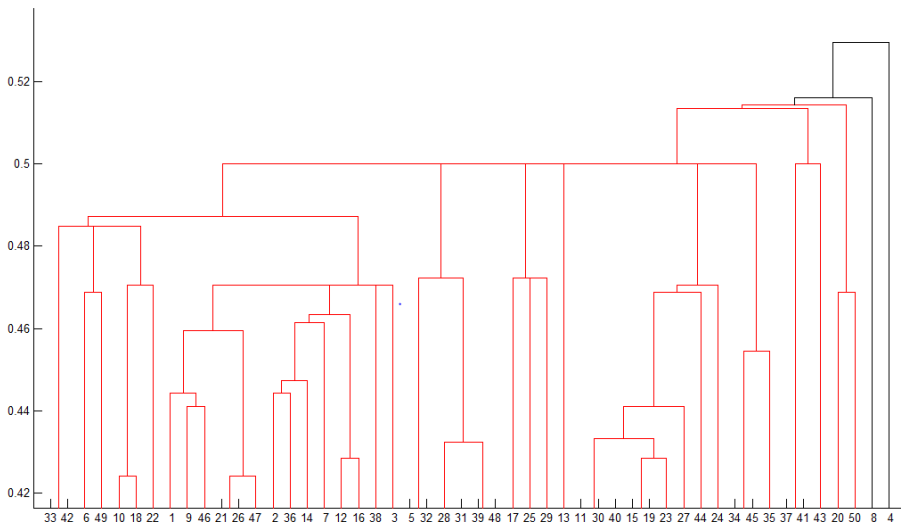
Figure 11:Dendrogram built for friendship network

This dendrogram has been obtained by MATLAB using Jaccard distance as we are dealing with binary data. Here nodes(individuals) are taken on x-axis and their distance measure is taken on y-axis.Two colours in dendrogram shows different clusters in graph. Here data is divided among three clusters but all nodes majorly come into one cluster(red colour) and rest two are in different colours with very short distance. The number of clusters is always data dependent.

Conclusion: Graphs are used in social networks that have increased complexity with advancement in social media. This paper provides an introductory summary to the formulation and advancement of random graph model for social networks. The possible linkages among nodes of a network are regarded as random variables. Assumptions about relationships among these random variables join the nodes and determine their distribution. In this paper we have explained social network, its existence, features and its association with random graphs. We have discussed many measuring parameters of graphs taking a glance of social network for its better understanding and partitioning the graphs to reduce its complexity. The study shows social networks satisfying power law distribution. The dendrogram constructed from the given data shows hierarchical clustering which is very useful to visualize various clusters in networks. These clusters shows the most connected groups like hubs, pandemic hotspots or socially strong personalities etc based on their similar attributes. Thus the work investigates social network through the tool of random graph.

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CONSERVATION, SUSTAINABILITY AND ECONOMY: THE PROCESS OF INCLUSION IN THE FOREST MANAGEMENT IN POST-COLONIAL INDIA

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Introduction:

As a part of the environmental management and social movement, Joint Forest Management in India has a crucial in economic development of the marginalized people or communities and social elevation along with forest conservation and sustainable development. The very project acknowledges the symbiotic relation between Nature and human being as well as provides various avenues for economic development of the marginalised tribes, forest dwellers or peasants, living inside or on the fringe areas of forests, through small scale financing. The micro-level initiatives undertaken by Joint Forest Management Committees, involving the men and women alike, has broaden the social space and drawn the down trodden lots within the main stream of economic and environmental progress. Micro level economic and environmental growth is the fulcrum of the national development and JFM is one of such initiatives. It has been shown in this article that JFM would have a greater role in economic and sustainable development if appropriate socio-political and environmental efforts are imbibed; if JFM programme can be incorporated within the larger spectrum of a socio-environmental movement.

Prelude - Colonial forest management and commercial orientation of forestry:

India has a long history of local use and protection of forests. The oldest examples perhaps are of sacred groves, an indigenous community-based approach for protecting and preserving patches of forests for protecting wild eco-systems and securing subsistence livelihood. The network of sacred groves from time immemorial in the sub-continent is considered as the traditional form of forest conservation.[1] Sacred groves were/ are forests or a portion of the same, encompassing areas of various sizes and preserved by neighbouring tribes and peasants with an attachment of a profound religious connotation. Logging or hunting were/are, in such forest areas, prohibited and condemned, since these are considered as the abode of gods or sacred spirits. There are hundreds of such sacred groves in different parts of India, reflecting the success of the traditional pattern of forest conservation A number of communities, as proved by historical evidences, have protected local forests from time immemorial. The concept of common land, which included both pastures and forests, was very much active and had been sanctioned by ancient treatises or inscriptions. In India the caste based village society has developed a variety of institutions to regulate the use of forest resources. Along with fire wood many other types of forest produce are acquired. Caste based village society has devised a unique system of diversified use of forest resources that greatly minimized inter-caste competition.[2] It has been understood, that the village communities have the ability to manage their own affairs. It has become clear that the

strengthening of village-community based institutions is absolutely essential for the proper management of forest preservation, resource use and occupational gain.[3] It was unlikely that the British colonial administration in India, either understood or to compromise with the instrument of colonial ideology to abide by the conventional or traditional rights to forest resource use and forest conservation. The colonial power out-rightly denied that these are complementary to each other. Under the British colonialism, India witnessed an indiscriminate process of deforestation in its initial stage, followed by commercial orientation of forest resources and finally, after prolonged debate, absolute state control over major forest covers, denying the traditional rights of the tribal and peasant communities to forest for subsistence.

Transition from exclusion to inclusion - Socializing forest conservation in post-independence India:

After independence from the colonial yoke in 1947, India adopted and modified the colonial Forest Act of 1927. The depleted forest cover has long been a source of concern for the policy makers in free India. The Indian government enacted the first National Forest Policy in 1952 with little alteration of the colonial fundamental principles. As India started for industrialization, infrastructural development and modernization, commercial orientation of forestry and supply of subsidized raw material to forest based industries became the prior issues, thus, effecting forest dependent communities and sparking of several movements against state policy. The failure of the contractor system as envisaged in the Forest Policy of 1952 was followed by a Review Committee in 1967, recommending for the establishment of local cooperatives for the forest management, but failed to produce expected results. This was due to the fact that the Forest Department was told, since it is a commercial department, that it should not extend concession even to cooperatives at the cost of the exchequer.[4] In the mid 1970s, with a view of industrial orientation of forest policy, propagation of tree crops (like eucalyptus) was cherished and closely tied to a programme of Social Forestry with an aim of supplying timber to industries manufacturing paper or rayon along with fuel, fodder and small timber available for the use of agriculturists and tribes. Activated with three components, first, the plantation in individual holding or Farm Forestry, second, fuel wood lots on government lands, along roads and canals and third, the Community Forestry, managed by village or tribal communities. An interim review by the World Bank, one of the Programme's chief sponsors, showed that only Farm Forestry was successful.[5] Community Forestry achieved only 11% while farm forestry overshot 3430% of their respective targets.[6] Farm Forestry indeed has an inherent adverse effect on agriculture production, increasing prices of grains.[7] In a nut shell, Social Forestry has emerged exclusively, as beneficial to commercial farmers and industrial units, bypassing more important questions of social equality, environmental stability, economic elevation, skill and capacity building and local participation in forest management. This situation has been escalated more with the introduction of import and captive plantations, a joint venture by industrialists and importers around mid 1980s.

Paradigm of protest and economic re-orientation of forestry:

Attempts to curtail local forest use by effective changes in the forest acts continued until the early 1980s, even as affected communities and NGOs continued to oppose the government imposed measures. Despite the restrictions, peasants and tribes, believing in their traditional rights, continued to find access to forests defying imposed forest laws. The Chipko Movement in Garwal and Kumaun has played an instrumental role in devising the ecological, social and economic re-orientation of forest policy and ushered in the programme of Joint Forest Management as recognized in the National Forest Policy of 1988. In this context, mention may be made of the Populist Theory surfaced in course of the debate in action before the introduction of British Indian Forest Acts of 1878. It proposed, though not heeded or implemented, that the 'colonial' state of British India should not intervene in forest management and the tribes and peasants of British India must exercise sovereign rights over wood lands.[8] Some British foresters were of opinion that some conveniently located residual forest areas should be left under the village communities for resource use. These are of course some early and prudent observations regarding customary traditional rights, decentralization of forest control, local participation in forest management, sustainable development and economic growth.[9] The need of the hour and the previous policy failure, backlash induced the emergence of a new institution and the rationale for the Joint Forest management within the Indian forestry sector. This change of attitude towards forest rights is a product much of a social conflict between communities and the state, rather than bureaucratic formulations. Subsequently, it was felt that village communities, Van panchayats tribal organizations could play an instrumental role in forest production and sustainable development. The forest tracts between Rudraprayag and Karnaprayag in the Alakananda valley reflect the positive role played by the Forest Panchayats.[10] In Ranikhet sub-division of Almora district in the 1960s there were large number of successful forests panchayats.[11]

The craft of Joint Forest Management - a new dimension in sustainable development with economic elevation:

The Joint Forest Management is an environmental programme in a broader sense for protecting and conserving degraded forests along with supporting, economically and socially, the local village communities and tribes for their sustainable development. According to Oxford Dictionary of Ecology, "Economic development that takes full account of the environmental consequences of economic activity and is based on the use of resources that can be replaced or renewed and therefore are not depleted." It also includes the programme of acknowledging communal forest rights in a limited sense with the state sanctions of prudent use of resources for their subsistence. This programme is an approach to sustainable development and forest regeneration where the threads of environmentalism, society, economy are woven fine and embedded with the objectives of community self-sufficiency, empowerment of women, social justice and the participatory role of community in forest and local management. All these, along with sustainable growth, can be achieved with the programme of micro-financing and its proper implementation and utilization. Most of the states under the Indian Union are following two prolonged approaches to involve local communities and indigenous

knowledge i.e. increasing the stake of the neighbouring communities in the management and utilization of forests and creating alternative source of employment to reduce the pressure on forests and here, micro-finance has a pivotal role to play. A body of empirical studies underline the significance of micro-finance as an effective anti-poverty and development strategy playing a significant role in JFM for establishing management partnership between local forest-dependent communities and the state for sustainable growth and joint benefit-sharing of public forest land.[12]

Such unique combination of environmentalism and economics, as manifested in JFM programme is completely divorced from the gamut of colonial exploitation and deprivation of the age old traditional rights of the indigenous rural and tribal communities. Much later, even after independence in 1947, the Indian forest policy of 1952 carried the earlier legacy with a bird's eye view of commercial orientation of forest wealth to accommodate the very need of modern industrialization for a mature India in a consolidation syndrome of modernity. As observed, by 2000 AD, the government statistical report on forestry shows that 63.72 million hectors of actual forest area in India, mostly owned by the state, almost 38% is degraded with a canopy density of less than 40%.[13] This is due to the rigid state control, resulting in disempowerment and displacement of indigenous and tribal communities, along with disintegration of community based resource management.

The JFM Circular of 1990 along with the subsequent Guidelines of 2000 and 2002 provided the complete framework of state level rules for JFM. In this programme, state forest departments support local forest dwelling and forest fringe communities to protect and manage forests and share the cost and benefits from them. The benefit to peripheral and peasant communities is direct access and control on the use and sale of the most Non Timber Forest Produces and a share in the income from timber and other tangible benefits from local eco-systems. Communities organize themselves into JFM Committees to protect as well as manage the nearby forests and to abide by the bye-laws and micro-plans. Community development and financial growth within the communities through micro-finance and soft loans play the lead role in making them self sufficient and less dependent on forest resources. International and national monetary sanctions along with the raised corpus funds of the JFM Committees provide effective bonding among environmentalism, sustainable development and financial upliftment.

In Joint Forest Management the people's representative body, called a Village Forest Council (VFC) is formed with full involvement in planning and execution of works, protection of forest, harvesting and benefit sharing with focus on degraded forests. Women participation and formation of women sub-committees within the folds of Village Forest Council are manipulated to empower them and providing space for participatory role in forest protection and management since, their will-force and power was already proved in the course of Chipko Movement. A Memorandum of Understanding (MoU) is signed between Forest Department (Divisional Forest Officer) and the Village Forest Council (President). All VFCs are registered under the Societies Registration Act of 1975.

The government sanction soft loans out of the funds from Japan Bank of International Cooperation (JBIC) and other international and national agencies. The Joint Forest Management programme in Tamil Nadu implemented in 1997-98 is funded by the JBIC at a level of US $ 100 million. The individual grants are converted into interest free loans so that the VFC can build up its corpus funds and extend loans to remaining forest departments for acquiring productive assets. To make the forest dwellers and peasants more self oriented and to envisage a holistic development of these micro-watersheds. Departments of Public Works, Electricity, Health, Agriculture, Animal Husbandry and Tribal Development have been drawn within the orbit of JFM. The programme has come to acquire a multidisciplinary approach in which the micro-financing plays an active role. Thus, JFM has assumed a substantial role in protection and enlargement of forest cover through local participation along with traditional local knowledge base, supported by micro finance as aid for betterment of sustainable livelihood and development.

By the year 2000, about 22 state governments have issued orders to implement JFM with some differences in mechanisms for involving local communities in forest protection and, sustainable development and economic inclusion for growth and minimal dependency on forest produce like timber or logs as fuel wood and other non timber forest produces. There exist around 36,130 Village Forest Councils, managing a total of 10.25 million hectares of forest area in the country.[14] During the year 2001, a quantum of about 14254845.95 hectares of forests and adjoining wood land were under the management of JFM programme. There exist around 63618 forest protection committees, which suggest that 22% of the total forest cover of 63.73 million hectares in India is being protected and managed by JFM committees. Along with this, a number of tree grower cooperatives and self-initiated forest protection groups are actively managing forests in India, following the trail of participatory forest management.[15] In 2005, 27 states of Indian Union worked with various JFM schemes with over 84,000 Forest Management Committees comprising an area over 140,000 km^2 of forest lands. The affectivity of the JFM has been greatly enhanced by micro-financing as a potential tool for the development of forest villages and regeneration of forest tracts.

Apart from international and national funding as soft loans, income is generated from other spheres like fines imposed for offences (illegal grazing and tree felling), recovery of loans and income from sale of commercial timber, non timber forest products and membership fees. These are used for community development and acquiring productive assets by individuals. VFC also arrange insurance for cattle purchase through its loans.[16]

In West Bengal importance of people's participation was first felt in the Arabari range of Midnapur District in the 1970s. Another successful experiment began in 1975 in Sukhomajri, a village in Haryana. The process of rejuvenation the forests through people's involvement was replicated in other parts of West Bengal and all over India. West Bengal Forest Department issued the first government order in 1989 to involve village communities in forest protection with provision to give people 25% of the revenue from the timber harvested from the protected forests.[17] Self Initiated Forest

Protection Groups in states of Orissa, Bihar, Gujarat, Rajasthan, Karnataka, Madhya Pradesh and Andhra Pradesh partly worked with JFM.[18]

The *Van Panchayat Andolan* would be a bigger issue for making JFM a successful programme through direct local involvement in forest resource use and share, conservation of forest and its eco-system, forest produce oriented crafts, prudent use of forest lands, organizing self-help groups, community based small-scale industry, eco-tourism, empowerment of women and adequately supplying of fuel and fodder, roping in agricultural activities with forest rights and resource use.

In order to reduce dependency on forest resources and ensure alternative livelihood Self-help Groups are encouraged through small and easy financial loans to pursue some economic activities to earn money and meet their daily requirements. They are also encouraged to save and escape incurring loans from money lenders and debt traps. These SHGs are formed on the basis of casts, community, class or gender. The members help each other by providing small loans individually and arranging loans from banks with a growing habit of repayment. Enlarged SHGs are encouraged to harness bigger projects like those of Warangal District of Northern part of Telangana, set up mini diary plant with a total project cost of Rs. 60, 00,000. The jute products manufacturing units of SHGs in Gangadevipalli in Andhra Pradesh have a good annual turnover.[19]

The Ministry of Environment & Forests, Government of India is implementing a project titled "Capacity Development for Forest Management and Training of Personnel (ID-P.199)" with soft loan from JICA (Japan International Co-operation Agency) and this project is being implemented in 13 states namely, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Jharkhand, Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Uttarakhand and West Bengal with 100% Grant from the Ministry. This gesture from the part of the government would enhance the activities of JFM.[20]

Certain parameters are involved in the proper functioning of JFM and its financial implications. The autonomy of financial management and control over sources are of great importance. Membership fees, sale of forest produces and share, funds from forest department and other agencies like World Bank, International institutions and nationalised banks, NABARD, Gramin Bank for forest management, plantations and community development activities are important strikers for better performance of the broad spectrum developmental programmes of JFM. The JFMCs, for better performances, develop village level micro-plans that act as a blueprint of village and forest development plans, utilizing available forest and village resources along with micro-level financial support. These micro-plans can be further revised and developed, using participatory approach, by involving other sub-committees, particularly of women. In most part of our country, women folk are exclusively dependent on forest, both material subsistence and earning. Owing to continuous depletion of forests and forest resources, they bear the maximum burnt of burden; covering long distances for collecting fuel wood, fodder non timber forest produces. This may be a constraint in taking part in the decision making process; keeping their demand unheeded and un-

assessed. Now, thanks to the JFM, women representatives are involved in managing forests as executive committee members to have their demands discussed and considered. Well-fitted action plans for forest related activities in the specified area, prudent and quality utilization of resource use are essential yardsticks. The JFM in India is involved with the improvement of forest vegetative and eco-system diversity along with improvement of the economic conditions of the village through spearheading self-help activities, income generation, savings in banks and community fund, self-sufficiency through micro-enterprises. Thus minimizing local migration to urban areas and maintaining social composition and gender exploitation. Funds are channelized to increase the availability of non-timber forest products for sale. The local committees are very much involved in the increase of fuel-wood, fodder, bamboo for village use and to ensure sustainable gains from forest.

Increase of employment opportunity, particularly local level and self employments are very much in visibility in the efforts made by the JFMCs. Though not implemented absolutely, collective decision making and active participation of members, gender equality, reduction of inter-village conflicts and system of equitable distribution are slowly but steadily gaining pace in this environmental approach to economic and social emancipation. JFM, with its multi-dimensional thrusts, is on its way to ensure social justice, education, benefit sharing along with prevention of unauthorized felling of trees, forest fires, haphazard lopping. Systematic fuel wood extraction, accompanied by using other alternatives, like bio-gas ovens (chullas), solar energy and hydro-turbines (particularly in hilly areas) are introduced in many JFM areas. Such turbines can be found in the hills of Darjeeling and Uttarakhand, Himachal Pradesh and Chattisgarh.

The JFMCs also take initiatives regarding training of various alternative livelihood and programmes for alternative occupations, skill and capacity development, supported by soft loans for the holistic development of the local community and the forest. Funds are utilized to enhance agricultural productivity through rain water harvesting and irrigation facilities by erecting stop dams, anicuts and excavating irrigation ponds.

Soft loans, given for growing medicinal and aromatic plants, fodder species, cattle and poultry farming, are drawing a number of peripheral communities into the main streams. Special programme for dairy development and animal husbandry, National Mission for Protein Supplements under Rastriya Krishi Vikash Yojana (2012-13) are funding through JFMCs with a total budget allocation of more than Rs. 200 crore. Monetary help for weaving, knitting, printing, rope making basket making with bamboo, handlooms, making local artefacts, preparation and selling of food products through cooperatives are made possible through the proper initiatives of the JFMCs under the auspices of Forest Department and other funding agencies. These down to earth initiatives through JFM have altered the scenario of the tribal or forest communities and village communities along with the Indian forests to a great extent.[21]

Development and extension of eco-tourism programme as a part of JFM for eco-friendly growth is nurtured and maintained in the hills and plains adjoining forest regions. Eco-

tourism signifies promotion of environment friendly tourism, generation financial growth of local inhabitants without harming the neighbouring eco-system. Training on tourism, hospitality management, setting up tourism units and financial support for construction of home stays, training on ecology, flora and fauna, their preservation, training for guides to local youth members of communities have brought about a radical change in their social and economic life for a better future of the people and the environment. In the context of the JFM programme and its ecological and financial implications, the earlier concept of state control over forestry has given way to community participation in forest management, a new and unique double edged paradigm for forest conservation and socio-economic elevation and emancipation of the village and tribal communities, comprising of a major bulk of Indian population. Though delayed (nearly 41 years after Indian independence), it has been recognized that local or village communities, and particularly their women members are "the real conservators and the embodiment of service and sacrifice." [22]

Conclusion:

For a dynamic mobilization of environmental and economic programmes of Joint Forest Management, "it is very essential to fuse modern ecological knowledge with ancient wisdom" [23] and micro-finance with broader and sustainable developmental perspective. Joint Forest Management, therefore, initiates the paradigm of local thrust on forest management and conservation, synchronising with the process of financial inclusion of the mass of people living beyond the periphery of economic prerogatives. It is, substantially, a multi-spectrum approach to preservation, sustainable development and economic incorporation and growth. A greater initiative for the spread of social consciousness regarding JFM and prudent use of resources with the help of information and electronic technologies for an enlarged knowledge base are very much essential for the real term fusion of economy and environment. Only then Joint Forest Management, in India, would emerge as a national, socio-economic and environmental movement in a broader sense.

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AN INTRODUCTION TO THE OXYGEN PROGRAMMING LANGUAGE

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Abstract

The programming languages of today can be classified into several groups, depending on how they're primarily used. A drawback of this is that the feature-sets of languages used primarily for systems programming are different from those used for general-purpose programming. This programming language was designed to incorporate several useful features now gaining widespread adoption in general-purpose languages into a language useful for systems programming. A consequence of this is a language that is intended to be used for both of these purposes. Challenges, including feasibility of implementation and performance overheads, of incorporation of such features into a systems programming language have been addressed. A compiler has been developed for this language that also serves as a reference implementation as a frontend for LLVM in Python.

Keywords: Programming Language, Compiler, LLVM, Tail call, Data types, Modules

I. INTRODUCTION
There exists a conundrum in programming language development pertaining to the issue of garbage collection. Most widely used languages have a runtime which perform this task. There is a clear separation between the kind of languages that have runtime garbage collection and ones that don't. The languages where garbage collection must be manually programmed are known as systems programming languages. They are suitable when programming for environments that cannot support such runtimes, like operating system kernels and device drivers. Some programmers may deem the runtimes provided by these languages to be inefficient and resort to writing in systems programming languages. C and C++ have been widely used as the de-facto systems programming languages for decades. While very efficient, C and C++ lack features that are present in modern programming languages that allow the programmers to develop programs that are less error-prone and the intuitiveness of some features that enable faster development.
On the other hand, higher level languages employ features that aim to make programming easier. Their goal is not to be closer to the hardware and design for the intricacies of memory representation, but to aim for programmer convenience. Oxygen is strongly and statically typed. Unlike C, it does not implicitly convert types to fit other data types. The features include tail-call optimization, first-class functions, a module system and prototypal inheritance[1][2].

IL LITERATURE SURVEY

The literature survey involved looking at programming language design trends.

i.Tail-call optimization

This has been the most difficult part of both the design and implementation of the language, as not many compiled languages have implemented it.

Some of the difficulties in implementing have been outlined in this article, and some of the points are relevant to Oxygen [3]

A paper on implementing compile time TCO for a Scheme transpiler to C has been particularly useful as translating C constructs to LLVM IR is trivial [4].

ii.C Foreign Function Interfacing

Foreign function interfacing lets Oxygen programmers use a plethora of libraries already written for C by writing wrappers around the C code. This has been implemented by nearly every popular scripting language and has also been considered for implementation in Oxygen.

Here's a paper outlining a re-implementation of C FFI in the OCaml programming language: [**CAMLroot: revisiting the OCaml FFI by Frederic**Bour][5]

And APIs provided by other programming languages which have been used as reference:

Python: https://cffi.readthedocs.io/en/latest/

Dart: https://dart.dev/guides/libraries/c-interop

Lua: https://luajit.org/ext_ffi.html

iii. Module Systems

The research on this topic involved looking at implementation of modular programming in many languages, investigating possible drawbacks of those systems.

C has compilation units, which have the advantages of flexibility while programming and save time during recompiling but it requires a separate linking step which adds complexity.

Go, Rust and the NodeJS runtime for JavaScript include complex packaging system that also adds complexity.

Python balances between flexibility and modularity and oxygen closely resembles Python's module system.

All modules are considered to be one compilation unit.

iv. Translation of High-level constructs into IR

A resource that has been of great use to me was [**Mapping High Level Constructs to LLVM IR by** Michael Rodler] [6]

This is one of the few resources that talk about the implementation of modern compilers.

III. OXYGEN LANGUAGE

Basic Features

This language shares a lot of features with widely used C-like languages, including the syntax. It's statically typed and more strongly typed than most programming languages in the market. Integers and floating-point arithmetic operators are different, for instance. And floating-point numbers cannot be directly added to integers without explicit conversion. This strong typing was inspired by OCaml, it aims to make it easy to reason about programs.[7]

It includes familiar programming constructs for selection (if; match) and iteration (while; for).

The core concept of every programming language starts with

Data Types

Oxygen language mainly consists of Primitive data types(6) and Derived data types(user defined)

The following are the 6 primitive data types in Oxygen language

1. **Character (char) – 8-bit integer**
2. **Boolean (bool) – 1-bit integer**
3. **16, 32 and 64-bit integers (i16, i32, i64)**
4. **Floating-point numbers (f64)**
5. **String (str) – 0-terminated char array**
6. **Void**

Derived Data types

Derived data types include structs, lists and functions.

1. **Structs**

Structs behave very much like C structs. But not C++ structs, which function very similar to classes and can have methods. Like any other variable, members of structs can be functions, since they are first-class objects.

2. **Lists**

Because there doesn't yet exist a mechanism for explicit reallocation of memory, an array wouldn't be able to grow to fit more data. So, arrays were replaced with heap-allocated lists that automatically grow. These are akin to vectors in C++.

3. **Functions**

Functions in Oxygen behave differently from other languages. They are first-class objects, meaning they can be passed around as parameters to other functions and returned from other functions, treated like any other values. This treatment of functions of first-class functions was inspired by JavaScript.[8]

Functions with tail-call recursion are optimized and the recursion is eliminated.

Unlike JavaScript, however, functions in Oxygen do not act as closures. That is, variables defined in the outer scope are inaccessible from the inner scope of the functions. it also supports two

Prototypal **inheritance**

In conventional programming languages that support object-oriented programming, they achieve that with the use of classes serving as blueprints with objects functioning as concrete instances of these blueprints. Oxygen implements the Prototypal OO model, which only involves the use of objects. Objects can be created from another object directly, in which case the objected created inherits the properties of the object it was created from.

The Io programming language's prototypal inheritance model served as an inspiration for Oxygen. While JavaScript also implemented the prototypal inheritance model, there

are complexities associated with its implementation and the recent addition of classes on top of prototypes added significant complexity. [9][10]

Just as Io and JavaScript, Oxygen does not support private properties.

Under the hood, objects in Oxygen's objects are similar in function to structs in C. This has parallels to C++, in which classes were primarily implemented as structs. But unlike C structs, objects in Oxygen don't just serve as a template. They serve as concrete data types that occupy memory.

Modules

This addresses one of the major drawbacks of most systems programming languages: a lack of module system. C supports dividing a codebase into compilation units which are then linked by a separate program. This adds a great deal of complexity as the linking is very complex, especially when you're dealing external dependencies as every operating system has its own way of managing them.

A lot of current languages address this problem by making use of static linking. While addressing the issue of complexity, it also results in an increase in memory use and duplication of libraries across a system.

Oxygen takes the latter approach. Each file is considered to be an Oxygen module. Internally, the Oxygen compiler combines all the dependencies of a file into one LLVM module and generates IR for it. One drawback of this is increased recompilation time for a project.

OPM is a package manager that helps in the installation and distribution of third-party modules for Oxygen. This has been developed as most modern programming languages include a package manager. This package manager's design and working is similar to NPM, the Node Package Manager used in the Node.js ecosystem.

IV.APPLICATIONS

One of the primary goals of this programming language is the implementation of features generally found in high level languages into a language that's meant for systems programming.

Oxygen can be used as a systems programming language. It offers a familiar set of constructs and binary representations close to hardware. Some of the optimizations it performs helps it achieve performance close to C or even outperform C in some cases (Tail-call recursions)

It can also be used to make general-purpose programs. The simplified feature-set makes it easy to be picked up by programmers and work on applications.

The C Foreign Function Interface lets programmers use libraries written for C to be used from within Oxygen. This is achieved by linking the libraries with the Oxygen program. This allows for use of existing C libraries in Oxygen which opens it up for use in a plethora of applications from networked programs to video games.

Consistent Binary Representation

Binary representations refer to how the data types behave under the hood. As of now, Oxygen is reliant on the binary representations of the target architectures. Making this consistent across architectures has both advantages and disadvantages, but would go far in ensuring program correctness and cross compatibility.

Closures

One of the key areas where the languages is lacking is in closures. Closures are functions that enclose variables visible in the scope they are declared in. Languages like C do not require closures, but functional programming languages may require the use of them. To be a truly functional programming language, Oxygen would have to implement closures. However, there are difficulties in the implementation of such a feature in a compiled programming language.

Pure Functions

One of the features not implemented due to implementation challenges, this would allow the programmer to write mathematically pure functions that don't modify state visible outside the scope of the function. All modifications of data values should exist within the function. This also aids in program correctness.

Lifetimes

Lifetimes refer to the scope of the program that an allocated object exists in. In manually memory managed programming languages like C, deallocation must be done explicitly. However, if lifetimes can be implicitly set by the compiler and evaluated at compile-time, with the compiler taking care of the deallocation. This would absolve the programmer from having to do it manually, and also preventing many classes of bugs related to invalid memory accesses and dangling references.

CONCLUSION

This programming language that incorporated features in higher-level scripting languages into a systems programming language with manual memory management, an intuitive programming language that can be used to build low-level software. The compiler also introduced support for some optimizations that interpreters and compilers for some modern languages perform.

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SWAYAM – A FREE MOOC COURSE; ITS CONCEPT AND IMPLICATIONS

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Abstract

The platform SWAYAM is developed by the by Ministry of Human Resource Development and All India Council for Technical Education. This covers school, Pre Graduation, Post-graduate, Professional Courses like engineering, law and other courses. This was notified by the UGC in the gazette notification on July 2016. Basically this platform has developed under four quadrant approaches namely, video lecture, specially prepared reading material that can be printable, self assessment tests and lastly discussion forums for further clarifications. This platform host the massive open online course, which is a model for delivering learning content online to a large number of people. This paper highlights the concept, scope, advantages and limitations.

Key Words: SWAYAM, MOOC, Advantages, Limitations, etc.

Introduction:

The concept of traditional education has seen a great transformation towards an advanced level in the present scenario. When we look in to old teaching methods, we are reminded of a saying or belief that education of an individual normally ends at the age of twenty five. But when we look into the present situation there is no bar for education especially on the basis of age. Therefore self study has become popular especially to compete with the pace in today's advanced society. 'Self-Study' is defined as studies done by oneself without any kind of help or supervision of a teacher or a professor; however the person studying can refer to external sources like books, tutorials, and encyclopedia, etc. Further, it may also be defined as 'learning on your own' or 'by yourself' or being your own teacher (Matliwala. K., 2017).

The massive growth of the Information and Communications Technology, in the field of education has made a terrific impact, worldwide. The concept of SWAYAM is one of India's nationwide 'MOOC podiums', which is basically premeditated to accomplish three fundamental principles of the education policy: they are, equity, access and quality (SWAYAM website). In other words it would not be wrong to say that, SWAYAM i.e., Study Webs of Active-learning for Young Aspiring Minds has been put in place to supply good quality and reasonably priced education to the people, accessible on an 'anywhere' and 'anytime bases'.

What is SWAYAM?

SWAYAM is the way of 'online and self learning', in other words, it is, providing opportunities for lifelong learning (Paul P.K. & Others, 2018). In other words, the term SWAYAM is a-

1. One-stop web and mobile based interactive e-content for all courses from High School to the University level
2. High quality learning experience using multimedia on an anytime, anywhere basis.
3. A State of the art system, that allows easy access, monitoring and certification.
4. Peer group interaction and a forum for open discussion to clarify doubts
5. A Hybrid model of delivery that adds to the quality of classroom teaching.

It also involves the development of Massive Open Online Courses (MOOCs) with a compliant e-content (video and text) and the building of a robust IT platform. Further, in order to disseminate the educational content to masses, the MHRD has launched more than thirty Direct-To-Home (DTH) educational TV channels called "SWAYAM PRABHA" broadcasting education content on a 24x7 basis, and with content being developed under SWAYAM; this is meant to be used for transmission in SWAYAM Prabha (SP) DTH channels (Guidelines for SWAYAM).

According to Kanjilal, U., & Kaul, P. it was opined that in India SWAYAM is an indigenous, IT Platform for hosting the Massive Open Online Courses (MOOCs). To improve Gross Enrollment Ratio (GER), from 20% at present to 30% by 2020, SWAYAM promises to be a possible solution with a capacity to revolutionize the education system in India.

It would not be wrong to say that, people, across the nation, would get recognition for the courses offered by the MOOC on SWAYAM; further, it can be said that, not only individual' person but also their institutions will get recognition (which was not easy under the old traditional system of MOOC platforms). It is noteworthy to mention here that previously, the learners used to drop out of the course itself because of early advance or nor suitability to help them and sometimes non availability of seats; in other words, restriction of seats for a particular course. With the introduction of SWAYAM, all these problems will not arise and it would definitely encourage independent individuals to complete the course and get their certificates.

The courses hosted on SWAYAM are in four quadrants (Source: SWAYAM Website); they are as follows:

1. Video Lectures;
2. Specially prepared reading material that can be downloaded/printed
3. 'Self-assessment' through tests and quizzes and
4. An online discussion forum for clearing doubts. In this direction steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

At present, SWAYAM offers the courses for school, out of school, management, certificate, diploma, undergraduate, post graduate and self-paced courses. The duty of delivering courses is assigned to nine institutes based on their types and for which nine national coordinators have been appointed. They are; NPTEL (National

Programme on Technology Enhanced Learning) for engineering, AICTE (All India Council for Technical Education) for self-paced and international courses, UGC (University Grants Commission) for non technical post-graduation education, CEC (Consortium for Educational Communication) for under-graduate education, NCERT (National Council of Educational Research and Training) for school education, NIOS (National Institute of Open Schooling) for school education, IGNOU (Indira Gandhi National Open University) for out-of-school students, IIMB (Indian Institute of Management, Bangalore) for management studies and NITTTR (National Institute of Technical Teachers Training and Research) for a Teacher Training Programme.

Scope of the SWAYAM programme

With regard to the scope of the SWAYAM programme (SWAYAM cell: AICTE)

1. It is a syllabus based course, contents of which cover various disciplines, like arts, commerce, performing arts, science, social science, humanities, law, engineering, agriculture, medicine and other allied disciplines, in the domain of higher education. Here, all the courses would be 'rectification –ready' in their detailed offering.
2. School education specifically 9-12 level modules and teacher training as well as teaching and learning aids for children meant to help them learn subjects for better awareness for competitive examinations and for admissions to all types of professional degree courses.
3. Skill-based courses which cover both post-higher secondary school skills that are presently the domain of polytechnics as well as industrial skills certified by the 'sector skill councils' of various Ministries.
4. The demands of a choice-based credit system which is presently being introduced in India can be can be modified in the higher education infrastructure through advanced syllabi and professional certification under a unified scheme.
5. Courses can meet the needs of life-long learners both in India and abroad. All course contents will have clear and designated outcomes for learners will provide model curricula in respective branches for the universities and institutions to adopt.

SWAYAM Board - Its Composition and Functions:

As per the guidelines for developing online courses for SWAYAM, 'SWAYAM Board' shall be the Authority that would be overall in-charge of the formulation of the Platform, prescribe quality of content and facilitate conduct of examinations (Guidelines for SWAYAM-Definition.1.1., p.5) and SWAYAM Academic Board' shall be a apex academic body that would lay down standards of quality for the courses to be offered through SWAYAM (Guidelines for SWAYAM-Definition.1.m. p.5).

The SWAYAM Board (SB) shall be the Body for managing the SWAYAM and SWAYAM PRABHA by coordinating the work of technical and academic bodies so as to deliver high-quality online education.

Composition: The Board shall have the following membership (Guidelines for SWAYAM, p.6.):

1. Secretary (Higher Education) – Chairperson

2. Chairperson UGC
3. Chairperson AICTE
4. (5) Bureau heads from the Ministry of HRD (ex-officio) looking after: Technical Education, Management Education, Higher Education, School Education, Open/Distance Education
5. All National Coordinators of SWAYAM and SWAYAM PRABHA
6. JS&FA of MHRD
7. Mission Director NMEICT (Member Secretary)

Functions: The SB shall discharge the following functions:
1. Take decisions for smooth running of SWAYAM and SWAYAM PRABHA platforms.
2. Lay down policy regarding implementation issues including: cost, payable for development and delivery of the courses, examination fees, accepting the content from foreign/private institutions/universities within the parameters laid down by the competent authority.
3. Review the progress of each NC pertaining to sanction, progress, development and delivery of various online courses.
4. Any other matter that arises during the operation and delivery of SWAYAM and SWAYAM Prabha.

Secretariat: The SB shall have a secretariat located in AICTE/ MHRD for servicing the Board composition of which, would be decided by the Board.

SWAYAM Academic Board (SAB):
        There shall be a SWAYAM Academic Board responsible for guiding the National Coordinators and for laying down quality standards. The SAB shall be constituted as follows:
1. Chairman UGC – Co Chairperson
2. Chairman AICTE – Co Chairperson
3. Two technical experts nominated by the Ministry
4. Two reputed academicians nominated by the Ministry
5. Two representatives from the Industry, one each, nominated by MSME and Ministry of Skill Development
6. Director AICTE – Member Secretary

Functions- The SAB shall discharge the following functions:
1. Monitor the quality of the courses on the SWAYAM and lay down 'quality standards'.
2. Offering of courses on SWAYAM
3. Integration of SWAYAM and SWAYAM Prabha
4. Monitor the progress of conduct of the end-term examinations for the SWAYAM courses and resolve issues, if any.
5. Monitor the progress of transfer of credits and resolve issues, if any.

Grievance Mechanism:

        With regard to a grievance mechanism, if the individual learner find some difficulty, he may approach the grievance link; on the said page, list of grievances can be found out or submitted, with associated details. It is important to note here that opinion should be exercised with caution and frivolous grievances should not be filed. It is advised that one avails this option only after exhausting other, customary means of redressal; for instance reaching out to your course instructor or teaching assistant directly, for assistance (Guidelines for SWAYAM, p.7.).

 One can file a grievance under the following heads.

1. Against the Registrar (Accepting)
2. Against the Registrar (Receiving)
3. Against the course coordinator
4. Against the teaching assistant
5. Against the course content
6. Against the fellow student
7. Against the SWAYAM platform or
8. Other

The individual learner follow the status of his grievance through his mobile by using SWAYAM   application; he can even get a notification whenever the status changes. Not only that, even he receive an email on his registered mail-id (AICTE SWAYAM Cell). Even one may submit complaints with regard to procedural aspects of SWAYAM through SWAYAM website.

Advantages of SWAYAM:

        The said course is a support to teacher and student alike; it provides a number of sources in addition to available text books and in the case of students, if he has not attended the classes and if in some of the institutions, if teachers are not available, then this particular course will help to a maximum extent fulfill the needs of both the teacher and the student. In this connection the paper tries to put forth some of the advantages with regard to the SWAYAM course- they are as follows:

1. With regard to conventional classes, the student count is always restricted, but in this course a large number of students can participate simultaneously and get the benefit and a formal certificate.
2. As India is known for its multilingualism, this course will help provide an opportunity to promote the courses in as many languages as possible. In other words, it can be said that the learner will get their own discipline in 'one platform' and can take the course of their choice of language.
3. With regard to the accessibility, it would not be wrong to say that it beyond boundaries and easily accessible to any individual learner from any place in the world.
4. All courses on SWAYAM are free; however there will be a prescribed fee for appearing for respective course examinations.
5.   SWAYAM is not only for students but also for those in various employments.

6. It encourages flipped classrooms (*Flipped Classroom means a kind of blended approach or face to face interaction which is mixed with independent study with the help of technology. Here students or learners normally watch the videos at home and then come to class room with preparation and armed with questions. Here in SWAYAM the learners use to watch the videos and the notes and discuss the same with the coordinator at the discussion session*).

7. In SWAYAM one can find heterogeneous learners; this promotes interaction and the sharing f different ideas, disciplines.

8. It comes with a credit system which helps educational degrees, respective disciplines etc. for achieving credit transfer.

9. It helps, promote creativity and also learning in an 'inter-professional' educational environment.

10. The modules which are delivered by the courses are very useful and the same can be used time and again without becoming obsolete.

11. An individual learner's progress can be evaluated at any time during the course to understand where he actually stands or even for self-assessment.

Limitations:

Education is the foremost sector that shoulders the biggest responsibility of shaping the future of any nation. India is presently facing multiple challenges in offering education through MOOCs. India has started its own MOOC as SWAYAM, an effort of the government in making education accessible for all, irrespective of any factor such as their educational qualification or geographical disparity (Chauhan Jyoti, 2017, p.119). Even though, it has many advantages in some of the issues addressed by SWAYAM, there are many challenges; they are as follows:

1. The Biggest Challenge in organizing SWAYAM courses in India for the education sector is the infrastructure problem, particularly technological infrastructure; as it is very clear that for this technological infrastructure, two prime areas are very essential- one is access and delivery and another, course-content creation. The difficult part in access and delivery is, providing network-connection with speed; but as we all know, many institutions lack this facility, even though they are really interested.

2. With technical infrastructure, SWAYAM also needs 'digital literacy'. In many institutions individual learners are not familiar or it may be said that they are ignorant as for as digital literacy is concerned. Hence, providing training to the individual learner and the instructor is a big challenge.

3. Further, it may be said that, due to a lack of knowledge with regard to digital literacy, the learners or the candidates who join these type of courses may lose interest and ultimately drop out from the course. Hence, it is a challenge to the SWAYAM platform to maintain the strength throughout the course.

4. Lack of financial assistance with regard to the course developers.

5. There are no clear cut criteria for assessment.

6. Certification is dubious; there is no authenticity with regard to the consideration of such certificates at the time of appointment. The SWAYAM portal is silent over this issue, hence it is a big challenge for SWAYAM to rectify this issue. Even

appraisal and recognition of such certificates by employers is not clear, leading to hurdles in career progression (Mahajan, *et al.,*. 2019, p.493).

7. With regard to assessment or conduction of examination, the individual learner will be assessed by objective type /multiple type questions which, to some is not justifiable.

8. As the lectures are pre-recorded, it is not possible for real time discussions; answering queries is not practically possible at all. Hence the very concept of online-education is questionable.

Conclusion:

It is a well known fact that, Massive Open Online Courses are offering online courses throughout the globe and India is not an exception. In India, these new, having a record of only just four to five years. Specifically speaking, SWAYAM is recent and also introduced recently. In the mean while, society is developing very fast and the institutions or some organizations play a very crucial and advanced role in terms of technology. As it is new, it is very important to understand the system both theoretically and technically. It will be helpful in clearing doubts with regard to knowledge in different disciplines. It may be noted here that, more programmes may be introduced and improvised on the basis of requirements as and when deemed necessary. The SWAYAM has been facing many challenges with regard to digitalization, popular among learners and other parameters. Some of the challenges have been already addressed but some are still in 'dubious situations'. In spite of that, it would not be wrong to say that SWAYAM is playing very important role for individual employed learners for their academic growth and particularly for the student genre.

Suggestions:

Based on the above discussions, a few suggestions have been noted down; they are as follows:

1. The government should give some more financial assistance to the local authorities such as panchayats, etc. so that the local authorities are able to give more importance and actively focus on these issues particularly those involved in making it possible to provide network connectivity in their respective areas.

2. The governments should identify or recognize the schools, colleges, local centers or training to train instructors.

3. In many of the government institutions, colleges, universities and others; there is no knowledge or idea of the SWAYAM platform; therefore more awareness has to be created. Hence the government should conduct awareness programmes so that all, concerned are benefited.

4. The SWAYAM portal needs some up gradation in delivery in mobile applications, for smarter and more efficient delivery.

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LITERACY AND TOTAL FERTILITY RATE: A CASE STUDY OF MAHARASHTRA

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Abstract

Education or literacy is considered one of the significant factors for socio-economic development of a country or any region. In India, Maharashtra is recognised as one of the progressive and developed state. With its advantage of geographical location it has gained an image of commercial capital (e. g. Mumbai with natural harbour, Nagpur as the centre of India-Zero mile). The present paper tries to analyse trend of literacy and Total Fertility Rate (TFR) in Maharashtra. It also tries to explore, is there any correlation between these two factors? Secondary data mainly from Census of India and other sources are used to fulfill the objectives. The findings of the paper show that since independence, with government efforts and awareness among population literacy rate has an increasing trend. The Total Fertility Rate has a decreasing trend. Correlation analysis also depicts that there is a negative high correlation between literacy and TFR. It can be concluded that literacy is a key factor for socio-economic development of a country or a region as all the aspects of life directly or indirectly are related with education.

Key words- Literacy, Total Fertility Rate in Maharashtra

1 Introduction
Since independence the emphasis on education of population of India was given by government and still goes on with "*Sarv Shiksha Abhiyan*", "*Beti Bachao Beti Padao*" and so on. Education is one of the important indicators of social development. It plays a very important role in socio-economic development of a country. It is one of the significant factors for the progress of population as it affects every aspect of human life such as marriage, fertility, career etc,

Since ancient times till date, education sector or system has gone through various changes or we can say development stages in India. In ancient times gurukul systems requires the residence of student in that premises up to a certain age. During this period with formal education, students or disciple goes through with informal practical knowledge which is the part of a life. This gurukul education system was for some selected classes of society. Nalanda and Takshshila universities are the best examples of its own time having a very proper and powerful education system.
As time progressed with efforts of social reformist, education was and is accessible to all sections of the society, including women. At present with RTE act, every citizen of

India is getting education. With technological development education has seen many innovations in teaching-learning process. From chalk and duster, it has reached up to online education. Technology made it possible that one can go for any course without physically present in that geographical region or place. With the involvement of ICT in education sector, distance education, e-learning, online courses evolved, which does not require physical presence of a student as mentioned before. Some of the courses are free of cost and self paced. This gives an opportunity to a student to go through the course as per his/her own convenience and time.

With this increasing trend of education, there is a positive change in every aspect of population in India. Many studies has suggested that there is a constructive correlation between literacy and TFR. A negative relationship seems to exist between levels of literacy and total fertility rates in South Asian females which if further improved may contribute to longer-term improvements in maternal and child health. (9)

2 Objectives: In view of above discussion, following are the objectives of present research paper:-
1 To analyse trend of literacy and Total Fertility Rate in Maharashtra.
2 To explore the relationship between literacy and fertility rate

3 Data Collection and Methodology
To fulfill the above mentioned objectives, secondary data was utilizes. Census of India and Vital statistics of various time periods was used. Correlation coefficient was calculated to explore the nature, direction and degree of relationship between literacy and TFR.

3.1 Definition Used
Literate: In census, a person aged seven years and above who can both read and write in any language, is treated as 'literate'. A person, who can only read but cannot write, is not considered as 'literate'. All children of six years age or less are treated as 'illiterate' even if the child is going to a school and has picked up reading and writing skills. In the Censuses prior to 1991, children below five years of age were treated as illiterates. Since the ability to read and write with understanding is not ordinarily achieved until one has time to develop these skills, therefore in 1991 Census, it was decided that all children in the age group of 0-6 years be treated as illiterate by definition and population aged seven years and above only be classified as either 'literate' or 'illiterate'. Since then, the same criterion has been retained in subsequent censuses of 2001 and 2011. (1)

Total Fertility Rate (TFR)- The TFR is the sum of the sum of the Age Specific Fertility Rates of Women in each five year age group from 15 to 44 or 49. As the TFR is not affected by the age structure of the women, it is an effective summary rate for describing the frequency of child bearing in a year. (2).

3.2 Study Area: Maharashtra is considered as one of the progressive states, not in terms of economics but also for social development also. Literacy is one of the significant factors which promotes social equity and growth of humans. Maharashtra is selected for the present research paper to see whether literacy plays a role in controlling and maintain the TFR.

Maharashtra came into existence on 1 may 1960 as a Marathi speaking state and Bombay as a state capital while Nagpur as a seasonal capital. By area it is a third largest state and by population second state in rank. The Sahayadri range divides the state into two distinct physical features. West of Sahayaadri is Konkan lowland with influence of coastal economy and east of Sahaydri is Deccan plateau region with dominance of agriculture economy.

4 Findings and Discussion

4.1 Literacy in Maharashtra

The progress of literacy in Maharashtra is presented in table 1. Due to literacy drives of the state, literacy percentage has been increased from 27 per cent in 1951 to 82 per cent as per 2011 census. As compared with male, female literacy is low. After 1971 literacy rate in male and female population has increased with little faster rate, but this increase is more in female i.e. from 31 per cent in 1971 to 75 percent in 2011. The total literacy rate may reach beyond 90 per cent in future census as distance education, online courses, e-learning have come up in education sector with the involvement of ICT.

Table 1 Development of Literacy in Maharashtra (in Per cent)			
Year	Total Literate	Male	Female
1951	27.91	40.50	14.6
1961	35.08	49.30	19.8
1971	45.77	59.40	31.0
1981	57.24	70.10	43.5
1991	64.87	76.60	52.3
2001	76.88	85.97	67.03
2011	82.91	89.82	75.48
Note: Literacy rates for 1951, 1961, & 1971 from population aged 5 years and above. For the years 1981 to 2011 related to the population aged 7 years and above Source:http://censusindia.gov.in/2011-prov-results/data_files/maharastra/9%20-%20Chapter%206.pdf			

Table 2 depicts the literacy rate by residence. It show that in rural areas education level is much low as compared with urban areas. It is quite obvious because may be after independence more emphasis and facilities were provided to urban areas. Slowly percolation of awareness was there in rural areas and literacy has increased many folds in rural population as compared with urban population. In rural area in these 50 years literacy has reached from 25 per cent in 1961 to 77 per cent in 2011while in urban population in has increased from 58 per cent in 1961 to 89 per cent in 2011.

It takes time for infrastructure or any other facilities to reach to rural population. Now with technology this scenario has changed. Now everything with online or other modes quickly reached to rural areas and rural population.

Table 2 Maharashtra: Literacy rate by residence (%)		
Year	Urban	Rural
1961	58.84	25.46
1971	66.56	36.09
1981	72.00	43.47
1991	79.20	55.52
2001	85.48	70.36
2011	89.84	77.09
Source:http://censusindia.gov.in/2011-prov-results/paper2/data_files/mah/10-LITERCY-42-57.pdf		

4.2 Total Fertility Rate

Total 3 shows the continuous trend of TFR for Maharashtra since 1981 to 2016. It shows that there is a decreasing trend of TFR in Maharashtra. In these 30 years, the rate of decreases is very slow. It has reached to 1.8 per woman in 2016 from 3.6 in 1981. The same trend is seen in population of urban areas of Maharashtra. TFR has come down to 1.6 per woman in 2016 from 1.9 per woman in 2005. In rural areas moderate decreasing trend of TFR is observed in women. In 2005 it was 2.4 which came down to 1.9 in 2016. It shows that the awareness regarding family planning and other programs has reached to grass root level, in addition to literacy in rural areas which has increased to 77.09 per cent in 2011. It may be concluded that education also plays an important role in fertility behavior of population.

Table 3 Total Fertility Rate in Maharashtra			
Year	Rural	Urban	Total
1981[1]	--	--	3.6
1991	--	--	3.0
1999	--	--	2.7
2001	--	--	2.4
2005[2]	2.4	1.9	2.2
2006	2.3	1.8	2.1
2007	2.2	1.8	2.0
2008	2.1	1.7	2.0
2009	2.1	1.8	1.9
2010	2.0	1.7	1.9
2011	1.9	1.6	1.8
2012	2.0	1.6	1.8
2013	1.9	1.6	1.8
2014	1.9	1.7	1.8
2015	2.0	1.6	1.8
2016	1.9	1.6	1.8
Source : [1] https://en.wikipedia.org/wiki/List_of_states_and_union_territories _of_India_by_fertility_rate Source [2]: https://www.ceicdata.com/en/india/vital-statistics-total-fertility-rate?page=5			

4.3 Correlation coefficient

The correlation coefficient refers to a linear relationship between two related variables, for example rainfall and agriculture production, age of man and physical activities and so on. Correlation analysis gives degree and direction of relationship between two and more variables. TFR is available only for four census years, therefore only four years are considered for correlation coefficient analysis. Table 4 depicts that negative high correlation is there between literacy and TFR i.e. -0.99. It means that if literacy increases there is a decrease in fertility rate and vice versa. Though, other factors are also responsible for decrease in fertility such as family planning programs and policies of the government.

The correlation analysis of female literacy rate and TFR also provide the same result as with total literacy rate i.e. -0.99.

Table 4 Correlation Coefficient- Literacy and Total Fertility Rate			
Year	Literacy rate	TFR	Correlation Coefficient value
1981	57.24	3.6	**-0.99**
1991	64.87	3.0	
2001	76.88	2.4	
2011	82.91	1.8	

5 Conclusions

The findings of the present study clearly show that after independence literacy also becomes a goal for government. Government introduces many programs for increasing educational level in country. The study shows that from 27 per cent in 1951 the literacy rate has increased up to 82 per cent as per 2011 census. The rate of increase is much higher in female population. The same trend is seen in rural areas of Maharashtra, which shows that education has reached to grass root level.

The TFR has tremendously decreased in the last forty decades. In 1981 it was 3.6 per women and has decreased to 1.8 per women in 2016. In case of TFR also appreciable trend is seen in rural areas of Maharashtra as compared with urban areas.

The simple trend of literacy rate and TFR clearly shows that there is a negative relation between them. If literacy increases it brings down the TFR and vice versa which is proofed by correlation coefficient analysis. Overall literacy and specifically female literacy will have positive impact on TFR.

The specific conclusions are-

- Literacy is having increasing trend in Maharashtra
- Fertility rate shows decreasing tendency in Maharashtra
- There is a negative high correlation between literacy and TFR
- Increase in education or literacy will be supportive for overall development of population and ultimately country or any region.

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OBSTACLES OF GENERATION OF ELECTRICAL ENERGY FROM LIGHTNING

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Abstract:

In today's world energy crisis is a very important topic of discussion. We know that without energy mainly electrical energy the development of the world will totally stop. Many countries in the world are using non-conventional energy sources for meeting their energy demand. But the o/p power from the non-conventional energy is very small. Due to which an alternative energy source i.e. lightning may be considered. Lightning is the power house electrical charges but due lack of technology and insufficient infrastructure electrical energy can't be harnessed from the lightning. In this paper we will discuss the problems which face during the power generation from the lightning.

Keywords: Dart leader, kwh, Lightning stroke, Pilot leader, Potential gradient, Short upward streamer.

Introduction:

The present scenario of the world is that runs for energy. All the developed and developing countries are trying to store sufficient energy for the future purpose. This incident is happening due to energy crisis. Here energy means the electrical energy. Without electrical energy no country in the world is survived. Due to depleting of conventional energy sources, maximum countries in the world are using the renewable energies i.e. solar, wind, geo-thermal etc. It is seen that the output from the renewable energy is very low. It is one of the disadvantages of the non-conventional energy. After the above mentioned disadvantage the lightning might be another type of alternative energy source. But due to some reasons till today lightning did not achieve to its proper position. In this paper we have tried to light up the problems behind it. This paper has been divided by mainly in five parts viz. i. Mechanism of production of lightning discharge ii. Types of lightning iii. Frequency of lightning flashovers iv. Infrastructure needs v. Problems facing during harnessing of electrical energy from lightning.

i. Mechanism of production of lightning discharge:

Lightning mainly occurs during thunderstorms. It is seen that the cloud is mainly heavily negative charge (-ve) and the earth is positive charge (+ve) due to induction method of the static electricity. When the potential gradient (10-30kV/cm) of the cloud is much larger than the earth surface, then discharge initiates into the cloud. The charge

distribution through the cloud is not uniform. The initial discharge is termed as pilot streamer or pilot leader. It gradually moves towards the earth but moving speed is very small. The pilot leader carries the –ve charge. The density of charge is maximum at the tip of the pilot leader. It ionizes the surroundings air and creates its own path towards the earth. The pilot leader has several branches which is called secondary leader. When the pilot leader or pilot streamer moves towards the earth, the electric field intensity rises up and because of which an opposite polarity in the form of the short upward streamer comes from the earth to meet up with the tip of the pilot streamer which is shown in the below figure.
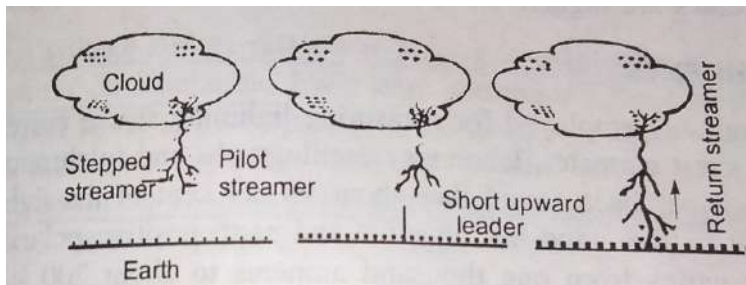
Fig 1: pilot streamer and short upward streamer

After set up the contact between the two streamers, a return streamer comes from the earth through the ionized path formed by the pilot leader. The return streamer (shown in the above figure) goes very quickly and generates the very well known heavily luminous lightning flash.

i.(a) Shifting of charges in the cloud:

The amount of –ve charges are reduced significantly at the position (first charge center) where discharging occurred. But in the other part (second charge center) of the cloud the amount of charges are remain same. Therefore a large potential difference creates between the first charge center (lower potential due to lack of charge) and the second charge center (higher potential due to heavily charges are present). We know that charges move from higher potential to lower potential. Thus the charges move to the first charge center from the second charge center. After that the charges pass to the earth through the ionized channel which was established by the first discharge. The second discharge is also called dart leader. Similarly more discharges happen through the ionized channel
.
ii. Types of lightning:
There are mainly two types of lightning depends upon on the amplitude and duration of the lightning stroke current viz. a. hot lightning b. cold lightning.

a. Hot lightning:

It is the lightning at which the amplitude of the current is low but duration is very long. It may be caused of fire when it strikes to an object.

b. Cold lightning:

The cold lightning has large value of stroke current and striking duration is too small. It is the cause of explosion when it strikes to an object.

iii. Frequency of lightning flashovers:

In a specific area there is a large variation in frequency of lightning flashover. The no. of days each year on which thunder is heard is termed as Isokeraunic level. This no. gives a concept of that particular area about the no. of lightning happens. In India it lies between 20-35 per year average. In UK this no is more than 40 per year.

iv. Infrastructure needed for generation of electrical energy from lightning:

Each lightning stroke contains 5 billion joules which is equivalent of 1400 kwh (approx) energy. The lightning occurs between intra clouds, clouds to earth. Only 20-25% of total strikes are the clouds to earth lightning. It has been calculated that $490*10^9$ kwh energy per year can be extracted from the ground strikes. To catch the each and every ground lightning stroke a very tall metallic rod is needed. The rod attracts the lightning stroke and directing it to the facility. The facility consists of high value of super capacitors, inductors, heavy duty inverters etc. The facility needs to handle very large amount of charge within very short duration of time (30 milliseconds). Each facility must be interconnected with grid system. In 2007, in the USA, a company named, Alternative Energy Holdings tried to make it happen, with a design that involved a tower, grounding wires and a capacitor. But unfortunately the project was not accomplished.

iv. a. instruments used for measuring strike current:

Klydonograph, magnetic link, surge crest ammeter, fulchronograph etc are used to determine the value of the lightning current. It founds that maximum lightning strokes are –ve polarity. It has been seen that the maximum value of the striking current is 200 kilo amperes. Average magnitude of the current is 20 kilo amperes.

v. Problems facing during harnessing of electrical energy from lightning:

The first problem is that safety. Very high amount of current and electric charge storing is not so easy. At any time a major accident may take place in the facility. Secondly, the lack of technology and insufficient infrastructure till date. We do not have such technology to arrest the lightning. It needs sufficient infrastructure and also requires a large amount of money. Third problem is the uncertainty of lightning. Due to climate change, the whole world is facing a huge turbulence in the atmospheric point of view. For this reason any region gets a large amount of lightning whereas another place does not receive sufficient lightning. So an unbalancing will occur in the interconnected grid which also indication of power blackout. Lastly, the grid construction is very difficult

with each and every facility. From the above discussions, it is seen that the electrical energy extraction from the lightning is quite tough.

Conclusion:

Though it is very tough to harness the electrical energy from lightning. But if deep research can be done for the development of such technology as well as infrastructure, hope we will succeed to catch the lightning stroke (ground stokes only) and generates.

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AN EVALUATION OF THE SPORTS ATTAINMENT, MOTIVATION AND ANXIETY LEVEL OF MALE FOOTBALL AND HOCKEY PLAYERS

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ABSTRACT

To achieve the purpose of the present study (N=30) men. Fifty football and fifty Hockey players (Male – age 18-25years) were randomly selected from Calicut University, Kerala. These subjects were students who had taken part in inter collegiate matches and tournaments. To measure Sports Achievement Motivation between football and hockey players, a questionnaire (SAMT) developed by Kamlesh (1990) was employed. The questionnaire consists of twenty incomplete statements which can be computed by choosing either of the two suggested parts against each statement. Spielberger's Anxiety Inventory questionnaire was employed for measuring the level of anxiety. The score range from 20 to 80. The higher the score, the greater is the level of anxiety. For statistical analysis and interpretation of data, 't' test was conducted.

Key Words: Motivation,Anxiety,Football, Hockey.

INTRODUCTION

Football and hockey is the top participation sports in the country, This is likely to strengthen in years to come with basketball playing becoming an integral part of the School Communities Program, which provides free and structured physical activity to children after school hours,Now-a-days majority of people are leading a mechanical life. Good mind and fine body are the foundations for the health of human life. When people do not take care of their body and mind they suffer from diseases. But in ancient time people had devoted much time for taking care of their body and mind. With the result they lived long and peaceful life.

Football is perhaps the most demanding of all sports. In the modern game (at any level) football, training conditioning is essential. Few sports are played on as large a playing field, lasting as long and without regular rest periods. Field hockey, like football is a highly dynamic activity. Being a highly dynamic activity, field hockey also demands good dynamic balance. A hockey player is usually moving or running while performing a skill and has to seek a point of balance in relation to the ball. A well balanced position is essential in learning to attack, to dribble quickly in any direction, pass or shoot the ball in any direction as well as to receive the ball from any direction. Comparison of dynamic balance in football had been established in relation to other sports. A number of studies have found that football has a higher dynamic balance than other sports. No study has compared dynamic balance in field hockey players with other sports. So there

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is a necessity to identify whether the dynamic balance in a hockey player is similar or different to football players. (Winter and Patla, Frank., 1990).

Sports Achievement Motivation has been discovered as a strong psychological factor in the display of behaviour of a person. Achievement motivation of an individual has been found to be rewarding in competitive sports. It is a force that engrosses a sports person in a task which is challenging and hard to attain. The nature of sports and physical activities are generally achievement oriented. Personal success in team and individual events can be evaluated against standards. One of the reasons of variability in the behavior of an individual is sports achievement situation is that sports persons perceive situations in different ways, because they have different needs for sports excellence. Anxiety is one of the important psychological factors for decisive athlete's performance. Performance is a by product of biological, psychological, sociological and physical makeup of an individual. In games and sports not only physiological factors but also psychological factors play an important role in determining the performance level of an individual. However, great importance is dispensed to psychological parameters in competitive sports (Schilling & Hayashi, 2001). Many experts argue that individuals are affected not merely by their physical and techno-tactical ability but also by their psychological makeup.

STATEMENT OF THE PROBLEM

The purpose of the study was to find out an evaluation of the sports attainment, motivation and anxiety level of male basketball and cricket players

METHODOLOGY

Fifty football and fifty Hockey players (Male – age 18-25years) were randomly selected from Calicut University, Kerala. These subjects were students who had taken part in inter collegiate matches and tournaments. To measure Sports Achievement Motivation between football and hockey players, a questionnaire (SAMT) developed by Kamlesh (1990) was employed. Data was collected from the various college players who used to take part in inter collegiate matches and tournaments. The questionnaire consists of twenty incomplete statements which can be computed by choosing either of the two suggested parts against each statement. Spielberger's Anxiety Inventory questionnaire was employed for measuring the level of anxiety. The score range from 20 to 80. The higher the score, the greater is the level of anxiety. For statistical analysis and interpretation of data, 't' test was conducted.

RESULTS AND DISCUSSION
The results are presented in tabular form as given below:

Table – 1: Mean SD of Achievement Motivation and Comparison of t-test Between Means of football and hockey players.

Group	Mean	SD	MD	T value
Football players	24.33	4.50		0.64NS
Hockey players	25.91	4. 64	01.54	

NS: Not Significant.

Fig. 1: Graphs Showing Achievement Motivation of football and hockey players
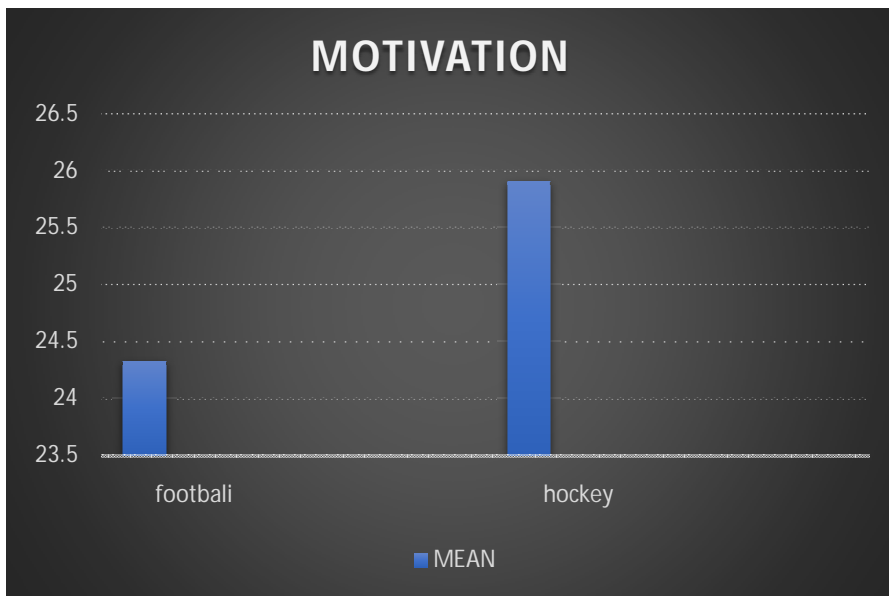
Table-1 gives information regarding Achievement Motivation of football players and hockey players. The table shows that there were no significant differences inAchievement Motivation of football players and hockey players. The Mean of Achievement Motivation of football players and hockey players were 24.33 and 25.91 respectively. 't' test was applied and t-value (0.64) appeared not significant. Graphical representation (Fig. 1) of the data also indicates a similar trend in this study.

Table – 2
Mean SD of Anxiety and Comparison of t-test Between Means of football and hockey players.

Group	Mean	SD	MD	T value
Football players	35.38	15.73	1.46	0.44NS
Hockey players	36.81	16.63		

Fig. 2: Graphs showing anxiety of football and hockey players.
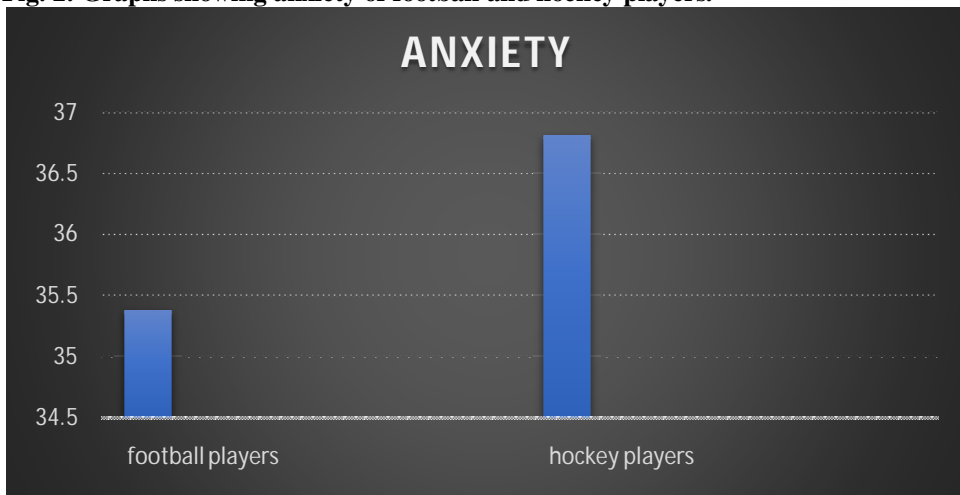
Table-2 gives information regarding anxiety of football and hockey players. The table shows that there were no significant differences in anxiety level of football and hockey players. The Mean of anxiety of football andhockey players were 35.38 and 36.81 respectively. 't' test was applied and t-value (0.44) appeared not significant. A Graphical representation (Fig. 2) also indicates analogous trend of this study.

DISCUSSION

It is revealed in the table that the calculated' (0.64) was lesser than tabulated 't' (1.66) which indicated that there was an insignificant difference between football and hockey players at 0.05 level of significance with 98 degree of freedom. The result may be substantiated with the findings of Singh, Ahmad and Hussain (2010), Sayed Tariq Murtaza, Mohd Imran and ArshiSaleem (2013).They found similar results between male and female players.

CONCLUSION

Based on the result of the present study and within the limitation, the following Conclusions may be drawn:

☐ There was no significant difference in achievement level in motivation of football And hockey players.
☐ There was no significant difference in the anxiety level of football and hockey Players.

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COMMUNICATIVE ACTIVITIES IN LANGUAGE TEACHING: AN OVERVIEW

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ABSTRACT:

This study exemplifies that activities are an integral part of teaching English. The paper also serves as an eye-opener to many issues on how a task-based and skill-based syllabus ensures a communicative or interactive approach of teaching. It also attempts to elaborate the importance of activities in a communicative approach of teaching English language. The types of communicative activities that can be used in a classroom are also explored in detail. The kinds of tasks including various games are enumerated in the study.

Keywords: Activities, Communicative Approach, Games, Language Learning, Task based Learning.

INTRODUCTION:

Activity can be viewed as any plan of action that facilitates language learning(Rodgers 2001). They should meet a meaningful communication situation. It is a piece of class work, which involves learners in comprehending, manipulating, producing or interacting in the target language. It should be designed in such a way that the students acquire the ability to use English for oral communication and the ability to write error-free English. The types of activities can be based on contents that are appropriate for the learner's age and socio-cultural experience and language that will grow with the children. It may be scientific, creative or investigative.Multigrade and multilevel learning is effectively addressed in Activity-Based Learning. The participation of the learners is ensured at every stage of learning English language. Learners are exposed to ABL 'as the state-of-the-art teaching style, stressing reflective inquiry through questioning and reflection' (Stoblein 2009). The importance of communicative activities, the types of communicative activities, kinds of language games and tasks are discussed below.

IMPORTANCE OF ACTIVITIES IN COMMUNICATIVE APPROACH

Activities are an integral part of language-learning process. According to the communication principle, activities that involve real communication promote learning. According to the task principle, activities in which language is used for carrying out meaningful tasks promote learning. They are consequently selected according to how well they engage the learner in meaningful and authentic language use rather than merely mechanical practice of language patterns. 'Whatever promotes students'

participation in a relaxed and enthusiastic atmosphere stimulates the interaction that is essential to successful language learning' (Rivers 10).

Activities are very important for language learning in a communicative approach. The range of exercise types and activities compatible with a communicative approach is unlimited, provided that such exercises enable learners to attain the communicative objectives of the curriculum, engage learners in communication, and require the use of such communicative processes as information sharing, negotiation of meaning and interaction.

TYPES OF COMMUNICATIVE ACTIVITIES

Littlewood (1981:166) distinguishes between 'functional communication activities' and 'social interaction activities.' Functional communication activities include such tasks as learners comparing sets of pictures and noting similarities and differences; working out a likely sequence of events in a set of pictures; discovering missing features in a map or picture; one learner communicating behind a screen to another learner and giving instructions on how to draw a picture or shape, or how to complete a map following directions; and solving problems from shared clues. Social interaction activities include conversation, discussion sessions, dialogues and role-plays, simulations, skits, improvisations and debates.

Realia can also be used. Many advocate the use of 'authentic', 'from-life' materials in the classroom. These might include language-based realia, such as signs, magazines, advertisements, newspapers or graphic and visual sources around which communication activities can be built, such as maps, pictures, symbols, graphs and charts. Pair and group work are suggested to encourage students' use and practice functions and forms.

Language learning is believed to be more motivating when students are focussing on something other than their texts such as ideas, opinions and issues. 'The student can most effectively acquire a second language when the task of language learning becomes incidental to the task of communicating with someone... about some topic... which is inherently interesting to the student'(D'Anglejan and Tucker 1975:284). Therefore, the activities should also include something that is not there in the text that is being dealt with in a classroom situation but should necessarily include ideas or concerns relating to the texts. If content with a high level of interest is chosen, learners may acquire the language more willingly.

The activities should be designed

a) To activate and develop existing English language skills
b) To acquire learning skills and strategies that could be applied in future language development opportunities

c)   To develop general academic skills in all subject areas
d)   To broaden students' understanding of English-speaking people
            (Brinton et al., 1989:32)

Functional communication activities:

Communicative activities can be devised for the classroom, which emphasise functional aspect of communication. For example, in the teaching process, I realised that there are problems that learners must solve, or information, which they must exchange; with whatever language they have at their disposal. That is, they are not required to attempt to choose language that is appropriate to any particular situation. It may not even matter whether the language they use is grammatically accurate. The main purpose of the activity is that learners should use the language they know in order to get meanings across as effectively as possible. Success is measured primarily according to whether they cope with the communicative demands of the immediate situation. Because of this emphasis on being functionally effective, activities of this type are called 'functional communication activities. Clarke and Silbertstein (1977:51) argue that 'Classroom activities should parallel the 'real world' as closely as possible'.

Social interaction activities:

Social interaction activities add a further dimension to the functional activities. This means that learners must pay greater attention to the social as well as the functional meanings that language conveys. It also means that the activities approximate more closely to the kind of communication situation encountered outside the classroom, where language is not only a functional instrument, but also a form of social behaviour.

The main purpose of activities is always to achieve some practical result with considering learners' social roles more important. Because of the limitations of the classroom, simulation and role-playing are now important techniques for creating a wider variety of social situations and relationships than would otherwise occur. The success of teaching English language with activities is to make students feel responsible for their learning and to support their own individual development (Cohen 1990).

GROUP-WORK ACTIVITIES

Generally, small groups provide greater intensity of involvement, so that the quality of language practice is increased, and the opportunities for feedback and monitoring are also given. The setting is more natural than that of a full class, for the size of the group resembles that of normal conversational groupings. The argument is summarised as follows:

Psychologically, group work increases the intellectual and emotional participation or involvement of the individual pupil in the task of learning a foreign language. Some pupils are more intelligent than others, while some (not necessarily the same ones) are more gifted in learning languages, some pupils are outgoing, communicative, extrovert personalities, while others are shy, withdrawn introverts. In small groups, all these types of learner can meet and mix, compensating for one another's strong points and deficiencies as language learners(Troike 2006).

However, interactive techniques can be encouraged in groups, but the student may well expect a language-learning lifetime of interactive but meaningless activities, appealing to those who like playing games. Therefore, a planned set of activities combined with humanistic approach of teaching is vital.

TASK- ORIENTED TEACHING

The basis of activity-based teaching method includes task-oriented teaching. Pica, Kanagy, and Falodun (1993:234) classify tasks according to the type of interaction that occurs in task accomplishment and gives the following classification:

1) Jigsaw tasks: These involve learners combining different pieces of information to form a whole (e.g.: three individuals or groups may have three different parts of a story and have to piece the story together).
2) Information-gap tasks: One student or group of students has one set of information and another student or group has a complementary set of information. They must negotiate and find out what the other party's information is in order to complete an activity.
3) Problem-solving tasks: Students are given a problem and a set of information. They must arrive at a solution to the problem. There is generally a single resolution of the outcome.
4) Decision making tasks: Students are given a problem for which there are a number of possible outcomes and they must choose one through negotiation and discussion.]
5) Opinion exchange tasks: Learners engage in discussion and exchange of ideas. They do not need to reach agreement.

TYPES OF GAMES:

Activities involve lots of language games like oral games, pronunciation games, reading games, writing games and spelling games.

Oral Games

It is generally felt that a language can be learnt only by using it. At the beginning of the language course the use may be wholly oral. It is true that repetition is necessary for the

patterns of a language to be thoroughly mastered. To be meaningful, talk must have its context; and suitable contexts are easier to provide if the main lesson -activity is oral.

Pronunciation Games

Every teacher of a second language ought to know what the pupil's difficulties of pronunciation are and what can be done to overcome them. Most pupils can pick up the language to a great extent by sheer imitation, and no doubt the teacher's standard of pronunciation is the chief thing, but he/she should also be able to detect mispronunciations. Errors made in pronouncing a second language vary, of course, from one mother-tongue area to another, though some are widespread. Necessary pronunciation drills and games at an elementary stage may therefore have to be based chiefly on isolated words and sounds.

Reading Games

Pre-reading games are required in reading, some of them in order to learn what reading is and others to re-learn their direction of reading. Even the most elementary reading should not be mechanical. Word-recognition skills must be developed, and these include the ability to read parts of words and to discriminate between letters.

Writing Games

In writing, the pupils are preoccupied with the letters from the beginning. They have to write them and join them together into written words. Doing this means looking at them closely. It is thus best on the whole not to introduce writing in the second language until early reading instruction has reached the stage of training the children to notice exactly one-letter differences between words.

Spelling Games

A wisely planned second language course provides for drills and exercises to ensure that spelling is mastered. Fortunately, these are readily converted into games. Indeed, boredom will soon prevail if they are not. Spelling is not the main thing, and should not be allowed to nibble away too much time. Word-forming and word-completion games can be organized to cater the preference of the young learners.

Conclusion

Monotony and boredom that were prevalent in the older days due to traditional methods of teaching has been replaced with interest in the present days' activity-based teaching in communicative approach. This has not only resulted in the enthusiastic reactions of the children but also ensured that the children learn the English language with ease

within a short duration. This approach of teaching not only brings out the hidden talents of the children but also enhances their creativity.

Language teachers in particular, have to constantly search for means of securing variety. This variety is provided by a number of games, group-work, individual-work etc. In essence, the various types of activities offer a variety of possibilities in English language teaching. It is not meritorious for the language-class to wear a dull look. Language learning is combined with enjoyment making learning a joyful process for both the students and the teachers.

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NGENDERING PARTICIPATION AND ATTITUDE TOWARDS GOVERNANCE IN KALNA TOWN, WEST BENGAL

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Abstract
    Urban centres are representations of organised human life. All organisations require care for maintaining continuity of usefulness. The urban centres also require care and management services. These management services are normally organized and administered through the institutions of urban governance. In fact, urban governance is a logical necessity arising from the incapacity of any individual citizen to regulate the affairs of the larger community living in urban areas. Women, constitute half of the total human population, plays a vital role in socio-economic functioning of our society, whether it being a traditional, transitional or modern one. It is generally well known that throughout India the urban women are overburdened with unpaid drudgery and trying to earn for their families' livelihood. For reducing marginalization of women and enhancing women empowerment the Government of India formulated 73rd and 74th Constitution Amendment Act, which provides a large number of women the opportunity to participate in the decision making bodies of the local governance. This micro level study is based on the empirical survey done with the help of qualitative methods of long informal interviews and focused on group discussions. This present paper aims at exploring how women's participation in their municipal governance provides opportunities to women to represent women's priorities in the decision making. This paper also focuses on the efficiency and transparency of the women representatives according to the perception of the urban dwellers.

Key-words: Accountability, Efficiency, Gender, Governance, Participation, Perception.

Introduction

    In order to support better planning and programme formulation and adequate allocation of resources for women improvement and poverty alleviation, intensive field oriented research is necessary to gather detailed knowledge about the existing conditions of urban women representatives in different areas of the country. Urban geographical research in India has so far tended to ignore these aspects of politics and administration.

    The term governance refers to the exercise of political, economic, social and administrative authority in the management of spatial affairs at all levels (Datta, 2001; Mitlin, 1998). World Bank (1994) has defined governance as the manner in which power is exercised in the management of the country's cultural, economic and social resources for development. Urban centres are representations of organised human life. All organisations require care for maintaining continuity of usefulness. The urban centres also require care and management services. These management services are

normally organized and administered through the institutions of urban governance (Dwivedi and Mishra, 2005). In fact, urban governance is a logical necessity arising from the incapacity of any individual citizen to regulate the affairs of the larger community living in urban areas. For this reason, municipal governments are required to be created and to be emplaced within the commitment of the citizen to sustain them.

Urban governance is fundamentally a symbol of collective will (Pinto, 1999). The local urban government bodies, located at the lowest level of the multiple-tier system of the government, are constituted on the basis of peoples' aspirations and fundamental democratic characteristics of popular establishment. These institutions are assigned revenue resources and remain accountable to public with specified spheres of responsibility. Urban governments are considered to be the primary units of democratic government. Municipal institutions are significant for national democracy. They encourage democratic participation so as to strengthen the democratic ways and to prepare political leadership for the nation. They are most suited to the local tasks of development and social welfare. Besides providing basic civic services, the institutions of urban government also seek the cooperation of the people in their programme implementation (Kaushik, 1986). It is to note here that any form of governance is a manifestation of the state (Iyer, 2001). Such governance under ideal condition is for the people, of the people, and by the people. Thus, there is interaction of the state function in the form of local administration while the people, at large, exercise their right and express their opinion in the administrative matters taken up by the state at the local levels for them. The more open, liberal and unimpeded the peoples' interaction with the state, the more complaint and agreeable would be the local administration bearing fruits of welfare for the dwelling people. Such an interaction goes well for sustainable human development of an area (Jain, 2001). If the concerned area is, however, an urban settlement, the arenas of governance become more challenging and more advanced when compared to their rural counterparts. It is because the towns or the cities represent multi-level intensity of people, varieties of private and social organizations requiring integrated planning, management function and specialist administration. Hence the urban areas reveal a forcing ground of organizational innovations and simultaneously, these settlements tend to focus on new forms of participation, empowerment, and accountability.

The 73rd and 74th Amendment Act provides a large number of women the opportunity to participate in the decision making bodies of the local governance. This participation newly converts not only in political field but also in their public life. Roughly over one million women are now beneficiaries of this unprecedented event considered as one of the most meaningful instruments to strengthen the powers of women in the country. The 74th Constitutional Amendment Act (CAA), 1992 is seen as a landmark in the history of urban governance in India. The necessities in this Amendment Act have far reaching ramifications and usher in a new era for the growth of interactions of urban inhabitants with their different municipal authorities. The 74th CAA enhanced autonomy for marginalized groups such as women, *dalits* and *adivasis*[*]

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[*] Backward community

who have remained largely voiceless and imperceptible so far (Gill, 1999). The 74th Constitutional Amendment Act, 1992, talks about urban local bodies and it seeks to provide power to the local people, by granting constitutional recognition to a three-tier of urban local government (Mathur, 1999). This Act provides for many changes in the structure, function, composition and power of urban local bodies. The rapid rate of urbanization in the recent years throws various severe environmental problems that hinder sustainable development in urban areas and the urban local bodies fail to take up effective planning and management functions in this regard. The 74th CAA of 1992 tries to fill up this gap by empowering urban local bodies with more legal, financial and functional strength.

Objective

This research paper aims at the following objectives:

(a) To enquire about the participation and perception of the women councillors regarding their municipal governance after the introduction of 74th Constitutional Amendment Act, 1992;

(b) To investigate whether the women's reservation really provides opportunities to women to represent women's priorities in the decision making; and

(c) To enquire about the efficiency and transparency of the women councillors according to the citizens' perception.

Methodology

This is a micro level study which makes extensive use of field survey techniques on the basis of in-depth interviews conducted by questionnaires survey. The empirical qualitative data collected by purposive sampling methodology. Out of twenty three wards four municipal words were selected on the basis of purposive sampling, where elected ward councillors were women. From each ward twenty five willing respondents were selected on the basis of random sampling with the help of random number table. For this purpose municipal voter list was considered. Total 100 respondents were surveyed, out of which 50 were male and 50 were female.

Case Study of Kalna Municipality

Kalna was a main centre of trade and commerce since the historical times. It was also an important centre of administration, trade and culture. The Hindu, the Muslim, the Baisnab and the Sena dynasty ruled Kalna in different times e.g., the Sena dynasty came to settle in Kalna in the 10th century and in 12th century Kalna was under the Muslim rule (Mallick, 1994).

The town Kalna (23°13′25″N, 88°24′30″E) is situated on the bank of river Bhagirathi, in the eastern part of Barddhaman district. The Holy town of Santipur in Nadia district is situated on the opposite bank of the river Bhagirathi. Kalna town is the headquarters of the Kalan subdivision. Kalna Municipality was established in 1869. This municipality is one of the oldest municipalities in West Bengal. The town had a population of 27,336 sometimes in 1872. But the population size declined to only 8,121 in 1901 census, because of a disease, locally called the "Burdwan fever". The municipality had only three wards during its inception. In 1964, the number of wards increased from 3 to 14. As per 1971 census, the town had a total population of 45,000

persons. This town now enjoys an area of 6.40 sq. km. with a population of 56,722 persons as per the census of 2011. The municipality is divided into 18 wards at present.

Survey Results and Analysis :

A Good governance depends on legitimacy, respect for human rights, accountability, transparency, efficiency and effectiveness, decentralization, sustainability, equity and participation.

Perception Study:

Table No. - 1: Attitude Towards Women Representatives

Opinion of Respondents	No. of Respondents		Percentage	
	Male	Female	Male	Female
Would project Women's Issues	19	05	38	10
Would be honest	14	06	28	12
Would not make any difference	07	29	14	58
Can't Say	10	10	20	20
Total	50	50	100	100

Though an extraordinary measure was taken by the 74th Constitutional Amendment Act in India to empower women and to enhance their role in urban governance, but the attitude of the citizens' are not so positive regarding their women representatives. More than half (58.00%) of the female respondents opined that they would not make any difference in respect of their male candidates. 20% male and 20% female of the respondents are not interested in their sensitive issue regarding state-people interactions. 38% male respondents emphasizing that female councillors specially would project different women's issues. But only 10% female respondents support this fact with their male counterparts. Regarding honesty 28% male and 12% female opined that women representatives would be more honest.

Political Participation:

Political participation is a process of growth of citizenship. It is also the index of democracy. The higher the rate of participation, the healthier is the state-people interaction. In India, 74th Constitutional Amendment Act (1992), where opened a new era enhancing participation for marginalized groups such as women, *dalits* and *adivasis* who have remained largely voiceless and invisible. Here we try to assess the rate of participation of respondents with the help of a Likert-type scale. The respondents are tracheotomised on the basis of the scores obtained by them.

Table No.- 2: Political Participation of Women Representatives:

Sex of Respondents	Rate of Participation (%)			No.
	Low	Medium	High	
Male	16 (32)	19 (38)	15 (30)	50
Female	26 (52)	13 (26)	11 (22)	50

Table no 2 reveals that the number of respondents with high scores in participation irrespective of sex is not fully satisfactory. Male respondents opined that 30.00 % of the

women representative has high, 38.00 % have a medium and 32.00 % have a low rate of political participation. The opinion of female respondents regarding the political participation of their women councillors is poorer than their male counterparts. They thought 52.00 % of the female respondents have a low participation, 26.00 % have a medium participation rate and only 22.00 % have a high rate of participation. This proves that the rate of participation does not depend upon gender due to the decentralization of power through 74th Constitutional Amendment Act in India.

Table No. – 3: Age and rate of Participation: Male Respondents

Age in years	No. Of Participation (%)			No.
	Low	Medium	High	
18-34	2 (13.33)	6 (40.00)	7 (46.66)	15
35-51	5 (25.00)	9 (45.00)	15 (30.00)	20
52 &Above	9 (60.00)	4 (26.67)	2 (13.33)	15

Table No. – 4: Age and rate of Participation: Female Respondents

Age in years	No. Of Participation (%)			No.
	Low	Medium	High	
18-34	8 (53.33)	5 (33.33)	2 (13.33)	15
35-51	8(40.00)	5 (25.00)	7 (35.00)	20
52 &Above	10 (66.67)	3 (20.00)	2 (13.00)	15

Tables 3 and 4 show that 46.66% male respondents in the age group of 18-34 have a high participation rate and in the same age group only 13.33% female respondents have a high rate of participation. But in the age group of 35-51 the participation rate is higher among female respondents (35.00 %) than male respondents (30.00 %). In the highest age group (52 years and above) the rate of participation is only 13.33 % irrespective of gender differentiation.

Political Efficiency:

Political efficiency is a kind of subjective feeling of individuals. This feeling is worthwhile to perform one's civic duties. This individual feeling can play an important role in changing pattern of State-people relationships in our society. In the study I tried to measure the sense of political efficiency of the respondents by asking the question 'How much do you think the women who count in the local government in your town are concerned about the same problems you are concerned about?' the result are shown in the Table no. 5.

Table No. 5: Sex-wise Sense of Political Efficiency of Women Representatives

Feeling of Respondents	No .of male Respondents	%	No .of male Respondents	%
Very much	5	10	01	02
To some extent	9	18	11	22
A little	13	26	15	30
Rarely at all	19	38	15	30
Can't say	4	8	8	16

Above table no 5 shows only 10.00 % male and 2.00 % female are fully satisfied regarding political efficiency of the state's women representatives. The medium sense of political efficiency are find within 44.00 % (18+26) male respondents and 26.00 % (11+15) female respondents. About 38.00 % male and 30.00 % female respondents are not satisfied regarding the feeling of their women representatives. 8.00 % male and 16.00 % female respondents are not agreed to respond to this question. Chi-square value shows that there is no significant difference between male and female respondents regarding the sense of political efficiency in Kalna Municipality.

Accountability and Transparency:

Table No. 6 : Perception about Transparency of the State's Women Representatives

Description	No. Of Male Respondents	%	No. Of Male Respondents	%
Honest	15	30	9	18
Moderately Honest	21	42	17	34
Dishonest	00	00	02	04
Don't know	14	28	22	44

From the table no. 6 it is evident that 30.00 % male and 18.00 % female respondents have no dissatisfaction regarding the honesty of their respective women councillor. 42.00 % male and 34.00 % female respondents opined that their state's women representatives are moderately honest. Only 4.00 % female respondents directly stated about the dishonesty of their respective councillor. Majority of the respondents (28.00 % male and 44.00 % female) avoided this sensitive issue. The Chi-square value shows no significant difference between the opinion of the male and female respondents regarding the transparency of the councillors.

Overall Satisfaction:

Table No 7 : Citizen's Attitude Towards the Changing Condition of their Ward

Opinion of Respondents	Male Respondents (no)	%	Female Respondents (no)	%
Same as before	3	6	5	10
Great deal of changes	17	34	10	20
Some changes	19	38	19	38
Don't know	1	2	16	32

Table no 7 shows the attitude of the respondents towards the changing condition of their respective wards. This result helps us to analyze the changing pattern of State-people interactions. 34.00 % male and 20.00 % female respondents are agreed with great deal of changes. Majority of respondents (38.00 % both male and female) opined that the changes are not so radical. 32.00 % of female and 2.00 % of the male respondents are not interested in this burning issue. Only a few portion, i.e. 6.00 % male and 10.00 % female respondents opined that there is no change. Opinions of respondents are significantly different for males and females.

Table No. 8 : Overall Satisfaction on the Basis of Gender

Level of satisfaction	Male Respondents		Female Respondents	
	Number	%	Number	%
Very good	17	34	9	18
Good	14	28	9	18
Fair	7	14	7	14
Poor	11	22	23	46
Very poor	1	2	2	4

Overall satisfaction is necessary for a strong State-people relationship. On the other, the level of satisfaction of the respondents depends upon strong state-people relationships. Satisfaction level of respondents is not significantly different for male and females. The table no. 8 shows medium satisfaction level for both male and female respondents. But the satisfaction level is higher in case of male respondents than their female counterparts. About 34.00 % of the male respondents and 18.00 % of the female respondents are highly satisfied regarding the overall satisfaction.

Concluding Observations:

The study attempts to explore the impact of socio-economic variables on political participation of the urban dwellers of Kalna town and their perception towards their women representatives of the municipal governance. The main focus here has been on the gender differences. In cases, the sex related difference is prominent and sometimes there is no significant difference. It is an attempt to find out the gender differences in Kalna town, it has been seen that there exists a significant differences in the level of awareness of the respondents towards their own ward number. On an average, females are less aware than their male counterparts. The extent to which individuals are aware and participate in urban governance depends to a large extent on the social variables and attributes such as sex, age, individual income and level of education. Now, if we compare the level of satisfaction regarding the running condition of Kalna town between the male and female respondents, the study reveals that there is a wide gap between them. This hiatus further investigated on the basis of individual income and the level of education. All the socio-economic variables taken into consideration do not bear a positive association with all kinds of social orientations. Some are significant in selective cases; others do not seem to play a significant role. This study reveals that the state-people interactions in Kalna town are quite healthy. Their attitude towards the state as a facilitator is not so ghastly. Though any universal conclusion cannot be drawn from such a micro level study, yet it may be hoped that this study will dish up to reduce the gender discrimination in our society. It may further be hoped that the study will contribute, at least to some extent, to the increasing participation of women in their local municipal governance.

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JAWAHARLAL NEHRU AND SECULARISM IN INDIA

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Abstract

After independence Nehru observed that neither socialist nor western approach to secularism could be adopted in the Indian situation. His secularism was founded in India's extraordinary variegated culture which was a product of unbroken history. Nehru's secularism was founded in its sustenance in unifying and life-giving wisdom of the ages. To understand the Nehru's concept of secularism in detail, we must know his views regarding religion. In fact, Pt. Nehru had problems with understanding the word religion in the spirit of true secularism. He expressed his conception of secularism by arguing that - the word 'secular' is not a very happy one. And yet for want of better word, we have used it. It does not obviously mean a state where religion is discouraged. It means freedom of religion and conscience including freedom for those who have no religion, subject only to their not interfering with each other or with the basic conceptions of our state. It conveys the idea of social and political equality. Thus, a caste-ridden society is not properly secular. Nehru has no desire to interfere with any person's belief but when those beliefs become petrified in caste divisions, undoubtedly they affect the social structure of the state. Moreover, according to Nehru, the fight against inequality is clearly tied up with the fight against economic backwardness and underdevelopment. Secularism and economic backwardness do not go together. Nehru thus evolved a design of promoting secularism through social transformation (eradicating inequality) and development (eradicating backwardness).

Keywords: Socialist, Secular, Religion, Society, Development

Introduction

Pandit Jawaharlal Nehru (1889-1964) occupied an important place in history among the foremost statesmen of the twentieth century. He would live in the minds of the people of India for a long time as a national liberator and a great leader. He was the chief architect of modern India. As the first Prime Minister of independent India, he persisted over its destiny for seventeen years. He possessed a charismatic personality which was multi-sided and multi-dimensional. He was a nationalist and a revolutionary, an intellectual and a rationalist, a democrat and a socialist, an atheist and a secularist and a pacifist and an internationalist (Rout, 1997, p. 15). He fought against the main currents of socio-cultural life in the country and opposed to traditions and superstitions. He believed that the pre-requisite for the successful adherence to secularism in the

country which was suffering from the virus of communalism was industrialization and economic development. Being a true 'Renaissance leader', he laid emphasis on the importance of a scientific outlook. The solution to communalism, backwardness and agrarian society which was left behind due to slavery was secularism, democracy, economic planning, modernization and socialism. In order to live in the modern world as an independent country, keeping intact the sovereignty, a modern outlook of life, modern techniques of economic development should be employed. Nehru's vision of modern India was- "where science and not superstition, where reason and not blind faith, where humanism and not religious bigotry will reign supreme" (Bhambhari, 1988, pp. 32-33) basically, the main focused of the research paper is on Nehru's views regarding the secularism and its relevance in the twenty first century. This research paper is theoretical and descriptive in nature and is based on secondary sources, therefore, descriptive, historical and analytical methods has been adopted.

Meaning and Origin of the Secularism

A state has been characterized as 'secular' where there is no established religion. This character of secular state has been almost accepted by all. But with regard to the purpose and object of a 'secular state', there is hardly any unanimity and in fact there is divergence of opinion. It is commonly argued that the term 'secular' and 'secularism' are meant to emphasize earthly value and directed to uphold human achievements. Holyoake, who coined the term secularism, emphasized it as a policy aimed at criticizing 'Christian errors' but not the Christianity (Perumal, 1992, p. 158). Etymologically, secularism is derived from a Latin word "Seculum" which means "of this age" and is concerned with the affairs of the world (Rout, 1997, p. 17). Its sphere is, therefore, temporal and non sacred. It is a system of social values based upon a doctrine that ethical standards and conduct should be determined exclusively with reference to the present life and social wellbeing without reference to religion.

Basically, there are two major types of secular models; one is represented by the former USSR and the other by the USA. The concept of secularism in USSR is espoused to achieve economic justice in the society, by emphasizing on materialistic achievements, on the human values and its earthly importance. Many socialist states (such as USSR, China and Cuba) characterized themselves as 'secular states' because they adopted 'secularism' as States policy by which they aimed at achieving a social movement. In order to ensure to the citizens, freedom of conscience, the church in the USSR is separated from the State. Freedom of religious worship and freedom of anti religious propaganda are recognized for all citizens. Thus the socialist states, when they call themselves secular, are definitely anti religious States (Perumal, 1992, p. 159). On the other hand, the liberal school of philosophy which is represented by the USA, is also characterized secular state as one where there is no 'established' religion. Here the state is secular institution and nothing to do with any particular religion; neither accepts nor rejects religion but has left it to the individual conscience (Thorner, 1980, p. 25). Here the object of this State is not negative but a positive one. Its primary object is not

necessarily to promote secularism but to avoid taking partisan attitude, and guaranteeing its citizens the right to freedom of religion.

Secularism in India

India is a multi-religious country. Various groups and communities live together and make a composite Indian culture which is characterized by co-operation, continuity, assimilation and synthesis. During the freedom struggle, secularism was emerging as the most dominant principle. The leaders of the Indian National Congress; Gandhi, Maulana Abul Kalam Azad, Nehru and others were deeply committed to the ideal of secularism, though each expressed it in very different manners. Secularism became the mantra of the Indian nation, a nation exhausted by partition and sectarian riots and above all the assassination of Gandhiji, did not want any more divisive talk. The founding fathers represented the aspirations of the different sections of society and it is due to the struggles of these different people that secular principles got enshrined into the Indian constitution.

Under Jawaharlal Nehru and later under his successors in the Congress Party, the concept of a secular nation-state was officially adopted as India's path to political modernity and national integration. Unlike in the West, where secularism came mainly out of the conflict between the Church and the State, secularism in India was conceived as a system that sustained religious and cultural pluralism. In the post Independent scenario the social dynamics was very complex. The process of secularization/industrialization was going on at a slow pace. Even at this stage, though constitution was secular, the state apparatus: the bureaucracy, the judiciary, the army and the police were infiltrated by communal elements. The Congress government, though predominantly secular, had many leaders in important positions that were influenced by a Hindu communal ideology. This resulted in a social development that was mixed; on the one hand secularism thrived and on the other though communalism remained dormant, was never dead. With the social changes of the late 70's and the early 80's, communalism got a strong boost and it started attacking secularism in a big way. However, the promoter of the secular idea in India was thus not the colonial power-elite; the pioneers of the secular ideal were the anti-colonial sections of the Indian elite, which derived inspiration from modern Western thought and especially from the English industrial and French political revolutions (Joshi, 2007, p. 1). The secularization process also received stimulus from the Indian religious reformation pioneered by Swami Vivekananda, Maulana Abul Kalam Azad and many others. Further, the secular idea gathered momentum from the historical compulsions and necessities of India's struggle against colonialism and from her striving to evolve a unified national identity out of its multi-religious, multi-ethnic and multi-lingual diversities.

Paul R Brass also argued that secularism means-and some of this is written into the constitution of the country- that all religious and cultural groups in India are entitled

to practise their faith, to be instructed through the medium of their mother tongue, and to be protected, not attacked without cause by the police (Brass, 2006, pp. 116-117). Therefore, secularists and their political organizations respect the religious beliefs of the other; exchange greetings with each other during their respective religious holidays and festivals; accept a multiplicity of languages for various uses in the country or in particular parts of the country; hate communal riots, condemn them openly, and, in recent years, form public interest groups to investigate them and expose those who have fomented them.

Nehruvian Concept of Secularism

When we argue that India as a secular state then we have to examine whether Nehru's conception of secular state conforms to either of socialistic/liberalistic or neither of them, as he was the chief exponent as well as the promoter of this concept in India. Keeping all the complexities and difficulties in the mind after independence he observed that no mechanical approach or western approach to secularism could be adopted in the Indian situation. Nehru himself was educated in western country and was modern in his outlook. But he, at the same time, understood the complexities of the Indian situation. Nehru himself was agnostic. B. R. Nanda quotes, a Hindu Mahasabha leader, as saying that Nehru was "English by Education, Muslim by culture and Hindu by an accident of birth". He was a secularist in the sense that he transcended parochial considerations and looked from a broad human angle. His secularism was founded in India's extraordinary variegated culture which was a product of unbroken history. Nehru's secularism was founded in its sustenance in unifying and life-giving wisdom of the ages. According to him- "Some Hindus talk of going back to the Vedas, some Muslims dream of an Islamic theocracy. Idle fancies, for there is no going back to the past, there is no turning back even if this was thought desirable. There is only one-way traffic in Time" (Dutt, 1979, pp. 83-90).

Nehru was known for his unwavering and uncompromising antagonism to communal politics. The emergence of a theocratic State in Pakistan after his ignominious blood-bath was provocation enough for India to declare itself to be a Hindu State but due to Nehru's efforts that the cherished vision of secularism was not lost sight of in India, even in the midst of most disordered and confusing state of affairs (Saikia, 1990, pp. 106-107). Long before the advent of freedom, Pundit ji had asserted that there should be no *Hindu-Raj* or *Muslim-Raj* or *Sikh Raj* in independent India. He used to say that it would be a *Raj* (rule) of all Hindus, Muslims, Sikhs, Christians and others- with the power rested in the hands of the people as a whole, a *Raj* representing the combined of all elements that make India.

Secularism or not? Nehru ask this question in one of his famous speeches: "Do we believe in a National state which includes people of all religions and shades of opinion and is essentially secular as a state, or do we believe in the religious, theocratic conception of a state which regards people of other faiths as somebody beyond the

pale?" (Chand, 1989, pp. 85-86) History accords the highest place to Nehru in supporting unstintingly the ideal of secular nationalism in India. His stand on secularism found expression officially for the first time in the resolution drafted by him on "Fundamental Rights and Duties" which was adopted by the Karachi Congress in 1931, in which he stated that the state shall observe neutrality in regard to all religions (Miri, 1990, p. 100). And after independence, Nehru's vision of secularism shaped the constitution of India in such a manner that it upheld the age-old spirit of tolerance in our society. It may be noted that the "Objective Resolution", which was the foundation for the constitution of India, was framed by Pundit Nehru. He was aware of communalism and its disruptive tendencies. It is noted that among the eight points, which Nehru stressed in his Resolution, the fifth on emphasized the secular nature of the constitution. The relevant portion of the 'Objective Resolution' was as: "Wherein shall be guaranteed and secured to all the people of India, justice- social, economic and political; equality of status, of belief, faith, worship, vocation, association and action, subject to law and public morality" (Rout, 1997, pp. 19-20). These points in the 'Objective Resolution' are not only embodied in the various articles of the Constitution of India but also are written in the preamble itself. The secularism was the main spring of the Constitution and the words "secular" and "socialistic" were afterwards added to the preamble by the 42nd Amendment of the Constitution in 1976. Secularism has been the guiding and living spirit of Independent India.

In 1948, when Nehru addressed the students of Aligarh Muslim University, he explained that India would be leading towards a secular State, mainly because it had to cope with modern thinking and a theocratic State which regarded people of other faiths as extraneous would be beyond the culture of modern India. Nehru continued: "As far as India is concerned, I can speak with some certainty. We shall proceed on secular and national lines in keeping with the powerful trends towards internationalism. India will be a land, as in the past, of many faiths equally honored and respected" (Nehru, 1935, pp. 335-337).

Pt. Nehru, however, expressed his conception of secularism in the following words, "We call our state a secular one. The word 'secular' is not a very happy one. And yet for want of better word, we have used it. What exactly does it mean? It does not obviously mean a state where religion is discouraged. It means freedom of religion and conscience including freedom for those who have no religion, subject only to their not interfering with each other or with the basic conceptions of our state... The word secular, however, conveys something much more to me, although that might not be its dictionary meaning. It conveys the idea of social and political equality. Thus, a caste-ridden society is not properly secular. I have no desire to interfere with any person's belief but when those beliefs become petrified in caste divisions, undoubtedly they affect the social structure of the state. They, prevent us from realizing the idea of equality which we claim to place before ourselves (Nehru, 1965, p. 327). Broadly speaking, the concept of secularism, if it is to serve as an instrument of national integration, must not be treated as a static concept emphasizing only the practice of

religious tolerance within the framework of social and economic status quo. It must become a dynamic concept, embracing the idea of actively promoting social and political change in the direction of eliminating inequality. Moreover, according to Nehru, the fight against inequality is clearly tied up with the fight against economic backwardness and underdevelopment. Secularism and economic backwardness do not go together. Nehru thus evolved a design of promoting secularism through social transformation (eradicating inequality) and development (eradicating backwardness).

Nehru: Secularism, Religion and Politics

To understand the Nehru's concept of secularism in detail, we must know his views regarding religion. In fact, Pt. Nehru had problems with understanding the word religion in the spirit of true secularism. He stated, "So far as religion and the religious outlook is concerned, I live in utter darkness..." (Nehru, 1935, pp. 504-505). The word religion he felt had lost all precise significance. He stated, "In the present times, it almost invariably brings about a strong emotional response which makes dispassionate considerations impossible. It would be far better if the word religion was dropped altogether and other words with more limited meanings were used instead, such as theology, philosophy, morals…" (Nehru, 1962, p. 374). Nehru described the role of religion in social life in the following manner: "Religion as I saw it practised, and accepted even by thinking minds, whether it was Hinduism or Islam or Buddhism or Christianity, did not attract me. It seemed to be closely associated with superstitious practices and dogmatic beliefs and behind it lay a method of approach to life's problems which was certainly not that of science. There was an element of magic about it, an empirical credulousness, a reliance on the supernatural" (Karunakaran, 1979, pp. 21-22).

Nehru was against organized religion and by implication also against mixing religion with politics. In his words, "an organized religion invariably becomes a vested interest and thus inevitably a reactionary force opposing change and progress" (Nehru, 1962, p. 377). Further, he argued "Organized religion, whatever its past may have been, today is very largely an empty form devoid of real content... and even where something of value still remains, it is enveloped by other and harmful content." According to Nehru organized religion serves only vested interests and becomes a reactionary force that invariably puts hurdles in the way of change and progress. According to him various religions insisted on continuing old beliefs, faiths and customs, which could have some use and relevance in the past, but were utterly unsuitable under the present circumstances. He argued that history was a witness that thousands and millions of people had been killed and innumerable crimes had been committed in the name of religion. People were forced and threatened to follow a particular religion.

However, Nehru was against to politicize the religion. Because politicization of religion is not only a danger to modern secular society but to any society as such, past

and present, those who wish to use religion for their own interest try to politicize it. Who, therefore, could be more against it than Jawaharlal Nehru. And yet, we find that Nehru did not adopt superficial or mechanical approach even with respect to that (Engineer, 1995, pp. 221-222). According to Nehru, a secular state does not, of course, mean that people should give up their religion. A secular state means a State in which the State protects all religions, but does not favour one at the expense of others and does not itself adopt any religion as State religion (Engineer, 1995, p. 226). It was precisely in this spirit that under Nehru's guidance constitutional guarantees were given to all religions, especially to minority religions. Nehru's approach to secularism is, therefore, based on an uncompromising critique of religion in the first sense and a deep appreciation and respect for religion in the second sense. Nehru quotes a modern definition of religion, according to which, "whatever introduces genuine perspective into piecemeal and shifting episodes of existence" or again "any activity pursued on behalf of an ideal end against obstacles, and in spite of threats of personal loss, because of conviction of its general and enduring value is religion in quality" (Nehru, 1955, pp. 374-380). Therefore, Nehru is prepared to be "a humble camp-follower of religion" in this sense.

Nehru was also determined to eliminate communalism from independent India. As Jawaharlal Nehru said in the speech, "We must have it clearly in our minds and in the mind of the country that the alliance of religion and politics in the shape of communalism is a most dangerous alliance, and it yields the most abnormal kind of illegitimate brood." Again another speech delivered at the Constituent Assembly on April 3, 1948, he said, "The combination of politics and of religion in the narrowest sense of the word, resulting in communal politics is—there can be no doubt—a most dangerous combination and must be put an end to. It is clear that this combination is harmful to the country as a whole….so far as the Government is concerned…we should function …to give a lead to the country in this matter, so that the country may realize as clearly as possible that the only right way for us to act is to do away with communalism in its political aspect in every shape and form" (Sukumaran, 2014, p.1).

Nehru also felt that communalism is much more dangerous than an external attack. One could fight with all determination an external attack. In his words,"But the other (communal) attack is vicious, because it gradually creeps into our minds without our understanding its full significance or its full dander." Nehru's vigorous attacks on communalism and communal organizations won him sympathies of minorities in independent India. But it also created problems for him. A section of minority community became highly critical for him, for his accommodation of, and soft corner for, minorities in general, and Muslims in particular (Engineer, 1995, p. 227). Nehru undoubtedly stood, and stood firmly, for secularism, enlightenment and tolerance. He expected majority to be magnanimous towards minority. He wanted to allay the fears of minorities and took a sympathetic view of minority communalism saying that "Honest communalism is fear; false communalism is political reaction" (Parthasarthy & Gopal,

1987, p. 19). He also laid down the test of success of secularism as what minority feels and not what the majority thinks. Moreover, to safeguard secularism Nehru was ready to dismantle the idea of a single national identity through a minoritarian perspective. One of his letters, dated September 20, 1953, (LCM, Vol. 2, pp. 375-80) gives testimony to this fact. Here he warned against an insidious form of nationalism that makes the majority think of itself as the entire nation and in its attempt to absorb the minority actually separates them. He highlighted the need for the psychological integration of our people and said it was the obligation of the majority to safeguard the interests of minorities.

Nehru's Secularism and Modern India: An Evaluation

There was nothing wrong with Nehru's secular vision but the emerging reality of a developing nation is far more assertive than his vision. Castes and religious communities are asserting their primordial identities far more aggressively today than in Nehru's own time. Fundamentalism has assumed menacing proportions. Some of Nehru's assumptions are being debated and even questioned in present time due to some incidents happened in India in time to time. In fact, we failed to have it clearly in our minds and in the mind of the 'country' and our secularism was forced to bow in front of the most abnormal kind of the illegitimate brood by our vote bank politics when the Rajiv Gandhi government surpassed the secular ruling of the Supreme Court in the Sha Bano case, to appease the orthodox elements, casting an eye on the vote bank; when the same government banned Satanic Verses for the same reasons. Vote bank politics started to shatter Indian secularism from the very beginning of the Babri Masjid issue (in independent India) on December 22, 1949, when idols of Rama and Sita were stealthily brought into the mosque and erected at night. 'Secular' India failed to remove many problems. And especially on December 6, 1992; Narasimha Rao led Congress government made Indian secular Indian State look the other way when the mosque was being vandalized and destroyed. Somewhere we failed to inculcate a Nehruvien secular culture in India. In the name of secularism we allowed religions to meddle with politics (Sukumaran, 2014, p. 2). As a result, in the contemporary time 'secular' India stands turned sharply decisively towards the Hindutva Right which will be harmful to the future of our secular democracy.

We can never think of secularism in India without respecting collective religious sensibilities of its people. What however one has to guard against is the politicization of religion. It is dangerous for any society and much more for Indian society. Respecting religious sensibly is far different from politicizing religion. The real malady of Indian society today lies in its extreme polarities: these are people on one pole who accept nothing short of atheistic, even anti religious, secularism (they are in very small minority, of course) and, on the other extreme, there are people who accept nothing short of politicized religion (they are also in minority but can often exploit religious sentiments of their respective communities). What is needed is to avoid these extremes, respect common people's religious sensibilities and take measure to

depoliticize religion. Today, as India's young, with their hopes, aspirations and energies seek to rebuild the country by reassessing choices, it is more important than ever to re-examine this founding father of modern India - to know him, his fierce imagination and idealistic vision. It is imperative to read him, even with a pinch of salt, to rationalize his 'Idea of India', to ask new questions of him and to analyze the strength of his convictions which kept together this large, diverse and divided country. Most of the challenges Nehru faced still exist. Can we say the same of the values and ethos that helped him carry the nation forward facing those challenges? This question he asked should resonate: "Who dies if India lives? Who lives if India dies?" The younger generation has to seek to know India in order to transform the ideals which went into the making of this nation into substantive reality. Amid this political churn, it is important to contest the singularity of the Indian identity, assert the importance of relegating religion to private space and see Indian secularism, democracy and pluralism as fundamental principles of the polity.

Conclusion:

Thus from the above, it is clear that Jawaharlal Nehru, was a unique statesman, with an instinct for secularism. He strives for converting the country from the 'traditional age' to an age of science and technology. He opposed to superstition, communalism and religious fanaticism. He also wanted his countrymen to be rational and secular. There is no doubt that secularism is a must a pluralist democracy. No pluralist society can go much further without weakening parochial as well as separatist tendencies. To that extent, the Nehruvian model of secularism has still not lost its relevance and it will not in the foreseeable future.

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TIME-DEPENDENT DECELERATION PARAMETER OF UNIVERSE WITH ANISOTROPIC DARK ENERGY IN THE FRAME WORK OF LRS BIANCHI TYPE-I THEORY

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Abstract:
LRS Bianchi Type-I cosmological models with variable equation of state (EoS) parameter have been investigated in general relativity when universe is filled with dark energy. The field equations have been solved by considering $q = -kt + m - 1$, where k and m are constants. This renders early decelerating and late time accelerating cosmological models. The physical and geometrical properties of the models are also discussed.

Keywords: Dark Energy, Deceleration Parameter, Bianchi Type-I Space Time.

1. Introduction

To study cosmological models, one of the important observational quantities is the deceleration parameter *q*. In any cosmological model, the Hubble constant *H* and deceleration parameter *q* play an important role in describing the nature of the evolution of the universe. The former one tells us the expansion rate of the universe today while the latter one characterizes the accelerating (q <0) or decelerating (q >0) nature of the universe. Some relativists assume various physical or mathematical conditions to obtain an exact solution of the Einstein's field equations. Berman [1][2] proposed a special law of variation for Hubble's parameter to obtain the cosmological solutions called the models with constant deceleration parameter (CDP) by assuming constant. This law is used by number of authors to study the cosmological models.

In 2011, Akarsu and Darelli[3]modified Berman's special law of variation for Hubble's parameter by setting $q = -kt + m - 1$, where *k* and *m* are constants which yield Linearly Varying Deceleration Parameter (LVDP) models of the universe. They have investigated accelerating cosmological solutions for Robertson-Walker space-time by considering LVDP. These models may have Big-Rip type of future singularity. Adhav*et al.* [4, 5] have investigated a cosmological model with LVDP. Singh *et al.* [6] have obtained LVDP in viscous Bianchi type-I universe. Recently, Akarsu*et al.*[7]investigated probing kinematics and fate of the universe with linearly time varying decelerating parameter.

Motivated by this study about the deceleration parameter from constant to time dependent, an attempt is made to study Bianchi Type-I space-time when the universeis filled with DE with time-dependent DP in general relativity. This work is organized as follows: In Section 2, the model and field equations have been presented. The field equations have been solved in Section 3 by choosing time depending deceleration parameter. The physical and geometrical behaviors of the model have been discussed in Sections 4. In the last Section 5, concluding remarks have been expressed.

2. Metric and field equation

Bianchi Type-I metric is considered in the form

$$ds^2 = dt^2 - a^2 dx^2 - b^2 \left(dy^2 + dz^2 \right),$$

(1)

where $a(t)$ and $b(t)$ are scale factors and are functions of cosmic time t.

The energy-momentum tensor for a perfect fluid is

$$T_i^j = \left(\rho + p \right) u_i u^j - p g_i^j,$$

(2)

where p is the pressure, ρ is the energy density and g_j^i is a metric tensor. In co-moving coordinate system, u^i are the four co-moving velocity vectors which satisfy the condition

$$u^i u_i = 0, \text{ for } i = 1, 2, 3$$

and $u^i u_i = 1$, for $i = 0$.

From equation(2), the components of energy-momentum tensor are

$$T_0^0 = \rho, \quad T_1^1 = T_2^2 = T_3^3 = -p.$$

(3)

With the help of equation(3), the matter tensor is given by

$$T_j^i = diag.(\rho, -p, -p, -p).$$

(4)

For the perfect fluid, p and ρ are related by and equation of state

$$p = \omega \rho, \quad 0 \le \omega \le 1.$$

(5)

The Einstein's field equations are given by

$$R_i^j - \frac{1}{2} g_i^j R = -T_i^j,$$

(6)

where R_i^j is a Ricci tensor, R is the Ricci scalar.

The Ricci scalar for the Bianchi Type-I metric is given by

$$R = 2 \left(\frac{\ddot{a}}{a} + 2\frac{\ddot{b}}{b} + \frac{\dot{b}^2}{b^2} + 2\frac{\dot{a}\dot{b}}{ab} \right).$$

With the help of equations (4) and(5), the field equations(6), for the metric (1) are

$$2\frac{\dot{a}\dot{b}}{ab} + \frac{\dot{b}^2}{b^2} = \rho,$$

(7)

$$2\frac{\ddot{b}}{b}+\frac{\dot{b}^2}{b^2}=-\omega\rho$$,

(8)

$$\frac{\ddot{a}}{a}+\frac{\ddot{b}}{b}+\frac{\dot{a}\dot{b}}{ab}=-\omega\rho$$.

(9)

Here the over dot $\left(\dot{}\right)$ represents the differentiation with respect to t.

3. Solution of the field equations

The field equations (7)to (9) are a system of three non-linear differential equations with four unknown parameters. The system is thus initially undetermined. To obtain a deterministic solution the following physical conditions are used.

(i) The expansion scalar (θ) is proportional to shear (σ). This condition leads to

$$\frac{1}{\sqrt{3}}\left(\frac{\dot{a}}{a}-\frac{\dot{b}}{b}\right)=\alpha_0\left(\frac{\dot{a}}{a}+2\frac{\dot{b}}{b}\right),$$

which yields

$$\frac{\dot{a}}{b}=m\frac{\dot{b}}{b}$$,

Where α_0 and m are arbitrary constants.

Above equation after integration reduces to

$$a=\eta(b)^m,$$

where η is an integration constant.

Here, for simplicity and without loss generality, we assume that $\eta=1$.

Hence, we have

$$a=b^m, \qquad m\neq1 .$$

(10)

Collins *et al*. have pointed out that for the spatiallyhomogeneous metric the normal congruence to the homogenous expansion satisfies that the condition $\frac{\sigma}{\theta}$ is constant [8].

(ii) Now, extra condition is needed to solve the system completely. Hence, different models of deceleration parameters are considered as discussed in the following section.

3.1. *Models with linearly varying deceleration parameter*

The linearly varying deceleration parameter is considered in the form (Akarsu and Darelli [3]) as:

$$q = -\frac{R\ddot{R}}{\dot{R}^2} = -kt + m - 1 \; ,$$

$$(11)$$

where R is the average scale factor, $k \geq 0, m \geq 0$ are constants.

For $k = 0$, equation (11) reduces to

$$q = m - 1 \; , (m \neq 1)$$

$$(12)$$

giving constant value of deceleration parameter.

Using this law one can generalize the cosmological solutions that are obtained via constant deceleration parameter.

After solving (12), we obtained the three different forms of the mean scale factors.

$$R = R_0 e^{\frac{2}{\sqrt{m^2 - kc_1}} \arctan h\left(\frac{kt - m}{\sqrt{m^2 - kc_1}}\right)} \; , \quad \text{for } k > 0, \; m \geq 0$$

$$(13)$$

$$R = \alpha_1 (mt + \beta_1)^{\frac{1}{m}} \text{,for k=0 and m} \geq 0$$

$$(14)$$

$$R = \alpha_2 e^{\beta_2 t} \text{, for k = 0, m = 0}$$

$$(15)$$

The latter two equations (14) and (15) are the solutions for constant deceleration parameter q. For convenience, considering the solution for $k > 0$ and $m > 0$ omitting the integration constant c_1 by setting $c_1 = 0$. By doing this, we also set the initial time of the universe is taken to be $t = 0$. The reason for considering the solution only for $k > 0$ and $m > 0$ is not only for simplicity but also for compatibility with the observed universe. $k > 0$ means we are dealing with increasing acceleration $(q = -k < 0)$. Because $t = 0$ and $k > 0$, the only way to shift the deceleration parameter to values higher than -1 is to set $m > 0$.

Under the above considerations, equation (13) reduces to

$$R = R_0 e^{\frac{2}{m} \arctan h\left(\frac{kt - m}{m}\right)} \; , \quad \text{for } k > 0 \text{ and } m \geq 0.$$

$$(16)$$

For the metric (1), the average scale factor R is given by

$$R = (ab^2)^{\frac{1}{3}}$$

$$(17)$$

Solving equations (10) and (17), the equation (16) reduces to

$$R = \left(ab^2\right)^{\frac{1}{3}} = R_0 e^{\frac{2}{m}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}$$

$$\implies \left(b^m b^2\right)^{\frac{1}{3}} = R_0 e^{\frac{2}{m}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}$$

$$\implies b = R_0 e^{\frac{6}{m(m+2)}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}.$$

(18)

With the help of equation(18), equation (10) leads to

$$a = R_0 e^{\frac{6}{(m+2)}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}.$$

(19)

Using equations (18)and (19), equation (1) leads to,

$$ds^2 = dt^2 - \left(R_0 e^{\frac{6}{(m+2)}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}\right)^2 dx^2 - \left(R_0 e^{\frac{6}{m(m+2)}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}\right)^2 (dy^2 + dz^2)$$

(20)

Equation (20) represents time dependent deceleration parameter of universe with anisotropic dark energy in the frame work for LRS Bianchi Type-I theory.

4. PHYSICAL PROPERTIES OF THE MODEL

For the cosmological model (20), the physical quantities such as spatial volume V, Hubble parameter H, expansion scalar θ, mean anisotropy parameter A_{m}, shear scalar σ^2, energy density ρ andEoS parameter ω are obtained as follows:

The spatial volume is given by

$$V = R_0^3 e^{\frac{6}{m}\operatorname{arctan}h\left(\frac{kt-m}{m}\right)}.$$

(1)

The Hubble parameter is in the form

$$H = \frac{2}{(2mt - kt^2)}.$$

(2)

The expansion scalar is

$$\theta = 3H = \frac{6}{(2mt - kt^2)}.$$

(3)

The mean anisotropy parameter is

$$A_m = \frac{2(m-1)^2}{(m+2)^2} = \text{constant} \neq 0, \text{ for m} \neq 1.$$

(4)

The shear scalar is given by

$$\sigma^2 = \frac{12(m-1)^2}{(m+2)^2(2mt-kt^2)^2} \ .$$

(5)

It is observed that

$$\lim_{t\to\infty} \frac{\sigma^2}{\theta^2} = \frac{(m-1)^2}{3(m+2)^2} \text{ constant} \neq 0, \text{ for m} \neq 1.$$

(6)

The energy density is

$$\rho = \frac{36(2m+1)}{(m+2)^2(2mt-kt^2)^2} \ .$$

(7)

The EoS parameter is obtained as

$$\omega = -\frac{\left(-24m^2 - 48m + 108 + 24mkt + 48kt\right)}{\left(36(2m+1)\right)} \ .$$

(8)

For illustrative purposes, evolutionary behaviors of some cosmological parameters are shown graphically Fig. (1).
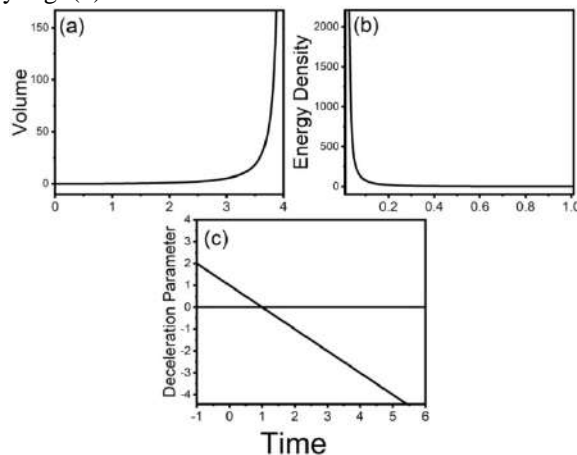

Fig. 1 Plots of time versus (a) Spatial volume, (b) Energy density, (c) Decelaration parameter for the values $m = 2$, $k = 1$

4.1. PHYSICAL BEHAVIOR OF THE MODEL

From Fig. (1) (a), we observed that the spatial volume is finite i.e. the universe starts evolving with some finite volume at $t = 0$ and expands with cosmic time t. At $t = 0$, the expansion scalar is infinite and obtain some finite value at the late time. For the cosmological model (20), the spatial scale factors are not zero for any value of t and hence the model does not have any singularity. The parameters H, θ and σ diverge for $t = \dfrac{2m}{k}$. The universe begins with $q = m - 1 > 0$, for $k = 0$ (decelerating expansion) and enters into the accelerating phase. At $t = \dfrac{m}{k}$, $q = -1$ implying that the universe experiences super-exponential expansion and ends with $q = -m - 1$ at $t = \dfrac{2m}{k}$. The mean anisotropy parameter A_m is constant and $\lim\limits_{t \to \infty} \dfrac{\sigma^2}{\theta^2} (\neq 0)$ is also constant, hence the model is anisotropic throughout the evolution of the universe except at $m = 1$ i.e. the model does not approach isotropy. In fig. (1) (b), the plot of energy density versus time is given which indicates that the model starts with infinite density and as time increases the energy density tends to a finite value. Hence, after some finite time, the model approaches steady state. In (1) (c), the plot of deceleration parameter versus time is given from which we conclude that the model is decelerating at an early phase and changes from decelerating to accelerating.

5. Conclusion

A Bianchi Type-I cosmological model has been obtained when the universe is filled with DE in general relativity. To find a deterministic solution, we have considered model of deceleration parameter which yields time-dependent scale factors.

In model, the solution of the field equations has obtained by choosing the linearly varying DP $q = -kt + m - 1$ which yields time-dependent scale factor $R = R_0 e^{\frac{2}{m}\arctan h\left(\frac{kt-m}{m}\right)}$. The model is non-singular. In the early phase of the universe, the value of deceleration parameter is positive, after some finite time the model changes from positive to negative, while as $t \to \infty$, the value of q becomes negative.

It is worth to mention that, the model obtained are expanding, sharing, non-rotating and does not approach isotropy for large t. Further, the models are anisotropic throughout the evolution. Thus, DE models are in good harmony with recent cosmological observations(Perlmutter et al.[9], Garnavich et al. [10], Perlmutter et al. [11], Riess et al. [12], Schmidt et al. [13],Perlmutter et al. [14], Riess et al. [15]). We hope that these models will be useful for a better understanding of dark energy in cosmology to study an inflationary behavior of the Universe.

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ECO - TOURISM IN KANAYAKUMARI DISTRICT

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Abstract

Kanayakumari District is blessed with the benevolence of nature with the numerous rivers, mountains, streams, forests and seacoast. There is great scope for promoting eco-tourism in the districtas itis richly endowed with pristine and diverse forests with rich variety of flora and fauna existing in the very scenic Western Ghats.The forest department is keen in promoting eco-tourism in Kanayakumari district in a big way.

Index Terms : rivers, mountains, streams, forests and seacoast

I. Introduction

Forest forms in the southern most ranges of Agasthiyamalai, a compact forested tract in the southern Western Ghats. Adjacent to this there are Neyyar, Peppara and Chendurany sanctuaries on the Kerala side; Kalakkadu and Mundanthurai sanctuaries on the Tamil Nadu side. This will form a long stretch of continuous forest forming the southern most knot of Western ghats well suited for biosphere reserve. All the small rivers which form the lifeline of this district were perennial earlier, when the forest were undisturbed.[1]The soil is mostly loamy and assumes sandy or clayey character depending on the accumulation of wash on the surface.[2] To promote eco-tourism as a tool for eco-conservation by providing first hand experience of the beauty, diversity, complexity and boundary of the forest ecosystemsto the visitors, the department arranges trekking expeditions for the interested forest and wildlife lovers. There are set-out forest trekking routes, which cover a widerange of the scenic topography. [3]

II. Biodiversity Park at Udhayagiri fort

The Udhayagiri fort with 22.50 hectares of area has been under the control of the Forest Department for the past 15 years. The forest department has in the past planed the area with specieslike teak, pungamsubabul, cassia, neemetc and these trees have grown into a good forest. Also due to the protection given by the forest department natural vegetation has also come up. The fort already has a moist deciduous forest with 42 tree species and 36 types of birds have been already spotted in the fort forest.[4]

The Udhayagiri fort is surrounded on all 4 sides by high fort walls. The tomb of captain Dillenoy, an eighteenth century Dutch warrior captured by the king Marthandavarma is located here. Captain Dillenoy gained the confidence of the king

Marthandavarma and was made the general of the King's army. Captain Dillenoy trained the Travancore army in the European warfare.[5]

There are ten spotted deer's in the Pechipharai panchyat union kept unauthorisedly. The condition of these animals were deplorable and the panchayat was not able to maintain the animals in a scientific manner and moreover keeping wild animals unauthorizedly attracts wildlife protection act. Hence it was decided to translocate these animals to Udhayagiri fort for maintaining them on sound scientific principles with the help of veterinarians and wildlife experts. Theforest department with the assistanceof Dr. Robert Grubh , Director IRNE Nagercoil has formed an wildlife enclosure with an animal care room in the forest. As the spotted deer park at pechiparai existed in a very small area and lacked proper facilities the deer's in numbers were translocated from there to the Udhayagiri fort and released in the deer enclosure. In oneof a very successful translocation operations of the deers, the forest department with the assistance of Dr. Robert Grubhtrans located seven deer's without using sedatives or tranquilizers.[6]

In addition to the deer park many other ecotourism activities have been planned to be initiated in the Udhayagiri fort in the near future. Ecotourism trekking routes, biodiversity garden representing the indigenous species of the forests of the districts, children's amusement park, light and music wildlife showas done in the kanha national park in Madhyapradesh, forest extension center and forest museum and a walk –in aviary are in the pipeline. The Nagecoil based NGO IRNE is closely working withthe Forest Department in this endeavor. In fact after the translocation , the animals gave birth to three young ones and they are hale and healthy. One veterinary doctor is visiting the park every week and monitor the health of the animals.[7]

On completion the Udhayagiri Fort Biodiversity Park will serve as a center for promotion of Eco-awareness among the public of the Kanyakumari district. This will not only contribute to increased tourism activity leading to additional employment generation in the locality but will also serve as gene pool conservation center as it has been planned to plant many endangered and threatened species available in the Western Ghats in the biodiversity park. The public will be able to feel and move into a simulated forest environment akin to the jungles in reserve forest. In addition to the deer enclosure , there is a proposal to setup a walk-in Aviary with a good collection of indigenous birds.

The district collector has desired to entrust the maintenance of the biodiversity park to the self help groups run by the forest department. The entire park area will be declared as a protected forest under section twenty sex of the Tamilnadu Forest Act aiding protection efforts of the Forest Department.[8]

III. Pechiparai dam

About 43 km from Nagercoil this dam has been constructed. This dam in Kalkulam Taluk, was built during the days of the Maharaja Sri Mulam Thirunal across

the river Kodayar. The construction of thedam was designed on the pattern of the Periyar dam in the Madurai district. The length of thedam is 425.1mts. It has a catchment area of 204.8 sq.km. There is a camp shed provided at the dam side for the visitors. The weather is very pleasant and hence attracts a large number of tourists. The reservoir is surrounded by dense forests which are famous for their valuable trees and rich would life such as tiger , elephants, deer etc. A hill tribe, small in number known as "Kanikars" dwell in the dense forests around the lake.[9]

IV. MaruthuvalMalai

The Maruthuval Malai also known as the Marunthu Vazhum Malai the abode ofmedicinal herbs, forms part of the western ghats. According to tradition, the Maruthuva Malai is a fragment of the Sanjeevi Mountain, a piece of which fell down here, and it was carried by Hanuman from Mahendrgiri to Srilanka for healing the fatal wounds of Lakshmana , the brother of Rama, the epic hero. It stretches for more than a km, reaching a height of 800 feet at a the highest point. It is about 11km. from Nagercoil.[10] This rocky mountain abounds in medical plants and is a significance resource for Ayurvedic therapeutic herbs. Maruthuva Malai is a great place for trekking and hiking thanks to the beautiful surroundings.[11]

V. Ulakkaiaruvi

Ulakkaiaruvi is a natural waterfalls situated in Azhagiapandipuram village of Thovalai Taluk. Many touristscome here for bathing and to enjoy the nature. The pathway to this water fall lies in the Reserve Forest.[12]A pathway through the Reserve Forest leads tourists to this scenic waterfall. According to legends , the waters of the Ulakkai Aruvai have rejuvenating powers. Many touristscome here for bathing and to enjoy the nature. The falls is up in the middle of forested hills (the hills of the Western Ghats),which is accessible only by foot from the base of the hills. Ullakaiarvui water falls comprises of two falls, the lower falls that serves as a beautiful picnic spot for the tourists visiting the area. The water is basically spring water, coming in as a stream up from the hills nearby. The lower part of the Ullakaiaruvi waterfall in the place where trekker reach after hiking. The exquisite place serves as a great picnic spot where tourists enjoy themselves listening to the resounding sounds of the cascading water. During the summer months, the water here remains cool. [13]

VI. Mukkadal

Mukkadaldam is built across the Vambaru River in the state of Tamil Nadu in Southern India, 10km from town of Nagercoil. It is a scenic place, favoured asa picnic location among local residents. This is a natural dam constructed by T. Chitirai Thirunal Maharaja . It supplies water to Nagercoil Municipality and it is also proposed to get water from here for Suchindrum and Kanayakumari . It is very picturesque spot and ideal for picnics by groups. The mountain consists of soaring and lofty tress of Mesuaferrea, Bischofiajavanica, Vitex Altissima to smaller tress of Dillinia species of festooning climber, shrubs, valuableherbs, variety of orchids, two types of cans and many indigenouspalms and cycads. The important timbers are teak, rose wood andvengai. Various types of forest products like bamboos, reeds, canes, soft wood

tamarind, lemon grass, rubber, coconut, arecanut, kadukai, cinnamon bark, nelli, cardamom, mango, lemon varieties, jack fruit, and many medical plants of high value which are harvested here. The mountain range is near theend point of western ghats. For tourism angle , the forest are highly enhancing with pleasant sholas, hill top forests, beautiful grasslands, panoramic valleys, top hillocks, singing streams , vast stretches of rubber plantations, valuable teak plantations and excellent climate. The dam reservoir are surrounded by hills on three sides.[14]

VII. Kalikesam

The Kalikesam Falls is located in the Kanyakumari district of the southern Indian state of Tamil Nadu.Kalikesam falls along with several other small cascades are encased in the Kanyakumari Wild Life Sanctuary. The falls is surrounded by forest on all sides and forms part of an active animal corridor. The long stream is pollution –free and adds to the natural charm of the place. The stream that flows at the end of the falls is believed to have healing powers, to cure maladies. The place is depicted by spectacular flora and fauna.Apart from assorted flora and fauna, the regionhas grown in to a bird watcher's heaven. The other cascade in the sanctuary apart from Kalikesam, is the Vattappari falls. Both the falls forma part of the waterfalls created by the Western Ghats. The Kalikesam falls are particularly sourced by the River Boothapandi. The Kalikesamfalls were discovered by an enthusiastic trekker, exploring the rainforests of the area. The Kalikesam Falls remain perenni all even in the dry months of summer season. There isa Kali temple dedicated to goddess Kali Amman near to this waterfall. There are five steps to climb to the temple. Butwhen the river is flooded, the water comes up to the top it seems. The Kali temple is the main devotee for some of the families in the nearby villages. They used to worship the idol of 'Goddess Kali' . The temple is located on a river shore, which adds to its divinity. This temple attracts devotees on Tuesdaysand Fridays. During the Tamil month of Adi women come to the temple on Tues days and Fridays are prepare Kozhukattai (a round shaped cake of rice flour) and Maavilakku as an offering to the Kali. [15]

VIII. Conclusion

Eco tourism to conserve biological diversity , by strengthening protected area management systems and increasing the value of sound ecosystems. It is also promote the sustainable use of biodiversity, by generating income, jobs and business opportunities in ecotourism and related business networks. The benefits of ecotourism developments equitably with local communities and indigenous people, by obtaining their informed consent and full participation in planning and management of ecotourism businesses.

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STATUS OF *TIPRASA* WOMEN IN TRIPURA

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Abstract

Tripura is ideally located at the hilltop of north-eastern India with its rich heritage and ethnicity. Tripura shares her domestic borders with Mizoram, Assam and Bangladesh. According to the Census India Report-2011 total population of Tripura is 36, 73,917. Among them 11, 66,813 belong to tribal community; out of which 5, 88,327 are male and 5, 78,486 are female. There are nineteen (19) government recognized '*Tiprasa*' communities (native) in Tripura. The term '*Tiprasa*' is used by native people of Tripura, which means 'son of Tripura'. Hereafter the term '*Trprasa*' would be used to refer the term '*Native*'. Though the status of women in different *Tiprasa* communities is different, but apparently the *Tiprasa* women of Tripura hold a good position in family unlike the women belonging to other communities. But, most of the *Tiprasa* communities are patriarchal in nature. So, women are debarred to hold any post in traditional village council and in religious authority.

There are certain challenges on the way to upgrade socio-economic and political status of *Tiprasa* (native) women in Tripura, like, low literacy rate, superstitious mentality, early marriage and lack of awareness, etc. The present study would be concentrated on assessing the present situation of *tiprasa* women in Tripura and also to find out the effective measures for upgradation of their status. Hereafter, the term '*Tiprasa* women' would be used to refer the women of the Princely Tripura, excluding native Bengali women and other women in Tripura.

Key words: Tiprasa, Status, Women, Population, Patriarchal.

Introduction

Tripura is ideally located at the hilltop of north-eastern India with its rich heritage and ethnicity. Tripura shares her domestic borders with Mizoram, Assam and Bangladesh. Tripura lies in a geographically disadvantageous location in India, as only one major highway, the National Highway 8 (formerly 44) connects it with the rest of the country. Five mountain ranges— Baromura, Atharamura, Longtharai, Shakhan and Jampui Hills run north to south, with intervening valleys; Agartala, the capital is located on a plain to the west. Forests cover more than half of the geographical area, in which bamboo and cane tracts are common.

Tripura is the homeland of people of different communities. There are 19(nineteen) *tiprasa* communities (native communities in princely Tripura) in the State. They can be divided into 2(two) major groups as, Aboriginal and Immigrants. Aboriginal communities are Tripuri, Reang, Jamatia, Noatia, Lusai, Uchai, Chaimal,

Halam, Kukis, Garos, Mog and Chakma. Other tribes like Bhill, Munda, Orang, Santal, Lepcha, Khasia, Bhutias are the immigrant communities came and settled here for economic reasons. Most of them are Central Indian communities and came from Madhya Pradesh, Bihar, Orissa and West Bengal. Some of these communities are however Northern-Frontier native communities came from Bhutan, Meghalaya, Sikkim and North Bengal. Chakmas and Mogs are Arakan communities entered Tripura through Chittagang Hills Tracts.

Economy of Tripura is basically agrarian and characterized by high rate of poverty, low per-capita income, low capital formation, inadequate infrastructure facilities, geographical isolation and communication bottleneck, low progress in industrial field and high unemployment problem.

Demography

The Population of Tripura is heterogeneous. Diverse ethnic elements can be traced in it. People of almost all provinces of India are found here. The Bengali people (native and migrated) and the *Tiprasa* people (native people of princely Tripura excluded native and migrated Bengali people and other people) constitute the two major ethnic groups of Tripura, making the bulk of the population. The term *'Tiprasa'* is used by native people of Tripura, which means 'son of Tripura'. Hereafter the term *'Trprasa'* would be used to refer the term *'Native'*. The state is densely populated. The following table shows the population of Tripura right from 1874 to 2011 census.

Table 1
Population of Tripura

Year	Total Population	Decadal Change	Density	*Tiprasa* Population	percentage of *Tiprasa* population to total population	Literacy rate
1874-75	74,523	-	9	47523	63.76	NA
1881	95,637	28.32	10	49915	55	NA
1891	1,37,442	43.71	13	70292	51.09	NA
1901	1,73,325	26.10	17	91,679	52.89	2.28
1911	2,29,613	32.47	21	1,11,303	48.47	4.03
1921	3,04,437	32.59	29	1,71,610	56.36	7.08
1931	3,82,450	25.63	36	1,92,240	50.26	2.84
1941	5,31,010	34.14	49	2,56,991	48.39	NA
1951	6,39,028	25.87	62	2,37,953	37.23	15.50
1961	11,42,005	76.86	109	3,60,070	31.52	20.40
1971	15,56,342	36.28	149	4,50,544	28.94	30.97
1981	20,53,058	31.92	196	5,83,960	28.44	42.12
1991	27,57,205	34.30	263	8,53,345	30.94	60.44
2001	31,91,168	16.03	304	9,93,426	31.13	73.20
2011	36,71,032	14.8	350	11,66,813	31.78	87.75

Source: Census Report of India

The above figures indicate that the total population within a century has increased more than twenty times. The decadal growth rate shows fluctuations. A fall in the growth rate from preceding figure is probably owing to the spread of epidemics etc. The influx of the Bengali Hindus from East Pakistan is responsible for the high rate of increase in the figures of 1961 and 1971 census. During the period, besides the Bengalis, many *tiprasa* families also have emigrated from East Pakistan, particularly from the Chattagong Hill Tracts. Another important feature that is evident in the table is that within the same period whereas the population has increased 20 times, the *tiprasa* population has increased only about 10 times. Since 1961, their growth rate is not only steady, but also above the national level. Speaking comparatively, the Indian population increased by 24.57 percent between 1961 and 1971, whereas in case of Tripura, it increased by 31.92 percent. The table also shows a gradual decrease in the percentage of the *tiprasa* people. Their percentage was above 50 till 1931. The figures are recording a decline since 1951 and the cause of this phenomenon lies in the immigration of the plains people.

Table 2
Social category-wise Sex Ratio in Tripura

Year	SC	ST	Others	Total
1951	1023	986	956	905
1961	929	955	919	932
1971	940	954	938	943
1981	942	962	940	946
1991	949	965	931	945
2001	962	970	931	948
2011	NA	983	NA	961

Source: Census India reports

1. The sex ratio among the scheduled tribe population has always remained higher than the overall figure of Tripura. It is registered on increase from 1981 to 1991 and again from 1991 to 2011, while the overall figure recorded a decline during the decade 1981 and 1991. However, overall sex ratio increased from 1991 to 2011.
2. The sex ratio of other category population (exclusive of SC and ST population) has always remained lower to the sex ratio for the SC and ST population in all the census years.

Tiprasa women population in Tripura:

As per Census India Report 2011, almost half of the total population is female. The sex ratio in Tripura is 961; female literacy rate is 82.7 percent. The population of Tripura is characterised by social diversity. The *Tiprasa* people comprise about one third of the population. Hereafter, '*Tiprasa* people/Population' would be used to refer inhabitants of princely Tripura excluding native Bengalis and others. As per census-2011, *Tiprasa* population of the state was 11,66,813 which is 31.75 percent of the total population. Among total *Tiprasa* population, 5,88,327 are male and 5,78,486 are female. Sex ratio among *Tiprasa* population is 983, which is better than other native communities in other parts of India. Since ratio is assumed to reflect the status of

women in society, it will not be erroneous to infer in the light of the discussion that *Tiprasa* women enjoy a comparatively higher status among the population. Hereafter, the term *'Tiprasa* women' would be used to refer the women of the Princely Tripura, excluding native Bengali women and other women in Tripura.

Literacy rate of *Tiprasa* women in Tripura:

The United Nations Population Commission, 1948 had defined 'Literacy' as ability both to read and write a simple message in any language. The process of learning to read and write would made an opportunity for acquiring information that can immediately be used to improve living standard. Reading and writing lead not only to elementary knowledge, but, to training for work, a greater participation in civil life and a better understanding of the surrounding world. Literacy opens up greater potential of the people for self-development. It helps inculcate dignity and self respect among the people. The following table shows the literacy rate of *Tiprasa* women in Tripura.

Table 3
Literacy rate among *Tiprasa* Women in Tripura

Census year	Overall Literacy rate (in %)			Tribal Literacy Rate (in %)		
	Total	Male	Female	Total	Male	Female
1961	20.24	29.61	10.19	10.01	17.37	02.31
1971	30.98	40.20	21.19	15.03	23.60	06.04
1981	42.12	51.70	32.00	23.09	33.49	12.27
1991	60.44	70.6	49.7	40.4	52.9	27.3
2001	73.2	81.0	64.9	56.50	68.0	44.6
2011	87.22	91.5	82.7	79.01	86.4	71.6

Source: Census India Reports

From above table it is observed that *Tiprasa* people of Tripura are lagging behind in literacy rate in comparison to the overall literacy rate. Especially *Tiprasa* women are lagging far behind in literacy rate from *Tiprasa* male as well as from females of other communities in Tripura.

Status of *Tiprasa* women in Tripura

Status of women in any society is assessed on the basis of the role played by women in family and community in civil and economic sector; her authority in taking decision of her own life and of her family; possession of inherent property rights etc. Status of women under different major *Tiprasa* communities, according to their customary laws has been discussed in following section.

Authority in taking family decision: There are 19 *Tiprasa* communities in Tripura. Among them 12 aboriginal communities constitutes the major portion of *Tiprasa* population. The social status of women among these aboriginal communities is almost similar. Except the Garo community, all tiprasa (native) communities are patriarchal and the lineage is traced through male members and hence they are also patrilineal. It is quite natural that women do not enjoy the equal status as that of men. In their upbringing of children, the male child is given much indulgence while the girl child is not so much pampered. Her childhood ends sooner than her brother as domestic work

load is placed on her shoulder. Outward activities, especially in rural areas like collecting woods for fire, fetching water, sowing, weeding and harvesting are also expected from her. Liquor making is controlled by the women. Though, she is not put in restrictive clothing of *Purda,* but women are not allowed to take any major decisions, nor they are allowed to purchase, sell or mortgage lands. Thus, the social status of women in most of the aboriginal communities is little lower rather than equal with men.

The position of women in a Garo society, break the myth of the higher status of women in a matriarchal & matrilineal society. The social position of the Garo women has not been favourably affected by their matriarchal system. The social life of the Garo women is very well knit and disciplined as they allowed their husband plays a prominent role as the head of the family for all purposes. The question of absolute supremacy of women does not arise so far as men are neither dominated nor ill treated or suppressed. On the contrary the Garo husband folk receive respect from women folk and command immense authority in their household establishment after marrying Garo women. Therefore the social status of the Garo women is obviously little equal, if not low, as they are treated only as a vehicle by which property descends from one generation to another.

In rural areas, *Tiprasa* women do almost all work from dawn to dusk to keep her family intact. But, though she shares all works equally with male members, yet her social status is much lower than her male counterpart as she is debarred from making any decision or any authority.

Authority to take decision regarding marriage and divorce:

In most of the *Tiprasa* communities, women get full freedom in selecting her spouse according to her choice. There was custom of 'marriage of service' named as *'Jamaikhata'* (Chamari Kama in kok borok) or marriage of bride price in *Tiprasa* communities in Tripura. Women of most of the *Tiprasa* communities could get married by 'marriage of service' named as *'Jamaikhata'* or marriage of bride price etc. The practice of bride price and marriage by service though apparently indicates at least a more dignified status of women, yet the real picture is something different. The modem educated bride groom does not agree to practice such primitive marriage ritual. The intention of marriage by service was to observe the future adjustment of the would-be bride and groom which is now replaced in modern courtship like other societies. Most of the *Tiprasa* Communities are against any woman adultery, whereas the same crime done by men is considered quite negligible. But, divorce is granted equally both to men and women on identical grounds like barrenness, impotency, adultery, and insanity etc., divorce can be initiated by any one of the spouse. Widow re-marriage is allowed in most of the *Tiprasa* communities. A man is under obligation to maintain his wife, minor sons, unmarried daughters and aged parents irrespective of the condition as to whether he possesses property or not. Polyandry is not permitted in any *Tiprasa* community, whereas a man can marry more than one woman in some *Tiprasa* communities.

Religious authority:

The religious status of the *Tiprasa* women is more or less like that of their Hindu sibling sisters. The women are not allowed to take any active participation in any religious ceremonies except some few rites in very few religious ceremonies. The priesthood is totally a 'no zone' area for the women and here the complete male domination is found

for doing every religious activities of the temple. The *Tiprasa* women have no direct authority to observe any religion rituals except when situation permits. At the time of her menstruation, she is not allowed to cross the area of worship like the *non-tiprasa* communities. Religious status of *Tiprasa* women is much lower than their male counterparts.

Authority in village administration:

The traditional village council in *Tiprasa* communities is also formed only with the male members of each village. Women are not eligible to contest election in conventional or customary village council.

Economic position:

The economic position of *Tiprasa* women is very unpredictable as educationally they are not sound enough. Their principal demands are fulfilled from the forest resources and the primitive method of cultivation of *Jhoom* (Shifting cultivation) is their main source of economy still today. Other sources are hunting, fishing, collecting jungle products etc. But with the fast deforestation and the Government's policy of forest acquisition, the *Tiprasa* women are facing great difficulty to meet their requirements. The other source of income besides agriculture is the liquor brewing as the *Tiprasa* people have the customary sanction to distil liquor in their indigenous process for consumption at home and within the community. The landless women are the poorest of the poor who work as daily labour on 'other's land and are exploited readily as the rate of wage of women labours is less than male labour, though, the women labourers work with much sincerity. Those few who managed good education are economically sound but their number is awfully meagre.

Property rights:

Though the women of most of the *Tiprasa* communities have a share of their parental property, but the amount is not equal to that of the male members of the family. The sons are the greater beneficiaries in sharing the inheritance of property. After husband's death, wife can inherit from in-laws portion, but, not completely, as it is distributed among the children also, in case of survival of children. With the rapid change of occupational pattern, more and more *Tiprasa* men taking the tertiary occupations become the main bread earners of the family and women with little or not so good educational background cannot manage jobs, naturally become dependent on their men.

Political Participation:

Tiprasa women from different communities of Tripura are not allowed to hold any post in traditional village council. But, nowadays according to the government provision, *Tiprasa* women are getting scope to enter into the political arena. Women's political representation in the grass-root political institutions was possible through the 73rd and 74th Constitutional amendment Act, which had the landmark provision of reserving not less than one-third of the total number of seats in the local bodies for women. The Tripura Assembly unanimously passed two bills reserving 50 percent seats in civic bodies, including three-tier Panchayats and Municipal bodies, for women in 2010. The Tripura Panchayat (Fifth Amendment Bill), 2010 and The Tripura Municipal (Fourth Amendment Bill) were passed unanimously which were placed in the House for amendments to reserve 50 percent seats for women in civic bodies. Same reservation policy is maintained in Tripura Tribal Areas Autonomous District Council (TTAADC)

also. This Amendment Act provided the much-needed opportunity for women in Tripura to actively participate in the decision making process of their locality through the political right that was conferred on them. Following tables show political participation of native women in Tripura in grass-root level.

Table 4

Social Category-wise number of Women Elected Representatives in Gram Panchayat

Year	No. of Gram Panchayats	No. of elected Representatives											
		Sc			ST			General			Overall		
		Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total
1994	525	519	1237	41.96	289	704	41.05	1001	3486	28.71	1809	5427	33.33
1999	537	614	1490	41.21	129	286	45.10	1152	3909	29.47	1895	5685	33.33
2004	513	547	1408	38.85	113	291	38.83	1125	3553	30.80	1785	5352	33.35

Source: Directorate of Panchayat, Government of Tripura

The above table shows, between the period 1994 and 2004, the percentage of women representatives at Gram Panchayat level have declined for SC and ST women and it has increased for general women. 33 percent reservation requirement had been fulfilled at this level.

Table 5

Social category-wise number of Elected Female Representatives in Panchayat Samity

7	No. of Panchayat Samity	No. of elected Representatives											
		Sc			ST			General			Overall		
		Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total
1994	16	17	48	35.42	13	26	50.00	37	122	30.33	67	196	34.18
1999	23	27	105	25.71	11	26	42.31	68	168	40.48	106	299	35.45
2004	23	33	78	42.31	05	15	33.33	68	206	33.01	106	299	35.45

Source: Directorate of Panchayat, Government of Tripura

The above table shows that at Panchayat Samity the percentage of women representatives have increased in case of SC and general women, but, it has declined for ST women; overall percentage of women representatives is 35.45 percent; reservation for women representatives was maintained.

Table 6
Social category-wise number of Elected Female Representatives in Zila Parishad

Year	No. of Zila Parishad	No. of elected Representatives											
		Sc			ST			General			Overall		
		Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total	Female	Total	Female as % of total
1994	3	4	15	26.67	4	7	57.14	16	48	33.33	24	70	34.29
1999	4	7	29	24.14	2	6	33.33	19	47	40.43	28	82	34.15
2004	4	8	23	34.78	3	4	75.00	17	55	30.91	28	82	34.15

Source: Directorate of Panchayat, Government of Tripura

The table shows that in Zila Parishad the representation of women increased for ST and SC women, but, it has declined for general women between the period 1994 and 2004; overall representation for women has been more than 34 percent.

Table 7
Social category-wise elected 'Pradhan' in Gram Panchayat in Tripura

Year	No. of Gram Panchayat	No. of elected Representatives							
		SC		ST		General		Overall	
		Male	Female	Male	Female	Male	Female	Male	Female
1994	525	53	34	111	55	177	95	341	184
1999	537	54	31	41	31	253	127	348	189
2004	513	97	46	13	13	226	118	336	177
2009	511	143	56	26	7	342	115	333	178
2014	591	94	79	15	16	197	190	306	285

Source: Directorate of Panchayat, Government of Tripura

Table 8
Social category-wise elected Chairperson in Panchayat Samity in Tripura

Year	No. of Panchayat Samity	No. of elected Representatives							
		SC		ST		General		Overall	
		Male	Female	Male	Female	Male	Female	Male	Female
1994	16	03	00	02	03	05	03	10	06
1999	23	02	02	03	02	10	04	15	08
2004	23	04	03	01	00	10	05	15	08
2009	23	06	01	01	01	16	06	15	08
2014	35	05	05	01	01	12	11	18	17

Source: Directorate of Panchayat, Government of Tripura

Table 9
Social category-wise elected Sabhadhipati (Chairperson) in Zila Parishad in Tripura

Year	No. of Zila Parishad	No. of elected Representatives							
		SC		ST		General		Overall	
		Male	Female	Male	Female	Male	Female	Male	Female
1994	03	01	00	00	01	01	00	02	01
1999	04	01	00	00	01	01	01	02	02
2004	04	00	01	00	00	02	01	02	02
2009	04	01	01	00	00	03	01	02	02
2014	08	01	01	00	00	03	03	04	04

Source: Directorate of Panchayat, Government of Tripura.

The above mentioned tables indicate women's leadership in Panchayati Raj institutions.

From above discussion, it is clear that most of the *Tiprasa* communities are patriarchal society and so, the dominance of male members over the female members is obvious. Though, similarities are there regarding customary laws of different *Tiprasa* communities, but, the status of women sometimes varies from community to community a little bit. The prevalence of bride price as contrasted to dowry in few matrilineal and matriarchal societies sometimes indicates the higher social status of the *Tiprasa* women. But, in most *Tiprasa* community also, there are clearly defined areas of work among the males and the females. *Tiprasa* women alongwith man folk participate in all agricultural operations except ploughing, in other economic activities and earning livelihood. The division of labour is heavily loaded against the *Tiprasa* women. Because, in addition to an equal share in the production, she also bears the burden of all house hold works. A *Tiprasa* woman carries both the loads on her head alongwith her child on her back. Importance of *Tiprasa* women in their society is significant, because of the fact that the *Tiprasa* women work harder almost relentlessly and the family economy and management depends on them. The *Tiprasa* women have to work in a family as a wife, a mother and an earner. Her role in family is of a breeder, feeder and producer of goods. Her income of both in cash and kind is considered as household income and the income is sold in the market to transform it in cash and kept by her husband, as he usually goes to the market. At the cost of their own health, they care and contribute to the health of their families.

All *Tiprasa* communities are not egalitarian in pattern. Though, *Tiprasa* women's participation in almost all fields of life is equal, but, their status and authorities are limited. This discrimination is more acute in remotest rural areas as the *Tiprasa* women of remote areas are not able to overcome both their backwardness and rural disadvantages. Most of the Government programmes and private sector's work or NGO's attempts of welfare activities for these backward communities go immediately to the already advanced section of urban area, whereas the backward and less advanced

portion of the same community in rural areas remain untouched from the fruits of achievement.

A positive sign of upgradation of the political status of *Tiprasa* women in Tripura has been observed, as the government has taken a major step to ensure political participation of women in Tripura. The reservation policy is not only maintained in Panchayat Raj Institutions, it is also observed in Urban Local Bodies and in the Tripura Tribal Areas Autonomous District Council. So, a good number of *Tiprasa* women in Tripura are now enjoying the power to take decisions of different developmental activities in rural areas of Tripura.

Challenges to upgrade the status of *Tiprasa* women and probable solutions:
Women play bigger social and economic role in *Tiprasa* societies in Tripura. Yet, still now the *Tiprasa* women of Tripura are bearing the brunt of inequalities. Most of the developmental plans are generally male-centric. Land rights, mode of living and earning, food security, education, health, employment, human rights security, drinking water facilities, shelter- all those are basic need of any community and in particular *Tiprasa* communities of Tripura. Here not the basic problems, but, some special problem of *Tiprasa* women in Tripura and there probable solutions are listed below:-

1.   Most of the developmental plans are generally andocentric. This was evident when, land was allotted for the name of male only, when rehabilitation programme for *Tiprasa Jumias* (shifting cultivators) were taken place (a large section of *jumias* are *Tiprasa* ladies). Later joint *Patta system* was adopted as government policy under the pressure of progressive women's movement. But, except the city and adjacent area, this system is not implemented totally till now. When rehabilitation of extremist had taken place, his family who suffered most with children, were largely ignored for this andocentric planning process. The government land reform measures should be implemented in such a way that the women members of the family can get equal opportunity to become the owner of the plot.

2.   Though Primary and Secondary Schools have been established in remotest parts of Tripura and Infrastructural developments have been made in the schools and other educational institutions, but cent percent enrolment has not been achieved especially in the remote areas where *Tiprasa* people are living in large numbers. Moreover, the number of drop-out girl students has not been reduced in zero level. A drastic action plan and immediate execution of the plan should be made from the part of government and common people should be encouraged for proper utilization of educational institutions.

3.   Language problem is one of the most considerable factors, which creates misunderstanding in grasping the technique of education and teaching method. *Kokborok*, one of the official languages of Tripura, mostly spoken by *Tiprasa* people, is not used by most of the teachers in interior areas. Because, *Kokborok* speaking teachers are less in number. On the other hand, *Kokborok* script has not been developed so far. So, initiatives should be taken in this direction. Though, the Department of School Education has taken initiatives to publish books in *Kokborok* language in Bengali script for primary level.

4.   The Central and State government has taken certain development and *Tiprasa* people- specific programmes for upliftment of *Tiprasa* people in Tripura, which includes, 25 point development package, special coaching centres for class ten failed students, sponsoring of students to study outside the state, multipurpose mechanical and vocational training through school and other institutions etc. But, a compact programme exclusively for welfare and development of *Tiprasa* women and girls should be taken. Reservation within existing reservation policy in government job for *Tiprasa* women may be initiated for ensuring economic empowerment of *Tiprasa* women in Tripura.

5.   All round development in general has been observed in Tripura during last few decades. But, as earlier mentioned that except a few, large number of people specially *Tiprasa* women lives a life of exclusion and sufferings in the patriarchal society due to existence of social evils like witchcraft, alcoholism, early marriage and socio-religious superstitions. Bigamy becomes a problem in native communities. A strong specific act against witchcraft should be enacted to prevent the evil practice; and a special security programme may be launched to ensure a safe and secured life to the victim of witchcraft and her family. A strong public opinion should be gathered through organising awareness programme repeatedly against the evil practice and superstitions in *Tiprasa* communities.

6.   *Tiprasa* women are still placed behind in comparisons with the *non-Tiprasa* counterpart. Complexity and modernized factors have entered into *Tiprasa* life, *Tiprasa* people become a part of urban life, they are entering into government and other salaried services, their mode of life are charging. But, confusion exists on the matter of their governing laws. *Tiprasa* people of India are governed by old Hindu Law. But, many *Tiprasa* communities have not come under jurisdiction of new Hindu Law (of property right, marriage, divorce etc.). Some customary laws are also observed in some *Tiprasa* communities in different parts of India. In Tripura, except for *Jamatia* Community, no other codified customary law exists. The confusion exists whether Royal urban *Tiprasa* communities, who claimed to be Hindus, should be governed by the Hindu law; Christian natives by Christian law or 19 *Tiprasa* communities by separate customary laws. *Tiprasa* women of Tripura demand law with no anti-women section.

7.   *Tiprasa* women do not usually acquire land rights by inheritance. Because, *Tiprasa* customary laws relating to inheritance are mainly patriarchal with limited rights for women. Recently the state government has taken initiative to issue of joint allotment of land to both spouses for ensuring land rights for women in Tripura. But, the deserted women hardly gets share of ancestor's property. It is pertinent to mention here that registration of marriage among *Tiprasa* people are not popularised enough. So, a considerable number of deserted *Tiprasa* women are denied to get property right or not even can raise their claim to her husband legally as his legal wife. So, awareness regarding the utility of marriage registration should be increased among *Tiprasa* women and for this NGOs, CSOs may take a drastic step.

8.   Since merger of princely Tripura with the Indian Union, no *Tiprasa* woman has been elected or nominated in Loksabha or Rajya Sabha as Member of Parliament. But, with the reservation policy of the state government in Tripura, roster policy is maintaining for increasing political participation of *Tiprasa* women in Local Self

Governments. Though, the numbers of contesting candidates as well as elected candidates have been increased, but level of awareness regarding duties and responsibilities of elected representatives are not up to the mark. Due to lack of awareness, political empowerment of *Tiprasa* women would not be realised in practical field. Regular and periodic orientation and refresher training programme should be arranged for women in general and for *Tiprasa* women public representatives in particular. Each and every recognised political party may nominate more and more woman candidate for contesting in Assembly and Loksabha elections till the dream of 'reservation of women in Parliament and Legislative Assembly' takes the shape of act or legislation.

Conclusion:

There is no denying the fact that with all limitations and difficulties, the *Tiprasa* women of Tripura are better placed in their community still now in respect of marriage, divorce, widow remarriage even to some extent accessibility of property. But, there is still a long way to march for achieving equal status with men as well as main stream population in general.

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COVID 19 AND ITS ECONOMIC IMPACT IN KERALA

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Abstract
The revenue loss of Kerala for the first 47 days of the nationwide lockdown is Rs.80,000 crore. The loss would be Rs.1.35 lakh crore if it takes three months for the state to get back to normalcy. The estimated loss would be 1.62 lakh crore if the impact of the lockdown stays for another three months. The growth rate would fall to an all-time low of -13.56 per cent. A study on the impact of COVID-19 on the economy of Kerala has come up with alarming facts and pointers to the future economy of the state. A state which is heavily dependent on foreign remittance, GST, sales tax and stamp duty is now going to face challenges that it has never faced in the past. There is a shortfall of Rs.33,455 crore in revenue decline from the budget estimate till now. The shortfall in GST and central tax devolution heavily contributes to this downfall. Even if the tax collection efforts remain the same, there will be a significant decline in tax and non-tax revenues due to the lockdown-induced reduction in economic activities.

Key Words :Covid 19,Lockdown,Economic Impact, Revenue loss,GST, Kerala.

INTRODUCTION
The Gulati Institute of Finance and Taxation (GIFT), an autonomous institution under the Kerala government, was tasked with a study on the economic and fiscal impact of COVID-19 on Kerala. Its report calculated the likely fall in the State's income on the basis of three assumptions. If it is assumed that things will get back to normal after 47 days of lockdown from April 1, the State will experience a revenue loss of Rs.79,300 crore; if the economy gets back to normalcy in three months, the revenue loss will be Rs.1,35,523 crore; but if it takes six months for things to get back to normal, a more likely prospect, the loss could be Rs.1,65,254 crore.The Kerala State Planning Board has prepared a report that assesses the fallout of Covid-19 and the consequent lockdown on the state's economy. Kerala is arguably one of the first states to make such an assessment.

The report estimates a loss of about Rs 80,000 crore in gross value added (GVA) to the Kerala economy in Q1 (Apr-Jun) of 2020. For March, the shortfall in GVA could have been roughly Rs29,000 crore. The direct and indirect losses in gross

state value addition (GSVA), based on an input-output model, is estimated to be 10% in 2019-20 and 20% in 2020-21.

The report makes a sectoral assessment of the huge impact of the pandemic and the lockdown. The total losses in agriculture -- crop husbandry including plantation crops -- are estimated to be Rs 1,570.75 crore in March and April. Meanwhile, losses for agricultural labourers due to loss of wages are estimated to be about Rs 200.30 crore.

The tourism industry will be among the worst hit in the state. The total losses in the tourism sector from March to September 2020 is estimated to be Rs 20,000 crore. The demand slowdown is expected to continue till September 2021. This is a huge setback for the industry, one of the biggest revenue earners, which had bounced back from two floods and a Nipah outbreak to grow by 24.1% in 2019 to touch Rs 45,011 crore.

The expected shortfall in GVA in manufacturing in March, April and May is Rs 1,500 crore, Rs 4,500 crore and Rs 2,000 crore, respectively. The shortfall in GVA in trade and hotel and restaurants in March, April and May is together estimated to be Rs 17,000 crore, with April possibly seeing a loss of Rs 10,000 crore.On each day during the period of the lockdown, the total loss of wages or earnings by the self-employed and casual workers in Kerala amounts to roughly Rs 350 crore, says the report. Between March and June, this could translate into total loss of wages and earnings of Rs 14,000-15,000 crore, the worst being April with a possible loss of Rs 8,500 crore.

The report says that the sectors that are likely to be immediately affected by the lockdown are manufacturing, construction, trade, transport, and hotels and restaurants. These sectors account for 57.7% of the state's total workforce of 127 lakh. This means 73.3 lakh workers are affected by the ongoing lockdown and the subsequent disruptions.A rough estimate of net income loss in road transport per day is about Rs 240 crore, with about 24.2 lakh people directly and indirectly affected by the lockdown. Over 40 days of lockdown, the loss comes to Rs 9,600 crore.

The report prepared by the State Planning Board on instructions from Chief Minister PinarayiVijayan to undertake a quick assessment of losses to the state economy, particularly to sectors most vulnerable to the impact of Covid-19 crisis and lockdown -- says the economic crisis is "unprecedented". "Previous disasters were mainly natural disasters, when the economy suffered damage to its productive capacity over a specific time.... The production of goods and services during the Covid-19 pandemic came to an abrupt and almost total halt. Further, the halt to production during the Covid-19 pandemic is not locality-specific or scale-specific. Its effects are from top to bottom and across all locations.

The detailed study has pertainsthe following facts and figures

For March 2020, assuming about 10 days of total production loss and decreased economic activity from the middle of March, we estimate the shortfall in value addition in the state to be roughly Rs 29,000 crore. The first quarter of 2020-21, the entire month of April is affected, with near total disruption in economic activity. It is expected that many of these would continue in May and subsequent months. This will mean a loss of roughly Rs 80,000 crore in the first quarter (of the fiscal), assuming the

normal production level in 2020-21 to be about 5 per cent higher than in 2019-20," says the study.

1. Daily wage losses by self-employed and casual workers in Kerala for the lockdown study period is in the range of Rs 14,000 crore to Rs 15,000 crore.
2. When it came to the shortfalls in Gross Value Added in the manufacturing sector from trade, hotels and restaurants it has been estimated to be around Rs 17,000 crore.
3. The total losses in agriculture sector, including plantation crops, are estimated at Rs 1,570.75 crore.
4. The losses for agricultural labourers due to loss of wages is estimated at about Rs 200.30 crore.

The report points out that the state should learn from the pandemic and work towards reducing its dependence on other states for food and food crops. With regard to rice cultivation, fallow wetlands must be identified across the State and cultivation entrusted to joint liability groups.

"An area of 25,000 hectares should be newly brought under paddy cultivation in the next two years. Vegetable production has increased commendably over the last few years and production doubled. However, we can undertake one more doubling exercise in vegetable production in the state in the next three to four years. Special measures have to be undertaken to ensure this. All available spaces in rural and urban areas should be utilised for this initiative," says the report.

It also suggests that animal husbandry should be strengthened to attain greater degree of self-sufficiency in commodities like eggs and meat.

"Kerala has to aim to reduce dependency on other states for egg supplies to just about 25 lakh eggs per day. We need to produce at least an additional 75 lakh eggs per day in the state. The "Kerala Chicken" scheme needs to be expanded over the next five years. A scheme to encourage rearing of male calves should also be thought of in this regard."Likewise, the total losses in the fisheries sector are estimated at Rs 1,371 crore. The study points out that the central government needs to consider a comprehensive economic package for the fisheries sector.

1. The study finds that the money-spinning Kerala tourism, which yields an annual income of Rs 45,000 crore, will lose about Rs 20,000 crore in 2020-21.
2. In the IT sector, the total decline in earnings is estimated to be Rs 4,500 crore in the first three quarters of 2020-21.
3. It also expects a job loss of around 26,236, while 80,000 indirect job losses in services, transportation, hotels, cleaning and security sectors is also foreseen.
4. The total loss in terms of remittances to the state in January-February 2020 is estimated to be Rs 2,399.97 crore.
5. It points out that the economic crisis associated with the coronavirus scare is unprecedented. The production of goods and services came to an abrupt and almost total halt.

Further, the halt to production during the corona crisis is not locality- or scale-specific. Its effects are from top to bottom and across all locations.

"There is uncertainty over the period it will take to resume production after the crisis is over. There is also uncertainty about how long it will take to achieve previous

levels of production. This is because the resumption of production involves national and international supply and distribution chains," the study says.

What drained state's revenues

The lockdown impact on the sale of petrol and diesel is another major factor that contributed to the revenue loss. The monthly turnover from 11 petrol bunk outlets owned by Kerala Civil Supplies Corporation for the last 11 months was taken for the purpose of the study. While March witnessed a sales drop of 29.78 per cent, it was 72 per cent in April – an indicator of the impact of lockdown on Kerala's economy.

Kerala has the highest per capital consumption of alcohol in the country. The sale of alcohol is one of the important components that enrich the economy. Revenue from alcohol has two components: sales tax and excise duty. These two together constitute around 22 per cent of own tax revenue and 12 per cent of total revenue of government of Kerala. The average sale of liquor per day in Kerala is Rs.43.12 crore.But, in the first 54 days of the lockdown (March 25 to May 17), the aggregate revenue loss in the sector was estimated to be Rs.1,988.28 crore. However experts assume that there will be immediate recovery of demand post the lockdown.The revenue loss from sectors such lottery, stamp and registration duty in addition to the loss from the central tax (as the entire nation is going to record the worst economic slump in the recent past) are some other factors referred in the report.

What can bring economy back on feet?

The report proposes a set of recommendations to strengthen the economy of the state through steps such as pension deferment, introduction of debt swapping schemes and enhancement of sales tax of liquor among other things.

The monthly pension expenditure comes to Rs.1,900 crore for 5,38,313 pensioners. The report has proposed a pension deferring scheme for those who receive pension above Rs.20,000 a month. However, sources close to the Union finance minister indicate that this proposal is most unlikely to be approved as it would invite the wrath of the public.

The study also proposes a debt swapping scheme to reduce the interest burden of the state. The debt swapping scheme capitalises the current low interest market rates by swapping some of the higher interest-bearing outstanding debts with lower interest debts, thereby reducing the interest burden of the state.

A 20 per cent hike in the excise/sales tax of liquor has also been recommended in the report. Probably this is the only area where the government does not face any resistance from the public as no political parties can openly come up with the demand that liquor must be made available cheap.

A lot of austerity measures have also been suggested in the report. Streamlining welfare payments, implementation of paid service at government hospitals for those who can afford, revision of lease rent, hike in service charges, review of post creation in government-aided schools, re-deployment of excess staff and reviewing of non-plan expenditure are a few to name.

Kerala has done a wonderful job in COVID-19 control so far, keeping the numbers at a very low level. However, I have serious reservations about the sustainability of the strategy.

A rich island nation such as New Zealand can take all measures to control the pandemic and still absorb the economic impact of remaining isolated from the rest of the world. But, Kerala is a consumer State and depends on products manufactured in other States and a lion's share of its income is from Non-Resident Indians. Even before the pandemic, this remittance had been drying up due to the economic challenge in the Gulf.Keralites will starve if the supply of essentials from neighbouring States stops. The State treasury is already in the red and is on the verge of a grave financial crisis.

Kerala's COVID-19 Package

Despite the severe financial crunch, Kerala was the first State to announce an immediate livelihood package of Rs.20,000 crore and to ensure, among other things, provision of free food and accommodation, free rations and community kitchens for all needy people, including thousands of "guest workers"; release of all welfare pensions, including arrears and disbursal of interest-free loans to members of the State's large Kudumbashree network, besides finding additional resources for its remarkable pandemic control measures.

The package worth Rs 20,000 crore that essentially aims at providing immediate subsistence to the poor and vulnerable social sections has been announced. Kerala has its own strategy of financing the economic packages: the strategy of front-loading the welfare expenditure, simultaneously planning to fill up productive sectors with capital expenditures over time. Given the fact that FRBM may not allow the state to borrow the maximum potential upfront in 2020-21, the RBI has already allowed the state to raise Rs 6,000 crore to begin with. It is expected that the Centre would also make FRBM rules more flexible allowing states to exercise more autonomy to address financial challenges.

Conclusion

While the majority of the economists have raised their eyebrows at the enormity of the package asking where the money will come from, Thomas Issac the Finance Minister made things clear with this sarcastic tweet -"Where is money from? What is the magic? Elementary my dear Watson! We are front loading borrowing and spending to beginning of new fiscal and re designing some of the schemes," he tweeted.So while the state hopes to achieve the end by front loading borrowing the finance minister himself agrees that a lot of it will depend on what the Union government decides to give the states to mitigate the COVID-19 crisis.Free ration for all card holders, two months of welfare pension in advance, subsidised meal programme at Rs 20 starting the first week of April are some of the big announcements made so far.Also included in the package is an allocation of Rs 2000 crore for loans through the state's women self help group Kudumbashree as part of its micro-finance programme.ARs 500 crore health package, the details of which are awaited, rounds up Kerala's COVID-19 package.There are a number of sectors in Kerala which could still

be impacted by Coronavirus in a big way. Already Mollywood and the rest of the entertainment industry have been shut.The Gulf remittance which still is second only to tourism as a source of revenue is surely set to take a severe beating with COVID-19 playing havoc across the Middle East.The only silver lining is perhaps that unlike other big economies COVID-19 has still not taken away lives in a big way in Kerala till this report was being filed.If it stays like that with no community spread in days to come, Kerala will perhaps rebuild faster.

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CHARITY AS STRATEGY IN BUSINESS

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Abstract

Every businessman wants to growbusiness for this there are many strategies which are used by the businessman. Out of these strategies **CHARITY**is also a very effective business strategy to grow the business. In this study we have to try find out impact of charity on business and studysome famous companies whose use this type of strategies to grow the business.

Key Words: -Charity as Strategy in Business**,**Business Strategy**,**Charity**,**Charity Foundation**,**Charitable Organisations**,**Charity as an Investment

Importance of Charity for business

❖ **Donations increase sales**

According to the latest study in the Journal of Consumer Research, a company's social awareness makes consumers believe that products are of better quality. So doing good can really mean doing good.

Companies like Amazon and eBay use cash donations to reduce cart abandonment and increase sales. Shoppers spend 26% more and retailers get 29% more return-related sales. With the support of nonprofit organizations, eBay merchants have reduced the customer dropout rate by 67%.

❖ **Charitable activities improve customer loyalty**

At the same time, while supporting global or local charities, you can increase customer loyalty. According to the study by Cone Communication and Echo Research:

✓ Almost 47% of consumers around the world say they are the most loyal to the company that supports a social or environmental problem.

✓ 53% of consumers admit they would rather recommend the company's products or services.

It is important to note that your nonprofit efforts should appeal to your target audience. By supporting the causes that affect your consumers, you gain their trust, attention and respect.

For example, if you have environmentally friendly customers, offer Greenpeace a donation from each customer's sale. Support important concerns in the communities with which you do business. This is a surefire way to increase customer loyalty.

❖ **Donations help build a loyal community and motivate your team**

The return improves the image of a brand in the community. Help people become more aware of your products / services and create a good image in the community.

Giving back one thing is a great way to build emotional connections with your customers. 66% of consumers agreed to choose a company that supports a charity instead of a company that does not. Returning therefore improves the image and value of the brand and helps to differentiate the company from others in its market sector.

Do you have problems with productivity in your company? Numerous studies show that employees who perceive their company positively are more productive, motivated and committed to the company's overall goals. The numbers tell the story better: 90% of employees who work for a company that supports charities are proud of their employer. (Roper / Starch Worldwide, 1999)

❖ **Charitable donations increase the reputation of your brand**

Returning is a great way to get your name out there and increase the visibility of your brand. Companies associated with philanthropic opinions increase positive brand awareness and improve community and community reputation. And here's why:

✓ Supporting charities is the most reliable company that makes a big difference in your company's perspective.

✓ Consumers view brands as trustworthy and ethical and are more willing to give money to companies they trust.

✓ The return helps to define the identity of the company and to stand out from the competition.

When a company supports a good cause, its image is strengthened in the eyes of consumers, partners and communities. Support the signs of charity for a brand's engagement, involvement, and concern for the causes.

❖ **Donations are tax deductible**

If you donate to charities or other organizations, the amount you donate is tax deductible. These expenses can reduce your tax burden and your taxable income.

However, there are several steps you need to take to deduct charitable contributions:

✓ Donate to a qualified organization.

✓ donate money or property;

✓ Describe in detail the tax deductions for applying to a charity.

✓ Keep a bank file or other organizational document that contains the name of an organization, the date and the amount of the contribution.

In addition, not only the money you donate is tax deductible. Event fees, parking costs, and travel expenses related to donations can reduce the tax account.

❖ **Free advertising**

Sponsoring a charity program and volunteering your business are great ways to raise awareness of a specific cause and promote your business in collaboration with the organization or event. You can

Some Example of Companies Which is Used this Strategy
Reliance Foundation

The Reliance Foundation is an Indian initiative founded by Dhirubhai Ambani in 2000. It is affiliated with Reliance Industries Limited and one of the largest private

foundations in the country. The Reliance Foundation is the third consecutive year for the country's top CSR donors.

The goal of the foundation is to promote sustainable growth in India. This happens in the following five areas:

- Rural transformation. Jodo Bharat-India is a program for small owners and the foundation also has information services which bring technical expertise to 1,400 agricultural and fishing villages.
- Education. The foundation awards scholarships as part of the Dhirubhai Ambani scholarship program, which started in Maharashtra and Gujarat in 1996 and expanded nationally in 2009. It also supports 13 schools, including the Dhirubhai Ambani International School, and creates universities. in collaboration with the London School of Economics.
- Health. The foundation sponsors the Drishti program, which provides Braille newspapers for the blind and the country's largest corneal transplant program, and develops the Sir H. N. Reliance Foundation hospital and research center in Mumbai.
- Urban renewal. The foundation took over the development of Goda Park in Nashik after funding problems were delayed. In collaboration with NASSCOM, a social media laboratory was set up for the Mumbai police to improve the participation of residents in improving security.
- Art, culture and heritage. The foundation sponsors events that celebrate and continue Indian cultural heritage, such as Ustad Zakir Hussain's annual concert in memory of his father Abbaji and the Elephanta Festival on the island of Elephanta in Mumbai. In 2012 he was sponsored together with BP the Mummy: The Inside Story by visiting the exhibition at the British Museum. In February 2016, the Drishti Reliance Foundation organized a national art and essay competition which also involved visually impaired participants. The winners were sent through the printed literature.
- The foundation proposed to establish the Jio Institute near Karjat.

The foundation is also working with other philanthropies and NGOs on cooperation initiatives, for example in 2012 in collaboration with the television program Satyamev Jayate, to award a grant for street children to the Muktangan Rehabilitation Center in Mumbai.

HUL Partners withSmile Foundation for Education of Underprivileged Children
Hindustan Unilever Limited, the largest FMCG company in India, has joined the Smile Foundation. Giant FMCG, in partnership with Tata Star Bazaar stores, has launched a unique consumer promotion campaign, India's favorite, to promote education for underprivileged children. And the Smile Foundation has become the associated development organization for India's favorite campaign.

This campaign, which was spread across seven cities in India, offered attractive discounts on certain units of the leading brands of HUL, namely Brooke Bond Red Label, Kissan, Knorr, Kwality Walls, Clear, Dove, Vaseline, Ax, Surf and Vim. HUL is

committed to donating five percent of sales from all these brands to help educate disadvantaged children.

The campaign was launched by CEO and MD HUL - Mr. Nitin Paranjpe, CEO of Trento - Jamshed Daboo and Director Operations of the Smile Foundation - Harish Nandan Sahay in Mumbai.

HUL with a legacy of over 75 years in India affects the lives of two out of three Indians. HUL works every day to create a better future. While they believe in the power of their brands to improve people's quality of life and do the right thing, they also see the broader impact of their integrated actions as a value and an integral part of their being.

This collaboration with HUL will support the Smile Foundation's mission education program. Mission Education is a nationwide Smile Foundation program that focuses on basic education and health care for underprivileged children. Through the program, the Smile Foundation promotes universal education and creates the necessary process to make disadvantaged children in traditional schools more sustainable. The program currently has 12,550 direct beneficiaries in 60 centers in 19 states.

Amazon- Gift A Smile

The most important question that comes to a donor's mind is: "Is my donation being used for the right purpose?", While an NGO's most daunting task is "to find ways to use unwanted gifts". Bridging this gap is an online portal that offers transparent options for "sensitive" gifts to the marginalized.

In a first online shopping portal, Amazon.in launched the unique "Give a smile" initiative, collaborating with 10 NGOs to create a platform where people can choose gifts to choose from, want to give organizations' wish lists .

It can be found on the Amazon.in website. Interested donors can choose from a variety of wish lists - including stationery, books, portable speakers, medical devices, toys and sports equipment - to give these virtual donations a transparent and credible face.

NGOs using Amazon's wish list technology will create a list of required items from the more than 15 million products available on the website and continuously update them. The seller's commissions incurred by these sales would go to NGOs.

The wish list includes products such as educational toys, books, dictionaries, sports equipment, clothing, personal care products and items that support NGOs in vocational training (eg. Beauty products for cosmetic courses for girls among girls 16 to 20 years) to help develop more sustainable Contribute to livelihoods.

All participating NGOs have been validated by the Charities Aid Foundation (CAF), a nonprofit organization that provides support to companies, individuals and PSUs to ensure greater impact from their philanthropic and CSR investments.

Meenakshi Batra, CEO of CAF India, said: "This is a unique opportunity for donors to directly support the needs of the community. Amazon has provided a new generation of Internet savvy consumers with a new and innovative way of distributing items, enhancing the donation experience for both donors and recipient organizations. "

Conclusion

After analyzing the study above, we can say that charity is the most effective strategy for growing business. I think that charity is not just charity but also an investment for a company. Charity not only makes the business grow, it also reduces tax liabilities and increases customer loyalty to the company.

Many large companies like it; Reliance, Amazon, HUL, ITC use this strategy to expand the business. The Reliance Foundation is an Indian initiative founded by Dhirubhai Ambani in 2000. It is affiliated with Reliance Industries Limited and one of the largest private foundations in the country. The Reliance Foundation is the country's best CSR donor for the third year in a row.

The most important question that comes to mind of a donor is: "My donation is being used for the right purpose", while the most daunting task of an NGO is "to find ways to use unwanted gifts". Bridging this abyss is an online portal that offers transparent options to make the marginalized "sensitive".

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Antimicrobial Activity of Young Stem of *Melocanna baccifera* and *Chakhwi* -two Traditional Tribal Food Ingredients of Tripura

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Abstract:

The methanol extract of edible young bamboo shoot(*Melocanna baccifera)* and a prepared food ingredient *Chakhwi* were evaluated for antimicrobial activity by Agar-diffusion paper disc method and Vincent and Vincent (1994) modified filter paper disc method by measuring zone of inhibition in mm. The test samples and standard drug tetracycline were screened against *Corynebacterium diphthariae, Enterobactor aerogene, Bordetella pertusis, Staphylococcus aureus, Bacillus subtilis* and *Klebsiella pneumoniae* strains. The results indicated that both the sample has antimicrobial activity against the above mentioned bacteria.

Key words: Antimicrobial activity, *Melocanna baccifera, Chakhwi,* tetracycline, MIC, Serial dilution Technique.

Introduction:

Different parts of herbs, shrubs & trees perform central role to maintain health, hygiene from past, even at present also. From ancient, herbal medicines are being used for different diseases. This is due to the presence of some bioactive compounds which are liable for medicinal property(Atikya *et al*., 2014)[1]. "Plant based cures remain an important source of antimicrobial agents. This is due to the availability, relatively cheaper cost & non-toxic nature when compared to modern medicines(Handan *et al*., 2018)"[2]. To control the pathogenic microorganism, various plant based drugs are applied.

"During the last few decades, the global interest in the study of different medicinal plants has increased quickly due to their antimicrobial & antioxidant activities, less toxicity & the potential to be a cheaper alternative to costly synthetic drugs"(Atikya *et al*., 2014)[1]. Nowadays it has become the especial sector of interest to determine the antimicrobial activities of several medicinal plants. Indiscriminate use of antibiotics has become a great reason of drug resistance in bacteria. So, this is the peak time to evaluate the bioactive components that may use to explore modern drug with maximal antimicrobial efficacy(Atikya *et al*., 2014)[1].

Tripura is a small but beautiful hilly state of North-Eastern India. Tribal and Nontribal people live side by side here. One of the popular food ingredients of Tribal people of Tripura is *Chakhwi*. They prepare many more dishes mixing with *Chakhwi* along with other vegetables. Tribal considers this type of food as an easily digested food, which does not produce any disturbances in stomach. *Muia* is another food ingredient which preparation is more tasty also. It is plant originated raw food

ingredient(young bamboo shoot of *Melocanna baccifera)*. They also believe that this *Chakhwi* with *Muia* acts as an antihelmintic and as washing agent of bowel [3, 4].

Our experiment was carried out to evaluate the antibacterial properties of *Muia (Melocanna baccifera)* & a prepared food ingredient *Chakhwi* of Tribal people of Tripura.

Methods And Materials:

Preparation of Extract of *Muia* (sample-1):- Very young stem of bamboo *(Melocanna baccifera)* i.e. *Muia*(Kokborok term) was collected. Removing the outer shell and internodes, *Muia* was pieced. It was dried under shade and followed by grinding into fine powder, then soaked into methanol for 7 days. The *Muia* extract was filtered. Further the filtrate was allowed to dry to get powder like substance which was treated as sample -1

Preparation of *Chakhwi* (Sample-2):- To prepare *Chakhwi* (Kokborok term), dry stem and shoots of selected bamboo was allowed to burn. The burnt ash was taken in a basket which was hanged from a suitable support. A container was kept below it to collect the extract of ashes. The water was poured slowly on ash and the ash extract collected in a container was known as *Chakhwi*.

   Chakhwi was also allowed to evaporate under very low flame to obtain powder like substances from the bottom of the container which was treated as sample-2.

Determination of Minimum Inhibitory Concentration (MIC) :-

   "The MIC is the lowest concentration of drug that inhibits bacterial growth so that there will no turbidity in the culture"(en.m.wikipedia.)[5]. It is the lowest drug concentration that prevents growth of visible microorganisms. The MIC was determined by culturing microorganism in liquid media by Serial Dilution Technique. This technique was applied to fix the MIC. The tested samples were dissolved in 5% Dimethyl Sulfoxide(DMSO)[6] to get the concentration of 2000µg/ml. The standard drug tetracycline was also dissolved in sterile dis. Water[7]. Then the mixture of tetracycline was mixed well so that 1000µl of solution contains 1000µg tetracycline. Bacterial culture was prepared from overnight culture by the direct colony method with sterile 0.85% normal saline, then vortexed to be mixed well uniformly[8].

 The bacterial suspension was prepared and adjusted to the 0.5 Mc Farland standard[6]. The stock solution of test samples were further diluted in a 2 fold serial dilution in the sterile test tubes to obtain following concentrations: 2000, 1000, 500, 250, 125, 62.5, 31.25, 15.625, 7.8125 and 3.91µg/ml[9]. The solution of tetracycline drug was diluted similarly. The MIC was carried out by taking nutrient broth in 12 test tubes and required amount of test drugs, finally inoculums was added except in negative control. One positive control was kept. In negative control, equal volume of distilled water was added[10] instead of inoculums. All the test tubes were incubated at 37^0C for 24hours. The MIC was determined following the turbidity. Compared the turbidity of positive control with other test tubes and read the result. The results obtained are depicted in Table- 1.

Screening of Antibacterial Activity:

The in-vitro-anti bacterial activity for the *Chakhwi* & extract of *Muia* was carried out by Agar-diffusion paper disc method[11] and Vincent and Vincent (1994) modified filter paper disc method[12] by measuring zone of inhibition in mm.

Tested Microorganisms:- The bacterial strains under the study were six. These were *Corynebacterium diphthariae, Enterobactor aerogene, Bordetella pertusis, Staphylococcus aureus, Bacillus subtilis* and *Klebsiella pneumoniae.*

Method:

Nutrient Agar media was prepared in distilled water, heated with frequent agitation & boiled for few minutes to dissolve the powder completely. Then pH of the medium was adjusted to 6.8 -7.2 using a pH meter by addition of either acid (or) alkali[13]. All the equipments such as glasswares, tray, pipettes, petridishes, spreader including agar media were sterilized by autoclaving at 121^0C for 15 minutes.

The sterile molten agar media was then aspectically transferred into six sterile petridishes on a level, horizontal surface to give uniform depth of approximately 25 ml of liquid agar[6]. Gently rotated the petridish to ensure that the agar medium covered the disc evenly. The agar must not touch the lid of plate, and the surface must be smooth[14]. Then

allowed the media in petridish to be solidified at room temperature. Previously inoculated 20µl was added to respective petridish. Filter papers-Whatman No.1 disc used in this activity were immersed for overnight(Alanis et al., 2005)[15] with the standard drug solution(tetracycline) & test samples (*Chakhwi & Muia)* at dose of 50µg/ml and 200µg/ml and dried at room temperature[16]. Then placed accordingly on the petridishes(having solidified agar media) and incubated at 37^0C for 24hours. After incubation of the plates, the diameter of zone of inhibition surrounding each disc were measured in mm with the help of zone reader. The results are presented as mean of three experiments and depicted in Table -2.

Results And Observation:
Table-1: Minimal Inhibitory Concentration (MIC)

Sl No.	Drug and sample	MIC (µg/ml) of *M.baccifera*					
		CD	EA	BP	SA	BS	KP
1	Tetracycline	>31.25	>31.25	31.25	15.625	15.625	>15.625
2	*Muia*	>125	>125	125	125	125	>125
3	*Chakhwi*	>125	125	>125	125	125	125

N.B.- CD-*Corynebacterium diphthariae*, EA-*Enterobactor aerogene*, BP-*Bordetella pertusis,* SA-*Staphylococcus aureus,* BS- *Bacillus subtilis and* KP- *Klebsiella pneumoniae.*

Table-2:Antimicrobial Activity (Zone of Inhibition)

Sl N o.	Drug & sample	Zone of inhibition in mm (Mean±SEM) against Bacterial strains. It is average value of triplicate.					
		CD	EA	BP	SA	BS	KP
1	Tetracycline	23±1.0	24±1.2	23±1.1	24.1±0.8	22.5±1.1	22±1.2
2	*Muia*	11±0.8	07±0.9	11±0.6	12.3±0.6	8.8±0.6	8.4±0.4
3	*Chakhwi*	12±0.7	12±0.8	09±0.5	10.9±0.8	10.2±0.3	8.9±1.1

Fig-1:-Antimicrobial Activity of *Muia and Chakhwi*
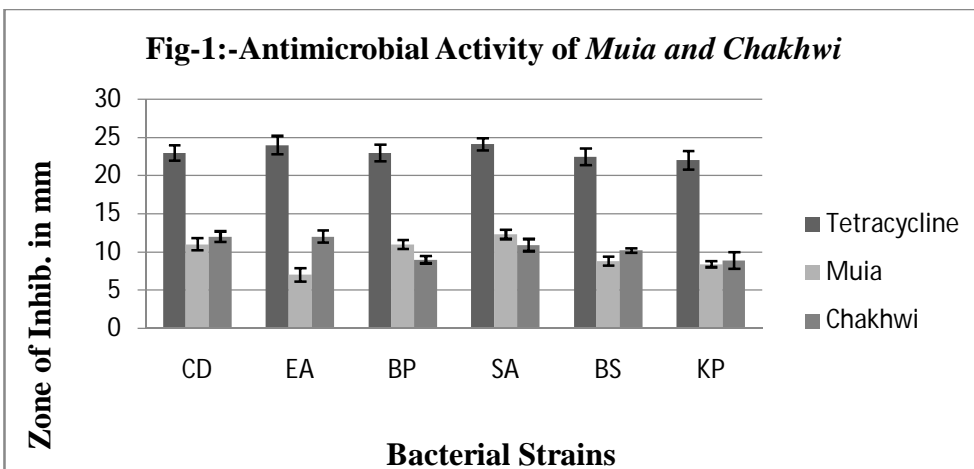
MIC of tetracycline ranges from 15.625 to 31.25µg/ml where the MIC of *Muia* and *Chakhwi* are more or less same(shown in Table-3). Antimicrobial activity of tetracycline is statistically significant ($p<0.05$) when distinguished with *Muia* and *Chakhwi*.

Results in the Table-4 showed the zone of inhibition in mm. *Muia* extract of *M. baccifera* showing a highest antibacterial effect against *Staphylococcus aureus* (12.3±0.6). The *Muia* also showed the same zone of inhibition against *Corynebacterium diphthariae* and *Bordetella pertusis*(11±0.8 and 11±0.6 respectively). The maximum zone of inhibition of C*hakhwi* was 12±0.7 and 12±0.8 against *Corynebacterium diphthariae* and *Enterobactor aerogene*. There was no significant difference between the antimicrobial effect of *Muia* and *Chakhwi*.

Discussion:

Naturally available some antimicrobial agents are very much famous for their effectiveness against standard drug ''resistant microorganisms & campaign for consumption of natural products''(Atikya *et al*., 2014)[1]. Phytochemical analysis of the methanol extract of young stem of *M. baccifera* revealed that it contains GLYCOSIDES, FLAVONOIDS, ALKALOIDS, TRITERPINOIDES & TANNINS.

Due to the presence of different bioactive components mentioned above, *Muia* exhibited the current actions. The concentrationof different bioactive components vary from plan to plant. Due to this, plant exhibits the typical medicinal property (Atikya *et al*., 2014)[1]. So, these bioactive components may enhance its antibacterial activity. Other phytochemical constituents of the plant extract may help also. The plant part used for extraction and age of plant are important factors which can affect the ethnopharmacological activity of the extract. It is reported that, older plants have much less alkaloids compared to younger plants[6].

So many microorganisms are becoming resistant to several antibiotics resulting various types of diseases. For this reason, it is required to concentrate on exploring of new drugs presently. *M.baccifera* has proved its efficacy showing antibacterial activity. We may say that *M.baccifera* is a potent emergence of bioactive constituents. Inhibition zones in this study range from 7mm to 12mm.

It has been reported that there are so many medicinal plants world wise having antimicrobial activity. There are so many reports of much greater and lesser zone of inhibition than that in this study. These differences in zones of inhibition might be due to plant differentiation, bioactive constituents of plants, geographical area of plant collection, bacterial strains, the part of plants used for, solvent used for extraction purpose[6] etc.

Some researcher advised about the solvent. According to them solvent mixing with little amount of water may improve the quality of chemical constituents of plant samples. In this study, the antibacterial activity is increased due to the presence of some bioactive molecules in plant extract. Plant extract individually showed less antibacterial activity against Gram -ve bacteria. Though *Chakhwi*showed highest antibacterial effect against *Enterobactor aerogenes* than Gram +ve bacteria. Gram -ve bacteria consist of another external membrane. It is composed of lipopolysaccharide. This component builds the bacteria impenetrable. Gram +ve bacteria possess only single outer peptidoglycan layer. This layer is not efficient penetrable barricade[6].

From the experiment, it is observed that all the tested bacteria inhibited with lower concentration of plant extract of *Muia* and *Chakhwi*.

Our result in this experiment showed that there was no significant difference between the antimicrobial effect of *Muia and Chakhwi.*

Conclusion:

The present study on antibacterial activity revealed that the *Chakhi* and methanol extract of *Muia* have the antibacterial activity against the growth of the selected pathogenic bacteria. The zone of inhibition of *Muia* and *Chakhwi* was moderate when compared with antimicrobial activity of different plants extracts with different extraction protocol, bacterial strains, geographical location of plant collection sites.

From the findings we may hypothesize that antimicrobial drug can be produced from the young bamboo stem i.e *Melocanna baccifera* through a suitable formulation, where further extensive investigation will confirm their potency with mode of action.

Further intensive studies on search of active ingredients if any, apart from the reported constituents, may highlight the responsible ingredients in case of *Chakhwi* showing the antimicrobial activity.

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Þl rr fodkl dsy{; ,oaHkkjrh; lfo/kku dh pqpqdk⁄r;ka
^yfixd l ekurk dsfo"Kk l aHkZes^

vk: 'kh
'kksk Nk=k]
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jk/ksgfj jktdh; Lukrdkrj egkfo|ky;]
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yfixd vl ekurk oreku l e; ea ,d ofF'od fpru dk fo"k; gA Hkkjrh; l ekt ds ,frgkfl d fl agkoykdu Is ;g Li"V irhr gkrk gSfd efgyk muIkekftd oxkZes IfEefyr gS tkso"khard l ekt dk egRoiwkZ vax gkrsgq Hkh mifLkk ,oa'kkSk.k dk nkh >;rh vk:;h gS vktrnh dsckn LFkkfir ykdrk⁄d l ekt eao"khard gkfl , ij [kMs bu l eqnk;dsl ekt dh e[; /kjk Isthk/kusdsfy, vund o8kkfud ,oa l o8kkfud ito/kku fd, x, gA ckotin bl dsl ekt ea0;klr efgyk fgtI[] yfixd HkonHkko ,oaefgyk vijk/k vkfn dh ?kVukvkaeatehuh Lrj ij fo"k'Kk Qdl fn [kkbZ/ughauanrk gA ;ghdkj.k gSfd efgyk l ekurk l er vund l ekftd emnnkadsvdj vUrjkZVh; Lrj ij ;tukvkadksfØ;kfUor fd;k x;kA bl dsfy, lu~ 2015 ealla⁄Dr jk"V"al¡ã dh egkl Hkk ea193 nS'kkadks}kjk l rr fodkl gruq 17 y{; dksfpifUgr fd;k x;kA buea yfixd l ekurk dkslitposegRoiwkZ y{; ds: i esLFkku fn;k x;k gA

vkt efgyk l ekurk ij l jdkjh ,oax§l jdkjh Lkkkkvkadsutjq; eaifjorZu vk;k gA bl dk ,d cMk dkj.k gS l rr fodkl ;;tuk,A bl dk iHkkko mudh l ekftd&vkfFkZd ifLFkfr ij Hkh n[kus dksfeyrk gS yfixu vif{kr : i es;g cnyko efty Isehykhkanij gA yfixd l ekurk dsl aHkZea;fn Hkkjrh; ifjif; es ckr dh tk, rks;g iko/kku l rr fodkl ;;tuk dsvfLrRo ealcgur igyslHkkjrh; lfo/kku ealviuk LFkku cukus ealQy jgh FkhA Hkkjrh; lfo/kku eaof.kr ito/kkuka;Fkk lfo/kku dh iLrkouk] ekSfyd vf/kdkj] uhfir funsZkd rRo vkfn dsdkotin vkt Hkh /kjkry ij bl dh fLFkfr fpkrktud cuh gqbZggA fo"k; dsblUfhgaegRo dsdkj.k iLrr 'kksk i= vkys¡ku dsfy, bl v/;;u fo"k; dk p;u fd;k x;k gA bl 'kksk i= dsek/;e Is;g tkuus dk iz;kl fd;k tk jgk gSfd ^yfixd l ekurk tksfd l rr fodkl ;;tukvkadk ,d egßo; y{; gS dsfy,] fd ,oa, reke o8kkfud ,oa l o8kkfud ito/kkukadsdkotin vius vif{kr ifj.kke rd igpuseaz;g D;kafoQy jgh gA vkt dsnS¡S eaefgyk ,oacky fodkl ea=ky; }kjk l qpkfyr ^cVh cpkvks cVh i<kvks^ efgyk g⁄iykbu ;;tuk] iz/kkueä eakro o8kkk onuk ;;tuk vkfn ib⁄kfjr ;;tukvkadk l qpkyu fd;k tk jgk gSftudea ,dek= mn⁄; efgykvkadksl 'kDr djuk gSrFkk mUgals ekt ,al ekurk dk ntkZ inku djuk dj ml lekt dh e[; /kjkj l tkM⁄rk gA oreku l e; ealkeftd voxkdu ,oa l ekpkj i= if=dkvka ea efgykvkadsifr ?kVrh vekuoh; ?kVukvkadh [kcjarFkk l jdkjh Lrj ij lekftd voxkdu Is;g Li"V irhr gkrk gSfd vkt nLrkostkaeacn efgykvkadh fLFkfr vkj /kjkry ij efgykvkadh fLFkfr eacgr vf/kd varj gA bu v/;;u dk lKku ywk rFkk bl Is l ekt dksvoxr djuk vR;r egRoiwkZgksx;k gA

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efgyk ekuo l ekt dk vfHkUu vax gA fdlh Hkh l ekt eastruk vko';d iq:"k dk vfLrRo gSmruk gh efgyk dk HkhA buealsfdl h l dsfcuk l ekt dh dYiuk fujFkdk gA ckotin bl dsefgyk,ao"kkkk rd vius vfLrRo ,oaigpku dsfy, iq:"k ij vkfJr jghA ;fn ekuo l H;rk dsvkjfHkd dkN o"kkkk dks viokn Lo: i ekudj ml NkM⁄fn;k tk, rksefgyk,aagj ;q ea'kkk.k vkj mRihMu dh f'kdkj jgh gA ;s ckr vkS gSfd cgrsle; dsl kFk muds'kkk.k vkj mRihMu dh infr eayxkrkj ifjorZu gkrsjgsgA vktknh dsckn efgykvkadsbu 'kkk.k vkj mRihMu Is eqDr fnykus dsfy, l o8kkfud Lrj ij vund iko/kku fd, x,A ckotin bl dsvkt Hkh og fdlh u fdlh : i esfuR; : i Is'kkk.k ,oa mRihMu dh f'kdkj gkjgh gA blh Øe esaof'od Lrj ij efgykvkadh j{kk rFkk ml fodkl dh e[; /kjkj IstkM⁄us dsfy,] lo8kkfud Lrj ij iko/kku fd, x,A ;g efgyk l 'kDr fok"(; euyr% l rr fodkl dsy{;ka;{; Øekid ikp Þyfixd l ekurk ,oaefgykvkavks1'kfDrdj.kß dsl lki{k

Hkkjrh; Ifo0/kku eavuqaf/kr iⁿ ilo/kkukaⁿ ij vk/kkfjr gA bleⁿmu ilo/kkukⁿ dsfu"iknu eavkusokyh pⁿⁿ ka dsvoykⁿdu ,oⁿorⁿku Ie; rd Irr fodkl dsy{; ikp dslⁿⁿfⁿ eⁿgⁿ ⁿixfr ij Hkk xgu v/;;u dks Iekⁿfgr fd;k x;k gA

efgykl iekurk ,oⁿmudsvf/kdkjkⁿ Islⁿfⁿ/kr vkokⁿ 1975 eⁿⁿfⁿDI dks Ihⁿⁿⁿg xgq igysvⁿrjkⁿⁿih; efgykl IEeyu ¼vⁿrjkⁿⁿih; efgykl o"kⁿ ij of"od IEeyu½ eⁿⁿtⁿⁿh Is ntⁿ/ dh xbⁿ FkhA ftleⁿ 1975 dks **vⁿrjkⁿⁿih; efgykl o"kⁿ** ds: i eⁿLFkkfir fd;k x;k xA bl ds i'pkr~ 1980 eⁿⁿdkⁿiugxu ¼efgykvkⁿ dsfy, ⁿ, IⁿIⁿr jkⁿ"Vⁿ ds n'kd dk fo'o IEeyu½ eⁿ 145 InL; ns'kkⁿ us IEeyu vk;ⁿftr fd;k ftl dk mnns'; iFke efgykl IEeyu dsy{;kⁿ dh ixfr dh Ieh{kk djuk o IiFk gh IiFk efgykvkⁿ dsLokLF;] f'k{kkⁿ o jkstxkj ij /;ku dⁿⁿfr djuk FkkA 1985 eⁿbⁿghⁿl IEeyukⁿdk vⁿⁿ/ j.k djrsgq uⁿjkⁿch eⁿⁿefgykvkⁿdsfy, ⁿ, IⁿIⁿr jkⁿ"Vⁿ dsQⁿⁿ ysdh miyfⁿ/;kⁿdh Ieh{kk vkⁿ eⁿ¼kⁿdu ij fo'o IEeyu½ vk;ⁿftr fd;k x;kA bleⁿ jkⁿ"Vⁿh; Lrj ij yⁿⁿxd Iekurk gkfly djusvkⁿ 'kkⁿfⁿ o fodkl ds iⁿkⁿⁿⁿ eⁿⁿefgykvkⁿ dh Hkkxhnkjh dks c<kok nⁿsdsmik;kⁿ dkⁿ dks⁾ⁿⁿfⁿr fd;k x;kA blh ds IⁿFk 1979 eslⁿⁿⁿr jkⁿ"Vⁿ egkl Hkk }kjk efgykvkⁿ dsf[kykQ Ihkh idkj dsHkⁿnHkko dsmⁿⁿⁿu ij ,d vfHkⁿⁿ Ie; fd;k x;k ⁿⁿfd flⁿⁿj 1981 eⁿⁿiⁿHkko eⁿ vk;kⁿA bl vfHkⁿⁿ Ie; efgykvkⁿ sifr HⁿnHkko dksbl idkj ifjHkkf"kⁿr fd;k x;k & Þfyⁿx dsvk/kkj ij fd;k x;k; HkⁿnHkko½ ifrⁿⁿfⁿ vFkok cfg"dj.k] tksefgykvkⁿ½okⁿg ⁿs fookfgr gksvFkok ughⁿ½ dsjktuhfrd] vkfFkⁿd] Iⁿkⁿifⁿd vFkok vⁿ;] {ⁿⁿ=kⁿ½ eⁿ ekuokf/kdkjkⁿ ,oⁿekⁿfⁿd Lora=rkvkⁿ dksfuLLⁿr djrk gksvFkok ⁿⁿk djusdkⁿ mnns'; j[krk gkⁿ^^

bu IⁿHkh egⁿⁿⁿ½ IEeyukⁿo vfHkⁿⁿkⁿdsi'pkr **flⁿⁿj 1995** eⁿjkⁿ"/kkuh chftⁿ eⁿⁿlⁿⁿr jkⁿ"Vⁿ lⁿk ds rⁿkⁿ/kku eⁿⁿ**prⁿⁿ'ⁿ fo'o efgykl IEeyu** vk;ⁿftr fd;k x;k ftlus Irr fodkl y{;kⁿ eⁿⁿefgykvkⁿ dh I'kfⁿDrdj.k ,oⁿvf/kdkjkⁿ dslⁿⁿfⁿ eⁿvk/kkjf'kyk j[kh ftleⁿⁿfd 12 ,l ⁿⁿⁿⁿⁿdksfpfⁿⁿr fd;k x;k tks Ie&Ie; ij of'od pⁿⁿfⁿ;kⁿ ds: i eⁿIkeus vkrh jgh gA Iu~ 1995 esgh yⁿⁿfⁿdrk ,oⁿfodkl ij jkⁿ"VⁿeIy nⁿⁿⁿⁿ dk;ⁿⁿtⁿku dsrgr Iⁿdkjkⁿus efgykvⁿo iⁿ "kkⁿ ds thou dsiⁿ;ⁿd Lrj ij Ieⁿu vf/kdkjkⁿ,oⁿvolⁿkⁿⁿⁿds Islⁿfⁿⁿ eⁿⁿkkⁿ.kk dhA

20 ohaIⁿnh dsvⁿⁿr rd vkr&vkrsIekⁿfftr] vkfFkⁿⁿd vkⁿ i;kⁿj.k] pⁿⁿfⁿ;kⁿ Islfuⁿⁿⁿⁿs dslfy, fo'o lⁿⁿⁿⁿ½ dks ,d ⁿⁿlIkⁿ>ek ;k Ik>k 'kiFkh= dh vko';drk egⁿⁿⁿ gkusyxh Fkh tksmuds¼ⁿⁿkⁿfⁿⁿ½ vkfFkⁿⁿd i;kⁿj.k½ ½ Iⁿⁿkfⁿ Ik>k fgrkⁿ dks IⁿⁿⁿV dj Idⁿ bu Ikjs iⁿⁿⁿⁿⁿk dk gkfly Irr fodkl ds fⁿ)ⁿⁿ ,oⁿmuds 17 y{;kⁿ dsi eⁿfeyⁿk Irr fodkl dh IⁿI igyh vkfⁿⁿfjⁿ ifjHkkⁿ"kk Iⁿlⁿr jkⁿ"Vⁿ ds i;kⁿj.k vkⁿ fodkl dsfo'o deh"ku (ECD) }kjk viuh ßgekjk Ilⁿk Hkfo";ⁿ½ß ¼1987½ 'kh"kⁿd dh fjikⁿ/ eⁿⁿⁿh xbⁿlgA ;g fjikⁿ/lⁿⁿ o"kⁿeⁿⁿlⁿⁿr jkⁿ"Vⁿ lⁿk dh egkIHkk eⁿⁿ,d IⁿⁿYi ds i eⁿviuk yh xbⁿ FkhA deh"ku }kjk nh xbⁿifjHkkⁿ"kk gⁿ& Þ Irr fodkl og fodkl gⁿtksorⁿku dh vko';drkvⁿkⁿ⁾ⁿ Hkfo"; dh ih<ⁿⁿⁿkⁿ dh ⁿkⁿmudh vko';drkvⁿⁿ dksiⁿⁿ djusdh IkeF;ⁿ l Ie>kⁿⁿ fd, fcuk iⁿⁿ djrk gⁿⁿmⁿjⁿⁿr ifjHkkⁿ"kk dsvⁿⁿⁿ ,ⁿh rⁿⁿ eⁿⁿ; ckrⁿij /;ku dⁿⁿⁿ o IkeⁿtL; cⁿⁿⁿkⁿus dkf'k'k dh xbⁿlⁿtksfd ,d&nⁿⁿⁿⁿ jsij fuⁿⁿⁿⁿ gⁿⁿosbl idkj g& **vkfFkⁿⁿd fodkl] Iⁿ½kfⁿd Iekⁿⁿk vkⁿ i;kⁿj.k Iⁿ⁾ⁿk.kA** bl Iekt ,tMⁿⁿⁿⁿg Lohdkjk x;k fd vc vkfFkⁿⁿd fodkl dsIⁿⁿⁿ&IⁿⁿFk Iⁿeⁿ½ⁿⁿd Iekⁿⁿk o i;kⁿj.k Iⁿⁿk.k dks Hkh Ieku ⁿⁿⁿⁿfⁿk nh tk,xhA

Irr fodkl y{; IsiⁿⁿⁿⁿⁿLgL=⁾ⁿⁿh fodkl y{;kⁿ dk Iu~2000 eⁿⁿIkⁿⁿfⁿ rⁿⁿkj gⁿⁿk FkkA bleⁿvkⁿB y{;kⁿⁿ dks 2015 rd ikⁿⁿr djusdh ckr 191 InL; nⁿⁿkkⁿfⁿ/kⁿⁿjⁿⁿ dh x⁾h FkhA bu eⁿⁿⁿⁿseⁿefgykvkⁿdsvf/kdkj ,oⁿl 'kfⁿDrⁿⁿkⁿⁿⁿ.k dksHkh fo'kⁿ"kⁿ LFkku ikⁿⁿr FkkA blⁿghⁿfodkl y{;kⁿdksvkⁿxscⁿⁿⁿⁿdskⁿⁿe eⁿⁿⁿc Irr fodkl ds 17 y{;kⁿⁿ dh jpuk dh tk jgh Fkh rkⁿⁿⁿeⁿⁿ⁾ⁿ y{; efgykvkⁿdsvf/kdkjkⁿⁿ Iekⁿⁿku ,oⁿl 'kfⁿDrⁿⁿkⁿⁿⁿ.k dksHkh Iefiⁿr fd;k x;k bl ,tMkⁿⁿⁿ½eⁿⁿⁿg x;k gⁿⁿfd vc dⁿⁿy vkfⁿⁿk of} ij QkDIⁿ djuk iⁿⁿIⁿr ugha gⁿⁿ cfYd fu"i{k vkfⁿⁿk Iⁿⁿⁿⁿⁿⁿ½d Iekⁿⁿkhⁿⁿ rd vkfⁿⁿk Ijfⁿⁿr ,oⁿvkfⁿⁿd ifⁿⁿⁿ iⁿFoh ij QkDIⁿ djuk gⁿⁿkkⁿ blⁿⁿⁿeⁿⁿⁿⁿ½ x;k fd 'kfⁿⁿj] U;k;;]] i;kⁿj.k Iⁿⁿⁿⁿⁿ.k vkⁿ ⁿⁿⁿixfd fodkl ds dⁿ½l ,d&nⁿⁿⁿ½ Is vyx ugⁿⁿgScfYd mⁿⁿh ifjorⁿⁿ dsvⁿⁿ gⁿA

;fn Hkkjr dsIⁿⁿHkⁿ½ⁿⁿⁿⁿrⁿ dh tk, rksHkkjrh; Ifo0/kku dsfuekⁿⁿⁿⁿⁿkⁿ }kjk efgykvkⁿ dh Iekt eⁿ½okⁿLoⁿⁿr fLFkfⁿⁿr dks/;ku eⁿⁿj[krsgq ,ⁿⁿIⁿo/kukⁿdks Ifo0/kku eⁿⁿ"kkⁿfⁿey fd;k x;k ftudk mnnⁿⁿⁿ; **Þyⁿⁿfⁿd Iekurkß** dsy{; dks ikⁿⁿr djuk FkkA ;fn blⁿⁿⁿ dh 'k⁾ⁿvkr gⁿⁿⁿ **Þge Hkkjr dsyⁿⁿ½ß** Isghⁿⁿⁿ gⁿⁿⁿftleⁿⁿfⁿⁿⁿ] tkfⁿⁿ] Iⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿ eⁿⁿkkⁿ ij fdlh Hkh rjg dk HkⁿⁿHkko dh ppⁿⁿⁿⁿ ughⁿⁿ gⁿⁿA ;fn ckr dh tk, efgykvkⁿ dks jktuⁿⁿfⁿd vf/kdkjkⁿ dh rksIfo0/kku IⁿHkk eⁿⁿHkh doy 7 gh efgyk InL;kⁿ dk ifrfuf/kRo Fkk ftleⁿⁿⁿⁿ½dn eⁿⁿ vkⁿⁿ fxjkⁿkⁿⁿⁿV gⁿⁿⁿⁿ½A ykⁿⁿⁿⁿ½ Hkk ,oⁿⁿⁿ½iⁿⁿⁿ½ dh fo0/kuⁿⁿIHkkvkⁿeⁿⁿ½ 33 ifⁿr'kⁿr vkj{k.k dh ekⁿⁿⁿ] tksvkt rd iⁿⁿⁿh

ugha gks ikbZ gA yfdu bl ekx us 73 oa o 74 oa lo¥kkfud lakksku ds vrxZr xie ipk;r o uxjikfydkvka esefgykvka ds fy, vkjf{kr IhV dh 0;koLFkk djkus dk dk;Zfd;kA bl vkj{k.k us dkQh gn rd efgykvka l'kfDrdj.k esegRoiw.kZ Hkfiedk fuHkkbZ gA

vkt Hkh efgykvka esvkfFkZd vf/kdkjka ds ifr tkx: drk dk vHkko gA efgykvka esvkfFkZd vf/kdkj lackkh elyka tS& leku dk;Zds fy, leku oru] ekrRo odk'k] leku etnijh] lifRr dk vf/kdkj vkfn ds l#{k esle;≤ ij crk, x, dkunuka ,oaiko&kkkukuesfgykvka ds vkfFkZd vf/kdkjka ds lifj{kr djus grq vuPNn 14]15]16]21]23 ds vrxZr fofo/k iko/kku fd, gA bl vfrfjDr jkT; dsuhfr funskkd rRoka esvuPNn 39] 42 ds lkFk lkFk euy dRrO;ka esa 51 ^,%3½ eaof.kr iko/kkukua ds tfj, efgykvka ds ifruf/kRo o l'kfDrdj.k dksml dh okLrfod fLFkfr esaigpku dk dk;Zfd;k gA

iw;sHkkjr eslkoZtfud 0;k; ds lcakka es^yfxd ifji{;^ dks viukus dh ifØ;k dk vkjaHk gksppdk gA lu~ 1974 eanskk es^efgykvka dh fLFkfr^ ij tc deVh ls fjiikZZ iadkf'kr dh rc Is^yfxd ctfVx^ dh vo/kkj.kk dks cy feykA vkBoha ipo"kh; ;kstuk ¼1992&1997½ eaefgykvka ds fodkl ds fy, lkekU; fodklikRed {ks=ka ls,d lqf'pr pkf'k ipkg dh t:jr dksegllq fd;k x;kA fofHkUu ipo"kh; ;kstukvka dsrgr le;≤ ij efgykvka ds vf/kdkjka dk lj{k.k fofHkUu Lrjka ij fd;k x;k gA bUgha ip;klka dh ifjf.kfr ;g jgh fd 2015 esefgykvka dh fLFkfr ij 1974 dks 40 o"kZ ckn ip%,d mPp Lrjh; deVh us eq{; yfxd vkaj dks vkjtksdkkxh; nf"V lsiojsnsk esefgykvka ds thou esvkuosokyh fofo/k dfBukbZ;ka dks 0;ku ij iVy ij ykuk dk dk;Zfd;kA ftldkfoLrr : i lsiij ds vxfyf[kr Hkkxxka es0;ku dtk ds lkFk LFkku fn;k x;k gA

v/;;u dsml¸;
1& lrr fodkl dsy{; ^yfxd lekurk^ dslS}kfird i{k dk v/;;u djukA
2& Hkkjr; lfo/kku es^yfxd lekurk^ l sl#f{kr iko/kkukua dkspqkfr;ka dk v/;;u djukA

v/;;u fof/k
iLrqr 'kk/k&i= grqfod, x;sv/;;u es'kk/k vfHkkdYi ds: i esao.kkukRed v/;;u i }fr dk iz;kx fd;k x;k gA bl v/;;u dsfy, vko';d rF; lfdfyr djusdsfy, rF; ladyu dsf}rh;d Lrr dks iz;kx fd;k x;k gA bl iakkj ladfyr vkadMka dsmudh iidfr ,oafo'ks"krkvka ds vk/kkj ij oxhdr dj muodk fo'ys"k.k fd;k x;k gA rFkk bu fo'yf"kr rF;ka ds vk/kkj ij ghfu"d"kZ dk vly{ku fd;k x;k gA

2- lrr fodkl dsy{; ^yfxd lekurk^ dk lS}kfird i{k
yfxd lekurk ,d ,slk caqcu;knh vf/kdkj gStks fd jktuhfrd] lkekftd ,oavkfFkZd Lrr ij efgykvka ds i;kZlr ifrfuf/kRo dks lkFk&lkFk muds ip;k{k dh odkyr djrk gA yfxd lekurk u flQZ ,d caqcu;knh ekuookf/kdkj gS cfYd ,d 'kkfriwiokZ.kZ lq{kd fVdkÅ fo'o ds fy, vko';d capu;kn Hkh gA ;fn ge o'od bfrgkl ds lkFk lkFk Hkkjr dsbfrgkl ds lHkkk ea[kaxkrs;g irk pyrk gSfd efgykvka dsydj o"kod Lrr ij ftu vkfFkZd jktuhfrd ,oalkekftd 0;oLFkkvka dk fuekZk fd;k x;k mle efgykvka dks viuh cjkcjh dh fgLltkkghj ipr djus dsfy, la'k>k djuk iMk tks vkt rd tkjh gA bl ds vykok fo'o dh yxHkx ikVb;d ipfyr /kkfeZd 0;oLFkkvka ,oakelyZdh ifo= eku tkusokyh xfFkka esefgykvka dsydj cuk, x, fu;e dkuuu efgyk vf/kdkjka ds lifj{kk esacgl dks tUe nrh gA

,slsipfphu nk'kZfudkftudaftl fl)kUr of'od] lkekftd] jktuhfrd] dkuuuh] vkfFkZd 0;oLFkkvka ds vk/kkj cus ml eaHkh dbZ nk'kfudka ds ly{kka ,oaerka esefgyk vf/kdkjka dh mi{kk dh xbZ gA, slk irihr gkrk gA ftuea dN uke vxfyf[kr g& **vjLru**budsvuq kj L=h o iq "k efgyk lsJ'B gS,oaiq "k kkI d gS vkf efgyk 'kkfl r gA, slk vjLru us vius ys[k ikfyfVVDl esafy{kk gA mlijk mnkgj.k : Iks ds fy{k ^,feyh^ eafeyrk gSftl eslyf[krsgSfd ^efgykvka dksde meZlgh dfBuu pykfr;ka ds ifr if'kf{kr fd;k tkuk pkfg, ftl ls viruh vkdk{kkvka dks'kR;kx] muljde dh bPNkvka ds vuq kj leiZk djus eamUgsa dfBukbZu gkA **ukRisl ds vuq kj**,'' lHkkk l dfr;ka dk mRRkku rHkh lHkao gSa tc efgykvka ij mMs ifrckk dh 'krZ0;kr gkA,'' slk mUgksus vius ys[k **fc;w x<M ,M ,foy^^ eacrk;k bl dk slkFk **ghxy** usefgykvka dslk{k es dgk gSfd efgyk,af'k{kk dsfy, rks;kX; gSyfdu oksllkoZHkkkfed n{krk dh ekx djusokyh ,oa

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mUur foKku] n'kiu vk§ dkN fo'ks'k dykRed] I`tu'khyrk dsfy, ugh cuh g& efgyk,a vius dk;Z ,oa
0;ogkj dks[kq dsIe{k vk§ vklfDr dsvk/kkj ij fu;i=r djrh g&u fd IkoIkk&ed fu;e&i=kkiajA
 ckn dsIe; eadsN ,Isefgyk ,o aiq "k nk'kfudadk inkiZk gqvk ftUgksusefgyk vf/kdkjka dsIia{k ea
fofHkUku i{kka ij iHkko'kkyh rdZiLrqr fd, ftll svkfndky Ispyvsvk jgsdsN Ikekftd fu;e&dkuuu ,oa
dkuuuh 0;oLFkkvka ij pkV igpuh 'kq gbZrc 18 oh 'krkCnh dsvr rd vkr&vkrs ukjhoknnka foe'kZ dk
I=ikr gqvkA ftlea**eSh oksyLVku ØkQV** dk uke ie{k g§ ftUgksusviuh dfr **^^,^^ foMhdšku vkQ jkbVI
vkQ oqeu^^** ¼1792½eaefgykvkadh f'k{kk ij cy fn;kA mUgksusefgykvka dksiq "kka dsIeku gh Iekt ea
jktuhfrd vkj 'kS{kfd vf/kdkj nusdh ckr dghA blh dMh&ea**tkW LVqvyZfey** dk uke Hkh mHkj dj vkrk
g§ ftUgksusviu sy{k **^n ICtD'ku vkQ oqeu^^** ¼1869½eaml Ie; dsIekt dh fLFkfr dksn'kkZ;k g&A ;g
fucU/k ,d foLrr rdZvk§ IkekU; : i Is,d iq "k i/kku Iekdfr }kjk efgykvka dh v/khurk] Iekftd
vkj dkuuuh vl=ekurk d fojksk dks inf'kr djrk g&A mUgksus efgykvka ds erkf/kdkj vkj jktuhfrd
Hkkxhnkjh dk Hkh eqnnk mBk;k g&A blh dsIkFk&IkFk 1949 ea**fleku Mh cwrkj** dh dfr **^n IdsMaI Idl^^**
idkf'kr gqykA ftlusukjhoknnh foe'kZ dksubZÅpkbZ&ka rd ys tkus dk;Z fd;kA bl iLrd ea**fleku Mh
cwtkj us,d Økfrdkjh fopkj fn;k tksfd **^^vkS jr tUe Isgh vkS jr ugh gksrh^cfYd ckn eaIekt }kjk mIs
vkS jr cuk fn;k tkrk g&A ^^;g bfrgkl Hkj esefgykvka dsmipkj IslEcf/kr ukjhoknnh n'kiu dk IcIscMk
xfk g&A bl dsvfrfjDr fleku usdgk **^^efgyk dh fLFkfr mldspfj= dk ,d ifj.kke ugh g§cfYd mldk
ifj= mldh fLFkfr dk ifj.kke g&A^^** mldsdsN gh Ie; dscckn 20oh Inh dh niljh IcIsiHkko'kkyh
vekjdu y{[kd **^d¶ feyvh^^** usviuh igyh fdrkc **^ IDl yyy ikfyfVDI** eaefgyk efIr vkrksy;u] fyax vkS
efgykvka dh dkepkrk IslEcf/kr foe'kZiLrqr fd;A d¶ us**^y§xd jktuhfr^^** dsek/;e I g; crkus dk
i;kl fd;k fd Ibn;kalfirIrkrRed ijaijk okyslekt eaefgykvka dksuckuy 'kkSk.k djus vkS iq "kk dks
gkoh gkuk fI[kk;k tkrk g&A

2-1 ukjhoknnh foe'kZ ij fo'o lepk; dh vkØpkjkd igy

dŠ feyvy dsy{k ^ IDl yyy ikfyfVDI^^ ds idkf'kr fookfnr ,oa vHkkriozZ IQyrk ds igp o"kZ
i'pkr gh fo'o lepk; usln~1975 eaefgykvka dh fLFkfr ij igyk oS'od lEesyu dk vk;kstu 19 tu
Is2 tqykbZ rd e£DI dksfI Vh ea lkiUu fd;kA ftll eailu~**1975 dsvUrjk'Vh; efgyk o"kZ** dsr ix ,oa
1976 Isysdj 1985 dsn'kd dksla;qDr jk"Vª efgyk n'kd ?kkkf"kr fd;kA ftll eayi&xd lekurk ij oS'od
Lrjh; foe'kZdh t:jr eglil dh xbA ftll earhu mnnsš;ka ij ckr dh xbZ&

1- iwkZy§xd lekurk ,oa y§xd Hkknkko dh lekfIrA
2- fodkl eaefgykvka dk iwkZlek;ktu ,oa ifrHkkx
3- fo'o 'kkf=r eaefgykvka ds;kxnku eaof) A

bl dspkj o"kZ i'pkr- lkiDr jk"Vª egklHkk ds 189 InL; n¨kka }kjk ,d le>k§rk g£vk] ftl dk fo"k;
^efgykvka dsfo :) IHkh idkj dsHkknkko dh lekfIr ^^ ij dfnr Fkk ftldks**^dUotšu vkQ n ,fyeuku
vkQ vkWy fMfLdjfeušku vxs&V oqeu^^** dgk x;k bl ds 1 o"kZ dsckn efgykvka ij gq igyslo'od
lEesyu dsØe dksvkxsc<krsgq 1980 eaefgyka ij niljk oS'od lEesyu lkiUu gqvk ftll dsrhu e[; ;
mnnsš; Fk&

1- f'k{kk ij efgykvka dksleku volj dh ifIr]
2- jkstxkj IHkkoukvka ij lekku igp
3- lefpr LokLF; Inokvkard efgykvka dh leku igpA

u§kch 1985 eaefgykvka ij gq rhljsoS'od lEesyu e la}Dr jk"Vª l£k }kjk InL; n¨kkads
le{k tksvkdMsiLrr fd, x, mlesd; ik;k fd vif=kr ifj.kkekadks Iki{k cg¡r gh de ixfr ntZdh
xbZg&A bl lEesyu dh ixfr dksekiusgqrhu e[; ;Jf.k;kj cukbZxbZ&

1- IaoSkkfud ,oa dkuuuh ekinaM
2- lekftd ifrHkkfxfxrk eal lekurk
3- jktuhfrd fu.kZ fuekZk ,oa ifrHkkfxfxrka eal lekurkA

efgykvka ,oadkfydykvka dsvf/kdkjka ds Ipa{k eatc ckr dh tkrh g§ rks 1995 eaefgykvka ij
gq pk§Fks¨'od lEesyu dksdbZlek;ukanafu.kZ;d :i ea&¨kk tkrk g&A D;kdid 1995 ealkiUu gqvk ;g
lEesyu vkiusmnnsš;ka esfIrruk 0;kidrk fy, gq Fkk mruk 0;kid :i Isefgyk vf/kdkjka ds Ipa{k ea
fdlh vU; ep ij 'kk;n gh ckr gibZgkbA blea**12 fo"k; {ks= fu/kkZjr fd, x,A

1&efgyk vkñ xjhch   2&efgykvka dk if'k{k.k ,oaf'k{kk
3&efgyk ,oa LokLF;   4&efgyk dsfo:) fgalk
5&efgyk ,oa l 'kL= l l?k"kZ   6&efgyk ,oavFkD;oLFkk
7&fu.kZ; fuekZ.k ,oa l Rrk esefgyk   8&l LFkkukRed f/Ø;kof/k ,oa efgykvka dh
mUufr
9&efgykvka dsekuokf/kdkj   10&efgyk vkñ ehfM;k
11&efgyk vkñ i;kZoj.k   12&dÙkZ k f'k'kq

n chftx fMDyjs'ku ,M ly¥Qke ZQkW} ,D'ku dsckn efgyk vf/kdkjka dh ckr 21 oha lnh es'kq gq
vfHkuo l gL=kCnh fodkl y{;ka dsvkB fu/kkjr y{;ka esl ekfgar dh xbA l u~2000 esl a@Qr jk"V² l a?k es
vk;kftr gbZ l gL=kCnh f'k[kj l Eesyu esl a@Qr jk"V² l a?k l gL=kCnh ?kks'k.kk i= tkjh gqvkA bl esvkB
y{;ka esrhl js ,oa ikpos
½y¥fxd l ekurk dk iRkRlkgu ,oa efgyk l 'kfDrdj.k ,oaekrRÉo LokLF; dk l qñkkj
Øe'k% y{; ds eR/;e l s efgyk vf/kdkjka ,oa mauds l 'kfDrdj.k dks yf{kr fd;k x;kA l u~2010 es
bdkukfed ,M l k{;ky dkmfly dh pkSFkh l kyukuk es=kjyf{d c$d esefgyk l 'kfDrdj.k ,oa yf[kar
l ekurk ds l aHkZ esof'od l gefr inRr l aDYkka ,oa y{;ka dks ykx=w djus ds l aHkZ esfopkj fd;k x;kA
ftl es ckku dh eu us rhu ikRkfkfedrk okys {k=ka dks js[kkafdr djrs gq fo'k'k /;ku nus dh ckr dh tks
1&jkstxkjj] 2&[kk| l qj{kk 3&efgykvka ij fuoskA mUgksus mi;Zr fo"k;ka ds l aHkZ esavius opkj 0;Dr djrs
gq dgk fok l ekurk ,oa efgyk l 'kDrhdj.k ds l LFk ekrRÉo LokLF; ij mfpr /;ku u nus dh otg l s
'kf'kr l qj{kk ,oa l rr fodkl dh jkg es xaHkhj vMpua inkRk gks l drh gñA l gL=kCnh fodkl y{;ka dks ckn
2015 esavUrjk"V^h; l enk; us l a@Qr jk"V² ds ek/;e l s 17 l rr&fodkl y{;ka dh ,frgkfl d ?kruk 'kq
dh ftl dk mnns'; o"kZ2030 rd vf/kd l aiUu] vf/kd l erkoknh vkñ vf/kd l jf{kr fo'o dh jpuk djuk
gñA l rr fodkl y{;ka ds2030 ds ,tMa esefgyk yf¥fxd l ekurk ,oa efgyk l 'kfDrdj.k dse/;ufnku,
dyoj ds l kFk iLrrr fd;k x;kA

2-2& Hkkjr esyf¥fxd l ekurk dsfoosk'kZdk bfrgkl ,Oaefgykvka dh fLFkfr

Hkkjr dsbfrgkl ij utj Mkysrks ;g irk pyrk gSfd bl l ekt esl aL=h dks 'kfDr dk : i ekuk
tkrk gS bl fygktk l sHkkjrh; l LÉdfr es 'kfDr ds irhdkLed : i esfp=.k dh otg l sL=h dk LFkkuu
lokfizj gA ofnd dky esefgyk,a thou dslHkh {k=ka esa iq "kka ds l kFk cjkcjh dh Hkkxhnkjh djrh Fkh
yfdu e/;;qxhu ,frfkfl d iil kx ,oarF; bl ckr dh vkñ b'kkjk djrsgSfd e/;;dky ds vkr rd l ekt
esaefgykvka dh fLFkfr 'kkpauh; gkdusyxh rFkk l rh iFkk] cky&fookg ij jksd] fo/kok& iqufoZokg ij jksd]
vkfn us l ekt dksxfYr dj fy;kA

Hkkjr es **igyh ukjhoknh ygj** ½1850&1915½ dh 'kq vkr iq "k l ekt l qñkkjdka l s gbZ ftue
egRoiuukZ uke gS jktk jke eksgu jk;] n;kuun l jLorh] bZoj pan fo|kl kxj] MkO /kkiMMM;s dks do$ Lokeh
foodkun] l §n vgen [kku] cn: nnhu rS;cth bR;kfnA bl esl rh iFkk dk mUeyuu] cky&fookg ij jksd] fo/kok iqfookg
djuk] efgykvka dsfy, f'k{kk dk izpkj djuk bR;kfn eanaﬁs iﬁ[k FkkA Hkkjr es **nUljh ukjhoknh ygj**
½1915&1947½ ds pyrs efgykvka dh fLFkfr esa Økfrdkjh ifjorZu gq tÉs1917 esHkkjrh; efgyk l a?k dk
xBu] 1925 esHkkjrh; efgyk jk"Vh] ifj"kn~ ,oa1927 esvf[ky Hkkjrh; efgyk l Eesyu mYys[kuh; gA bl h
chp 1929 escky fookg fu;a=.k l aca$kh dkuuu **"kkjnk ,DV"** dks ikl djokdj nUN ixfr'khy efgykvkus
viuh l 'kDr mifLFkfr ntZ dhA bl dsl kFk gh l kFk dbZ vU; fgnuw ,oalEye efgyk fojksñkh dkuuuka
tÉ&efLye il Zuy ykWM½bfj;r½ fofu;oka vf/kfu;e ½1937½] efLye fookg&fofPNn vf/kfu;e rFkk fookg ,oa
l aifRr l s lca/kr fgnuwefgykvka dsfy, l aifRr ,oavU; fgnuwdkuuu ikl fd, x,A bl l aHkZ dh vxzkh
efgykvka esjktdekjh ver dÉj] l jkst dbijuh] l jyk noh tÉuh] l jyk nokh pk$kjkuh] e/kq [eﬁ]M³Mh] l q[khyk uk;j] jv: .kk
vkl Q vyh] fot; y{eh iafMr] Lo.kZdekjh ?k$kkky] miUdj dkj dkunﬁjh xdkxyh ,oa l jkstuh uk;Mw vkfn
FkhaA l u~1947 esLora=rk ikfr dsi'pkr Hkkjr es **rhljh ukjhoknh_ygj** dh 'kq vkr gbA bl dsrgr n$Nk
ds fofHkUUu fgLlka ,oa iﬁrka esefgyk vf/kdkjka l s lca$kr fofHkUUu {kﬁh;] vkpofyd l aBuka dk fuekZ.k
efgykvkausfya l ekurk] cky fookg] cgqfookg] tÉh dajfr;ka dsmUeyuu grqfd;kA l u~1958 ds o"kZes
v: .kk vkl Q vyh dk fnYyh uxj fuxe dk egkikÉj puk tkuk bl ckr dk ifjpk;d Fkk fd ifrrfuf/kRÉo ds
{kﬁ esefgykvkus viuh mifLFkfr ntZ djk yh gA egkjk"V² es^^ukboMVM oesﬂﬁl ,'kﬂ ikl jkst Ý½/^ dh
LFkkiuk xﬂeh.k {kﬁesae/; of) dksjkdus grqfd;k x;k D;ksfd bl l T;knk il Zfor efgyk, agksjgh FkhaA
1975 esaekdDBI Dknh yfuuoknh l eg tÉs l L=h txfr l efr vFkok Lopru ukjhoknh tÉ s efgyk nﬁka }kjk

viuk, x, rjhdkals,d fHkUu : iesdkedkth efgykvkaoaifjokjkadkslfØ; dk;ldsfly, ccbles^vlluiwkZefgyk e.My^^ dk mn; gmkkA Iu~1972 eabyk jesk HkVA us(SEWA" Self Employed Women Association) dh LFkkiuk dh ftllsvkt 17 yk1[k IsT;knk efgyk,aatM;Hia gA blds vykok 1980 eaefgyk I'kfDrdj.k dk,d I'kDr mnkgj.k ^xykxch x&^^ ds : iesn{kk tkldrk gSftldh 0;oLFkk efgykvkalsnq;bgkj o fgdk IsjkdFkku grqfd;k x;k FkkA bfrgkl dsfofHkUu dky[kVkkdsbu Lof.kr v/;k;kaus Iekt eaefgykvkads ifr Isnu'khyrk dks c<kus,oal o8kkfud&o8kkfud ekeykaea efgyk dfnr,oalefFkr micdkkadh jpuk dk ekxZizlkLr fd;kA

3- yfxd Iekurk,oaHkkjrh; Io8kkfud ircdk&

Hkkjrh; Ifo/kku yfxd Iekurk Ifgr efgyk vf/kdkjkaIsIcfi/kr IHkh vk;kekadks0;kidrk dslkFk 0;k[;kf;r djrsgq IeLr vf/kdkjkadsgj.k Isefgykvkadkslj{k.k inku djrk gA gekjsnsk esfofHkUu okrkkVdsI½ds }kjk Ie~&Ie; ij efgyk vf/kdkjka,oayfxd Iekurk dk ennk ircdk'k eayk;k x;kA blds vykok Ifo/kku dsegRoiwkZHkkxksatNI siLrkouk] eay vf/kdkj] uhfr&funZkd rRo,oale;&Ie; ij gq Io8kkfud Ilkkskukads }kjk yfxd Iekurk] efgykvkads i;Wr ifrfuf/kRo] Ieku dk;Zdsfly, Ieku

Ifo/kku dsHkkx 3 esvuq0 12 Is35 rd efgyk,oaiq"k dkslekku : iIsvf/kdkj ;Dr djus dh ckr dgh xbZgA vuq0 14 esgh Ierk dsvf/kdkj dksifjdfYir djrsgq,d vkn'kZLFkkfir dh dYiuk dh xbZgA u dioy Ifo/kku eacfYd fo'o Lrj ij Ierk dsvf/kdkj dksikdfrd vf/kdkj ds: ea of.kfkr fd;k tkrk gA Ikekftd Iekurk dks IlfHkkr djrsgq gekjs Ifo/kku eaefgykvkadsi{k ea IldkjkRed HkankHkko djrsgq,oayfxd Iekurk dksegRoiwkZekuokf/kdkj ekursgq dbZ0;oLFkk,adh xbZgA ek;k noh cuke jkT; dsekeyseaU;k;ky; usml fu;e dksvlo8kkfud ?kks"kr fd;k ftldsvrxr IkolZfud {k= es jkstxkj grqvkonu uuslsimZfdl h fookfgr efgyk dksviusifr IsIgefr ysuk vko';d FkkA

pj.k flag cuke Hkkjr Ilak ds,d ekeyseamPpre U;k;ky; us;g vkn'k fn;k fd efgyk,¡ iq "k oxZdh vi{kk fiNMh gqbZgSblfy, jkT; mudsmRFkku dsfy, vu¡Nnn 15¼1½dsvrxr mudsIj{k.k grqickdk djsA vuq0 15¼3½dsrgr ;g 0;oLFkk dh xbZfd ;fn jkT; efgyk fgr es;k mudsmRFkku dsfy, dkbZfo'ksk izko/kku djrk gSrksml IsIekurk dsfI)kUr dk mYya?ku ugh ekuk tk,xkA vHkh gky gh es vkbZDihOkhO dh /kkjk 497 dsIecdk esIj¡che dkNZlZdk fu.kZ; vk;k ftldsvrxr Iekku vf/kdkj,oalekku LorU=rk dsennutj j[krsgq vnkyr usvkbZDihOkhO dh /kkjk 497 dksvlIo8kkfud ?kks"kr dj fn;k ftldsisigys;g 0;oLFkk Fkh fd ;fn dkbZfookfgr efgyk viusifr dh Igefr IsfdI h dsIkFk ,kU¡ Iecdk cukrh gSrks;g dkbZvijk/k ugh gSysfdu ifr dh vIgefr gksrsgh ;g vijk/k dh Jskh eavk tkrk gA U;k;ky; vkxsdgrk g¡ ;gh dkuuu dgrk gSfd ifr dh Igefr Is;fn dkbZnulikjk 0;fDr ml dh iRuh ds IkFk ,kU¡ Iecdk cukrk gS;g dkbZvijk/k ugh gSvkHkkr bI dkuuu dksu 'kknh dh vifo=rk Iseryc gSvkS¡ uk gh L=h dh Igefr Iseryc gScl ifr dh Igefr gksdih pkfgs,A vnkyr bIsfutrk eak[ky ekursgq dgrh g¡;fn nks0;Ldkkeusvkilh Igefr IsIecdk cuk, gSrksblesjkT; dsgaLr{kki dk D;k eryc gA fookg dsmijkar efgyk viuh 'kkjhfjd Lok;Rrk vkS¡ fu.kZ; {kerk ugh xokanrh gSvkS¡ uk gh fdlh dslkS¡ nrh gA fookg dh ILFkk dsckgj Hkh ;fn ml dh bPNk gS;¡ Iecdk ij ifrcdk ugh yxk;k tk IdrkA vnkyr dsbI Q¡ ylsdh euy vo/kkj.kk Iekurk dselkfyd vf/kdkj vuq0 14 ij vk/kkfjr gA

vuq0 21 dsvrxr ipk.k,oa½fgd Lora=rk dk vf/kdkj Ifo/kku esvuq0 21 dksJ'B vf/kdkjka dh Jskh eaj[krsgq 0;kidrk dsIkFk Ie~&Ie; ij dbZrjg dsvf/kdkjkadksbIealfEefyr fd;k x;k gA tS a,dkrrk dsvf/kdkj dsvrxr fdI h efgyk dsviuhng ;k fyx ijh{k.k] dkSek¡Zijh{k.k.u djkus dk vf/kdkj mI efgyk dsikl Igf{kr j[kk x;k gA blsvrfrfDr f'k{kk dk vf/kdkj] thfodksiktZu dk vf/kdkj] xfjekiwkZthou thus dk vf/kdkj LoPNd fookg djus dk vf/kdkj bI micdk eslekfgr gA f'k{kk dsvf/kdkj dsIecdk eausikfy;u dk ;g dFkuu egRoiwkZgSfd ^jk"k"V^ dk fodkl Iilko ughagSfcuk,d if'k{kr o f'k{kr ekadsvxj esjsjk"V^ dh efgyk,af'k{kr ugh gSrks;g jk"V^ dh vk:kh tul[;k dks utjvnkt djuslk gA^^ Hkkjkr dsiafke i¡kkuea=h tokgj yky ugs dsvuq ¡kj ^;fn vki,d iq "k dks f'k{kr djrsgksrksvki dusy,d 0;fDr dksf'k{ksk djkasvkS¡ ;fn vki,d efgyk dksf'k{kr djrsgksrks IaiwkZifjokj f'k{kr gksxkA^^

ifrfuf/kRo dsIecdk es;fn ckr dh tk, rksIfo/kku ds73 oaavkSj 74oal Ilkksku vf/kfu;e }kjk ipk;rka,oa uxjih; {ks=ka dsrhuknk Lrjka eaefgyk mEehnokjkadh dh 1@3 Hkkxxhnkjh Iqkf'pr fd;k x;kA gkykfid d".k dipkj felkk cuke LVSV vkWID fcgkj dk ekeyk fopkjk.kh; gSftldsvrxr iVuk mPp

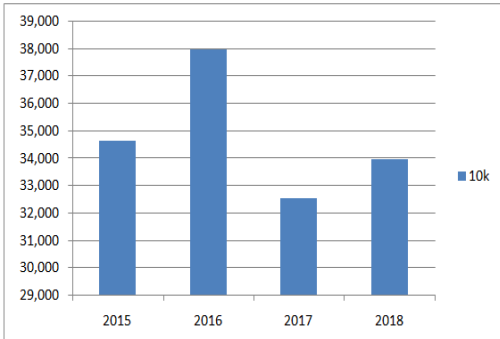U;k;ky; enefgykvkadksfn, x, 1@3 vkj{k.k dsiko/kku dkspq$fn nh xbZFkh ftlsU;k;ky; }kjk [kkfjt dj fn;k x;kA

y®xd lekurk dsifji{; enHkkjr dh or®eku fLFkfr ,oapqu®fr;ka

Hkkjr dslaHkkZenoS/kkfud : i IsIrr fodkl y{;kaenikpoaay{; ¼y®xd lekurk ,oaefgyk ,oackkfyadkvkadsI'kfDrdj.k dh ikflr½ grqefgyk ,oacky fodkl ea=ky; dksukWMy ,tsah dsrkój ij LFkkfir fd;k x;k gÅA or®eku enadnzljdkj }kjk ikbfsftr fofHkUu ikdkj dh ;kstuk,] ifj;kstuk,a,oafe'ku Iipkfyr gksjgsg§ftsenalsdN egRodk{kh ;kstukvkadk fooj.k Ikj.kh Ia{;k 01 enafd;k x;k g&

<div align="center">Ikj.kh Ia{;k 01</div>
<div align="center">dØnzikr;kstr ;kstuk,a,oafe'ku</div>

ØØ01®0	;kstuk dk uke	y®Hk dh ipfr
1	**Lok/kkj xg ;kstuk**	n®kkkZ;iwkZ ,oacdfBuu ifjfLFkfr;ka;Fkk vkink] fjgk dsnh] os';kofr Isvfìkk'klr½ c®fkj vkój cslgkjk efgykvka dsdY;k.k grÅA bl enaihfMr efgykvkadksLok/kkj xg ykdj bUgao;olk;bd if'k{k.k fn;k tkrk g&A
02	**LVsi ;kstuk ¼efgyk if'k{k.k ,oajkstxkj dk;Øe Ig;kx ;kstuk½**	Hkkjr ljdkj dh foÙr i®k"kr LVsi (STEP-Support to Training and Employment Programme for women scheme) ;kstuk gÅ tks'kgjh ,oaxkmh.k {k= dh xjhch js[kk Isuhps thou&;kiu dj jgh efgykvkadsif'k{k.k vkfn inku djrsgÅ vkfFkkd ,oalekftd : i Is,Sh efgykvkdh fLFkfr enalLkkj djrh g&A
03	**jk"Vºh; ik®k.k fe'ku ¼NNM½**	bl ;kstuk dk mnnS; cPpkkgèxHkkZrh ,oa Lruiku djkusokyh efgykvkaes,uhfe;k dh deh u gksrFkk dijk"k.k vkfn IscpkrsgÅ mudks fuxjkuh eaj[krsgÅ Ie; ij dk;Økgh Iinf'r djuk g&A
04	**ou LVkWi I®Vj**	1 vi®y 2015 dk ,eMCY;ÕhMh us ou LVkWi dk ikjãkk fd;k ftlIslvrxr efgykvkadsikFkfed fpfdRlk] if;y Ig;kx½ U;kf;d ekyylagisIk gkrk] euksoSKkfud dkmIsfyax ,oarRdkyhu Ig;kx egÕ$k djkuk 'kkfey FkkA

Ijdkj dsbrusi;klkalIkka,oaen=ky; ka}kjk efgykvkadsIuc½en apykbZ tk jgh egRodkdf{kh ;kstukvka dk vif{kr ifj.kke /kjkry ij ughafn[krkrkA vk, fuu efgykvkadslj{k{kka Ijdkj dslkjsnksml Ie; Oty utj vkrsg§tc ge fofHkUu i=&if=dkvkaenifudkyus okyh fjiksZ vkój [kcjkadksi<+rsgÅA ?kjsyq fglakk] cykRdkj vkfn ,Sh ?kVuk,agÅ tksvkfçud ;xhu ekuo enavekuoh; ofRr dsijpe dk ifjpk;d g&A ;g fdl Hkh loLFk lekt dsfy, ,d xEHkkj fpark dk fo"k; gÅ cykRdkj Iac½h o"kkZvkcM®ka dk iLrrdj.k fp= Ia{;k 01 dsek/;e Isfd;k x;k g&A

<div align="center">fp= Ia{;k 01 cykRdkj dso"kZdkj vkaDMÅ</div>

Ikr & ,u-Ih-vkj-ch-

bl dsvykok ;fn ge of'od eap ij Hkkjr dh okLrfod Nfo dh ckr djars;g vkój Hkh xEHkhj fopkjuh; enprj vkrk g&A vUrjkZVÑh; ,tSah °OYMZbdkukfedd Qkje^ ds}kjk tkjh dh xbZ^n^ **Xykcy**

<div align="center">Page 186 of 188</div>

tMj xS bMDI fjikVZ Is;g Li"V irhr gkrk gSfd Hkkjr dh fLFkfr viuh iMkd h nSkka Is Hkh fupys ik;nu ij gA bl fjikVZea Hkkjr Ier muds dN iMkd h nSkka dk fLFkfr dks Ikj.kh Id;k 02 ea inf'kr fd;k x;k gA

Ikj.kh Id;k 02
Xyksy tMj xS bMDI fjikVZea Hkkjr Ier iMkd h nSka dk LFkku

पड़ोसी देष	रैंक
बांग्लादेष	50
नेपाल	101
श्रीलंका	102
चीन	106
भारत	112

Source: World Gender Gap Index 2020

gekjsnSk dh **vFkD;oLFkk eaefgykadk ;ksxnku os'od Lrj ij** efgykvkds;ksxnku dsvkSr Isde gA n bdkukfeDI VkbEI oeSI Qkje ij eqbZeaeckyrsgq oYMZcdk dh okbl isftMkV ¼lkmFk ,s'k;k½ ,uVsfMMD'ku usviu usyusyYDpj eadgk fd bfM;k viuh vFkD;oLFkk ea1-5% vad dh c<krjh djrsgq 9ifr'kr dh of) ntZ dj Idrk gS;fn 50 ifr'kr Hkkjr dh efgyk,¡ dk;Z ea 'kkfey gkrh gA oYMZ bdkukfeNd Qkje 2020 dh fjikVZeafo'o eaefgykvkdh vkfFkd {ks eaIgHkkfxrk ,aovol j dksvkÁkkj ekudj tksjfdx dh x;h gSmuedN egRoiwIZiMkd h eYd Ier Hkkjr dh fLFkfr dk Li"Vhdj.k Ikj.kh Id;k 03 eafd;k x;k gS&

Ikj.kh Id;k 03
oYMZ bdkukfeNd Qkje 2020 ea Hkkjr ,oa iMkd h nSkka dh fLFkfr

nSk	jSd
phu	91
usiky	101
E;kekj	102
Jhydk	126
HkkVku	130
ckXyknSk	141
Hkkjr	146

Hkkjr eajktuhfrd {ks ea;fn ifrfuf/kRo dh ckr djsarks73oaa 74oaalafo/kku Iakkskku ds }kjk ipk;rh ,oa uxjh; {ks ka ea efgykvka dks ,d&frgkbZ vkj{k.k dh 0;oLFkk dks xbZ IeaIkkh ;fn ns[kkrks ipk;rh ,oa uxjh; {ks kdspquko eamudsifrHkkbZ;kV vU; iq"k IuL; dh IfØ;rk efgykvka IsT;knk

Page 187 of 188

gksrh g¨A yfcdu oS'od Lrj ij ;fn iMkbl h ns'kka lsrgyuk dh tk, rks jktruhfrd I'kfDrdj.k esaHkkjr dh
fLFkfr cgrj g¨Sml dsckotm Hkh ge efrely Isdklsaraji g¨A

fu"d"kZ

Hkkjr esaefgykvka dh fLFkfr dsfiNMsiu dk IcIscMk¼ dkj.k gekjk Iksekfftd fiNMsaiu g¨A gekjh
IH;rk dsfodkl Øe esa;sn[kusdksfeyrh g¨Sfd efgykvka dk;Zks= dksdN fo'k{k dk;Zrd gh Ihfer
dj fn;k x;k FkkA bl dsdkn 21ohalnh rd efgykvka dsvf/kdkjksadslIcaZk esaLora=rk] Isekurk ,oafodkl
dh vo/kkj.kkvka dks ifjf/k esa j[kdj geusftrus Hkh vfHkI e;] IIeayu] IpaSkkfud iko/kku fd, muds
ifjj.kke vxj vkt Hkh vi{kk dsvuq i ughag¨Srksbl dh e;y otg muu uhfr;ksa dk;Øekasa,oaiko/kkuka dk
iHkkko'kkyh <ax IsfØ;kUo;u dk vHkkko g¨A vc eµµk ;sg¨Sfd vxj ge fØ;kUo;u esaiHkNsNkWsg¨Srksmsl dks
iHkNs dh otg D;k g¨A Ijdkj dh uhfr;ka dsfglkc Is;fn ns[kk tk, rks efgykvka ,oacfkydkvka ds
I'kfDrdj.k dsfy, Ie;&Ie; ij db¼ egkRokdk¡{kh fe'ku ,oadk;Øe pyk, x,A bl dsvykok
vUrjkZVh; Lrj ij Hkh mBk, x, dneka dh i¨kkko'khyrk ij Hkh Ia¨g ughafd;k tk Idrk¼ fQj Hkh ,Ik
irhr gkrk g¨Sfd I ekt esa ,oaI ekt dks Ipkfyr djus okys tksfofHkUu i{k g¨Smuds Ie{k gekjs }kjk
fo'okl¼ cuk, j[kuesadN deh jg xbZgA efgykvka dsI¨kkko.k esauhfr;ka ,oadk;Øekadsf¨k;Uo;u esatks
ck/kk,¡g¨ Ismeagekjs Isjdkjh uk¨dj'kkgh r= dh efgyk d¨µr uhfr;ka dsI¨k esamfpr ek=k esaI¨nu'khyrk
uk gkuk g¨A D;ksfd Ijdkjh egdekasacBsgq, tksfodkl ds igjnkj g¨Smuea¨T;knkrj iq"k oxZ IsgSvkŞ
;g dguk vfrjd ughag¨xk fd Iekt esefgykvka dh'kk'k.k.k IckZkh ftrus vk¨ Lrj g¨Smuds,d
efgyk dh Hkfedk envkdjd ;k y¨kxd emµµka ij fofo/k v/;;u Idrkh IcbZkr IkfgR; ,o dk;Zkkkyk Ismkr
Kku dsmijkr mith Ismu'khyrk ds}kjk gh Ie>kk tk Idrk g¨A

I nHkZxaFk%&

1- Øk¶[V] eşhokşyLVkşu] 1792] , foWhcl'ku vkWD n jkbV‡ vkWD oµµu] ipXŞfou Dykfl¼d
2- tkSkh] xkşik 2006] Hkkjr esaL=h vI ekurk] fgUnh ek/;e dk;Zo;u funs'kkuy;] fnYyh fo'ofo|ky;
3- okl ¼ MkWWnµwZkZnkI] 2013] Hkkjr dk Ifo/kku ,d ifjp;] yşfDI I ufDI I
4- jkekckbZ cµµkj] 1993] jk/kk%¼ n fgLVªh vkWD Mbµx%,u byLVŞM vdkmV vkWD eµµeV Qkl¹ oµµSil jkbV‡ ,M ØfefuTe bu bfM;k 1800&1990
5- cµµkj] fI eku Mh] 1949] IcM¼ ID¼I
6- http://www.ohchr.org
7- http://in.one.un.org
8- http://www.unesco.org
9- http://www.ncrb.gov.in