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Covid-19 Pandemic and It's Human Rights Dimension

*Dr. (Mrs.) Seema Rathi **
*Dr. (Mrs.) Sapna Singh ***

I. Introduction

Covid-19 (Corona Virus) was firstly identified in Wuhan, China on December, 2019 by Dr. Li Wenliang. He was a doctor in Wuhan, where infected patients were treated. He warned of the new virus in an online chat room but he was summoned by police for spreading rumours and unfortunately he died in February from this virus. Chinese Authorities have not only punished those doctors who have raised alarm but also detained the Journalists for reporting Epidemic as well as they removed all the posts on social media regarding the government handling the crisis for 'Rumor-Mongering'. Chinese Authorities denied Covid-19 till January, 2020. But on 11th March, 2020, WHO declared the outbreak of viral disease Covid-19 as Global Pandemic for which WHO called for Governments for urgent and aggressive action to stop the spread of the virus.

II. Human Rights Issues Related to Covid-19 Pandemic

Covid-19 Pandemic is the Violation of Individual Civil liberties, Fundamental Rights and Human Rights such as:-

1. **Right to Life and Death with Dignity**
2. **Right to Equality and Non-discrimination**
3. **Right to Health and Medical Care**
4. **Right to Mental Health**
5. **Right to Education**
6. **Right to Employment**
7. **Right to Free Movement and Liberty**(Mobility Rights, Quarantine & Lockdown)
8. **Right to Privacy**
9. **Right of Women**(Health Care, Social Workers, Domestic Workers, Front liners)
10. **Right of Children**(Worldwide School Closure & Non accessibility of IT Technology by Poor Families)
11. **Right of Vulnerable Groups and Minorities**(Indigenous, Elderly, Refugee, Migrant, Prisoners, Persons with Disability, Orphans, LGBT)
12. **Right to seek Asylum**
13. **Right to Access Accurate and Timely Information**
14. **Right to Food, Shelter, Livelihood**
15. **Right to Freedom of Speech and Expression**
16. **Right to Freedom of Press and Censorship**
17. **Right to Freedom of Peaceful Assembly and Association**
18. **Right to Freedom from Arbitrary Arrest and Detention**
19. **Right to Freedom of Religion**

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** LL.M. (Gold Medalist), Ph.D., Former Head of the Department and Assistant Professor, Faculty of Law and Governance, Jayoti Vidyapeeth Women's University, Jaipur.

20. **Right to Seek Proper Protection for Health Care Workers & Front liners** (Shortage of Necessary Supplies & Equipment- Shortage of Doctors, Oxygen Cylinders, PPE Kit, Face Mask, Sanitizers, Hospital Beds, Ambulance, Food, Shelter, Health, Sanitation and Working hours of Doctors & Nurses, Treatment Facilities, Quarantine Homes, Medicines, Vaccines etc and Proper Disposal of Dead Bodies of Covid-19 Patients).

21. **Deep Social and Economic Crisis**

III. **National Legislations Applicable on Covid-19 Pandemic:-**

1. **The Constitution of India, 1950**
2. **The Epidemic Diseases Act, 1897**
3. **The Disaster Management Act, 2005**
4. **The National Disaster Management Plan, 2019**
5. **The Union Ministry of Health & Family Welfare (MHFW)**
6. **The Indian Penal Code, 1860**

1. **The Constitution Of India, 1950 :**

(a) **Article-21:- (Rt to Life)**

‘Rt to Life’ includes ‘Rt to Death with Dignity’.

Case1 Parmanand Katara Vs Union of India 1989SCC(4)286

Case2 Common Cause (A Regd. Society) Vs UOI(2018)5SCC1

(b) **Article-32 & Article-226:- (Fundamental Rights)**

Fundamental Rights are enforceable through Writs. High Court issues the Writ of ‘Mandamus’ to ask the Public Authority to perform his duties well.

(c) **Article-47:- (Directive Principles of State Policy)**

Improvement of Public Health is one of the Primary duty of State as per the ‘Directive Principles of State Policy (DPSP)’.

(d) **Article-246, Schedule-7, State List-II, Entry 6 & Entry 10:- (State List)**

Entry 6 provides Powers relating to Public Health Care.

Entry 10 provides Powers relating to Burial & Cremation Grounds. Therefore, State Governments have discretion to formulate laws regarding Protection of Public Health & Management of Burial & Cremation grounds. Thus, Schedule-7, Entry-6 of State List gives power to various State Governments to pass Regulations for Covid-19 in furtherance of ‘**The Epidemic Diseases Act**’ 1897. So Maharashtra Govt where the number of Covid-19 cases were so high has passed:-

i) **The Maharashtra Covid-19 Regulations 2020**

ii) **Revenue & Forest Disaster Management Relief & Rehabilitation Department, Mumbai**

Some other State Governments have also passed Regulations regarding the control of Covid-19 pandemic like ‘**The U.P. Epidemic Diseases Covid-19 Regulations 2020**’.

(e) **Entry 23 & Entry 29 of Concurrent List**

Entry 23:- Social Security & Social Insurance

Entry 29:- Prevention of extension of infections or contagious disease from one State to another.

2. **The Epidemic Diseases Act, 1897 :**

This Act provides Special Powers for the Implementation of Containment Measures to control the spread of the disease. On 22nd April, 2020 under Entry 29, of Concurrent List, ‘**The Epidemic Diseases (Amendment) Ordinance 2020**’ was promulgated. This Ordinance amends ‘The Epidemic Diseases Act 1897’ to protect its Healthcare Personnel, Clinics & Other Facilities.

3. The Disaster Management Act, 2005 :

‘The Disaster Management Act (DM Act) 2005’ was enacted by Parliament on 23rd Dec, 2005.

[A] This Act Established three types of Authorities at National, State and District level for Disaster Management i.e.

- a. National Disaster Management Authority (NDMA)
- b. State Disaster Management Authorities
- c. District Disaster Management Authorities

which deals with three types of Disaster i.e.

Disaster → **Natural**
 → **Man-made**
 → **Hybrid**

The **Prime Minister of India** is the **Chairperson of National Disaster Management Authority**. There are four phases of Disaster Management as per this Act which are as follows:-

Four Phases of Disaster Management:-

- **Mitigation**
- **Preparedness**
- **Response**
- **Recovery**

Lockdown was imposed under ‘**The Disaster Management Act (DM, Act) 2005**’ but **The Constitution of India** is **silent on Disaster**.

[B] ‘**Guidelines on Management of Biological Disasters 2008**’ were passed under this Act.

[C] **Legal Basis of The DM Act, 2005:-**

(a) **Entry 23, Concurrent List of the Constitution** -“Social Security and Social Insurance”

(b) **Entry 29, Concurrent List of the Constitution** -“Prevention of the extension from one State to another of Infectious or Contagious Diseases or Pests affecting men , Animals or Plants”.

These Entries can also be used for Specific Law Making.

State Governments in addition to The DM Act, 2005

i) **The Epidemic Diseases Act 1897**

ii) **State Specific Public Health Acts**

Taking cue from the ‘**Containment Plant for large outbreaks (Covid-19)**’ issued by **The Union Ministry of Health and family Welfare** (Nodal Ministry for Biological Disaster), Several States have issued COVID-19 Specific Regulations.

(c) **Entry 6, State List :-** State has Legislative Power to make rules regarding ‘**Public Health & Sanitation**’. ‘**Kerala Epidemic Diseases Ordinance 2020**’ has been passed under it. States have also enough Legal Power in dealing with this Biological Disaster.

(d) **Sec-188 & 270 of IPC** -Punishments for Disobeying order of a Public Servant & Malignant Act likely to spread infection of Disease Dangerous to Life.

(e) **Sec-71 of DM Act :-**Puts Bar on Jurisdiction of Courts and there is no Grievance Redressal Mechanism.

Case-State of Madras Vs. V.G. Row 1952- Its obligatory on all the Courts to Suo motu register PIL for the implementation of DM, Act to ensure Rule of Law and protection of Human Rights under the Constitution.

(f) **Sec-42 of DM Act** -Calls for establishing a National Institute of Disaster Management.

(g) **Sec-46 to 50 DM Act** -mandates funds for Disaster Mitigation.

[D] Civil & Criminal Liability for Violation of the Provisions Of the DM Act, 2005:-

a) **Sec-6 of The DM Act** : Power of National Authority for laying down the Policies, Plans & Guidelines for Disaster Management for timely & effective response to disaster.

b) **Sec 51 of DM Act** : Punishment for obstructing Public Officer of Central/ State Govt / Authorized by National, District or State Authority in discharge of his functions is 1 year Imprisonment or Fine or Both. If by obstruction, there's Death of Another Person, there's the provision of 2 years imprisonment.

4. The National Disaster Management Plan, 2019 :

The National Disaster Management Plan, 2019 deals with Biological Disaster and Health Emergency.

5. The Union Ministry of Health & Family Welfare (MHFW) :

The Union Ministry of Health & Family welfare has given '**Covid-19 Guidelines on Dead Body Management 2020**'

6. The Indian Penal Code, 1860 :

(a) **Sec-188 & 270** : Punishment for disobeying order of Public Servant and Malignant act likely to spread infection of disease dangerous to life.

Thus, under all these above Acts Central & State Govt have to keep control the problems of Covid-19.

IV. Judicial Activism on Covid-19 Pandemic:-

Lots of petitions have been filed in the Courts regarding Safe Management and Disposal of Covid-19 infected bodies. Some are as follows-

Case 1 Gulab Chandra Prajapati Vs. Chief Secretary, State of Jharkhandⁱⁱ : In this case a PIL was filed for safe handling of Dead Bodies and proper disposal of Covid-19 infected bodies. The Court directed the State Govt to implement '**The Dead Body Management Guidelines.**'

Case 2 Pradeep Gandhi Vs. State of Maharashtraⁱⁱⁱ : In this case, the Petitioner wanted stay order on burial of Covid-19 infected bodies near his house but the Bombay High Court rejected his plea as to why dead be deprived of his last rites.

Case 3 Ketan Tirodkar Vs. State of Maharashtra^{iv} : The Bombay High Court rejected the Petition alleging Negligence in handling Dead bodies of Covid-19 Patients by MCGM.

Case 4 Parmanand Katara Vs. UOI^v : The S.C held that Right to Dignity & Fair Treatment Under Article-21 is not available to a living man only but also his body after his death.

Case 5 Common Cause (A Regd. Society) Vs UOI^{vi} : The S.C. held that Right to die with dignity is an inseparable and inextricable facet of the right to life with dignity.

Case 6 Suo Moto Vs State of T.N.^{vii} : Art-21 includes 'Right to Decent Burial', Thus whenever **Right to Decent Burial** is violated it is considered that there's infringement of **Right to Death with Dignity** under **Article-21 of The Constitution of India.**

Case 7 Writ Petition in Telgana H.C. : There was a Writ Petition in Telgana High Court regarding the very high rate of Covid-19 Test in Private Labs. Test Price of Covid-19 in Private Labs was up to 4500/-rupees. This is arbitrary and discriminatory and gross violation of the rights of common man and Central and State Government ought to assure free of cost **Corona Virus Test** and treatment. So, the H.C issued the 'Writ of Mandamus' to ask the Public Authority to Perform his duties well and not arbitrarily.

V. International Laws Applicable on Covid-19 Pandemic:-

II. The Universal Declaration of Human Rights(UDHR),1948 :

(a) **Art-3**-Right to Life, Liberty & Security of a Person

(b) **Art-5**-No one shall be subjected to torture, cruel, inhuman, degrading treatment or punishment

- (c) **Art-25(1)**-Basic Fundamental and Human Rights of People
- (d) **Art-25(2)**-Right to Adequate Standard of Living & Health including Medical Care

III. The International Covenant on Civil and Political Rights (ICCPR),1966:-

Art-1,3,5,6 - Right to Life, Liberty Security, Work and Non-Discrimination

IV. The International Covenant on Economic, Social & Cultural Rights (ICESCR), 1966:

Art-3,11,12-Right to Equality & Non-Discrimination, Rt to Adequate Standard of Living and Right to Physical & Mental Health.

V. The Responsibility of States for Internally Wrongful Act, 2001

- (a) Right to Health
- (b) Right to early access of information

VI. The International Health Regulations(IHR), 2005 & Travel Restrictions

(a) **Art-3 (1)** - The implementation of these Regulations shall be with full respect for the Dignity, Human Rights and Fundamental Freedoms of Persons.

(b) **Art-6 & 7** - Mandatory for Public Authorities to inform WHO about any infectious disease of Public & International concern within 24 hrs of assessment of Public health information.

VII. The United Nation(U.N.)

The UN Secretary General, Antonio Guterris & WHO has declared Covid-19 Pandemic as :-

(a) **Public Health Threat**

(b) **National Emergency**

It increases **Economic, Social & Human Rights Crisis**. International HRts Law notably the **UDHR, ICCPR & ICESCR** guarantees various HRts to everyone such as-Rt to Life, Health, Free Movement, Public Assembly, Education, Non-Discrimination, Medical Care, Accurate & Timely Access to Information etc but if there is serious Public Health Threat & National Emergency threatening the life of the Nation then Restrictions on Human Rights can be justified when they are as per Siracusa Principles, 1984. **Siracusa Principles** were adopted by ‘**The UN Economic & Social Council in 1984. According to Siracusa Principles Restrictions on Human Rights for reason of Public Health Threat or National Emergency can be justified** when they are:-

1. **Lawful** (According to Law)
2. **Based on Scientific Evidence**
3. **Necessary** (Strictly necessary in a Democratic Society)
4. **Proportionate**
5. **Not Arbitrary or Discriminatory**
6. **Limited Time**
7. **Subject to Review** (State action be subject to review is critical)
8. **Legitimate Purpose**
9. **Respectful of Human Dignity**

So, while imposing **Mandatory Restrictions or Limitations on Human Rights** like Imposition of **Lockdown, Quarantine or isolation to slowdown spread or to break the chain of Covid-19, limiting People’s Right** and the **Freedom of Movement** should **never be imposed** in an **arbitrary or discriminatory way**. It must be for the **least amount of Time necessary. Right to Health** obligates **Government** to take necessary steps to **prevent threats to Public Health & provide Proper Medical Care.**

As per **The U.N. High Commissioner for Human Rights:-**

“Covid-19 should not be used as an Excuse for Human Rights Violations.”

(Michelle Bachelet)

VI. Proper Treatment of Covid-19 Patients & Safe Handling of Dead bodies of Covid-19 Patients :

News reports & Media highlighted the issue of **Mishandling of Dead Bodies of Covid-19 Patients** and improper treatment of Covid-19 patients in hospitals like Dumping the dead bodies of Covid -19 positive patients in the River Ganga or Pit at a Burial ground^{viii}, Dead bodies being staked next to covid-19 patients in Delhi Hospitals^{ix} and an older patient chained to the bed in M.P.^x These incidents provoked **Former Union Law Minister Ashwani Kumar** to write a letter & bring this issue into notice of the **Supreme Court** entitled “grave infraction of the citizen’s right to die with dignity.” So the **Supreme Court** took **Suo Moto** cognizance on these news reports.^{xi} The **Chief Justice of India, Justice Bobde** assigned this case on 11 June, 2020 to a Bench of Judges-**Justice Ashok Bhushan, M.R. Shah & R. Subhash Reddy.**

[A] S.C Guidelines to Centre and State Govt regarding Proper Treatment of Covid-19 Patients & Hospital Management :

The S.C had issued various Guidelines to Centre & State Govt regarding Proper Treatment of Covid-19 Patients & Hospital Management^{xii}. State Govt had given Affidavits in response to the notice. These **Affidavits** have formed the basis of guidelines issued by the S.C.

Guidelines passed by The S.C. for treatment of Covid-19 Patients

1. Formation of Expert Team & their Function :

Expert Committees consisting of

- i. Senior Doctors from Central Govt Hospitals in Delhi
- ii. Doctors from Govt of NCT of Delhi (GNCTD) Hospitals
- iii. Doctors from AIIMS
- iv. Responsible Officer from the Ministry of Health and Family Welfare (MHFW)

Function

- a) Inspection, Supervision and Guidance to all Hospitals treating Covid-19 patients.
- b) One visit to each hospital weekly
- c) Surprise inspection of Hospitals
- d) Instructions for improvement
- e) Report to Govt of NCT Delhi, Union of India Ministry of Health & Family Welfare.

Chief Secretary of each State shall constitute an Expert team in State. It will have same Functions and Powers as given above.

2. Availability of Reasonable Rates of Test and Discharge Policy

3. Protocols for Covid-19 Patients Attendants

4. CCTV Camera’s installation and screening of footage

Case 1 Gulab Chandra Prajapati Vs. Chief Secretary, State of Jharkhand^{xiii} : In this case a PIL was filed for safe handling of Dead Bodies and proper disposal of Covid-19 infected bodies. The Court directed the State Govt to implement “**The Dead Body Management Guidelines.**”

[B] International Guidelines and Regulations on safe handling of Dead bodies :

1- The U.N. Commission on Human Rights : Dignified handling of human remains, including their proper management and disposal as well as of respect for the needs of families.

2- The UDHR 1948 :

- a) **Art-25 (1)** Fundamental Rights

b) **Art-25(2)** Everyone has Right to Adequate Standard of Living for the Health and well being of himself and of his family including Medical care , Sickness and Disability.

1. The International Committee of Red Cross (ICRC),1863U :

ICRC Document, “The General Guidance for the Management of the Dead”, 23 Mar 2020 gave guidelines for:-

Part-I -Disposal of Dead bodies of Covid-19 patients by professionals and technicians and handover to relatives.

Part-II

- Recovery & Transportation of bodies
- Handling of Bodies
- Issuance of Death Certificates
- Storage & Viewing of bodies by families
- Proper Cremation & Burial etc.

2. WHO’s Interim Guidance on Infection, Prevention & Control for Safe Management of Dead Body of Covid-19 Patient :

- a) **Handling Infectious Dead Bodies**_: such as preparing & packing the body for transfer from a patient room to an autopsy unit, mortuary, crematorium or burial ground.
- b) **Environmental Cleaning** :- Safety measures afterwards and what chemicals to use for such cleaning.
- c) **Safety and Cleaning Equipment** to be kept ready for authorities handling such dead bodies.

3. European Centre for Disease Prevention and Control :

On **23 Mar, 2020** European Union has given considerations related to the **Safe handling of Dead Bodies of suspected or confirmed Covid-19 Patients.**

VII. ICJ Moves UNHRC Against China for Covid-19 Pandemic

The ICJ Petition filed by its **President and Senior Advocate, Adish C Aggarwala** on **23rd Jan, 2020** after **2 months** of the **1st Case** of the **Virus** narrating how Pandemic started on **1st Dec, 2019** and how Chinese Authorities were denied it till **Jan 2020**. When Chinese Authorities imposed Lockdown in Wuhan, lot of Chinese citizens had travelled abroad by that time and spread the Virus.

ICJ said, China had violated the Provisions of

1. **Art-3** i.e. Right to Life, Liberty & Security of a Person, **Art-5** i.e. Right against Torture, Cruel, Inhuman & Degrading Treatment, **Art-25(1)** i.e. Basic Fundamental and Human Rights of People and **Art-25(2)** i.e. Right to Adequate Standard of Living & Right to Health including Medical Care of **The Universal Declaration of Human Rights(UDHR),1948.**
2. **Art-1,3,5** and **6** which are Right to Life, Liberty, Security, Work, and Non-Discrimination of **The International Covenant on Civil and Political Rights (ICCPR),1966.**
3. **Art-3,11** and **12** which are Right to Equality & Non-Discrimination, Rt to Adequate Standard of Living, Right to Physical and Mental Health of **The International Covenant on Economic, Social & Cultural Rights (ICESCR), 1966.**
4. The Right to Health and Right to Early Access of Information as per **The Responsibility of States for Internally Wrongful Act, 2001.**
5. **Art-3 (1)** i.e. The implementation of these Regulations shall be with full respect for the Dignity, Human Rights and Fundamental Freedoms of Persons. **Art-6 & 7** which makes Mandatory for Public Authorities to inform WHO about any infectious disease of Public

& International concern within 24 hrs of assessment of Public health information of **The International Health Regulations(IHR), 2005 & Travel Restrictions**

6. The provisions of '**International Humanitarian Laws**'.

ICJ's past Presidents includes **Former CJ of India (CJI)** named **Justice P.N. Bhagwati and R.C. Lahoti**.^{xiv}

ICJ wanted -The **United Nations Human Rights Council (UNHRC)**

- A. to **inquire** and **hold China**, its **Army** & the **Wuhan based Land** responsible for the spread of the virus and to **impose 'Exemplary Damages'** on **China** for **spreading Corona Virus/ Covid-19 Pandemic**.
- B. to direct Chinese Government to **Compensate The International Community** and member States specially '**India**' for secretly developing **Biological Weapon** in **Virology Lab, Wuhan** which was capable of **Mass Destruction of Human beings** throughout the World & rendered **Jobless to Millions of workers** in India and the World.
- C. ICJ alleged that the **Chinese Govt censored information from Public & WHO** and early warnings of New Virus by Dr Li Wenliang and did **not restrict travelling** of infections persons from further **contaminating the World**.
- D. Aggarwala further claimed that **Covid-19 Pandemic** is a **conspiracy of Beijing to catapult itself** as a **Super Power**. This virus was developed in the Wuhan Virology Lab from where it was carefully deployed to affect only 0.001% of the Chinese Population and then very carefully sending infected person throughout the World to spread the virus affecting Health, Industries and World's Economy. Otherwise, it remains a mystery as to how the virus has not spread in all the provinces of China but at the same time has spread to all Countries in the World, he said.

VIII. **Suggestions**

1. Government must give full **respect** to the **Fundamental Rights** and **Human Rights** of the people and only restrict them as International Standards permit.
2. Governments are obliged to take **Effective Steps** for the **Prevention, Treatment and Control of Epidemic**.
3. State obligation to ensure **Medical Care, Food, Water, Shelter, Health Care providers for older and Persons with Disabilities, Hygiene, Sanitation, Waste Management and Cleaning** when there's Lockdown & Quarantine for certain period of time & **Isolation** only as necessary.
4. To Provide **Voluntary Self-isolation** combined with **Education**, widespread **screening, universal access to treatment**.
5. To Provide appropriate **Hygiene Training, Hygiene Supplies** and **Disinfectant regularly**.
6. Govt must improve **Sanitation Standards**.
7. **Flying drones** with loudspeakers to scold people who went outside **without masks**.
8. To ensure **Medical care** for those in their **Custody**.
9. Either **Release** or provide **Alternatives for Detainees** or **Pre-trial detainees**, who are guilty of lesser offences or older or have poor health conditions.
10. Govt should provide **Public Notice** for '**No Negative Repercussions for Missed Court Dates**' due to lockdown.
11. **Human Rights Activities** must be **Postponed or Cancelled** for sometime.
12. **Personal Visit to Prisons** very **frequently** if possible.
13. **Safe Handling** and **Proper Disposal of Dead Bodies** of **Corona Virus infected Patients**.

14. WHO has urged all the Countries to ensure an appropriate **Balance** between **Protecting Health** and **Preventing Economic & Social Disruption** and **Respecting Human Rights**. While protecting Human Rights & the Rule of Law, the U.N told about **Sustainable Development respecting Rights of Future Generations**. Rights of Future Generations-
 - a) Enhancing **Climate Action** aiming at **Carbon Neutrality by 2050** and **protecting Biodiversity**.
 - b) More effective & inclusive solutions for **Emergency of Today and Recovery for Tomorrow**.
15. Govt has to take **Strict Measures to Ban International Flights in India** unless and until **Proper Quarantine Measures** have been taken because a **New Variant of Covid-19 i.e. ‘Omicron’** has come to the picture which is **6 times** more transmissible than **Delta Virus**, and it could effect even **fully Vaccinated Persons**. To avoid spreading ‘Omicron’ Some Countries have again imposed Total Lockdown for the Safety and Security of their Citizens from this Life Threatening Pandemic.
16. The **U.N said** that **Govt** must be **Transparent, Responsive & Accountable** because **“Threat is the Virus not People.”**

iThe Epidemic Diseases (Amendment) Ordinance,2020 is passed under Entry 29 of the Concurrent List.

ii2020SCC Online Jhar 421.

iii2020 SCC Online Bom 662.

ivPIL-CJ-LD-VC-29/2020.

v1989 SCC(4)286.

vi(2018) 5 SCC 1.

viiW.P.NO.7492 Of 2020.

viii Narayanasamy expresses regret over undignified burial of Covid-19 patient”, The Hindu, June 08, 2020.

ix “SC seeks response of Centre States on treatment of Covid-19 patients, handling of bodies”, ”The Economic Times, June 12, 2020.

x “Supreme Court urged to protect patients” right to dignified death burial,” The Hindu, June11, 2020.

xi Suo Motu writ Petition (Civil) No. 7 2020.

xii In Re: The Proper Treatment of Covid-19 Patients & Dignified Handling of Dead Bodies in the Hospitals etc, ILI, Law Review, Special Issue 2020.

xiii 2020 SCC Online Jhar 421.

xiv “ICJ moves United Nations Human Rights Commission against China for Covid19 reparations.” A Subramani/TNN/Updated:April 3, 2020.

Future of work and jobs Contemporary skill requirements

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Introduction:

There has been no interface between educational institutions and industry in India barring a few institutes like IIMs, IITs & BITs etc.

The industry wanted the type of human resources which was never available in the market. The colleges and schools could never be oriented towards the requirement of industry and type of skilled professionals were hard to be available to the industry. Simple graduates in any field contributed to increase the number of unemployed youth.

The new education policy is somehow addressing this issue by promoting entrepreneurship and choice based education with entry and exit options. The research is also important by students to help the industry, recognise its area of work

The professional world has been and still is very demanding and ruthless. If you are not updating or adding value to your existing professional skills, you shall become redundant. The industry shall throw you out as not being useful to them. During current times the demand of industry has drastically changed and it has become very challenging and demanding.

Keywords : Emotional intelligence, conflict resolution, creativity, adaptability, tech savvy etc.

Significance of study:

If one knows what his knowledge skills and abilities are, you will be able to develop better career objectives. It is important to pre-define career objectives so that one can focus on job search efforts. It is also important to correctly state on a resume and appropriate areas of job application, understanding key competencies within your job, will allow you to qualify each candidate against those competencies. In everyday life the development of life skills helps students to find new ways of thinking and problem solving. The present paper highlights the contemporary skills requirements of our industries. Gaining knowledge is a dynamic process and we must keep ourselves aware of various developments taking place in the field of knowledge.

Research methodology:

The present paper is a descriptive study in nature. It has been carried out based on collection of relevant secondary data from articles published in various journals, newspapers, websites, books and articles. However, an attempt is made to provide latest data in support of the above topic.

Job skills in demand:

Likely, organisations will never be able to completely embrace a full-time on-site work culture owing to a gamut of benefits of remote working offers with increased productivity and reduced office cost. It is the most desirable proportion for most of the organisations.

It can be said that during and after a pandemic, the certain skill set essential to survive shall be urgently required to be employed in one's personality and resume, although the digital model is here to stay.

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1. **Tech savviness:** The fourth industrial revolution which refers to technologies such as autonomous vehicles, digital healthcare sensors and facile ID recognition is changing , how we work, live and interact with our peers. Employers want to hire candidates who are comfortable adapting to new technologies.
2. **Emotional intelligence:** Forbes reports that emotional intelligence ranks high on employer's wishlists. This skill allows the employees to navigate the complexities of social interactions in the workplace.
3. **Decision making:** Job applicants who can demonstrate that they know how to identify and evaluate options and then make sound decisions. That will positively impact company productivity and employee morale, and team as a whole.
4. **Problem solving capabilities:** Hiring managers often ask interviewers to tell about a time when they solved a complex problem and to know if the candidate can approach the problem from various angles and can find out of box solutions.
5. **Leadership:** People having good communication skills, problem solving skills and project management skills, become good leaders and it helps them to land into the job they want.
6. **Conflict resolution:** Conflict in the workplace can hinder productivity and increase employees turnover rates. The employees who have abilities to work through and move past disagreements are valuable assets for the organisations.
7. **Creativity:** The need for the creative individuals who can help design products and find solutions remains highly in demand despite the use of technology and automation in this area.
8. **Adaptability:** As we are aware that technology is even changing and managers want to hire people who are willing to learn. The most important factor for an employee is to adapt to change in the workplace. This factor is more important than ever now.
9. **Critical thinking :** Critical thinkers understand that problems are not always simple. They are able to view a problem from all the various angles and understand how to analyse and evaluate the information they have, before they make a decision. Employers look for candidates who are capable of high level thinking about complex problems.
10. **Time management :** It shall allow an employee to accomplish more work in less time. Effective time management will fit you well throughout your career and shall also make you more successful in the workplace and life.

Conclusion:

A 2019 survey from Challenger grey and Christmas Inc. found that while more than 80% of employees respondents said that they wanted to hire for open positions but 85% of them said that they were having a hard time finding qualified candidates. 70% of respondents reported were found lacking in skill shortage.

As such new graduates who are looking to enter the workforce and professional world and also interested in changing jobs should focus on developing the hard and soft skills that employers look for. The addressing of the current skills gap is very crucial. If expanding your skill set is your priority, read on to learn more about the skills as mentioned above. The employers shall be looking for such skills in 2022 and in the time to come in future.

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Emotional intelligence as a actor in Organizational Commitment

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Emotional intelligence empowers individuals with greater understanding of emotions in one self and in others, exercise control on emotions, manage and channelize emotion towards constructive outcomes. Emotionally intelligent individuals have the quality of being firm and determined. They have optimistic and positive traits. Organizational commitment depends upon up to which extent a teacher exhibit commitment to a particular organization and intends to maintain membership in the organization. Teaching is a profession which not only involves imparting knowledge from teachers to students, but it also involves multifaceted human interaction to achieve the desired goals of an educational organizations. It is a significant area to investigate the relationship between emotional intelligence and organizational commitment. The purpose of this research paper is to determine the relationship between the emotional intelligence and organizational commitment of teachers. After analysing the existing literature findings, it is concluded that there is a significant relationship between the emotional intelligence and organizational commitment of teachers.

Keywords: Emotional intelligence, organizational commitment, teachers

Introduction:

Emotional Intelligence has emerged as one of the essential component of emotional adjustment, intrapersonal relationship, life success, and interpersonal relationship. In different context of everyday life, everyone experiences and related to feelings and emotions. Neuroscientists and evolutionists through their research have shown that the harmony between the two minds, the emotional mind and the rational mind constitutes emotional intelligence which is the key to successful and fulfilling life. Emotional intelligence is the subject which tries to explain and interpret emotions in human capabilities. Emotional intelligence, like general intelligence, is the product of one's heredity and its interaction with his environmental forces. In 1990 ,the two American University professors Dr. John Mayer and Dr. Peter Salovey introduced emotional intelligence, however the credit for popularizing the concept of Emotional Intelligence goes to American psychologist Daniel Goleman (1995).

Emotions and intelligence were considered two contradictory to each other. Emotions are often referred as disorganized interruptions of mental activity (Salovey and Mayer,1990).People who expressed emotions were viewed negatively (Grandey,2000; Mayer and Salovey,1997;Mayer et.al,1990;Mayer et.al; 2000).These people were considered mentally ill and often suggested therapy to suppress their emotions (Mayer et.al,2000). Mayer and Salovey(1993) asserted that "Emotions and intellect combine to form emotional intelligence".

Daniel Goleman through his books Emotional Intelligence- Why it can matter more than I. Q. and Working with Emotional Intelligence has stressed the importance of emotional intelligence. Emotional intelligence considered to be more powerful than I.Q. While I. Q. Contributes only about 20% of success in life, the other forces contribute the rest.Emotionally intelligent people are more likely to succeed in everything they undertake in their life. I.Q. and even achievement scores do not predict any person's success in life. Even success in academics can be predicted more by emotional and social measures than by academic ability. In working situations too, emotional intelligence helps more than one's intellectual potential in terms of one's I.Q. or even professional skills and competencies. A professionally competent person having poor emotional intelligence may suffer on account of his inability to

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deal with his self or getting properly with others. A person's emotional intelligence helps him in knowing his emotions (self-awareness), managing the emotions, motivating oneself, recognizing emotions in others (empathy), and handling relationships.

Salovey and Mayer (1990) defines emotional intelligence as the ability to monitor one's own and other's emotions, to discriminate among them and to use the information to guide one's thinking and actions. Emotionally intelligent individuals use their emotions to engage in intelligent thought and also possess the ability to think intelligently about their emotions (Mayer and Salovey, 1997; Mayer, Salovey and Caruso).

People that are emotionally intelligent possess a clear understanding of their feelings, and can restore their moods more quickly than those individuals with low levels of emotional intelligence (Clarrochi, Chan and Caputi, 2000). Emotional intelligence is defined as affective capabilities and abilities such as self-control, self-awareness, self-motivation, self-consciousness (empathy) and social skills (Goleman, 2003). Emotional intelligence commonly refers to as 'street smarts'. Emotional intelligence is an ability which help in knowing, feeling and judging emotions in close cooperation with one's thinking process to behave in a proper way for the welfare of the self in tune with others.

Research has advocated the significant association between emotional intelligence and several constructs of desirable organizational behaviour like job satisfaction, organizational commitment, organizational citizenship behaviour etc. Emotional intelligence and its competencies like self-awareness, self-regulation, empathy, motivation etc. are intrinsically responsible for organizational commitment which in turn affects performance. Cohen (2003) states that "commitment is a force that binds an individual to a course of action of relevance to one or more targets".

Teacher's Organizational Commitment: Meyer and Allen (1984) initially viewed organizational commitment as two-dimensional namely, affective and continuance. Meyer and Allen (1984) defined the first dimension, namely affective commitment as "positive feelings of identification with, attachment to and involvement in the work organization", and they defined the second dimension, namely continuance commitment as "the extent which employees feel committed to their organization by virtue of the costs that they feel are associated with leaving". Meyer and Allen (1990) further added a third dimension namely normative commitment as "the employees feelings of obligation to remain with organization".

Teacher commitment is a psychological identification of the individual teacher with the school's goals and values, and the intention of that teacher to maintain organizational membership and become involved in the job beyond personal interest. Teachers who are committed demonstrate a strong acceptance of the school's values, tasks and working manner. Committed teachers also have strong psychological ties to their schools, their students and their subject area. On the other hand a committed person believe strongly in the objects' goals and values, complies with other expectations voluntarily and exert considerable effort beyond minimal expectations for the good of the object strongly desire to remain affiliated with the objects (Kanter, 1968, Mowday et.al, 1982).

Considering the dynamic and competitive educational environment and dire need to improve its quality, this study focuses on teachers. Teachers with greater commitment to their institution would be better performers. Emotional intelligence and its competencies like self-awareness, self-regulation, empathy, motivation e.t.c are intrinsically responsible for organizational commitment which in turn affects performance. The low level of teacher commitment has resulted in a poor sense of responsibility and poor standards for education. The aim of this study to examine the relationship between Emotional intelligence and organizational commitment of teachers.

Related work :

Petrides and Furnham (2006) have found the relationship between trait emotional intelligence and four job-related variables (perceived job control, job stress, job satisfaction and organizational commitment). Perceived job control had a negative effect on stress and a

positive effect on satisfaction, which in turn had the strongest positive effect on commitment. Trait emotional intelligence had specific rather than widespread effects in the model.

Burger, Trudie (2009) conducted a study on emotional intelligence and well-being in teachers administered on 31 teachers of a primary schools in the western cape. The findings of this study suggests that the emotional intelligence training programme did not have the desired effect in increasing teachers' levels of satisfaction and organizational commitment.

Anari, Nahid Naderi (2012) conducted a study on teachers' emotional intelligence, job satisfaction and organizational commitment on 84 high school English teachers. The result of the study indicates that there is positive significant relationship between emotional intelligence and job satisfaction, between emotional intelligence and organizational commitment and between job satisfaction and organizational commitment.

Arvind Hans, et al (2013) worked on a study of emotional intelligence among teachers: a case study of private educational institutions in Muscat. Result indicated that the private educational institutions teacher in Sultanate of Oman have fairly high level of emotional intelligence. The high level of emotional intelligence among teachers indicated that they had the ability to identify, assess and control the emotions of self, peers and student in their teaching institution in Sultanate of Oman.

Seyal and Afzaal (2013) conducted a pioneer study among the 90 academic staff of a technical university in Brunei Darussalam. The study aimed not only to establish empirical evidence of examining academics relationship between emotional intelligence and organizational commitment but also to find out their level of job satisfaction. The findings of the study suggested that emotional intelligence and job satisfaction would be recognized as an important factor in understanding and predicting the academic job satisfaction. The productivity of the institution could also be increased, if this ideal combination would be taken into consideration, also it would foster the staff turnover and satisfaction which is a necessary tool to deal with the issue of under staffing in the newly established technical university.

Akomolafe et al (2014) in a study on job satisfaction and emotional intelligence as predictors of organizational commitment on 210 secondary school teachers of Nigeria. It was concluded from the study that job satisfaction and emotional intelligence is significantly correlated with teacher's commitment.

Farkhani, Morteza Rajabpur and Saremi, Hamid (2015) explored the relationship between emotional intelligence and organizational commitment in male teachers of elementary school in Quchan. The result showed that there was a significant correlation between emotional intelligence and total organizational commitment. The findings of the study indicated that emotional intelligence has been effective in maintaining and improving organizational commitment and it is necessary to consider it to ensure organizational commitment of teachers, especially at primary school.

Tok, Boa Reena (2017) worked on organizational commitment and emotional intelligence of secondary school teachers of IGNOU trainees of Arunachal Pradesh on 89 secondary school teachers. The findings indicated that there was significant relations in both emotional intelligence and organizational commitment in regards to gender and management. The study also found that emotionally intelligence employees are emotionally attached to their organization and are more committed to their organization.

Ngatimun, et al (2019) worked on the effect of workload, work stress and emotional intelligence towards teacher performance through organizational commitment. This research was aimed at teachers in Probolinggo District Office. Result of the study indicate that workload, job stress and emotional intelligence are factors that influence organizational commitment. The influence of workload, work stress and emotional intelligence variables on organizational commitment have a significant value. The influence of workload and work stress on organizational commitment is negative. If emotions are managed correctly, it will encourage teacher commitment to the organization.

Shyamalendu, Niyogi and Ila, Rai (2019) in a study on emotional intelligence, job satisfaction and organizational commitment in teachers conducted on 150 undergraduate and post graduate level teachers. The result showed that there does not exist a relationship between emotional intelligence and organizational commitment. It can be because emotional intelligence does not have a direct link with organizational commitment and hence cannot be correlated.

Conclusion : The present study helps in understanding the concepts of emotional intelligence and organizational commitment and provides an insight into the relationship between them. Emotional intelligence and organizational commitment have a positive association because employees with high emotional intelligence are better able to recognize, manage and use their emotions than employees with low levels of emotional intelligence. Further, they use this ability to progress and eliminate the obstacles they face in their career.

Organizational commitment can encourage teacher performance because without organizational commitment, the teacher will not have a strong sense of staying with the organization and achieving organizational goals as well as in carrying out their duties and obligations. Actually for getting ahead and attaining success at the workplace after one's entry into it, one needs something more than sheer academic brilliance skills merely dominated by the cognitive abilities. Here the affective aspect of his behaviour is very much involved that needs one's expertise in the language of the heart, or more properly the synthesis and union of the functioning of one's brain and heart. It can only be possible if one is equipped with the desirable emotional skills.

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Analysis of Water Pollution in Pond. Harahi & Gangasagar Situated in Darbhanga Town.

*Smita **

*Maryam parween ***

This paper analyses the pollutants present in the water of the ponds HARAHI and GANGASAGAR situated in the mid of Dharbhanga town. The parameters employed for the study were temperature, T.D.S, pH conductivity, calcium & Magnesium bicarbonate chloride, carbonate, Na and K. The water samples of these ponds were studied and has been observed that there was a slight fluctuation in the physico, chemical and biological parameters. The present study reveals¹ the water quality of these two ponds with respect to W.H.O.

Keywords : Pond water, Physico-chemical and biological effluents, parameters, water quality.

Introduction

The direct linking of water quality with man-kind is very much concerned with the human welfare, such as health as well as the population of living animals² and is extremely essential for the survival³ of all living organism. The problems of water quality⁴ are much more acute⁵ in the areas which are densely populated, thickly industrialised successful use of pesticides detergents and fertilizers which shallow ground water level. Water quality is further affected due to over escalation of resources and improper waste disposal practice⁶. Considering these aspects of water in ponds (Harahi & Gangasagar) an attempt⁷ has been made to assess the physico-chemical and biological effluents.

Experimental

Material and method

Darbhanga is an old town and has proud historical palace due to kingdom and culture². The geographical area. It is bounded in south east of Madhubani & Nepal. Muzaffarpur in the west, patna in south west with river the Ganga, South east has samastipur. Darbhanga is densely populated. The sex ratio 965 female per 1000 males. There are mainly three urban areas namely Benipur, Benipatti and Biraal people with basic occupation⁸. Agriculture, Aquaculture especially Makhana & Fisheries, utilize pond water i.e ground water for farming domestic and many other purposes. Literature survey reveals⁹ that no water quality management studies have been carried in this region ; It is why? This present paper was planned and taken into consideration.

The physico-chemical analysis of Harahi & Gangasagar water samples, like pH, Temperature, conductivities, calcium, Magnesium, bicarbonate^{10,11}, chloride, total hardness, CaCO₃, K, Na and biological activities datas were compared with standard values recommended by WHO₃.¹²

All the samples were collected in bottle having tight stopper. Before sample collection, bottle were well cleaned thoroughly. After sample collection in the bottle, it was then closed with stopper immediately. Water samples were collected from depth of one meter from surface in Harahi & Gangasagar ponds. Each sample bottles were clearly labeled with a permanent marker and relevant details. All the samples were preserved by diluting with nitric

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acid and were analysed within 24 to 48 hours. Monthly investigations¹⁰ were performed during the year January to December.

The analysis of pond water were carried by instrument and non instrument method pH, temperature, conductivity, TDS, were determined by water analysis kit. Hardness, Na, K, Ca, Mg, bicarbonate chloride, and all other parameters were performed by procedure mentioned in APHA⁴. Elemental analysis was determined by digital flame photometer. The reagents employed for the analysis were AR. Grade and double distilled water was used for preparation of solutions. Biological analysis were also performed by using standard conventional methods.

Results And Discussions

The physico-chemical analysis of the pond water (Harahi & Gangasagar) was carried out their average values of seasonal variation are presented in table given below.

Temperature - It is very important for effect in chemical and biological reactions in the organism living in water. In the present study the temperature varied within the range of 18⁰C to 37⁰C.

pH - pH is the measure of intensity of acidity or alkalinity of water. All chemical and biological reactions are directly dependent upon the pH variation 5.6 to 10.7. Maximum pH was recorded in rainy season and minimum in winter. The pond water was recorded and confirmed that it is basic in nature.

Conductivity - The conductivity of water depends upon the concentration of ions and their nutrient status. Based on electrical conductivity values the water quality can be classified as poor, medium or good. In the present investigation maximum conductivity was observed in rainy season and minimum conductivity in the winter.

Chlorides - Chloride contents in pond water are largely influenced by evaporation and precipitation. Chloride ions are generally more toxic in comparison to sulphates in most of the plants and are best informer of pollution. Chloride concentration in pond water samples varied from 218-742 mg/litre to 378-852 mg/litre.

Hardness - Hardness is the properties of water which prevent leather formation with soap and increase the boiling point of water. Hardness of water mainly depends upon the amount of calcium or magnesium. The range of concentration of major constituent is shown in table.

	Chemical Parameter of Pond Water	Average value for Harahi Pond			Average value for Gangasagar Pond		
		Summer	Rainy	Winter	Summer	Rainy	Winter
1.	pH	8.78	10.12	7.6	8.9	10.15	7.46
2.	Specific Conductance	550-2500	578-2800	560-2800	536-2600	565-2810	556-2620
3.	Calcium in mg/L	19.85	20.12	18-60	19.85	20.15	17-64
4.	Magnesium mg/L	10-112	16-112	7-118	11-120	17-116	8-109
5.	Chloride in mg/L	19-432	20-461	18-456	19.5-435	21-470	17-476
6.	Total Hardness in mg/L	196-360	195-362	194-318	196-358	195-956	195-355
7.	Na in mg/L						
8.	K in mg/L	35-275	37-278	35-267	35-274	37-277	36-272
9.	COD in mg/L	118	120	117	118	119	118
10.	BOD in mg/L	15	15	15	15	14	15
11.	DO in mg/L	0.4	0.2	Nil	0.4	0.3	Nil

Biological pollution - It is due to discharge of bacteriological impurities. This is caused by the presence of pathogenic bacteria making water, dangerous for human consumption and health. The pathogenic bacteria are generally inherent in the coliacrogenous or coliform group of bacteria of which B. coli or E. coli is important.

The E. coli bacteria inhibit the intestinal tracts of warm blood animals and human beings. They appear in very large number in their daily faecal discharge and also in crude sewage alongwith the medical wastes industrial wastes alongwith the drain water discharge of the house. They are harmful and their presence indicate the presence of other bacteria like typhoid bacillus etc.

Euthrophication - Increase in biological productivity of water body as a result of nutrient enrichment from natural or man made sources is turned as euthrophication productivity in water is controlled by phosphorus nutrients from human excrements and detergents. It has been reported that human excrement provide 1 to 1.2 lbs phosphorus per person annually whereas contribution from detergents is 3.3 lbs of phosphorus per person. Thus detergents are most suitable sources of nutrients.

Both ponds water (Harahi & Gangasagar) has approximately the same value of Euthrophication.

Taste and odour of water is due to dissolved organic matter due to industrial, medical or due to micro-organism such as algae growth.

Conclusion - The study was undertaken to assess the quality of pond-water samples (Harahi & Gangasagar situated in Darbhanga town) were carried out monthly considering the three seasons, summer, Rainy & Winter. The analysis of water samples was performed using the above parameters. The results obtained from analysis revealed that Gangasagar pond water as well as Harahi pond water is not suitable for drinking purposes but are more effective for agriculture and aquaculture activities^{3,11,12,13,14}.

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Impact of Stone Crusher Dust Pollution on Biomass And Productivity of *Cajanus cajan* L.

Sadhna Kumari & R. P. Singh *

The study area was confined in the prevailing wind direction of stone crusher area of Karwandia, Rohtas, Bihar to study impact of stone crusher dust pollution on biomass and productivity of Cajanus cajan L. The biomass and primary productivity of Cajanus cajan was higher at each sampling date of undusted Cajanus cajan than dusted Cajanus cajan. The stone crusher dust pollution reduced 21.69% of total biomass and productivity at the age of 150 days of Cajanus cajan L.

Key words: Biomass, Productivity, Stone Crusher Dust, *Cajanus cajan* L.

Introduction

The air is laden with various gaseous and particulate pollutants originating from human activities. Among the particulate air pollutants, stone crusher dust is a potential phytotoxic pollutant in the vicinity of stone crusher area. There is deposition of stone crusher dust on leaf surface of plants growing in the vicinity of stone crushers. The study deals with impact of stone crusher dust pollution on biomass and productivity of *Cajanus cajan* L.

Material And Methods

The study area was confined in the vicinity of stone crusher area of Karwandia, Rohtas Bihar (24°30' to 25°20' North latitude and 83°15' to 84°15' East longitude). It is approximately 107.8mm at the mean sea level and at the distance of about 200 km south of Patna, Bihar. *Cajanus cajan* is grown by villagers in the vicinity of stone crushers. Dust load was estimated at different distances i.e. 1 to 2 km away from emission source in prevailing wind direction (SW → NE) by dust collection jar method (Rao, 1971). Seeds of *Cajanus cajan* were sown in an area of 30 m x 30 m at a distance of 100 m in the north east direction of stone crushers in the dusted crop. The second plot was selected at a distance of 1000 m where dust load was zero treated as undusted site. The climate is typically monsoonic which is characterized by three distinct seasons i.e. rainy, winter and summer. The average minimum and maximum temperatures, relative humidity at 8.30 A.M. and 17.30 P.M. of July 2018 to June 2019 were recorded 19.60°C and 32.41°C, 64.74% and 37.25% respectively. Total rainfall was recorded 1411 mm during the study year July 2018 to June 2019.

The plant samples were collected from undusted and dusted plots after 30 days of sprouting of seedling. Samplings were taken at the interval between 30 days of two successive sampling. At each sampling date five plants were selected randomly and dug out individually upto a maximum depth of root i.e. 30 cm. Monoliths of sampled plants were washed carefully to remove soil from root system. Sampled plants were cut out to separate their component parts i.e. shoot and root. Parts of *Cajanus cajan* were

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dried in an oven at 80°C for 48 hours. The average dry weight of plants was taken and total biomass was expressed in g/m². The standard deviation was calculate for all the mean value. The primary productivity was calculated from the difference between the biomass value of successive sampling dates (Misra, 1968).

Results And Discussion

There was a gradual reduction in plant biomass on dusted site as compared to undusted site at any stage or age of *Cajajus cajan* (Table 1). The maximum total biomass was recorded at the age of 150 days i.e. 1033.66 g/m² (undusted) and 809.45 g/m² (dusted). The total net primary productivity was maximum at 150 days old plant i.e. 18.36 g/m²/day (undusted) and 13.59 g/m²/day (dusted) plants (Table 2).

Table 1: Mean standing crop biomass (g/m² ±S.D.) of undusted and dusted *Cajanus cajan* L. at Various stages of growth period.

Age (Days)	Shoot		Root		Total	
	Undusted	Dusted	Undusted	Dusted	Undusted	Dusted
30	19.89 ±1.70	18.30 ±1.67	2.93 ±0.23	2.82 ±0.17	22.82 ±1.93	21.12 ±1.84
60	25.79 ±2.13	23.63 ±1.99	6.61 ±0.49	5.80 ±0.41	32.40 ±2.62	29.43 ±2.40
90	90.24 ±7.45	75.50 ±6.21	18.45 ±1.46	15.48 ±1.30	108.69 ±8.91	90.98 ±7.51
120	424.98 ±35.02	352.22 ±29.09	57.81 ±4.80	48.69 ±4.07	482.79 ±39.82	401.61 ±33.16
150	953.25 ±77.50	745.49 ±60.59	80.41 ±4.23	63.96 ±5.15	1033.66 ±81.73	809.45 ±65.74
180	806.93 ±67.32	555.10 ±41.00	71.34 ±4.89	61.24 ±5.06	878.27 ±72.21	616.34 ±46.06

The biomass and net primary productivity of *Cajanus Cajan* affected by stone crusher dust was constantly lower than those of undusted *Cajanus cajan* at all stages of growth and development (Table 1).

Table 2: Net Primary Productivity (g/m²/day) of undusted and dusted *Cajanus cajan* L. at various stages of growth.

Age (Days)	Shoot		Root		Total	
	Undusted	Dusted	Undusted	Dusted	Undusted	Dusted
30	0.67	0.61	0.09	0.09	0.76	0.70
60	0.19	0.17	0.12	0.10	0.31	0.27
90	2.15	1.73	0.39	0.32	2.54	2.05
120	9.49	9.25	1.31	1.10	10.80	10.35
150	17.64	13.09	0.75	0.50	18.36	13.59
180	-4.87	-6.34	-0.30	-0.09	-5.17	-6.43

The maximum total biomass of 1033.66 g/m² for 150 days old plants was 21.69% lower than the biomass of undusted *Cajanus cajan* of same age which indicated reduction of photosynthesis due to stone crusher dust. The reduction in biological productivity of dusted plant could be attributed to stone crusher dust which possibly affected the metabolism of the *Cajanus cajan* in several ways (Pandey and Kumar, 1996; Pandey and Sinha, 2000; Khan, 2014; Shruti and Singh, 2017)

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A Study on Diabetic Athletes

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Abstract

The athlete with diabetes is the primary focus of this research. We discovered that the amount of insulin in the body influences athletic performance. We also investigate how diabetic athletes react to various types of exercise. Finally, we investigate Diabetic athletes' recovery processes.

Keywords : Diabetes, athlete, performance, recovery etc.

Introduction

The most common type of metabolic disorder is diabetes mellitus. Hyperglycemia caused by abnormalities in insulin secretion by the pancreatic beta cell, insulin action, or both distinguishes it. Type-1 diabetes and Type-2 diabetes are the two forms of diabetes, respectively. People with Type-2 diabetes are more numerous than those with Type-1 diabetes. Diabetes mellitus is also present in the athlete, which may influence their performance in their chosen sport. Each sport and kind of exercise has an impact on diabetes, which is influenced by a variety of elements such as stress, body water, glycogenolysis and gluconeogenesis rates, and the production of counter-regulatory hormones. A diabetic athlete's risk of acute hypoglycemia or ketoacidosis, as well as chronic consequences such as microvascular and macrovascular disease, is significant. Many of the Olympic medalist athlete have diagnosed with diabetes

About the disease and its relation to athletes

The autoimmune destruction of pancreatic beta cells distinguishes Type 1 Diabetes mellitus, in which the body mistakenly kills the tissues that create and secrete insulin. Insulin serves a variety of important roles in the body. Insulin has several vital effects before and after exercise:

1. stimulation of glucose absorption by cells;
2. restriction of glucose release from the liver;
3. inhibition of fatty acid release; and
4. stimulation of protein synthesis in the body's cells.
5. promotes muscle glycogen resynthesis following exercise.

Diabetes mellitus Type 2 is not the same as diabetes mellitus Type 1. Insulin is available in sufficient amounts in type 2 diabetes, but it does not work correctly to increase glucose absorption into cells. Insulin resistance is the term for this disorder. The body tries to compensate for the deficiency by secreting more and more insulin, but the reserve capacity of the pancreatic beta cells gradually diminishes, and blood glucose levels rise.

Traditional carbohydrate eating and insulinization routines work well for athletes with diabetes who have reached greater levels of performance. As a result, tailored carbohydrate and insulin intake aids the athlete in maintaining a stable blood glucose level while exercising and achieving peak performance. Many studies on the metabolic response to exercise in diabetes people employed exercise regimens that were not representative of sporting situations.

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Exercise Respond

Insulin concentrations in the blood decrease during exercise in athletes without diabetes, compared to most hormones. It occurs because the pancreas produces less insulin and the contraction of skeletal muscle during exercise enhances glucose absorption. In terms of glucose absorption, skeletal muscles are the most primary tissue in the body, especially during activity. Despite the fact that insulin increases glucose absorption in resting cells. At first glance, the decrease in insulin secretion during exercise appears to be paradoxical. The normal drop in insulin levels that occurs during exercise is critical for avoiding hypoglycemia.

People with diabetes type 1 should take a pre-exercise insulin dosage to control their blood glucose levels. As long as the activity intensity is average, the fuels consumed during the exercise condition are not significantly different from those used by non-diabetic athletes.

Diabetic athlete responses towards Resistance exercise

Chronic resistance training provides diabetic athletes with the same metabolic and muscle hypertrophy benefits as nondiabetic athletes. However, the outcome is not the same for athletes with Type 1 Diabetes. During bicycle ergometer and handgrip activity, Type 1 Diabetes Athletes had greater systolic and diastolic blood pressures than nondiabetic athletes. Massive activity of any kind, but especially resistance training, raises arterial pressure in athletes without diabetes to dangerously high levels. Excessive pressures in the eyes of diabetics may cause damage to the blood vessels. As a result, athletes with Type 1 Diabetes must exercise with caution. Diabetic autonomic neuropathies make it difficult for athletes to manage their blood pressure, cardiac output, and blood flow distribution. These elements play an important role during exercise, especially when the exercise is intense.

Recovery process in the diabetic

For best performance, appropriate recuperation is essential. According to some research, diabetic athletes in soccer, swimming, and track & field may not recover as quickly as non-diabetic sportsmen. This might be due to the fact that in diabetics, the post-exercise resynthesis of glycogen, which is the storage form of glucose in the muscle and liver, is slower than in non-diabetics. As a result, the athletes will not be able to fully recover their glycogen levels before the following practise or game session, thereby affecting their performance. "Delayed hypoglycemia" is another issue that diabetic athletes face. This phenomena might last anywhere between 4 and 48 hours following activity. It has the potential to detract from the player's performance. It has the potential to disrupt sleep, which might contribute to extended weariness throughout the activity phase.

Benefits of Regular Exercise for Diabetics

Consistent physical activity is now recognised to provide a number of health advantages, not only for diabetic athletes, but for everyone. Regular physical activity lowers several of the major risk factors for cardiovascular disease, in addition to reducing blood glucose levels and boosting insulin sensitivity. Physical exercise lowers serum cholesterol and triglyceride levels due to a decrease in low density and very low density lipoproteins and an increase in high density lipoprotein cholesterol.

Moderate hypertension may also become better. Regular exercise lowers resting pulse rate and cardiac work; psychological benefits of exercise, such as a greater sense of well-being, higher self-esteem, and improved quality of life, may also be helpful for diabetic athletes with type I or type 2 diabetes. Hemoglobin A1c (HbA1C) is a marker of long-term blood glucose management, or glucose levels that have been present for at least two months. It is preferable to have a lower HbA1c value.

Conclusion

We can observe how diabetes affects an athlete's performance in this video. Despite the fact that Type 1 diabetic athletes have more complications than Type 2 diabetic athletes, Type 1 diabetic athletes have more complications than Type 2 diabetic athletes. Diabetic athletes have an entirely different reaction to exercise than non-diabetic athletes. Insulin concentration has a significant impact on their athletic performance. They also require longer time to fully recover. As a result, the metabolic control of diabetic athletes and healthy athletes differs. Although it is more difficult, diabetic athletes can nonetheless excel in their particular fields.

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A Thematic concept on Importance of Initiation and Management towards Attention Deficit Hyperactivity Disorder among Children

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Abstract

Attention-deficit hyperactivity disorder (ADHD/ADD) is a neurobehavioral disorder of childhood onset characterized by severe, developmentally inappropriate motor hyperactivity, inattention, and impulsiveness that result in impairment in more than one setting. It affects the home, school, and community life of 39% of school-going children worldwide. There is increasing recognition that ADHD symptoms and clinically defined disorder can persist into adult life and are associated with later drug and alcohol misuse and social and work difficulties. Added to that is the extreme variability of the disorder over time, within the same individual, between individuals, and across different circumstances. Treatment with stimulants and nonstimulants has proven effective in different subgroups, with the effectiveness of specific agents most likely related to the primary neurotransmitter involved. However, stimulants with a short duration of action have been problematic for some patients. Parent training and cognitive behavioral therapies represent the most widely adjunct psychosocial interventions to pharmacotherapy.

Key Words : ADHD, Children, Initiation and Management

1. Introduction

ADHD is a neurodevelopmental disorder, characterized by an impaired level of inattention, hyperactivity, and impulsivity (American Psychiatric Association (APA), 2013). ADHD is considered one of the most common childhood disorders. The key symptoms of ADHD include hyperactivity (characterized by a significantly greater degree of activity), inattention (characterized by distractibility, difficulties in maintaining attention, following instructions, completing tasks, remembering daily routines), and impulsivity (characterized by engaging in a dangerous activity, verbal or physical fights with teachers, parents, or peers). Apart from these symptoms, a child with ADHD shows impairment in behavioural, cognitive, emotional, and social domains. ADHD is highly prevalent worldwide and the children affected changed over time and also differ in how it is rated.

In the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V) the prevalence rate was 5% (APA, 2013). Faraone and Biederman (2005) found a prevalence rate in children and adolescents were 10%, but while considering the Indian scenario ADHD has a relatively high prevalence rate with an equivalence of 8 to 17 % in different studies conducted in North and North-East India (Mukhopadhyay, Mishra, Mitra & Niyogi, 2003; Malhi & Singhi, 2000 and Bhatia, Chaudhary & Sidana, 1999). Venkata and Panicker (2013) found a prevalence rate of 11.32% in 6 to 11 years of aged children at the community level in Coimbatore, Tamilnadu, and among this, the age group of 9 and 10 years was highly affected. In adolescents, 14.18% were diagnosed with ADHD and were found in a hospital-based study at Nagpur, Maharashtra (Vaidya, Dua, Mujawar & Edbor, 2016). In Kerala, it was found to be 34.8% and the male-female ratio was 4.7:1 (Antony, 2016) in an outpatient clinic of Government Medical College, Kottayam, Kerala. The high prevalence rate and its effect on society were widely recognized regarding family stress, poor academic and vocational

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outcomes, and a negative impact on the self-esteem of the children (Barkley, 1998). These negative impacts led the researchers to focus on the pathology and management of ADHD. The psychopathology of ADHD is categorized as biopsychosocial factors. The biological causes of ADHD were dysfunction in the structural and neurotransmitter level.

The role of neurotransmitters, particularly dopamine and norepinephrine as a mediator of the brain's reinforcement signal has been well established. This has been implicated in ADHD symptoms (Cooper, Bloom & Roth, 2003). Thus regulation of ADHD symptoms may indicate corresponding changes in the level of the neurotransmitter. As a procedure that enhances self-regulatory mechanisms, mindfulness training is expected to modify the core features of ADHD- inattention, over activity, and impulsivity and these changes may be manifested through changes in the neurotransmitters. The exploration of the role of dopamine and norepinephrine in the severity of ADHD symptoms helps to improve the development of the management procedures of ADHD.

ADHD is a childhood-onset neurodevelopmental disorder characterized by developmentally inappropriate levels of inattention, hyperactivity, and/or impulsivity, along with pervasive and significant functional impairment (APA, 2013). In ADHD the "attention deficit" components explain inattention or inability to focus for long periods and getting distractible easily, whereas hyperactivity refers to the behaviour of restlessness, agitation, and difficulty to control. DSM-5 criteria comprise of at least six symptoms of inattention or hyperactivity-impulsivity which appears before the age of 12 years, exhibiting symptoms for at least six months, occurring in more than one setting, having a degree that is impairing of functioning or normal development (APA, 2013). Based on symptomatology three presentations of ADHD can be identified - Inattentive presentation, Hyperactive-Impulsive presentation, and combined presentation. An individual's symptoms presentation may change over time having a distinct set of behavioural symptoms and these are presented differently in various developmental stages. The Diagnostic Statistical Manual (DSM) -5 (2013) criteria for ADHD diagnosis is as follows: Persistent patterns of inattention and/or hyperactivity-impulsivity that is more frequently displayed and is more severe than is typically observed in individuals at a comparable level of development. Some hyperactive-impulsive or inattentive symptoms must have been present by age 12 years or earlier. Some impairment from the symptoms must be present in at least two settings. There must be clear evidence of interference with developmentally appropriate social, academic, or occupational functioning. The disturbance does not occur exclusively during a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorders and is not better accounted for by another mental disorder.

Initiation towards ADHD

If you live with an ADHD child, chances are you feel like you say the same thing... day in and day out... over and over. No matter how many times you tell your child to *do* something, they just can't seem to get it done. Whether it's as simple as brushing their teeth or a complex homework assignment, your kid *just can't start*. Here's your conundrum... You know your child *knows* how to do the task (or at least how to start it). So then it follows that if your kid knows how to do but is choosing *not* to start, he *must* be lazy, or defiant; spacey or disrespectful. It sure looks like it to the average observer. It's hard to convince someone otherwise. Yet, ADHD experts understand that your child is none of those - your child is *not* lazy, defiant, spacey or disrespectful. Your ADHD child is most likely doing the best he *knows* how. Your job is to help him *do* better. Step one in helping your child get started on tasks is to understand that ADHD is *not* a *knowing* problem - it is a *doing* problem.

Quite simply, “ADHD is a problem in doing what you already know you’re supposed to do,” explains [Dr. Russell Barkley](#).

Sometimes this “doing problem” looks like your child not starting something – he or she never starts brushing teeth, getting dressed, starting homework, or practicing piano. All those things the two of you fight incessantly over morning and night. Sometimes, however, this doing problem shows itself in your child’s inability to *stop* doing something they are already doing. Think to the times you have to tell your child that play-time is over and it’s time to clean up; or to put down the video game to come set the table. Need I say any more? Are flashbacks of meltdowns, tantrums or outright refusal coming to mind? This latter issue (the one of *stopping* doing something that they are honed in on) is different than the first. It’s called “perseverating” and we’ll talk about it in a later post. For today, we’re sticking with the simple stuff: There is a task to do, your child knows that they *should* do it, they know *how* to do it, and yet... they don’t. It’s those freaking pull-your-hair-out times when you want to scream “JUST DO IT ALREADY!!!!”

The first thing to understanding is that there are four parts to completing every task:

1. DECIDING to start the task;
2. STARTING the task;
3. PERSISTING through the task;
4. COMPLETING the task.

Management of ADHD

The management of ADHD was classified into two pharmacological and non-pharmacological. In non-pharmacological therapies emphasis was made on parent training procedures, cognitive training procedures which included self-instructional and management skills in behaviour and academics at school, behaviour modification strategies, classroom-based therapies, social skills, and problem-solving approaches and lastly, a shift in treatment approaches towards the mindfulness-based interventions was documented. Here reviewed the popularly employed management strategies in ADHD which was categorized into four subheadings.

1. Parent training procedures,
2. Cognitive training procedures,
3. Neuro-feedback and,
4. Mindfulness-based approaches.

1. **Parent Training Procedures** :ADHD affects not only a child’s ability to pay attention or sit still at school, it also affects relationships with family and other children. Children with ADHD often show behaviors that can be very disruptive to others. Behavior therapy is a treatment option that can help reduce these behaviors; it is often helpful to start behavior therapy as soon as a diagnosis is made.

The goals of **Behaviour Therapy** are to learn or strengthen positive behaviors and eliminate unwanted or problem behaviors. Behavior therapy for ADHD can include

- A. Parent Training in Behavior Management for ADHD
- B. Therapy to improve Children’s Mental Health
- C. Behaviour interventions with Children in Classroom

Behavior therapy is an effective treatment for attention-deficit/hyperactivity disorder (ADHD) that can improve a child’s behavior, self-control, and self-esteem. It is most effective in young children when it is delivered by parents. Experts recommend that healthcare providers refer parents of children younger than 12 years old for training in behavior therapy. For children younger than 6 years old, parent training in behavior management should be tried

before prescribing ADHD medication. When parents become trained in behavior therapy, they learn skills and strategies to help their child with ADHD succeed at school, at home, and in relationships. Learning and practicing behavior therapy requires time and effort, but it has lasting benefits for the child and the family.

If possible, families should look for a therapist who focuses on training parents. Some therapists will have training or certification in a parent training program that has been proven to work in young children with ADHD.

Parents typically attend eight or more sessions with a therapist. Sessions may involve working with groups of parents or with one family alone. The therapist meets regularly with the parents to review their progress, provide support, and adjust strategies, as needed, to ensure improvement. Parents typically practice with their child between sessions.

Parents have the greatest influence on their young child's behavior. **Only therapy that focuses on training parents is recommended for young children with ADHD because young children are not mature enough to change their own behavior without their parents' help.** Some therapists may use play therapy or talk therapy to treat young children with ADHD. Play therapy provides a way for children to communicate their experiences and feelings through play. Talk therapy uses verbal communication between the child and a therapist to treat mental and emotional disorders. Neither of these has been proven to improve symptoms in young children with ADHD.

Learning and practicing behavior therapy requires time and effort, but it has lasting benefits for the child. Ask your healthcare provider about the benefits of parent training in behavior therapy for young children with ADHD.

2. Cognitive Training: Cognitive training is an alternative treatment approach to remediating cognitive deficits associated with ADHD, but its effectiveness depends on the cognitive constructs targeted by the training tasks and the method of delivery. Cognitive training programs for children and adolescents with ADHD include commercial digital 'brain games,' clinician-monitored computer-based training exercises, and clinician-delivered hands-on cognitive training programs. Although engaging, there are several limitations to the use of digital 'brain games' and computer-based training for children with ADHD. First, research on digital brain games applications for ADHD is absent or ambiguous at best¹⁷. For example, Cognifit (www.cognifit.com) is a popular digital application designed to train reasoning, coordination, and attention skills; and Nintendo's Brain Age (www.brainage.nintendo.com) was designed to train attention, speed, memory, and math. However, to our knowledge, neither game has been empirically studied for children with ADHD. Although digital brain games are appealing to the technology generation, screen time for children with ADHD has its drawbacks. Most concerning is that extant research indicates video game addiction is higher in children with ADHD who are twice as likely to develop pathological gaming behaviors.

An alternative approach to using brain games software is clinician-monitored digital training for ADHD where training is delivered through a digital platform and a clinician (or teacher) monitors the client's progress and provides feedback each week. Most of the extant research on this delivery method of training for children with ADHD has been conducted on Cogmed (www.cogmed.com), a computer-based program of 25 sessions completed on a home computer. Well-researched, Cogmed program outcomes consistently include improvement on the trained tasks and increased scores on tests of working memory, a primary deficit in ADHD. However, in addition to the concerns previously outlined about the use of digital training for children with ADHD, there is another drawback to this approach. The clinician is

not engaged with the child or providing dynamic feedback during the training tasks, but, instead, reviews progress at the end of the week in a phone appointment. This does little to increase motivation and treatment compliance during training sessions and fails to target the social cognition deficits we see in this population. Another limitation to this training paradigm is that the exercises target working memory and attention but not the remaining constructs that are necessary for thinking and learning such as visual and auditory processing, processing speed, long-term memory, and fluid reasoning.

3. Neuro-feedback :Neurofeedback training is an alternative therapy that uses real-time EEG data to help patients train their brains to improve focus, impulse control, and executive function.

Since the 1970s, patients with ADHD and other neurological disorders have used neurofeedback in hopes of training their brains. According to proponents, the demonstrated benefits are twofold:

- Brainwave alterations are measurable and appear to endure well beyond the therapy's end.
- Brainwave improvements may lead to behavior improvements — most notably, sustained focus, diminished impulsivity, and reduced distractibility beyond the study environment.

Neurofeedback traces its roots to neuroplasticity — the concept that the brain is malleable and that with frequent, intense practice, patients may transform their brainwave activity. Over time, neurofeedback aims to help patients increase the ratio of high-frequency brain waves, leading to stronger attention and self-control.

Many ADHD brains generate an abundance of low-frequency delta or theta brain waves, and a shortage of high-frequency beta brain waves. Over 20 to 40 training sessions, neurofeedback works to reverse that ratio. The end goal is an activated, engaged brain, and an overall reduction in ADHD symptoms.

More specifically, neurofeedback therapy works to increase the brain's capacity and predisposition for beta waves, which are associated with efficient information processing and problem solving. In contrast, when a high proportion of theta waves are present, patients complain of incomplete work, disorganization, and distractibility. Neurofeedback aims to diminish the frequency of delta and theta waves.

4. Mindfulness Training is considered as a tool for improving the selfregulation and strengthening of the attentional process in an individual with ADHD and is also a technique for improving emotional regulation. ADHD is a disorder that involves deficits in cognitive control and is better understood when viewed from an emotional regulation perspective. Mindfulness is not a new concept, it is a part of us that makes us fully conscious and aware but this state is only for a brief period and we soon go back to the usual daydreams and personal narratives. So mindfulness is a special skill or the capacity to be in a sustained moment to moment awareness and fortunately, this skill can be learned.

Mindfulness-based interventions involve a wide range of practices -both meditational and psychological. Western psychology put forward the concept of mindfulness which had a history of over 2500 years in eastern traditions. Brown, Ryan, and Creswell (2007) stated that mindfulness is receptive attention experienced at the present moment and a construct involving two qualities- trait and state. The former means the qualities that are stable across time, and the latter signifies the differences induced by the practice which do not remain over time. The attention improvement in mindfulness practice and attention deficits in ADHD, their consequent overlap in the therapy made the researchers more focused on the studies related to mindfulness-based therapies.

The concept of mindfulness originated from eastern spiritual tradition, in which they explained it as a form of systematic training of attention and self-control developed through meditative practices (Tang, Holzel and Posner, 2015). Another description of mindfulness is “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994). The western clinicians' incorporated meditative practices, which was a major part of the Buddhist traditions, in a wide range of mindfulness-based clinical programs (Linehan, 1993). The growth of Zen Buddhism in the US in the 1950s paved the way for the incorporation of mindfulness in western medicine. These psychological approaches encouraged various clinicians at the beginning of the 1960s to use the meditative technique in psychotherapy.

Studies on Cognitive Training in ADHD In the management of ADHD cognitive training is considered a potential treatment approach. In viewing the complex nature of the pathophysiology of ADHD cognitive training methods have focused on a range of deficits (working memory, inhibition, Attention, etc). Different studies have assessed the effectiveness of cognitive training in ADHD.

2. Review

Bigelow et. al (2021) studied “The differential Impact of Acute exercise and mindfulness meditation on Executive Functioning and Psycho-Emotional Well-being in Children and Youth with ADHD” For this study, a group of research from Ontario, Canada, recruited 16 children with ADHD from local community clinics between June 2019 and January 2020. The children were between 10 and 14 years old, and 11 of them were boys. Just 20% of the participants were non-white. Over a series of days, the children were asked to engage in 10 minutes of exercise, 10 minutes of mindfulness meditation, and 10 minutes of reading (which was a control by which to assess the other interventions). These activities were assigned in a random order. The researchers asked the children's guardians not to give them ADHD medication in the 24 hours before visiting the lab. The researchers took measurements on the children's executive functioning (including working memory, ability to control impulses, and task-switching capabilities) and psycho-emotional state at three points in time: before the activities, immediately after the activities, and again 10 minutes later. After analysing the results, the researchers found that mindfulness meditation improved children's working memory, ability to control their impulses, and task-switching skills. The results also showed that 10 minutes of exercise provided benefits to children's emotional well-being, such as a mood boost.

Vania Modesto-lowe, Pantea Farahmand, Margaret Chaplin, and Lauren Sarro (2015) conducted a study with the title name “Does Mindfulness meditation improve attention in attention deficit hyperactivity disorder” in this study the Attention deficit hyperactivity disorder (ADHD) manifests by high levels of inattention, impulsiveness and hyperactivity. ADHD starts in childhood and results in impairments that continue into adulthood. While hyperactivity declines over time, inattention and executive function difficulties persist, leading to functional deficits. Adolescents and adults with ADHD have pervasive impairment in interpersonal and family relationships. They may develop addiction, delinquent behaviour and comorbid psychiatric disorders. Despite advances in diagnosis and treatment, persistent residual symptoms are common, highlighting the need for novel treatment strategies. Mindfulness training, derived from Eastern meditation practices, may improve self-regulation of attention. It may also be a useful strategy to augment standard ADHD treatments and may be used as a potential tool to reduce impairments in patients with residual symptoms of ADHD. Clinically, this would manifest by an increased ability to suppress task-unrelated

thoughts and distractions resulting in improved attention, completion of tasks and potential improvement in occupational and social function.

Pradhan, Chitta Ranjan (2017) studied the “Effect of yoga nidra on cognitive activities of school students” this study involves subjects from both the genders male and female and age was limited to 13 to 15 years and the total number of subjects 200 in experimental group. The results offer a number of interesting findings. It shown students indicate significantly a greater degree of self-criticism after the intervention. Similarly, compared with pretesting session, students report a greater degree of academic efficacy and clustering skills. They also report a greater degree of self-control, empathy and overall competency compared with their scores. Girls indicate a greater degree of moral-ethical, personal, familial and social self-concept scores than do boys. They (girls) also reveal a greater degree of self-criticism and overall self concept compared with boys. Furthermore, girls report a greater degree of self-control and empathy than do boys. These findings are in the expected direction.

3. Purpose of The Study

The treatment of ADHD was always a topic of debate in both scientific and public aspects, where the discussion was much emphasized on multimodal interventions (Greydanus, Pratt, Sloane & Rappley, 2003). Various Randomized Clinical Trials (RCT) showed stimulant medications as effective treatment approaches for ADHD symptoms (Biederman & Faraone, 2005). It has been found that many patients do not respond well to the drugs and they also show many unbearable side-effects such as addiction, depression, anxiety, heart palpitations, and psychosis (Zylowska et al., 2008 and Center for Disease Control and Prevention (CDC), 2013). So we depend upon other methods for the desirable treatment of ADHD symptoms in children. Thus a significant interest was developed in new non-pharmacological treatment modalities in ADHD for optimizing the results in patients who do not respond to pharmacologic treatments, experience side effects, and who responded to medications but need additional interventions to help improve their symptoms. Pharmacotherapy and behaviour therapy modalities provide the children with a physician or parent who is trained in behaviour therapy. Both of these approaches show some inherent limitations. Documented problems with unintentional side effects create problems in pharmacotherapy and also it exhibits a finding of 10% - 20% of ADHD children who do not respond to medication (De Bruin, van der Zwan & Bogels, 2016). Even though there is the evidence behind stimulant efficacy, many parents show reluctance in following a medication regime, and they often search for alternative or adjunct therapies (Charach, Skyba, Cook, & Antle, 2006).

The main **Objective** of this study was to determine the Importance of Initiation and Management towards Attention Deficit Hyperactivity Disorder among Children.

1. The importance of Initiation towards ADHD
2. The importance of Management towards ADHD

4. Conclusion

ADHD is a multi-factorial heterogeneous disorder presenting various challenges involving attention deficits, excessive motor activity, and impulsiveness. Different studies demonstrated that in attention, the children with ADHD have deficits (Ghafoor et al., 2015; Chhabildas, Pennington & Willcutt, 2001) and specifically in sustained attention (Coutinho, Mattos & Malloy-Diniz, 2009 and Murphy et al., 2001) but in the case of divided attention, it shows less impairment (Elosúa, DelOlmo & Contreras, 2017) in ADHD. Children with ADHD frequently act impulsively, without thinking, which supports the observation of the construct of Hyperactivity- Impulsivity, which is due to the lack of inhibitory control.

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Concise Review of Laxative/ Purgative Herbal medicines in the Indigenous system of India

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Abstract:

Background: Ancient texts of Ayurveda mentioned various herbal medicinal drugs to be used for Laxative/ purgative purposes. Those herbs can be used in two different aspects, one aspect is used to treat constipation and another aspect is to use for Virechana (Therapeutic purgation) through which bio-waste from the body has been eliminated. Hence, a concise review has been done to report effective herbal medicines for laxative/ purgative purposes. Scientific knowledge and advancement of herbal medicines recommended by Ancient Acharya's for the use of laxative/ purgative activity would bring innovative thoughts/approach to deal with the disease like constipation.

Methods: In this review study, all the information were collected from research articles indexed in databases such as Google Scholar, PubMed, AMED, MEDLINE, Web of Science, Scopus, Ulrichsweb, EMBASE, DOAJ, EBSCO and Magiran. To find out in these databases we have used the selective keywords like "Laxative", "Purgative", "Constipation", "Virechana", "Indigenous system of India", and "Herbal medicine".

Results: The medicinal herbs such as Trivritta, Aaragvadha, Tilvaka, Snuhi, Saptala, Shankhini, Danti, Dravanti, Draksha, Gambhari, Parushaka, Haritaki, Amalaki, Vibhitaka, Arka, Eranda, Katuki, Swarnakshiri, Bhallataka, Chitraka are some extensive sources of traditionally used medicines for the purpose of laxative/ purgative activity. **Conclusion:** The review article presents only some of the example of Herbal plants but not all because it is nearly impossible to accommodate all the given Plants/ drug in Ancient text. Almost more than 100 plants (Moolini, Phalini, Twak, Virechanopaga, Kshirini) for laxative/ purgative purpose and more than 600 Virechana formulations are described by Ayurvedic Acharyas in Samhitas. Thus, this area of study requires more elaboration. Also, more scientific exploration is required over the mode of action, pharmacokinetics and pharmacodynamics and toxicity effect of these herbal medicines. Therefore, there are various natural herbal medicines available for the purpose of Laxative/ purgative activity.

Keywords: Herbal medicine, Virechana, Laxative, Purgative, Constipation

Introduction

Ayurveda globally represents itself in the field of medicine as an important segment of Indigenous system of India. The principles of Ayurveda accept 'Single drug can cure several diseases' because the herb prescribed for the treatment contains varieties of active ingredient which are likely to show different pharmacological activities (Antimicrobial, anti-diabetic, anti-bacterial, anti-cancerous, hepatoprotective, antipyretic, anti fertility, immunomodulatory, larvicidal and ovicidal activity, wound healing effect and anti-inflammatory activities) and the Indigenous system of medicine emphasizes over the individual patient management but not to the disease.

Although they're merely shreds of evidence are exist related to the safety and efficacy of natural herbs but it doesn't bother its acceptance rate in the general population but due to existence

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of various adverse drug reactions, side effects and expensive modern medicines people started to believe more in herbal medicines. (Pandey et al. 2013) (Jaiswal and Williams, 2017)

Scientific knowledge and advancement of herbal medicines recommended by Ancient Acharya's for the use of laxative/ purgative activity would bring innovative thoughts/approach to deal with the disease like constipation.

Keeping in mind by all the above facts, this review article has been drafted, which will help out to explore the area of research related to these herbal medicines. Through this article, the author's aim to provide a concise review of herbal medicines described in Ancient Ayurveda texts used for laxative/ purgation.

Modern medicine recommends drugs categorised in laxative, purgative and cathartics for the purpose to relieve constipation. While Defining Constipation, it is varying in the symptoms as the passing of faeces with hard inconsistency or desire to defecate again and again. (Lizuka and Hamamoto, 2015)

Laxative/Purgative/Cathartics are drugs with the difference in their potency and cathartics are more powerful than all. These drugs act in two ways, lose the faecal consistency or promote the faecal passage. (Fosnes et al. 2011)

Ayurveda uses the term Virechana (Therapeutic purgation) for the purpose of laxative or purgation, which not only relieves constipation rather also purifies (Shodhana) the body (Sharira). Herbal medicines in the indigenous system of India are used as alternative/ complementary to the Modern Laxative/Purgatives. (Ravishankar and Shukla, 2007) Ayurveda literature, Caraka Samhita in Sutrasthana (Dwivedi, and Goswami, 2013), Vimansthana (Dwivedi, and Goswami, 2013), Kalpasthana (Dwivedi, and Goswami, 2013), Sushruta Samhita Sutrasthana chapter 39 (Thakral, 2020), Astanga Sangraha Sutrasthana (Srivastava, 2006), Kalpasthana (Mitra, 2016), Astanga hridaya Sutrasthana (Kushwaha, 2018) Kalpsthana (Annamoreshwar and Krishanaram, 2017), specified the drugs used for Virechana (Laxative/Purgative). But the more comprehensive pattern of Virechana (Laxative/Purgative) was given in Sharangdhara Samhita Purva Khand (part 1) chapter 4 with the given examples. Sharandhara Samhita classified Virechana (Therapeutic purgation) as Anulomana, Bhedana, Rechana and Sramsana. (Tripathi, 2008)

1.1. Anulomana: The type of Virechana in which drugs convert the undigested faecal matter into digested products or we can say this type of drug ultimately makes formed stool. In the next step, the drug splits the formed stool into fragments and deposits it through passage easily. Example of Anulomana drug is Haritaki (*Terminalia chebula*).

1.2. Bhedana: In this method loose, condensed and aggregated stool are prepared through Bhedana drugs. Example of Bhedana drug is Katuki (*Picrorhiza kurroa*).

1.3. Rechana: Rechana literally means "liquefying". Thus, the Rechana drugs are activated by the means of property to liquefy the formed/ unformed stool and expulse the stool in watery form. Trivrit (*Operculina turpethum*) is the best example of Rechana drug.

1.4. Sramsana: This is a method of Virechana through which formed/unformed stools adhered to Koshtha (Intestine) are passes. Example of Sramsana drug is Aragwadha (*Cassia fistula*).

Various uses of herbal medicines for different purposes were seen in Indian history and these medicines are well recognised in AYUSH (Ayurveda, Yoga, Unani, Siddha, Homeopathy and Naturopathy) system. In India the AYUSH system or Modern system of medicine, both legislations run together. (Vaidya and Devasagayam, 2007). More scientific exploitation of these herbal medicines is required to show clinical evidence. In this review, we are aspiring to assess some important herbal medicines of Indigenous system of India which are said to be effective for both constipation and Virechana (Therapeutic Purgative) as well.

2. Methods: In this review study, all the information were collected from research articles indexed in databases such as Google Scholar, PubMed, AMED, MEDLINE, Web of Science, Scopus, Ulrichsweb, EMBASE, DOAJ, EBSCO and Magiran. To find out in these databases we have used

the selective keywords like “Laxative”, “Purgative”, “Constipation”, “Virechan”, “Indigenous system of India”, and “Herbal medicine”.

2.1. Trivritta. *Linn. Operculina turpethum*, family Convolvulaceae, named Trivritta because it has a triangular-shaped stem. Its synonyms are nisoth, panila, pithori, jalap, turpeth, trikolpakkona, sigade, shweta, tribhandi, sarala, rechani, nishotra, suvaha, kalaparni, nandi, kalameshi, kutarana, bhandi, palindi, ardhachandra, sushenika, masurvidala, kaulkaushiki, kalameshika, shyama tripura, sivatai. Available at roadside all across India at the height of 1000 square feet. In Ayurveda texts, Trivritta comes under the ten Virechanopaga dravya (ten purgative herbs) used for therapeutic purpose. The stem bark of Trivritta constitutes 10% “turpethin” of the total Phytoconstituents and this glycoside is responsible for the laxative action of Trivritta. Other phytochemical constituents appeared are scopoletin, turpethinic, terpenoids, flavonoids, coumarins, saponins, operculinosides. Apart from laxative Trivritta also shows many other activities depending on the doses, alkaloids and part used. These other activities are antimicrobial, anti hepatic, antinephrotoxic, antiulcer, antidiarrheal, antidiabetic, cytotoxic, analgesic, anti-arthritis, and anti-inflammatory activities.(Gupta and Ved, 2017).

2.2. Aaragvadha. *Linn. Cassia fistula*, family Caesalpiniaceae, Its synonyms are shampaka, rajvriksha, chaturangula, airawata, suvarnaka, dirghphala, svarnabhushana. It is famous by the name of golden shower due to having a golden yellow colour flower. It is a medium-sized tree of the height 24 metres about and available all across India. It is a type of deciduous tree. Apart from laxative Aragavadha also shows many other activities depending on the doses, alkaloids and part used. These other activities are antioxidants, anti-tumour, antidiabetic, antibacterial, hepatoprotective, antipyretic, antifertility, immunomodulatory, larvicidal and ovicidal activity, wound healing effect and anti-inflammatory activities.(Rahmani, 2015) The pulp of the fruit of Aragvadha constitutes Anthraquinone alkaloids responsible for its laxative effect.(Mozaffarpur et al. 2012)

2.3. Tilvaka: *Linn. Viburnum coriaceum*, family Caprifoliaceae, its synonyms are amrer, basmol, diha, talanj, kaalaa titmuliya, tita, karwaa. It is a tree of height up to 7 meter and seen at the altitude of 1000–2500 meter, flowers are bisexual, white in colour, fruit with one seed and reddish-brown in colour. Its phytochemical constituents present in leaf, stem and root are triterpenoids, phytosterols, carbohydrates, glycosides, flavonoids, and phenolics. Depending on the doses, alkaloids and part used Tilvaka show various medicinal properties like anticonvulsant, anti-oxidant, anti-bacterial, anticholinergic, anti tumour,] antihypertensive and anti-inflammatory activities. But the laxative effect of this plant is shown by stem bark. (Vijaytha et al. 2020)(Prabhu and Ponnudurai, 2011)

2.4. Snuhi: *Linn. Euphorbia neriifolia*, family Euphorbiaceae. , its synonyms are snuk, thuar, indian spurge tree, common milk hedge. Snuhi is xerophytic tree or shrub, height up to 20 ft. Its flower is yellowish-green and fruit seems alike capsule. Fruits are looking like a capsule. The flowers are yellowish-green in colour. Flowering and fruiting season is December to May. Leaves are leathery texture. The hypodermis is bears multiple small size oil globules and latex tubes. Laticiferous tubular vessels are submerged with glandular latex. The latex of Snuhi is laxative. The phyto constituent of latex is neriifolin-s and neriifolin. Depending on the doses, alkaloids and part used Snuhi show various medicinal properties like an anaesthetic, analgesic, anti-anxiety, anticonvulsant, anti-arthritis, anti-carcinogenic, anti-diabetic, anti-microbial, anti-oxidant, anti-ulcer, diuretic, haemolytic and anti-inflammatory activities. Different phytochemical constituents are reducing sugar, flavonoids, tannins, alkaloids and triterpenoid saponins.(Mali and Panchal, 2017)

2.5. Saptala: *Linn. Acacia concinna*, Family Mimosaceae, Its synonym are satala, carmasahva, caramakasa, titali, joyachi, chagulputputi and shikakai. It is an annual herb and type of climbing shrub. Its flower is pink in colour and the leaves are bilobed. The used part of the plant for the

medicinal purpose is leaves and pods. Saptala has various phytochemical constituents, lupeol, ascorbic acid, calyctomine nicotine, spinasterol, acacic acid, arabinose and rhamnose, hexacosanol, oxalic acid, tartaric acid, citric acid, succinic acid, spinasterone, Its other medicinal use beyond the laxative property are immunomodulant, anti-bacterial and anthelmintic. Saptala has been used traditionally for hair care in the Indian Subcontinent. Saptala has been used from ancient times as herbal medicines i.e. root used for fever and Gastrointestinal disorder, leaves and stem are used for a laxative, stem bark is used to evacuate phlegm and flowers are used for ligament tear.(Akram et al. 2014) (Wuthi-udomlert and Vallisuta, 2011)

2.6. Shankhini: *Linn. Euphorbia dracunculoides*, family Euphorbiaceae, its synonym are kambumalini, sathi. Shankhini is a perennial herb with a height up to 10–40 cm found all across the country. Its medicinal uses are for various purposes like a sedative, anti-depressant, antioxidant, antispasmodic, anxiolytic, anti-inflammatory, immunomodulatory, analgesic, antipyretic, and cardioprotective activities. It is also known for its diuretic and laxative effects. Fruit and root are the parts of the plant used for medicinal purpose. Various phytochemical constituents are coumarins, terpenoids, tannins, flavonoids, phenols, saponins, alkaloids and betacyanin, catechin, rutin, myricetin and caffeic acid.(Batoool et al. 2017)

2.7. Danti: *Linn. Baliospermum montanum*, family Euphorbiaceae, its synonyms are hakum, hakun and jamalgota. It is a monoecious shrub and distributed all over in India, found at the height of 1000-1800 meter. Flowers are unisexual and leaves are simple and toothed. Flowering occurred in the jan-feb month and fruits appear after one month. Its seed shows resemblance with castor seed but smaller in size. The plant parts used for the medicinal purpose are root, leaves and seed. Besides purgative it also act as anthelmintic, diuretic, jaundice, leprosy, skin diseases, diaphoretic, rubefacient, asthma, bronchitis, febrifuge and tonic agents. The seed of the plant have laxative properties and it contains glycosides and terpenoids.(Mali and Wadekar, 2008)

2.8. Dravanti: *Linn. Jatropha curcas*, family Euphorbiaceae, its synonyms are jangal erand, pahari erand, physic nut, bagh erand, purging nut. It is a type of shrub and height would reach up to 10 meters. It is deciduous and leaves are Heart-shaped and flowers are yellowish-green in colour. It can also be used as decorative plant. Dravanti seed oil is used for biodiesel production; hence it enhances the chances of its more cultivation. Leaves, seeds, stem bark, root, oil have been used for other medicinal purposes. Seeds are used for the laxative purpose. It also acts as a haemostatic agent, anticancer, antiviral, antitoxic, and hepatoprotective, anthelmintic and abortifacient.(Abdelgadir and Staden, 2013)

2.9. Draksha: *Linn. Vitis vinifera*, Family Vitaceae, its Synonym are mridvika, gostani, dry grapes, raisins, munakka. It is a type of perennial wood vine. Leaves, fruits and seeds are the plant parts to be used for medicinal purpose. This plant has tannins, flavonoids, procyanidins, organic acids, lipids, enzymes and vitamins. The plant has various medicinal uses in cardiovascular diseases, varicosities of veins, Piles, oedema, Myocardial infarction, arteriosclerosis, atherosclerosis, stroke, attention deficit-hyperactivity disorder (ADHD), chronic fatigue syndrome (CFS), diarrhoea and dysfunctional uterine bleeding. It is a mild laxative used for constipation. (Mansour et al. 2013)

2.10. Gambhari: *Linn. Gmelina arborea*, Family Verbenaceae, Its synonym are kashmarya, madhurya, madhuparni, shriparni. The plant height of G.arborea is approximate 40 meter. Gambhari is a form of tree, leaves are simple and flower brown in colour, it almost contains 1700 seeds. Its roots, leaves, flowers, fruits and bark are used for medicinal purpose. The various alkaloids found in the plant Gambhari are luteolin, indole, hentriacontanol, lignans and coumarin. The root of Gambhari poses laxative effect. (Kulkarni et al. 2013)(Shukla et al. 2010)(Arora and Tamrakar, 2017)

2.11. Parushaka: *Linn. Grewia asiatica*, family, its synonyms are nilparna, giripilu, alpagaathi, atimandal, roshan, dhanvanchada, parimandal, dharmana. Parushaka is a type of shrub, the

flowers are yellow in colour, and ripe fruit colour varies from purple to red colour. Its fruit resembles with berry and flavour with grapes. The fruit of Parushaka has been used as an herbal medicine for different medicinal purpose. This plant parts are used in rheumatism, UTI, wound healing, analgesics, antimalarial and antiemetic, antihyperglycemic and antidiabetic, antimicrobial, antioxidant and its bark is used as a soap substitute. The phytochemical constituents of the plant are diterpenes, glycosides and fats, alkaloids, glycosides, triterpenoids, sterols, flavonoids, saponins and tannins. Flowering season is January-February and fruiting occurs in May-June. The laxative effect has been shown by the fruit of Parushaka. (Zia-Ul-Haq et al. 2013)(Akhtar et al. 2016)

2.12. Haritaki: *Linn. Terminalia chebula*, family Combretaceae, its synonyms are abhaya, pathya, kayastha, pootana, amrita. haritaki is a variety of tall tree with height up to 80 feet. Flowers are white/ yellow in colour. Flowering season is May-June and the fruiting season is July-Dec. The ripened fruit is yellow-grey in colour while unripened is green. Collection of fruits must be started from January month till April. Phytochemical constituents present are polyphenols, terpenes, anthocyanins, flavonoids, alkaloids and glycosides. Its pharmacological activities are antioxidant, antimicrobial, antidiabetic, hepatoprotective, anti-inflammatory, antimutagenic, antiproliferative, radioprotective, cardioprotective, antiarthritic, anticaries, gastrointestinal motility and wound healing. Its fruit has been used for the laxative purpose. (Bag et al. 2013)

2.13. Amalaka: *Linn. Phyllanthus Emblica*, Family Euphorbiaceae, its synonyms are amla, vaysya, vrishya, jatifala, shiv, dhatriphala, shrifala, amritphala and indian gooseberry; It grows up to the height of 18 meters. Flowers are yellowish-green in colour. The phytochemical constituents are emblicanin a and b, punigluconin, pedunculagin, chebulinic acid (ellagitannin), chebulagic acid (benzopyran tannin), corilagin (ellagitannin), geraniin (dehydroellagitannin), ellagotannin, phyllantine, phyllembin, phyllantidine, gallic acid, methyl gallate, ellagic acid, trigallayl glucose, glutamic acid, proline, aspartic acid, alanine, cystine, lysine, pectin, ascorbic acid, quercetin, kaempferol, citric acid. Amalaki is the richest source of Vitamin C. Amalaki fruits have been used for the laxative purpose, it is hard in consistency and colour is yellowish-green. It has been also used for the purpose of antipyretic, astringent, diuretic, stomachic, liver, antioxidant, analgesic, anti-inflammatory, neuroprotective, antitussive, anti-atherogenic, adaptogenic, cardioprotective, immunomodulatory, gastroprotective, antiviral, antiemetic, anthelmintic, nephroprotective, and anticancer activities. (Tiejun et al. 2015)(Uddin et al. 2015)(Dasaroju and Gottumukkala, 2014)

2.14. Vibhitaka: *Linn. Terminalia bellirica*, family Combretaceae, Its synonym are aksaphala, karsaphala, bahuvirya, bhutvaasa, kalidruma, kalka, baheda. It is a type of deciduous tree and available throughout the country. Flowers are greenish-yellow in colour. Fruits are ovoid with single stony seed. Flowering season is March-May and ripening of fruits occurs in the month of December-february. Its fruit shows a laxative effect. The phytochemical constituents are arjungenin, belleric acid, bellericosides, hexahydroxydiphenic acid, methyl ester, β -sitosterol, gallic acid, ellagic acid, ethyl gallate, galloyl glucose, chebulagic acid, mannitol, glucose, galactose, and rhamnose. The medicinal properties of this plant are astringent, anthelmintic, antipyretic, antioxidant, antidiabetic, analgesic, angiogenesis, Antidepressant, Anti urolithiasis, nephrotoxic, antiarrhoeal, anti-inflammatory [37, 38]. (Jayesh et al. 2019)(Kumar and Khurana, 2018)

2.15. Arka: *Linn. Calotropis gigantean*, family Apocynaceae, Its synonym are ulaphala, kshirparna, shvet arka, madnar, vasuka. Arka plant has greeny leaves; stem contains milk and has flowers arranged in cluster form which are whitish purple in colour. Its phytochemical constituents are alkaloids, cyanogenic, glycosides, phenolics, tannins, cardenolides, flavonoids, terpenes, sterols, proteinases and nonprotein amino acid. Its medicinal uses are analgesic, antimicrobial, antioxidant, antipyretic, insecticidal, cytotoxicity, hepatoprotective, pregnancy interceptive

properties, procoagulant and wound healing, antimycotics activity. (Kumar et al. 2011)(Aliyu et al. 2015)

2.16. Eranda: *Linn. Ricinus communis*, family Euphorbiaceae, its synonym are vatari vyaghra, karaparna, gandharvahasta, hastikarna, pancangula. The phytochemical constituents are ingenol, triterpenoids, quercetin and gallic acid, athujone, camphor, ricin, catechin, linoleic acid and ricinoleic acid. Its medicinal uses are antimicrobial, antifungal, anti-cancer, antidiabetic, anti-inflammatory, antimalarial, antioxidant, central analgesic, anticonvulsant, antinociceptive, anthelmintic, antifertility, laxative, uterine contracting, anti-implantation, anti-asthmatic, bone regeneration, molluscicidal, antiulcer, antihistamine, wound-healing, cytotoxic, insecticidal, anti-arthritic, antidandruff and hepatoprotective. The used part of the plant is roots, seeds, bark, leaves, flower, fruit and stem. Leaves are coarsely toothed. Seeds are varying in size. Roots are powerful purgative. Castor oil extracted from seed has been potential uses for laxative effect.(Abdul et al. 2018)(Tunaru et al. 2012)

2.17. Katuki: *Linn. Picrorhiza kurrooa*, family Scrophulariaceae, its synonym are katurohini, katukarohini, tiktarohini, ashokarohini, mastarohini, rohini, katu, katvi, tikta, tiktaka, chakrangi. Picrorhiza is a derivative of the Greek word, “picros” means bitter, while “rhiza” means root. It is a perennial herb with an elongated rhizome. The flowering season of Kutki is June-August. The phytochemical constituents are iridoid glycoside picrosides, kutkoside, cucurbitacin glycosides, apocynin, and drosin. The used plant parts are roots and rhizome. Its rhizome has potent laxative activity. Other medicinal uses of this plant are carminative digestive stomachic, anthelmintic, anti-inflammatory, depurative, cardiogenic, galactopurifier, expectorant and anti-pyretic [43, 44, 45](Hussain et al. 2013)(Luper, 1998)(Masood et al. 2015)

2.18. Swarnakshiri: *Linn. Argemone Mexicana*, family Papaveraceae, Its synonym are satyanasi, brahma-dundi, brahmadandi, brahmandanti, weed plant, mexican prickly poppy. It is distributed throughout the country. It is the type of annual herb with a height up to 1.2 meters. It is a plant found on roadsides, an annual thorny herb of height up to 1 m with broad leaves at the base. The phytochemical constituents are alkaloids protopine, allocryptopine sanguinarine and chelerythrine saponins, tannin, resin, glycosides and anthraquinones. Its medicinal uses are analgesic, antispasmodic, hallucinogenic; anxiolytic, antimicrobial, anticancer, antidiabetic, anti-inflammatory, Leaf extract and seeds of Swarnakshiri have been used for laxative activity.(Pathan and Bairagi, 2017)(Elizondo-Luevano et al. 2020)

2.19. Bhallataka: *Linn. Semecarpus Anacardium*, family Anacardaceae, its synonym are arushkara, shophkrita, agnimukha, anal, vatari, marking nut, mahatikshna. The plant is distributed in the Himalayan region at the height up to 3,500 ft. Its flower is greenish white in colour. Fruiting season is December to march month and flowering season are May-June month. The fruit of Bhallataka is acrid in taste, hot, sweetish and shows laxative activity. Its phytochemical constituents are bhilwanols, biflavonoids, phenolic compounds, minerals, vitamins and amino acids. Other medicinal uses are analgesic and anti-inflammatory, antiarthritic, antimicrobial, antibacterial, anthelmintic, antimutagenic, antidiabetic, antitumour, antioxidant, fungistatic, hepatocellular carcinoma, hypocholesterolemic, hypolipidemic, immunomodulatory and mammary carcinoma activities. (Basavaraj et al. 2011)(Jain, 2016)(Semalty et al. 2010)

2.20. Chitraka: *Linn. Plumbago zeylanica*, family Plumbaginaceae, its synonym are agni, vahni, anala, dahana, anika. It is a perennial shrub, grows throughout India. The flowering season occurs from September to November. Flowers are red/ white in colour. The plant grows in height up to 0.5-1.0 meters. Its phytochemical constituents are plumbagin, zeylanone, isozeylanone, sitosterol, stigmasterol, campesterol, dihydroflavinol-plumbagino, naphthoquinones, flavonoids, terpenoids and steroids. Its medicinal uses are antibacterial, antifungal, anti-carcinogenic, analgesic and anti-inflammatory and anti-allergic activity. (Rana and Rana, 2011).

3. Results: The herbal plants such as *Trivritta, Aaragvadha, Tilvaka, Snuhi, Saptala, Shankhini, Danti, Dravanti, Draksha, Gambhari, Parushaka, Haritaki, Amalaka, Vibhitaka, Arka, Eranda, Katuki, Swarnakshiri, Bhallataka, Chitraka* are some extensive sources of traditionally used medicines for the purpose of laxative/ purgative activity. Some concise details on herbal medicines used for laxative/ purgative purpose has been described in **Table 1 and Figure 1** (Nesari, 2017)(Anonymous, 2008)

4. Discussion

The herbal plants such as *Trivritta, Aaragvadha, Tilvaka, Snuhi, Saptala, Shankhini, Danti, Dravanti, Draksha, Gambhari, Parushaka, Haritaki, Amalaki, Vibhitaka, Arka, Eranda, Katuki, Swarnakshiri, Bhallataka, Chitraka* are some extensive sources of traditionally used medicines for the purpose of laxative/ purgative activity. Apart from laxative/ purgative effects, there are many other medicinal uses of these plants have also be seen, like anti-bacterial, antioxidant, hepatoprotective, anti-cancerous, antimicrobial, antidiabetic.

Now, the question arises that where and when these herbal medicines should be used?? In Indigenous system of medicine, the use of laxative/ purgatives mainly poses two purposes, the first purpose is to relieve constipation and secondly for Virechana karma (Therapeutic purgation) purpose.

4.1. Role of constipation in disease process: Why we should take seriously about the problem of constipation?? Does it really do something serious with our physical or mental body? And the answer is “Yes”, because constipation results from multiple conditions, which may be functional, anatomical or due to result of taking few medicines, psychological or secondary to disease.(Forootan et al. 2018) The study also confirmed that constipation negatively affected both the social and working life of patients.(De Giorgio et al. 2015) Chronic constipation may result in anxiety and depression-like symptoms to the affected person.(Sonu et al. 2016) Thus it is necessary to treat constipation before it went chronic, as sometimes it is called as ‘Mother of all diseases’.(Vakili et al. 2018)

4.2. What is the Necessity for Virechana karma (Therapeutic purgation): While talking about Virechana karma (Therapeutic purgation), it is One among the Panchakarma (bio purification method).(Chaganti and Prasad, 2015) Panchakarma is a type of body cleansing procedure, which consist of five varieties of treatment i.e. Vaman (Therapeutic emesis), Virechana (Therapeutic purgation), Nasya (Nasal instillation), Anuvasana Basti (Medicated enema), Niruha basti (Medicated enema).(Conboy et al 2009)

Therefore, Virechana is a therapy through which the body’s biological system is restored and also it enhances the therapeutic effects of medicines. It eliminates unwanted biological waste from our body.(Chaturvedi et al. 2016) The herbal medicines indicated here can be used for Laxative/ purgative purpose focuses upon the desire of results i.e. mild or severe laxative effect is required. It also depends on drug formulations doses.

Today, biopharmaceutical establishments, investigators, scholars and clinicians endeavours towards the up-gradation of traditional knowledge-based drugs with the help of modern technologies. This will surely open the door of opportunities for the higher acceptance rate of herbal medicines with effective safety and efficacy. Documentation of traditional herbal formulations with newer scientific approaches is the need of time.(Sen and Chakraborty, 2016) People of developing countries, at a great extent, rely upon the indigenous system of medicine.(Karunamoorthi et al. 2013)

5. Conclusion: Based on available evidence, the aforementioned herbal medicines are some of the introduced medicinal herbs in this review. Since the use of laxative/ purgative herbal medicines is not a one-dimensional medication, this review tries to reach a multidimensional analytical approach to laxative/ purgatives with the help of herbal medicine. The total availability of herbs which have been advocated to possess laxative/ purgative effect is extremely high that review

analysis of all is out of the scope of this paper; thus, we have major concerns to those herbs about which there is more evidence available. We have mentioned here, the herbs about which both clinical and experimental data are available. Further research on various aspects like precautions taken while using herbal medicines, accurate doses in children, contraindications and possible side effects should be done, which will create a clear vision and establishes newer prospects to herbal medicines of indigenous system of India.

Table no. 1 some important Herbal plants used for Laxative/ Purgative medicinal activity (Nesari, 2017 and Anonymous, 2008).

Sanskrit name	Botanical name	English name	Main Part used for laxative/ purgative effect	Drug formulations with doses used for laxative/ purgative purpose
Trivritta	<i>Operculina turpethum</i>	Indian jalap	Stem bark	AbhayArishta* 12-24 ml Naracha Churna** 12 gm Trivritta Churna** 1-3 gm Avipattikara Churna** 3-6 gm Trivrita Leha [§] 15-20 gm
Aaragvadha	<i>Cassia fistula</i>	Purging cassia	Fruit pulp	Aragvadha Kwath [#] 50-100 ml
Tilvaka	<i>Viburnum coriaceum</i>	Canberry bush	Stem bark	Tilwaka Ghrita ^{SS} (5-10 gm) Tilwaka Kwath [#] (50-100 ml)
Snuhi	<i>Euphorbia nerifolia</i>	Milk hedge	Latex	Snuhi Churna** 125-250 gm
Saptala	<i>Acacia concinna</i>	Soap pod	Leaves/ stem	Narayana Churna** 1to3 gm Saptala Churna** 50 gm
Shankhini	<i>Euphorbiadracunculoids</i>	Dragon Spurge	Root	Mishrak Sneha ^{SS} 3 gm
Danti	<i>Baliospermum montanum</i>	Red physic nut	Seed (Jayapala)/ Root	Ashwakanchuki Rasa [@] 125 mg Naraca Rasa [@] 250 gm Icchabhedi Rasa [@] 125-250 mg Jayapala Churna** 6-12 mg Danti Churna** 1-3 gm
Dravanti:	<i>Jatropha curcas</i>	Physic nut	Seed	Mishrak Sneha ^{SS} 3 gm Dravanti Churna** 250-500 mg
Draksha	<i>Vitis vinifera</i>	Grape	Fruit	Garbha pala Rasa [@] 125-250 gm Draksha Churna** 5-10 gm
Gambhari	<i>Gmelina arborea</i>	Kashmir tree	Root bark	Sukumara Ghrita ^{SS} 12 gm Gambhari Churna** 1-3 gm
Parushaka	<i>Grewia asiatica</i>	Black currant	Fruit	Parushakadi Leha [§] 5-10 gm
Haritaki	<i>Terminalia chebula</i>	Chebulic Myrobalan	Fruit	Vaishvanar Churna** 1-3 gm Abhayadi Modaka ^{^^} 2-5 tablets Triphala Kwatha [#] 100 ml Haritaki Churna** 3-6 gm Triphala Churna** 3-6 gm
Amalaka	<i>Phyllanthus emblica</i>	Indian gooseberry	Fruit	Amalaki Churna** 10-20 gm Amalaki Swaras ^{@@} 5-10 ml
Vibhitaka	<i>Terminalia bellirica</i>	Baheda	Fruit	Kalyana Kshara [~] 1 gm Vibhitaka Churna** 3-6 gm
Arka	<i>Calotropis gigantean</i>	Rubber tree	Root/ Leaf	Arka Churna** 0.5-1gm
Eranda	<i>Ricinus communis</i>	Castor	Seed/ Castor oil	Eranda (Castor) oil 40 ml Eranda Churna** 1.5-3 gm
Katuki	<i>Picrorhiza kurrooa</i>	Yellow gentian	Rhizome	Arogyavardhini Vati ^{^^} 500 mg-1 gm Mahatiktaka Ghrita ^{SS} 20 ml Katuki Churna** 1-3 gm
Swarnakshiri	<i>Argemone Mexicana</i>	Mexican poppy	Root	Swarnakshiri Churna** 2-3 gm
Bhallataka	<i>Semecarpus anacardium</i>	Marking nut	Fruit	Bhallataka Churna** 1-2 gm
Chitraka	<i>Plumbago zeylanica</i>	Doctor bush	Root	Hinguvachadi Churna** 2 to 4 g Chitraka Churna** 1-2 gm

Note: @ (Rasa)= Herbo-mineral preparations, @@ (Swaras)= Fresh juice, * (Arishta)= Fermented preparations, ** (Churna)= Powder, \$ (Leha)= Linctus, \$\$ (Ghrita/ Sneha)= Medicated Ghee, ^^ (Vati/ Modaka)= Tablet, ~ (Kshara)=Alkali preparations, #(Kwath)= Decoction

Figure. 1. Some important Herbal plants used for Laxative/ Purgative medicinal activity



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Nature in Wordsworth's Poetry

*Dr. Shashikala Vishwakarma**

William Wordsworth is one of the chief glories of English Poetry. He is known as a great worshipper of Nature. Wordsworth gives us the very life and soul of Nature, and creates the impression that Nature watches benignly and guides, consoles and cherishes those who come to her in the proper mood, a mood of "wise passiveness". This spiritual interpretation of Nature is the chief greatness and glory of Wordsworth. In this he stands unique among English poets.

There are certain objects in Nature which fill the beholder with a sensation of joy, well-known of such Nature objects are the flowers such as the daisies, the daffodils. Daffodils teaches us-

"For oft when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills
And dances with the daffodils."¹

By raising nature to the level of human thought he gives it power and expression: he subdues man to the level of nature, and gives him there by a certain breadth and coolness and solemnity. Wordsworth says that nature has the power to reform mend and shape the character and philosophy of a man. Nature declared her resolve to bring up Lucy and she carried out her intention.

He thinks that the Nature is the best educator for human mind. Nature can shape, form and mould human personality in the best way. **Education of Nature or Three Years she grew in sun and shower** Lucy is brought up by nature as her own child:

"Three years she grew in sun and shower
Then Nature said, A lovelier flower
On earth was never sown;
This child I to myself will take;
She shall be mine, and I will make
A lady of my own."²

William Wordsworth has humanized the character of Lucy Gray in his poem "Lucy Gray":-

"O'er rough and smooth she trips along,
And never looks behind;
And sings a solitary song
That whistles in the wind."³

Wordsworth was super-sensitive to every impact of Nature. The gentle breeze affected him as if his heart were an Aeolian harp. His love for Nature and actually a passion. The roots of his passion for Nature was in his blood. He got a delight from walking, bathing, basking and leaping in the lap of Nature. His love for Nature turned into a kind of religious love. An "auxiliar" (i.e. supplementing) light would emanate from his own mind, and bestow new beauty upon the objects of Nature.

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Evidently here he identifies Nature with God. Nature is the first principle of intelligence and wisdom. She is also the first principle of life, called the Prana in the Upanishads. She fills every living object with "a breath", that is life. Unquestionably she is the creator and the ruler, and "the spirit of the universe". Wordsworth is remarkable for the highly religious quality he gives to his interpretation of Nature.

Hills and mountains, springs and rivers, lakes and seas, earth and sky, wind, woods, trees, plants and flowers, the sun, the moon, and the stars - all these were by him included in Nature. Rain and storm, sunshine and moonlight, thunder and lightning, sounds and echoes, the blowing of the wind, the fall of the cataract, and all the like, had a meaning to him, as being the works of Nature. To Wordsworth Nature was alive, and not dead, as it is to most men. According to him it has not only life but also feeling: It is a living sentient being.

Nature is endowed not only with life and feeling, but also with will and purpose. He ascribes to it all the attributes of humanity - Life, feeling, thinking and willing. He gave a "moral life", not only to plants and flowers, but to every natural form. The feeling that Nature is alive and influence us, and feels joy and sadness, has often been regarded as an instance of pathetic fallacy; in some cases where this feeling is strong and oft-recurring. The primal sympathy seems to represent all that is left of the relation between Man and Nature.

"We will grieve not, rather find
Strength in what remains behind;
In the primal sympathy
Which having been must ever be;
In the soothing thoughts that spring
Out of human suffering;
In the faith that looks through death,
In years that bring the philosophic mind."⁴

"All that happy intercourse of nature and man with which his inner being was bound up, which for him was history and patriotism and happiness, was being flung into what he believed to be a wellnigh diabolical warfare."⁵

The period of gloom and utter desolation, when there seemed to be a void in his soul, has been described, and also his gradual recovery from this mood of despair, which was effected mainly by his own determined will, though helped by external means. When the crisis was past, the love of Nature returned to him, but shorn of its old despotism; it was subdued to a dominant scheme of thought, and became fellow inmate in his mind with the love of man, and with "a deep sense of the pathos of things."

He has recognised Man's affinity with Nature and feels the unifying spirit that runs through all things, which is present in the mind of Man as well as in Nature, and which "impels all thinking things, all objects of all thought, and rolls through all things". He thought only of the joys of life, of the smiling aspect of Nature, of "tranquil land", of "a sea that could not cease to smile", of "a sky of bliss", of sweetest sunbeams, of perfect calm, of "peaceful years", of "lasting ease, Elysian quiet, without toil or strife". He fancied "the mighty deep" as "the gentlest of all gentle things". But then he was looking at the face of Nature and at life, not by the light of Fact, but by the light of Fancy, by the "light that never was on sea or land".

Wordsworth recognised also the sterner aspects of nature - "the lightning, the fierce wind, and trembling waves". Also he had seen storms in Nature, but then he had failed to recognise their full significance. In course of time, he came to attach a new meaning to human joys and human sorrows, and recognised them as necessary to the discipline of the soul, to the

attainment of serenity of mind and philosophic calm. He pities blind happiness, and bids farewell to "the heart that lives alone, housed in a dream, at distance from the kind."

Wordsworth's faith in the healing power of Nature was not the result of blindness, but an outcome of deep thinking over all the ills of humanity; his was a reasoned conviction, and not a blind belief. He held that Man is by nature happy, that happiness is his birthright. So long as there is harmony between the inner and the outer, between mind and Nature, there is happiness. When this harmony is disturbed, when man becomes out of tune with Nature, happiness is lost.

It is man's assertive egoism, false "unnatural self", as Wordsworth calls it, which claims separateness from Nature, that is the source of unhappiness. He neither denies suffering nor explains it away; but finds a new meaning in it. He regards it as a necessary thing to call out the greatness of man, to evoke fortitude, patience, independence, calm, self-sacrificing love; to make man forcibly aware of the fact that he has broken the law of harmony; that he has put himself out of touch with the inner spirit of things; to awake man to the dignity of his soul. Suffering continues until the harmony is restored.

To return, however, to Wordsworth's theory of Man and Nature: he believes that happiness is the plan of Nature, that happiness and truth are identical, that the object of poetry is to convey truth and pleasure at one and the same time, that poetry is the image of Man and Nature. It being Wordsworth's firm belief that happiness is the plan of Nature, it is not surprising if we find him asserting that birds and animals live a life of happiness, for they are in tune with Nature. It is Wordsworth's firm belief that we can learn from Nature wisdom, truth, the reality of things, and receive calm joy. He gives expression to this belief in various poems. Nature is a better teacher than books; one moment of communion with Nature may give us more of wisdom than many years of reason can give.

Nature teaches us wisdom only in a moment when our soul communes with her. This communion mystics call by the name of ecstasy. In this state of ecstasy, not only reason, but also senses are laid asleep; we see by the eye of soul, and not by the bodily eye, and hear by the ear of soul, and not by the ear of flesh. In the Tintern Abbey, Wordsworth calls this state of the soul by the name of the blessed mood:

"In which the burthen of the mystery,
In which the heavy and the weary weight
Of all this unintelligible world,
Is lightened:- that serene and blessed mood,
In which the affections gently lead us on,-
Until, the breath of this corporeal frame
And even the motion of our human blood
Almost suspended, we are laid asleep
In body, and become a living soul:
While with an eye made quiet by the power
Or harmony, and the deep power of joy,
We see into the life of things."⁶

Wordsworth tells in the Prelude, nature holds long an exclusive place in his affections. When the feeling for humanity arouses in him by suffering, man is still subordinate to Nature, in this sense, he is always conceived in a larger setting, exhibits in close relations with a greater whole, and plays around by the emotions that it be-gets. In crowding societies of men he finds:-

" the same perpetual flow
Of trivial objects, melted and reduced
To one identity, by differences
That have no law, no meaning, and no end".⁷

The imaginative fusion of Nature and Man is with Wordsworth so complete that he comes to see a affinity between the ordinances of Nature and the highest human virtues. The moral law, the law of love, and duty, and sacrifice, which works as a barrier between Man and the rest of creation- this also for Wordsworth, is the law of Nature. The life and sense which are given by God to us there he finds love.

Wordsworth is remarkable for the highly religious quality he gives to his interpretation of Nature. Wordsworth is probably the greatest poet of Nature in English poetry. His poetic volumes are packed with striking passages on Nature or its objects.

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Reviving Eight Core Sectors-An Initiative of Government of India amidst COVID-19

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Abstract:

Industries, one of the important pillars of any economy, if it runs smoothly it encourages the growth of the Nation.

Pandemic, as the name reveals destruction. We are still facing the ill effect of COVID 19 pandemic. We can say this pandemic is still not over. Our economy is still suffering from the effect of this COVID 19 pandemic.

Discussion on present paper begins with spread of pandemic in the world and how it hit in India and how this pandemic disrupts the Indian economy. The paper presents the study of eight core industries and their performance during pandemic. What was the impact of COVID19 on these eight core industrial sectors in India which constitutes coal, crude oil, natural gas, petroleum refinery, cement industry, fertilizer industry, steel industry and electricity?, would also discuss. Except these, this research paper will also discuss about the initiative taken by Government of India to support and revive the core industries so that they can manage the side effects of Pandemic COVID19.

Introduction:

COVID 19 pandemic is an ongoing global pandemic of a Novel Corona Virus Disease, which was first identified in the city of Wuhan, China in December 2019. From December 2019 till today it affects all over the world including more than 220 countries. The World Health Organization (WHO) declared COVID-19 a 'Public Health Emergency of International Concern' (PHEIC) on 30th January, 2020. Globally, as of 4:14pm CET, 29 December 2021, there have been 281,808,270 confirmed cases of COVID-19, including 5,411,759 deaths, reported to WHO.¹

With the rampant growth in the number of cases within three months of its emergence, World Health Organisation impel to declare this blaze as a pandemic on 11th march 2020. On 30

January 2020, India reported its first case of COVID-19 in Thrissur, Kerala, Which rose to three cases by 3 February 2020; all were students returning from Wuhan. A government panel on COVID-19 stated in October 2020 that the pandemic had peaked in India, and could come under control by February 2021. In India a nationwide lockdown was imposed at the very initial stage of this pandemic, which might help in containment of disease up-to certain limit. The festive season during October and November 2020 led to a second wave of infections in the northern region. However, by early-April 2021, a major *second wave* of infections took hold in the country with destructive consequences. On 9 April 2021, India surpassed 1 million active cases, and by 12 April, India overtook Brazil as having the second-most COVID-19 cases worldwide.

COVID 19 throws a troublesome impact on the growth of Indian Economy. India's \$2.9 trillion economy remains shuttered during the lockdown period, except for some essential services and activities. As per the data released by the ministry of statistics India's economic growth in the fourth quarter of the year 2020 went down to 3.1 %. India's GDP contraction of 23.9 per cent was in Quarter1, Financial Year 2020-21 and 7.5 per cent was in

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Quarter 2, Financial Year 2020-21. This was the worst performance of the Indian economy in any year since independence. As of now, India's GDP growth rate is likely to be below 10 per cent. The core industries of Industrial sectors of India like coal, crude oil, natural gas, petroleum refinery, cement industry, fertilizer industry, steel industry and electricity were also get effected by the measures taken by the government to restrict the spread of this pandemic .

Key Words : COVID 19, Indian Economy, Gross Domestic Product, coal sector, Crude oil Natural Gas, Petroleum refinery, cement industry, fertilizer, steel industry, Electricity etc.

Discussion : The eight core industries that support industrial infrastructure are coal, crude oil natural gas petroleum refinery cement fertilizer electricity and steel industry. let's see how these industries are important for industrial development India and how pandemic affects these industries?

Steel Industry: The iron and steel industry is one of the most important industry in the country which plays an important role in strengthening the country's economy. Steel products are used as a key raw material across many industries, including infrastructure, automotive, engineering and other manufacturing sectors. The steel industry's products also play a crucial role in sustainable development of the society. India surpassed Japan as the second top steel producer in January 2019. The major steel producing states in India are Odisha, Jharkhand Chhattisgarh, Karnataka, Maharashtra, Gujrat and west Bengal which employs more than six lakhs people.²the contribution of steel sector towards India's economic growth is 2 % of GDP.

Production of Steel in India: Steel industry was de-licensed and de-controlled in 1991 & 1992 respectively. India was the 2nd largest producer of crude steel in the world in 2020. In 2020-21, production of total finished steel (alloy/stainless + non alloy) was 96.20 million tonnes (mt). Production of Pig Iron in 2020-21 was 4.88 mt, a decline of 10.0% over last year. India was the largest producer of Sponge Iron in the world in 2020. The coalbased route accounted for 82% of total Sponge Iron production (34.38 mt) in the country in 2020-21. Data on production of Pig Iron, Sponge Iron and Total Finished Steel (alloy/stainless + non-alloy) are given below for last five years:

Indian steel industry: Production (in million tonnes)

Category	2016-17	2017-18	2018-19	2019-20	2020-21
Pig Iron	10.34	5.73	6.41	5.42	4.88
Sponge Iron	28.76	30.51	34.71	37.10	34.38
Total Finished Steel	91.54	95.01	101.29	102.62	96.20

Source : Joint Plant Committee

The key steel consuming sectors are construction 62%, railways 3%, automobiles 9%, capital good 15%, consumer durables 5%, and intermediate products 6%. The contribution of steel sector in global GDP was 3.8% in 2017 and its size was about US\$ 2.9 trillion.³China is the world's largest steel producer followed by India, Japan, the US, Russia, South Korea and Germany, among others.

Value chain of steel constitute six steps from raw material to end user. Raw materials like iron ore, coal, flux/limestone converted into iron which ultimately converted into steel, after this downstream processing starts i.e. conversion of steel into flat products like plates, sheets, tubes,

wires etc and long products like road, bar, sections etc. after this distribution and consumption begins. This segment includes mill distributors, traders, regional distributors and steel service centres. End users of the steel products are automobile industries, construction and other manufacturing sectors.

Coal Industry: The mining industry in India is a major economic activity which contributes significantly to the economy of India. The GDP contribution of the mining industry varies from **2.2% to 2.5% only**. Coal is one of the most important fossil fuel available in India. The most efficient usage of coal are in electricity generation, steel production, cement production and used as a liquid fuel. The top coal-producing states in India are Jharkhand, Orissa, Chhattisgarh, West Bengal, Madhya Pradesh, Telangana and Maharashtra.

Following are the data published by production department, coal India Limited, which shows the production of coal from 2016 to 2021.

Coal Production CIL produce non-coking coal and coking coal of various grades for diverse applications. The following table provides certain information relating to the non-coking coal and coking coal produced by us in the periods indicated:

Grades	2016-17	2016-17	2017-18	2017-18	2018-19	2018-19	2019-20	2019-20	2020-21	2020-21
	Raw coal Production Mill Te	% of Total Raw Coal Production	Raw coal Production Mill Te	% of Total Raw Coal Production	Raw coal Production Mill Te	% of Total Raw Coal Production	Raw coal Production Mill Te	% of Total Raw Coal Production	Raw coal Production Mill Te	% of Total Raw Coal Production
Non-coking coal	499.49	90.1	534.09	94.1	572.75	94.4	555.70	92.3	557.38	93.5
Coking coal	54.65	9.9	33.28	5.9	34.14	5.6	46.44	7.7	38.84	6.5
Total	554.14	100.0	567.37	100.0	606.89	100.0	602.14	100.0	596.22	100.0

Source: Survey calculations based on Ministry of Coal's data

Coal Production in India (MnT)

Year	Production in Million tonn
FY16	639.2
FY17	657.9
FY18	675.4
FY19	728.7
FY20	729.1

Source : Survey calculations based on Ministry of Coal's data

In the FY20, the production of raw coal in India was 729.1 million tonnes (MnT) with a minuscule growth of 0.05 per cent over the previous year. In FY21 (April-October), all India coal production was 337.52 MnT, thus declining by 3.3 per cent. The contraction in production is attributable to COVID-19.

Crude Oil Sector : Crude Oil sector is among the eight core industries in India and plays a major role in influencing decision making for all the other important sections of the economy. The oil and gas industry in India dates back to 1889 when the first oil deposits in the country were discovered near the town of Digboi in the state of Assam.

As of 31 March 2019, India had estimated crude oil reserves of 618.95 million tonnes (MT), increasing by 4.1% from the previous year.⁴ The largest reserves are found in the Western Offshore (Mumbai High, Krishna-Godavari Basin) (40%), and Assam (27%).⁵ India's domestic crude oil production has steadily decreased in recent years.⁶ In 2013-14, Indian companies produced 37.8 million tonnes of crude oil and condensate.⁷ That dropped to 32.2 million tonnes in 2019-20, a sharp slide of 15 per cent.⁸

India produced 35.68 MTs of crude petroleum in 2017-18.⁹ India accounted for 0.92% of world oil production in 2016-18. Production of crude petroleum in India had a CAGR of 0.63% between 2008-09 and 2017-18.¹⁰

Natural Gas Sector: Natural gas sector is among the eight core industries in India and plays a vital role in influencing decision making for all the other important sections of the economy.

The natural gas industry in India began in the 1960s with the discovery of gas fields in Assam and Maharashtra (Bombay high). The estimated reserves of natural gas in India as of 31 March 2018 was 1,339.57 billion cubic meters (BCM)¹¹, This shows the increase of 3.87% from the previous year¹². The largest reserves of natural gas are located in the Eastern Offshore (38.13%) and the Western Offshore (23.33%).¹³

Fertilizer Sector: Fertilizers are natural or chemical substances supplied to the crops to increase their growth and productivity. Fertilizers enhance the natural fertility of the soil or replace the chemical elements taken from the soil by previous crops. These are used by farmers to increase the crop yield. Modern chemical fertilizers contain one or more of the three elements that are important in plant nutrition viz. nitrogen, potassium and phosphorus. Of secondary importance are the elements sulphur, magnesium and calcium.

Fertilizers have been considered an essential input to Indian agriculture to meet the food grain requirements of the country's growing population. India is the second-largest consumer and third-largest producer of fertilizers in the world. The primary nutrients for plant growth are phosphorus, ammonia and potassium, and these should be in the correct quantity for healthy crops. India Fertilizers Market was US\$ 18.11 Billion for the year 2020.

Cement sector : India is the second largest producer of cement in the world. It accounts for more than 7% of the global installed capacity. India has a lot of potential for development in the infrastructure and construction sector and the cement sector is expected to largely benefit from it. Recent decisions taken by government regarding construction of pukka roads all over the country, construction of affordable houses, construction of ninety-eight smart cities etc opens an avenue for cement industry for growth at larger scale.

India's overall cement production accounted for 294.4 million tonnes (MT) in FY21 and 329 million tonnes (MT) in FY20. Cement production is projected to reach 381 MT by FY22. However, the consumption stood at 327 MT in FY20 and will reach 379 MT by FY22¹⁴.

Refinery Sector: The Petroleum Refineries Sector consists of facilities that produce gasoline, gasoline blending stocks, naphtha, kerosene, distillate fuel oils, residual fuel oils, lubricants, or asphalt (bitumen) by the distillation of petroleum or the re-distillation, cracking, or reforming of unfinished petroleum derivatives. The world's largest oil refinery with an aggregate capacity of 1.24 million barrels per day (bpd) is located at Jamnagar in Gujarat, India.

Electricity Sector: India is the third largest producer of electricity in the world. The national electric grid in India has an installed capacity of 388.134 GW as of 31 August 2021. The Ministry of Power is India's top central government body regulating the electrical energy sector in India. The ministry was created on 2 July 1992. It is responsible for planning, policy formulation, processing of projects for investment decisions, monitoring project implementation, training and manpower development, and the administration and enactment of legislation in regard to power generation, transmission and distribution.

Impact of COVID 19 on Eight Core Sector: the repercussions of COVID19 on eight core subsidiary sector of infrastructure are as follows:

1. **Impact of COVID 19 on Steel Sector:** The overall impact of this ongoing pandemic can be analysed by its implications on various segments of steel business.
 - a. **Demand:** Pandemic throws a moderate impact on demand segment of steel. The pandemic has eroded demand as a result of reduced consumption in end-user industries. Steel demand dropped 54 percent YoY in May, and capacity utilization in crude steel production dropped to 26.5 percent in April. Though there was a weak demand yet steel

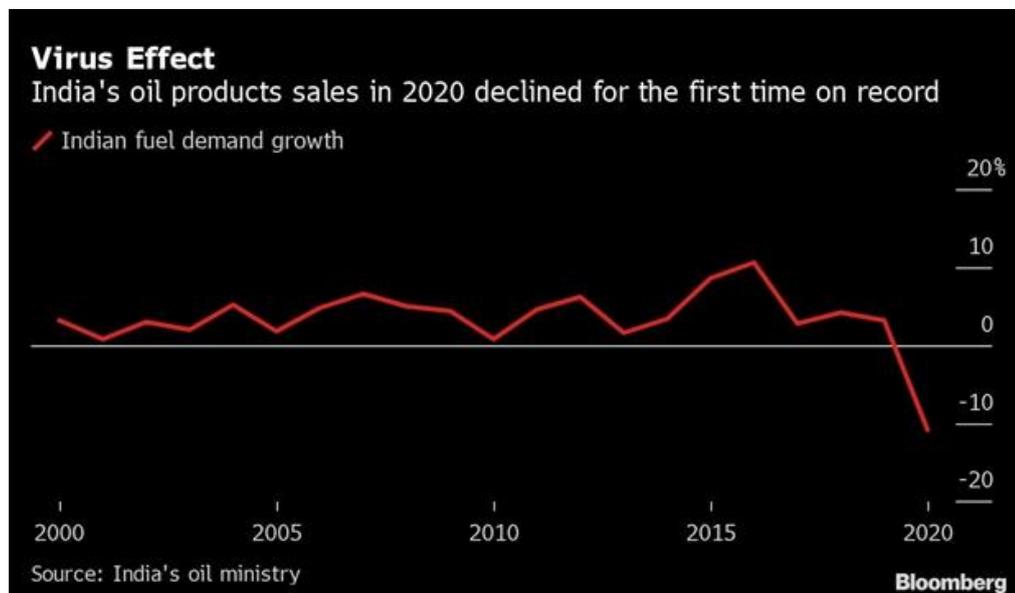
mill owners have to produce the steel with higher rate. This they have to done to fulfil the previous commitments. They couldn't breach the contract in between.

- b. **Supply Chain:** While steel production and allied activities such as mining are covered under the Essential Commodities Act, downstream activities such as service centres are not part of essential services, leading to disruptions in supply chain. A shortage of upstream supply of raw materials (iron ore, coal, fluxes and consumables) mined and supplied to industry can significantly affect production of steel in India. Thus the impact of pandemic was high on supply chain of steel sector in India.
 - c. **Labour/Human Resources:** one of the biggest challenge faced by steel industrialists during both the waves of COVID 19 was, the arrangement and management of workforce at work place. Pandemic throws a high impact on management of Human resources in industry premises. Till today these industries are working with 60 % labour force.
 - d. **Impact on business continuity:** Steel mills are highly asset intensive and run 24/7 to maximize output and financial return on fixed costs. A low capacity utilization due to reduced workforce created huge stress on their balance sheets. Revenue and profitability was decreased due to the lesser demand in global market and shutdown of downstream industries. Pandemic shows the moderate impact on business continuity.
 - e. **Effect on customers:** customers postponed their purchases which leads to contraction in demand of steel products. Cut down in production also leads to delay in acquisition. Disruption in supply chain leads to loss of customers and businesses in few units.
2. **Impact of COVID 19 on coal sector:** The overall impact of this ongoing pandemic can be analysed by its implications on various segments of steel business.
- a. **Demand of finished product:** due to corona virus outbreak various industries, functioning of which is based on coal get a pause. This creates a temporarily decline in demand.
 - b. **Production:** This ongoing pandemic throws a moderate impact on production. This happens because of low electricity generation and delay in availability of other raw materials and equipment required for production of coal based industries. Main cause of delay is restrictions imposed by the government to stop the spread of pandemic. Liquidity crunch in the market also affects the production of ongoing private coal sector projects.
 - c. **Labour force:** Corona virus outbreak throws a low impact on availability of labour force engaged in coal production as coal sector is treated as essential services under emergency services maintenance act.
 - d. **Supply chain:** It throws a high impact on supply of coal in downstream industry. Thermal power plants, steel manufacturing units and other industries, which use technology dependent on specifications of imported coal, may face a disruption in supply of raw materials due to lockdown and restrictions at supply side.
 - e. **Logistics:** It throws a high impact on logistics also. Transport of coal from producers to consumers in India may also be constrained due to ongoing restrictions and this will impact consumers from power and other sectors in lifting the raw materials within the stipulated timeframe.

3. **Impact of COVID 19 on Crude Oil Sector:**

Fuel demand from Asia's second-biggest oil importer collapsed by as much as 70% after it embarked on one of the world's most stringent lockdowns in March. The drop resulted in a sharp cutback in crude processing and operations at petrochemical plants. In FY20, crude oil production in India stood at 32.2 MMT. Crude oil production stood at 4.9

MMT in FY22 (April-May 2021) and was 30.5 MMT for FY21. In FY20, crude oil import increased to 4.54 mbpd from 4.53 mbpd in FY19.



4. **Impact of COVID 19 on Natural Gas Sector :** Natural gas demand is less sensitive to COVID-19 in the short-term compared to oil, due to its limited exposure to the transport sector. Although natural gas demand in the power sector is affected, the loss in commercial and industrial electricity demand is in part transferred to residential uses. However, natural gas demand could fall much further as the year progresses due to reduced demand in the power and industry sectors.
5. **Impact of COVID 19 on Fertilizer Sector :** Fertilizer sector falls under the Essential Commodities Act and hence was exempted from lockdown restrictions. But the lockdown posed a number of challenges for the continuous operation of fertilizer plants. Allied activities for fertilizer sector were suspended during lockdown. This creates a big hindrance in the smooth functioning of fertilizer industries. They had to work with limited man power and sourcing of raw materials. Limited storage facilities and lack of consumables items such as bags for packaging and other chemicals throws little negative impact on fertilizer sector. Heavy subsidy dues and cash crunch due to restrictions creates negative impact on fertiliser sector. Here important thing is that these problems doesn't impact much on production and sales of Fertilizer.

All India Fertilizer Retail Sales (lakh tons) ONNES)

Month	2018-19	2019-20	%Growth
October	48.37	45.17	-6.62
November	63.26	73.84	16.72
December	70.86	87.08	22.89
January	58.04	64.5	11.13
February	30.39	46.61	53.37
March	24.6	28.96	17.72
April	14.17*	20.56**	45.1

6. **Impact of COVID 19 on Cement Sector :** Novel Corona virus impacted worst on real estate and construction business which ultimately affects its allied sector i.e. cement. Since cement is a primary construction material, it has experienced a considerable dip in overall demand ever since the announcement of the shutdown. With the advisory around social distancing continuing and the Government extending the National Lockdown until May 3, the demand for cement was also remain tepid throughout Apr-Jun 2020. According to India Ratings and Research, the annual growth of the cement industry may plunge to a historic low of negative 4-5 percent in Apr-Jun 2020-21. The trend may emerge from the anticipated decline in the raw material's demand by 45-50 percent in the studied period.
7. **Impact of COVID 19 on Refinery Sector:** COVID-19 badly impacted key end-use segments such as transportation and manufacturing sectors among others, hitting the demand for fuel products in India. Several Indian refineries have reduced their operating capacities, while a few others have suspended operations. Due to the imposition of nationwide lockdown in the year 2020, a drastic fall i.e. of 12%, in the utilisation of refinery products were registered.
8. **Impact of COVID 19 on Electricity Sector :** the power generation, transmission and distribution services were classified as essential services during the lockdown, ensuring uninterrupted operations. Still there was a record drop in demand of electricity was registered during lockdown period i.e. 20 to 25 % less than previous year 2019.

Government initiative to revive eight core sectors of Indian Economy

1. **Government initiative for Steel Industry:** in this ongoing pandemic situation Government of India has taken following initiative to support steel sector:
 - a. In October 2021, the government announced guidelines for the approved specialty steel production-linked incentive (PLI) scheme.
 - b. In October 2021, India and Russia signed an MoU to carry out R&D in the steel sector and produce coking coal which ultimately used in steel making.
 - c. In July 2021, the Union Cabinet, approved the production-linked incentive (PLI) scheme for specialty steel. The scheme is expected to attract investment worth ~Rs. 400 billion (US\$ 5.37 billion) and expand specialty steel capacity by 25 million tonnes (MT), to 42 MT in FY27, from 18 MT in FY21.
 - d. In 2020, 'Mission Purvodaya' was launched to accelerate development of the eastern states of India (Odisha, Jharkhand, Chhattisgarh, West Bengal and the northern part of Andhra Pradesh) through establishment of an integrated steel hub in Kolkata, West Bengal.
 - e. In June 2021, JSW Steel, CSIR-National Chemical Lab (NCL), Scottish Development International (SDI) and India H2 Alliance (IH2A) joined forces to commercialise hydrogen in steel and cement sectors.
 - f. Under the Union Budget 2020-21, the government allocated Rs. 39.25 crore (US\$ 5.4 million) to the Ministry of Steel. The budget's focus is on creating infrastructure and manufacturing to propel the economy. In addition, enhanced outlays for key sectors such as defence services, railways, and roads, transport and highways would provide impetus to steel consumption.
 - g. In January 2021, the Ministry of Steel, Government of India, signed a Memorandum of Cooperation (MoC) with the Ministry of Economy, Trade and Industry, Government of Japan, to boost the steel sector through joint activities under the framework of India–Japan Steel Dialogue.

- h. The Union Cabinet, Government of India approved the National Steel Policy (NSP) 2017, as it intend to create a globally competitive steel industry in India. NSP 2017 envisage 300 million tonnes (MT) steel-making capacity and 160 kgs per capita steel consumption by 2030-31.
- i. The Ministry of Steel is facilitating setting up of an industry driven Steel Research and Technology Mission of India (SRTMI) in association with the public and private sector steel companies to spearhead research and development activities in the iron and steel industry at an initial corpus of Rs. 200 crore (US\$ 30 million).
- j. The Government of India raised import duty on most steel items twice, each time by 2.5% and imposed measures including anti-dumping and safeguard duties on iron and steel items.

2. Government initiative for coal Industry:

The current production of coal in India is insufficient to meet the total demand of the country. India has imported 247 million tonnes of coal in 2019 and had spent 1.58 lakh crore as foreign exchange. Government of India has taken following steps to revitalise coal sector in India:

- a. Government announce the commercial mining of coal in the year 2020 with fifty blocks to be offered to the private sector.
- b. Liberal entry norms are introduced
- c. Coal blocks are offered to private companies on revenue sharing basis in place of fixed cost.
- d. Coal gasification/liquefaction are incentivised through rebate in revenue share.
- e. **Coal bed methane** (CBM) extraction rights to be auctioned from Coal India's coal mines.

3. Government initiative for Crude Oil Sector: Some of the major initiatives taken by the Government of India to promote oil sector are:

- 1. In November 2021, Government of India has made the announcement that it will release 5 million barrels of crude oil from its strategic petroleum reserves in a concerted effort to bring down global crude oil prices. This is roughly equivalent to a day's consumption in the country.
- 2. In September 2021, Bharat Petroleum Corporation Ltd. (BPCL) had decided to invest over Rs. 1 lakh crore (US\$ 13.66 billion), over a period of five years, to enhance petrochemical capacity and improve refining efficiency, gas proliferation, upstream oil & gas exploration and production and augment the (fuel) marketing infrastructure.
- 3. In September 2021, India and the US agreed to expand their energy collaboration by focusing on emerging fuels. This was followed by a ministerial conference of the US-India Strategic Clean Energy Partnership (SCEP).
- 4. In July 2021, India diversified procurement for crude by announcing its first shipment from Guyana scheduled next month. This move also indicates a future roadmap for extended alliance with Guyana in the oil & gas sector.
- 5. The Ministry of Petroleum and Natural Gas released an 'Ethanol Procurement Policy' on a long-term basis under the 'Ethanol Blended Petrol (EBP) Programme' (October 11, 2019), which covers modalities for long-term ethanol procurement, proposed mechanisms for long-term procurement contracts, pricing methodology and other topics.

4. Government initiative for Natural Gas Sector : Some of the major initiatives taken by the Government of India to promote Natural Gas sector are¹⁵:

1. In November 2021, the government has set up a committee to work out measures needed to make natural gas available to power plants at reasonably stable prices.
 2. In September 2021, Indian government approved oil and gas projects worth Rs. 1 lakh crore (US\$ 13.46 billion) in Northeast India. These projects are expected to be completed by 2025.
 3. In July 2021, the Department for Promotion of Industry and Internal Trade (DPIIT) approved an order allowing 100% foreign direct investments (FDIs) under automatic route for oil and gas PSUs.
 4. In July 2021, the Minister for Road Transport and Highways, Mr. Nitin Gadkari inaugurated India's first liquefied natural gas (LNG) facility plant in Nagpur, Maharashtra.
 5. In Union Budget 2021, the government allocated funds worth Rs. 12,480 crore (US\$ 1.71 billion) for direct benefit transfer of LPG (liquefied petroleum gas) and Rs. 1,078 crore (US\$ 147.31 million) to feedstock subsidy to BCPL/Assam Gas Cracker Complex.
 6. In Union Budget 2021, the Finance Minister announced to provide 1 crore more LPG connections under Pradhan Mantri Ujjwala Yojana (PMUY) scheme.
 7. The Ministry of Petroleum and Natural Gas released a draft LNG policy that aims to increase the country's LNG re-gasification capacity from 42.5 million tonnes per annum (mtpa) to 70 mtpa by 2030 and 100 mtpa by 2040.
 8. As per Union Budget 2019-20, Indian Scheme 'Kayakave Kailasa', the Ministry of Petroleum & Natural Gas has enabled SC/ST entrepreneurs in providing bulk LPG transportation. State run energy firms, Bharat Petroleum, Hindustan Petroleum and Indian Oil Corporation, plan to spend US\$ 20 billion on refinery expansions to add units by 2022.
 9. The Government is planning to set up around 5,000 compressed biogas (CBG) plants by 2023.
 10. The Government is planning to invest US\$ 2.86 billion in the upstream oil and gas production to double natural gas production to 60 bcm and drill more than 120 exploration wells by 2022.
- 5. Government initiative for Fertilizer Sector:**
1. In 2020, Government to bring PLI (production-linked incentives) scheme to promote domestic agrochemicals manufacturing.
 2. In 2021, DBT (Direct Benefit Transfer) scheme for fertilizer subsidy.
 3. In 2019, IFFCO (Indian Farmers Fertilizer Cooperative Limited), the premier farmers' cooperative, launched the world's first nano urea liquid fertilizer, which is cheaper and easier to store.
 4. Indian agricultural policy focused on modern inputs and increasing productivity, such as irrigation, improved seeds (HYVs), and chemical fertilizers, which have played an essential role in increasing crop production and productivity. The production of DAP (Diammonium Hydrogen Phosphate) and Complex fertilizers is increasing in the country.
- 6. Government initiative for cement Sector:** Some of the initiatives taken by the Government for the growth of cement sector are listed below¹⁶:
1. In October 2021, Prime Minister, Mr. Narendra Modi, launched the 'PM Gati Shakti - National Master Plan (NMP)' for multimodal connectivity. Gati Shakti will bring synergy to create a world-class, seamless multimodal transport network in India. This will boost the demand for cement in the future.

2. In July 2021, the government established a council of 25 members (comprising UltraTech Cement MD Mr. K C Jhanwar, Dalmia Bharat Group CMD Mr. Puneet Dalmia) for the cement industry to reduce waste, achieve maximum production, enhance quality, reduce costs and encourage standardisation of products.
3. In Union Budget 2021-22, the Government of India extended benefits, under Section 80-IBA of the Income Tax Act, until March 31, 2021, to promote affordable rental housing in India.
4. As per the Union Budget 2021-22, the government approved an outlay of Rs. 1,18,101 crore (US\$ 16.22 billion) for the Ministry of Road Transport and Highways, and this step is likely to boost the demand for cement.
5. As per the Union Budget 2021-22, National Infrastructure Pipeline (NIP) expanded to 7,400 projects from 6,835 projects.
6. The Union Budget allocated Rs. 13,750 crore (US\$ 1.88 billion) and Rs. 12,294 crore
7. (US\$ 1.68 billion) for Urban Rejuvenation Mission: AMRUT and Smart Cities Mission and Swachh Bharat Mission, respectively and Rs. 27,500 crore (US\$ 3.77 billion) has been allotted under Pradhan Mantri Awas Yojana
8. **Government initiative for Refinery Sector :** Out of the 23 refineries operating in the country, 18 are in the public sector, 3 are in the private sector and 2 as a joint venture. The country is not only self-sufficient in the refining capacity for its domestic consumption, but also exports a sufficient quantity of petroleum products.
9. **Government initiative for Electricity Sector :** The drop in demand during lockdown was a temporary phase and was recovered as the lockdown removed. Electricity is important for the country's development. Therefore, it must be made available at all times. To achieve the goal of 24X7 power for all, the following areas should be given higher emphasis:
 1. Accurate monitoring of power supply at the end-user level
 2. Quality and maintenance service of the discoms, including efficient transmission, reduce load shedding and shutdowns.
 3. Human error should be reduced by ensuring tech-driven billing, metering and collection.

To conclude it can be said that the eight core sector which is essential for overall infrastructural development of the country get heavily affected by the spread of pandemic and the imposition of complete lockdown. Government of India initiates several process under AtmaNirbhar Bharat scheme to revive and revitalise these core sectors which is worth doing now.

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A Study of Gender Inequality

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Abstract

Gender inequality is no other phenomenon. It has been a universal common to proven social systems for centuries, although to a varying degree across nations and over time. The rise of human rights motivations in the mid-twentieth century and women's movements around the world since the 1960s have increased worldwide thinking about this type of inequality. Here, as well, it shows that certain types of gender inequality can control economic growth and development. Thus, despite the negative effects of gender stratification on women's relative abilities and well-being, there are social costs to move forward with gender inequality. The problem of discrimination among women is a phenomenon in India. Examining this discrimination against women in India is not an easy task for an expert due to the vast area of the country covered in this paper. Accordingly the creator of this theory has chosen to examine the issue of problems relating to women in the criminal law field, exceptionally in the passage of dowry.

Keywords : Gender Inequality, Economic, Social & Cultural issues

Introduction

Gender inequality is not only perpetuated through differences in access and control of material possessions. Gender standards and generalizations reinforce gender characters and constrain the conduct of women and men in ways that promote inequality. Later we examine some of the key points of gender inequality in standards, using information from four streams of the World Values Survey.

Any way of dealing with the investigation of worldwide patterns in gender equality should be aware that not all gender inequalities favor men. For example, some countries show a skewed gender reversal in late educational attainment, with women having higher educational attainment than men. Confirmation of male harm is necessary to differentiate from natural causes and furthermore in light of the fact that men's supreme well-being may be lacking in prompt protection from strategies that advance gender equality. In advancing more prominent equality, whether based on class, race or gender, the most politically plausible technique is to accomplish this objective without significantly lowering the standard of living of the overwhelming (i.e., male) gathering. Is. It proposes that, in assessing gender fluctuations in inequality, we need to likewise know whether more prominent gender equality has occurred in environments of stagnation, decreasing or increasing male well-being. As noted in the post-2015 Development Agenda meeting, "Gender equality is not about an exchange of openness from men to women, but about understanding the privileges of everyone, and creating the conditions for where everyone has the privilege and ability to realize his or her fullest human potential."

Review Of Literature

Thomas, R.E. (2013), has highlighted his paper with the state of gender based inequality in the modern India. It has presented gender inequality with the help of some facts & figures and

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representing the inequality practiced in India & its comparison with other Asian & Western countries.

In the Indian context, there are several studies that have addressed issues related to gender inequality. There are attempts to explain the gender gap in education in India in terms of labour market discrimination against women and parental discrimination against girls. Using household survey data collected in urban Uttar Pradesh, Kingdon (1998) found that due to overall labour market discrimination, girls face poorer economic incentives to invest in schooling than boys because they get lower labour market returns to education than boys. In another study, Kingdon (2002) finds that girls face significantly different treatment in the intra-household allocation of education. Investigating the extent to which education contributes to women's lower labour force participation and earnings than men, and whether any contribution of education to the gender wage differential is explained by the gender differential in educational endowments or by labour market discrimination, Kingdon&Unni (2001) observe that women do suffer high levels of wage discrimination in the Indian urban labour market. However, education contributes little to this discrimination, and the returns to education rise with the level of education for both men and women. Esteve-Volart (2004) found that the ratio of female-to-male managers and the ratio of female-to-male workers are positively and significantly related to per capita output in 16 major states of India. Arora (2012) reported that, by and large, per capita income is inversely associated with gender inequality in education and health at the sub-national level in India. Ukhova (2015) examined how gender inequality has contributed to, and been affected by, growing economic inequality, and suggests policies to simultaneously address the issues of gender inequality and economic inequality in eight emerging economies (Brazil, Russia, India, China, South Africa, Mexico, Indonesia, and Turkey). Evaluating the role of socio-economic and cultural factors influencing gender differentials in schooling with district-level data from India, Rammohan& Vu (2018) found that economic development is an important factor in narrowing gender gaps in education, with richer districts more likely to educate girls than poorer districts. Most of the studies in the Indian context are primarily concerned with explaining gender inequalities in various dimensions prevalent in the society. These are mostly carried out from a sociological perspective. However, studies dealing with gender inequalities from an economic perspective are relatively few and far between, and the impact of gender inequalities on economic growth and development has not received adequate attention.

Raju, E. (2014), has examined the gender discrimination in India on the basis of demographic, social, economic and political context. The paper has broadly discussed the issue of gender inequality, women empowerment& reproductive health among women of India. Some measures under taken the International and national organizations were also discussed in this paper.

Dunn, D. (1998), has focused on the situation of women in scheduled castes and tribes groups which are considered to as „weaker sections of people“ and granted special safeguards and concessions under the Indian Constituents. This paper represented a descriptive picture of scheduled caste and tribe women's status in Indian society and also suggested that socioeconomic development plays an important role to reduce the disadvantage of scheduled group women.

OBJECTIVES OF THE STUDY

- 1) To identify the factors which are responsible for gender inequality.
- 2) To give suggestions to reduce gender inequality.

In ancient society, the Vedic Aryans had a preference for men because a pastoral society of warriors needed men to protect and survive the caste in a new country. Nevertheless, the Vedic literature does not mourn the birth of a girl child. In fact, there are special mantras in the Rigveda, the recitation of which leads to the birth of a girl who will grow up to be a learned woman. Accordingly, there are examples of naming (naming ceremony) for the girl child and there are instances of Yagyopaveet being performed for them. After the first millennium, especially in the north Indian states, the condition of the girl child seems to be deteriorating due to changes in the political equations. However, the reformists of the nineteenth century advocated a ban on early marriage of girls, supported widow remarriage, and the opening of schools for girls. Efforts continued more aggressively in the twentieth century with the support of the Indian National Congress, which had led the struggle for independence. Despite all efforts, gender equality has not been achieved and girls are discriminated against in all walks of life.

Discrimination against women starts from their birth and continues throughout life. The gruesome evils of female feticide and infanticide prove how cruel the world can be to women. An unborn girl is aborted with the help of sex determination techniques. Data shows that despite legislation in the Prenatal Diagnostic Techniques (Regulation and Prevention of Abuse) Act, 1994 gender selective abortion is still on the rise. A girl who is born is seen as a burden on her parents or family and from birth she is not treated like boys from the same family. In some cases he is not given proper nutritious food, As she grows, she is either denied the right to education and in some cases her education is confined to the elementary level.. Due attention and concern is not given to his health and well being. She gets married at an early age and this in most cases eliminates any possibility of growth and a good life. The discrimination does not end here but continues with the hopes of giving birth to a boy. This is where the vicious cycle of discrimination begins. Almost all women have to face some incidents of molestation, some being sexually assaulted and raped.

A woman's marriage becomes more complicated when she is faced with dowry threats, which sometimes lead to death. With such deprived living, how can we expect that the standard of living of women will increase and their presence will be felt internationally?

As per 2011 census, female literacy rate is 65.46 compared to 82.14!^%There was. Male. The underlying idea is that there is no value in educating women as they will only serve their husband and family in future. It does not prepare parents to spend on girls' education. Women do not have the same status in society as men and have little speech or rights. Providing equal rights by the constitution does not make any significant change in their status and respect in the society.

The cultural construction of Indian society, which reinforces gender bias against men and women to varying degrees and with variable references against the opposite sex, has continued India's strong preference for male children. Female feticide and sex-selective abortion are adopted and strongly reflect the low status of Indian women. The 2011 census shows a decline in the population of girls under the age of seven (as a percentage of the total population), with activists estimating that eight million female fetuses may have been aborted over the past decade. The continued preference for boys, apathy for the girl child continues in the society. The child sex ratio in India has fallen to 914 females per 1,000 males, the lowest since independence according to the 2011 Census. The decline in the sex ratio is a silent emergency. But the crisis is real, and its persistence has profound and frightening implications for the future of society and mankind. The lowest child sex ratio of 914 has overshadowed the increase in the overall sex ratio, which is now 940—the highest nationwide census since 1971

and the lowest since 1961—because it continues to preference for a male child It reflects. As per the recent provisional data of the 2011 Census, while the overall sex ratio had increased by seven points to 940, the child sex ratio declined from 927 to 914, as against 933 in the 2001 Census. According to a study by the National Commission for Women (now Delhi, Punjab and Haryana) they may be economically progressive, but their sex ratio is skewed as compared to other states. Despite the massive struggle against gender discrimination, a huge gender deficit continues.

A Study Of Gender Inequality In India

According to Nobel laureate Prof. Amartya Sen (2001), there are currently seven types of gender inequalities in India. Here is a brief overview of all types of gender inequalities. The first is mortality inequality, in which inequality between women and men directly involves matters of life and death, and takes the brutal form of unusually high mortality rates for women. The second is naturalness inequity, in this type of inequality, boys are given preference over girls. This is predominant in many male dominated societies and it manifests in the parents wanting their newborn to be a boy rather than a girl. The third is employment inequality, in which women often face greater barriers than men in terms of employment as well as promotion at work. It is clearly exemplified that men are getting priority in getting better work opportunities and pay scales than their female counterparts. Fourth is the ownership inequality, property ownership can also be very unequal in many societies. Traditional property rights have favored men in much of India for centuries. Absence of property claims can not only reduce the voice of women but also make it difficult for women to enter and flourish in occupational, economic and even certain social activities. The fifth is special opportunity inequality, where opportunities for higher education can be much lower for young women than for younger men, even with little differences in basic amenities, including schooling. Indeed, gender bias can be seen in higher education and professional training in India. Sixth is Basic Facility Inequality, even when demographic characteristics show little or no anti-women bias, there are other ways in which women can fall short of a class deal. Seventh is household inequality, the family system can be quite unequal in terms of sharing the burden of housework and child care. This problem is simply referred to as gender bias, which simply means gender stratification or distinction between male or female. According to the United Nations Development Program's Human Development Report (2013), India ranks 132 out of 187 countries in the Gender Inequality Index, which is lower than Pakistan (123). The report said that all countries in South Asia, except Afghanistan, were better places for women than India, with Sri Lanka (75) topping the list.

Types of Gender Inequality: -

- 1) Mortality inequality:** This directly involves life and death in inequality between women and men, and takes the brutal form of unusually high mortality rates for women and consequently the predominance of men in the total population which is contrary to the predominance of women. Women are found in a society with little or no gender bias in health care and nutrition.
- 2) Congenital inequality:** In this type of inequality, boys are given preference over girls. This is predominant in many male dominated societies and it manifests in the parents wanting their newborn to be a boy rather than a girl. With the availability of modern techniques for determining the sex of the fetus, sex-selective abortion has become common in India.
- 3) Employment inequality:** Women often face more hurdles than men in terms of employment as well as promotion at work. It is clearly exemplified that men are getting priority in getting better work opportunities and pay scales than their female counterparts.

4) Ownership inequality: In many societies the ownership of property can also be very unequal. Traditional property rights have favored men in much of India for centuries. Absence of property claims can not only reduce the voice of women but also make it difficult for women to enter and flourish in occupational, economic and even certain social activities.

5) Special Opportunity Inequality: Even with small differences in infrastructure, including school education, higher education opportunities for young women may be much lower than for young men.

6) Inequality of basic amenities: Even when demographic characteristics show little or no anti-women bias, there are other ways women can fall short of a class deal.

7) In Household inequality: There are often substantial, basic inequalities in gender relations within the family or household, which can take many different forms.. Even in cases where there are no obvious signs of anti-women bias, e.g., in survival or son preference or education, or even in promotions to higher executive positions, housework and child care The family system can be quite unequal in terms of sharing the burden.

Current And Future Work

I conclude by briefly sharing the direction of my current and planned research. I am currently researching a little studied institutional innovation group farming in Asia and Europe. There is a global debate today about what types of agricultural enterprises can ensure food security and sustainable livelihoods. But the debate has focused mainly on small family farms versus large commercial farms, with little attention paid to a third model, group farming. This model would involve small farmers voluntarily sharing their land, labor and capital (without confiscation of private property), and sharing costs, risks and profits. Can this model of cooperation enable a large number of small farmers (of whom the percentage of women is increasing) to overcome their input constraints, enjoy economies of scale and increase the bargaining power of the market and the state? Can such a model outperform individual family farms? Under what 'design principles' can this model succeed and endure? These seemingly simple questions present remarkable challenges to collective action theory. Collective action and most of the current work on resources revolve around controlling shared pool resources. Group farming involves collaboration around private property resources. I look forward to making a theoretical contribution in this regard. Empirically I have studied the examples of India, France and Romania so far.

Through the generous funding provided by the Baljan Prize, I plan to expand this work to other countries. (including other parts of Europe), and to produce a theory of cooperation that identifies principles to be copied from examples elsewhere. In addition, I plan to return to the issue of gender and inequality in wealth using new data sources. To conclude, gender inequality is one of the deepest forms of inequalities that persists today. , especially when it intersects with other forms of inequality such as class, caste and race. And it adversely affects not only the economy of a country but also its social and political institutions. As scientists and practitioners, we need to continue exploring its many dimensions and find ways to eradicate it. I hope that over time, along with changes in economic policies, laws and social attitudes, all forms of gender inequality, including those highlighted by the Indian women farmers I quoted at the beginning of my talk, will be transmitted Will be done. For History!

Analysis And Interpretation

From the above factors, we can explain that economic, social, cultural, legal and political factors are responsible for gender inequality in India. India needs to neutralize gender inequality. What is needed today are trends where girls are not only able to break out of culturally determined patterns of employment but are also able to be mentored about career

prospects that look beyond the traditional list of jobs. It is surprising that in spite of so many laws women are still living under stress and tension. We still have miles to go to ensure equality of status for our women. Men and women are like two wheels of a cart. one's life is incomplete without the other.

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Attacks were made against the elderly.

*Phramaha Phanuvich Numbuddee**

The majority of cases of elder abuse are caused by family members who treat the elderly in an unsuitable manner at home. Whether by words, deeds, or compulsion, these old individuals have a terrible quality of life and suffer from a variety of ailments, as well as failing physical state and condition. The mind that has been hurting for a long time is hurting. In 2020, there will be 12 million senior people, or 18 percent of the population, rising to 20.42 million, or 31.28 percent, in 2040.

On the significance of domestic and international violence against the elderly It may be inferred that violence against the old is defined as an act that causes pain, harm, or suffering to the elderly. In terms of health, both physically, psychologically, emotionally, and intellectually, as well as invasion of rights, On the other hand, taking advantage of the old is a kind of aggression against the elderly that must have the following elements:

- 1) It is a deliberate or inadvertent act of inappropriateness.
- 2) It is a behaviour that causes older people physical, mental, emotional, and health-related pain and suffering.
- 3) Infringement of rights: property abuse.
- 4) Neglect, abandonment, failure to care for, and failure to carry out acts that should be carried out are all examples.
- 5) It is carried out by senior family members or carers.

The World Health Organization has divided violence against the elderly into the following categories as a one-time, short-term, or long-term action: 1) Abuse of the body, it is a variety of attacks on the elderly with the goal of causing injury or pain. Slaps, hits, chains, and heavy drug usage are perhaps the most prevalent. 2) Psychological assault It is the employment of a variety of behaviours, such as harsh speaking, to demonstrate the elderly. reprimanding, being impolite, and using offensive gestures display an uninterested gesture that is frequently associated with various forms of maltreatment. 3) Sexual assault It is sex without the consent of the elderly. 4) Material and property violence It indicates a desire to take advantage of the property, money, or exploit the property in an inappropriate manner. Unauthorized money or property possession, including forgery of documents.

5) Infringement of the elderly's rights Another type of harm to the elderly is pressuring them to do things they do not want to do. putting the elderly in nursing homes, and so forth. Actions that jeopardise the privacy of the elderly Physical and mental autonomy Inadequate decision-making power due to a lack of information and less opportunities to make well-informed judgments and plan a therapy. 6) Self-harm includes self-injury, denial of care or aid, refusal to eat or take medication, and unsuitable clothes. Suicidal ideation is more probable. 7) Ignoring refers to the caregiver's failure to provide appropriate care. 8) Disregard for the elderly. It is a system for categorising the specifics of desertion. (1) Physical issues, such as clothes, mobility, hygiene, and safety, which may or may not be addressed. (2) In the medical profession, by refusing to take them for medical evaluation under the excuse that it is a typical symptom owing to the elderly's age. Ineffective communication is frequently observed in violations of physical, (3) emotional, and mental rights. They may yell or scream excessively loudly, causing unpleasant odours and sounds to enter the home.

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Severity features and causative variables

The old, by their very nature, will experience worsening physiological changes, resulting in health issues. Whether it is nutrition, bowel, daily routine, sleep, rest, or safety concerns, lifestyle changes, or the need to become more reliant on others, there are a variety of factors to consider. Not just the elderly, but also their family members, particularly carers, are affected by such issues. Several hypotheses concerning the reasons or factors of violence towards the elderly, such as power and aggression, have been proposed by academics. Mental problems, stress, and dependence on others, it can be concluded that the causes and factors of violence against the elderly are caused by both the elderly and its carers, and that all of these variables modify the socio-economic conditions. They are interconnected, intertwined, and have grown into a complicated problem. It has a direct impact on the elderly's physical, mental, emotional, and social well-being. As a result, the elderly become reliant on family members. Caregivers with a history of drinking or using drugs are frequently the perpetrators of violence towards the elderly. Physical, mental, emotional, and financial exploitation can occur among stressed caregivers who are upset owing to their ignorance of the old and socioeconomic difficulties that lead to inappropriate treatment of the elderly by violence. Various human rights breaches, include neglect and abuse of the elderly, with the majority of violence occurring in families. When the old are violent, a broad range of reactions might occur, and this has a significant impact on the elderly's mood and sentiments. The majority of the elderly's early expressions are denials. There will be stillness afterwards. Isolate or allow to seep. There may be an abrupt shift in personality at times. The elderly will have health symptoms such as weariness, sleeplessness, eating less, and feeling as if they do not want to live if violent actions occur frequently.

Violence among the elderly in Thailand has been discovered to be a hidden concern. A lack of public and societal awareness, as well as a refusal to disclose serious concerns Because Thai culture places a high importance on filial piety and respect for the old, the general public is unaware of or believes that violence against the elderly would occur, despite the fact that it is a family matter that should not be engaged. This is due to the fact that the elderly are highly devoted and attached to violent individuals, the majority of whom are family members, and may be terrified or ashamed about what is happening.

B.E. 2546, The Elderly Act.

The provision on the rights of the elderly provides for the right to receive state assistance by providing assistance to children who serve in the care of elderly parents by stating that those who care for elderly parents are entitled to a tax deduction, incentivizing children to care for the elderly. There is also information on being safe. Promotion and assistance in a variety of areas where the elderly are entitled, such as the right to medical and public health care, education, and employment. When the elderly are damaged by abuse, exploitation, or neglect, they have the right to get assistance, including guidance, counselling, and other activities. engaged in litigation or in resolving family difficulties. Actions in support of the elderly's rights According to the legislation, the National Board of Elders must submit their recommendations to the Prime Minister for consideration, along with an announcement designating the central management of Ministry or Ta-buang agencies in the government. The operation of regional or local state businesses is permitted.

B.E. 2550, Family Violence Victim Protection Act (2007)

This Act, which consists of 18 parts, went into force on November 12, 2007, and stipulates in Section 4 that anybody who conducts violence against a family member shall be imprisoned for 6 months or fined not more than 6,000 baht, or both. It also demands that

domestic violence perpetrators or witnesses contact the competent official, either verbally or via phone, electronic media, or other means, after the police have determined if the authorities have the authority to aid or assist the perpetrators of violence. Consult a doctor and a psychiatrist, psychologist, or social worker for help. Anyone who breaks this law will face up to 6 months in prison, a fine of not more than 60,000 baht, or both.

Agencies that help senior citizens who are victims of crime.

The following are the operations by both government and private agencies in Thailand to assist the elderly who have been badly affected:

- 1) The Ministry of Social Development and Human Security is in charge of social development and human security. The Ministry of Social Development and Human Security is the primary ministry in charge of assisting elderly people who have been harmed by violence, exploitation, or abandonment, including providing advice and consultation on family issues, as well as collecting statistics on family violence and presenting them to the Cabinet once a year.
- 2) Ministry of Health and Human Services. The following are the sub-departments under the Ministry of Public Health's administration that give care and aid to the elderly who are suffering:
 - (1) OSCC (One Stop Crisis Center). Its purpose is to receive complaints and aid those who have been harmed. In addition to being violently abused in the family, all provincial hospitals across the country have a problem reporting centre that collects statistics and information and provides assistance to those who have experienced such problems, both urgently and non-urgently, as well as emergency notification services. Telephone hotline 1169 is available 24 hours a day, 7 days a week.
 - 2) Mental Health Department. It is a 24-hour mental health counselling service that listens to people's concerns and offers suggestions on how to address them for individuals of all genders across Thailand. At telephone number 1667, people of all ages with stress reduction hotlights give 24-hour telephone counselling service.
 - 3) Thai Royal Police. With the following agencies under their jurisdiction, it is responsible for providing safety and welfare support to individuals and the elderly:
 - To serve as a reporting center for urgent situations, social problems, and threats, such as life and family difficulties, acts of aggression, and elder abuse.
 - To aid those who are in need and are being intimidated by criminals with terrible motives.
 - It is everyone's responsibility to ensure the welfare and safety of the people. In this case, we also discuss elder abuse so that legal action may be taken to safeguard persons who have been harmed by their family.
 - 4) Justice Ministry. There is a fair clinic run by the provincial justice office. The Department of Rights and Liberties Protection advises and informs persons and the elderly who have been treated unfairly, including being taken advantage of, about their rights and legal safeguards. being exposed to numerous forms of violence.
 - 5) Private-sector organizations. Many organisations in Thailand do not give special support to the elderly, but will assist people of all ages who have been affected. However, one of the issues is the issue of violence towards the elderly. Women, children, and the elderly are suffering, wanting, or experiencing family issues thanks to the help of charities and the commercial sector, such as the Friends of Women Foundation and the Foundation for Women. There is also a radio, television, and newspaper section where individuals may hear the latest news and discuss their issues. Examples include Scoop Life on Channel 7, Circle of Life on Channel 3, and news in newspapers.

Guidelines for dealing with elderly people who have been subjected to violence.

As a first step, managing violence against the elderly necessitates a comprehensive diagnosis and assessment of both the victim and the offender, which demands careful attention. To obtain comprehensive information, all around, and lead to care standards in order to assist and resolve future issues of violence against the elderly. Baker and Heitkemper (2005) identified four steps to managing violence against the elderly:

Step 1: Investigate the issue and keep an eye on it.

Step 2: Evaluation and Screening.

Step 3: Making a Complaint.

Step 4: Support and Care.

There are three stages to the prevention and resolution of violence against the elderly (Curry and Stone, 1994; Lachs and Pillemer, 1995; Vickrey, 2004):

1. The initial intervention.

Incorporating operations with a knowledge-based approach, Education, which is the primary technique for preventing violence against the elderly, is organised by area or place of residence.

(1) In a medical facility or nursing home where the elderly, particularly those with dementia, are at significant danger of being physically harmed. I am unable to converse. There are no relatives who are gravely unwell. who are completely reliant on care This may be avoided if health-care professionals have understanding about how to care for their patients. periodic care for the old, such as educating caregivers about the biology of ageing and preventing violent acts against the elderly What to do if you are stressed, and so forth. (2) In the community, house visits serve a vital role in detecting possible domestic abuse against older individuals. Community Workforce staff may be able to support caregivers and families with need-based care by training or guiding them. basic Dealing with dementia-related aberrant behaviour in the elderly The caregiver's stress is measured in the family evaluation. Recommendations for consultancy services This involves working with a variety of organisations to ensure that seniors at home receive adequate care and have stress-free caretakers.

2. Subsequent Intervention.

The actions were aimed at examining the identification and diagnosis of current issues of violence against the elderly, as well as aiding them by conducting (1) a general history assessment. The questionnaires were used to measure the extent of violence against the elderly and to describe the physical state and symptoms of those who were affected. (2) a doctor or skilled nurse for additional evaluation and complete physical examination Physical examination to seek for further traces and accurately record thorough information, including pre-hospital history records, as well as diagnosing and assisting with the problem of violence against the elderly.

3. Intervention at the tertiary level.

At this level, the focus is on rehabilitation, particularly mental rehabilitation, which takes time and may require a psychiatrist to oversee the traumatic transition of the elderly to the supplied facility. If housing is safe and essential, and it is an alternative for the old, staff should tolerate the elderly's reactions to authority (Brogan et al., 1994), and strive to help them realise their own potential and worth. Mind that is rehabilitative and safety-conscious It is critical to alleviate elders' anxiety and tension. There is also a telephone hotline where you may get help. or organising the agencies that offer information help. Pre-hospital rehabilitation programmes for both acute and chronic old persons, for example, should be

designed in collaboration with family or carers when it comes to home care for the elderly. Before returning home, the elderly should be taught and advised until they are certain that family or caretakers can care for them. If the elderly are being looked after, problems may need to be addressed to nursing staff. Officials will continue to visit older people's homes in their neighbourhoods. Nareerak Center and Ramathibodi Hospital, for example, have rules for assisting victims of marital abuse at the tertiary level.

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A Study on Problems And Solutions of Agricultural Marketing In India

*Rahul Ranjan**

During the pre-Independence period, Indian agriculture was backward and stagnant and there was hardly any marketable surplus. Therefore, the system of marketing, though defective, did not attract much attention. However, in the post-Independence period and particularly after the green revolution, agricultural marketing has become a prime concern for the planners. Due to increase in agricultural productivity, the marketable surplus has increased, necessitating reforms in the existing system. The objectives of these reforms are to ensure: (a) fair prices for the produce of the farmers, (b) adequate and regular availability of food grains for urban areas, and (c) regular supplies of raw materials for the industries.

Sale of agricultural produce involves a number of functions such as assembling, storing, grading, standardizing, transporting and financing the produce and negotiating sale. Some of these operations may be performed by the farmer, but storage and sale of a commodity and finding finance for purchase, call for the specialized knowledge and adequate resources which the individual cultivator does not possess. Markets emerging demand pattern and more important from changing consumer preferences. The system did not keep pace with the requirements of the emerging demand patterns and consumption preferences. The evidence of these imperfections is reflected in the existing food grain surplus. No doubt the existence of the food grain surplus implies food security and establishing of rural income, the need of the hour is generation of larger resource investment in the rural economy. Steps have to be taken for improving agricultural productivity, for sustainable use and augmentation of resources and for diversification of the agriculture production system. The problems of small holdings, seasonality and traditional production and management practices constrain Indian agriculture and force it to remain a dominantly supply driven system. The mismatch between supply and demand in case of agricultural commodities results due to the inability of the farmers to forecast the exact demand, changing nature of consumption pattern and lack of efficiency of commodity market.

In India, agriculture was practiced initially on subsistence basis, but with the development of means of transport and the storage facilities agriculture was followed not only for self consumption but also on commercial line. The farmers started growing those crops that fetch them a better price. Now a days marketing of agriculture produce is considered as an integral part of agriculture, since an agriculturist is encouraged to make more investments and to increase produce. Thus there is an increasing awareness that it is not enough to produce a crop or animal product, it must be marketed as well.

"National commission on Agriculture", defined agriculture marketing as a process which starts with the decision to produce a saleable farm commodity and it involves all aspects of market structure of system, but functional and economic considerations and includes pre and post harvest operations, assembling, grading, storage, transportation and distribution.

The Indian Council of Agricultural Research defined involvement of three important functions namely.

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- Assembling (concentration)
- Preparation for consumption (processing) and
- Distribution.

In order to ensure that agriculture marketing reaps the desired results the farmer should enjoy certain basic facilities.

- He should have proper facilities for storing his goods.
- he should have holding capacity, in the sense, that he should be able to wait for times when he could get better prices for his produce and not dispose of his stocks immediately after the harvest when the prices are very low.
- He should have adequate and cheap transport facilities which could enable him to take his surplus produce to the Mandi rather than dispose it of in the village itself to the village money-lender-cum-merchant at low prices.
- He should have clear information regarding the market conditions as well as about the ruling prices, otherwise may be cheated. There should be organized and regulated markets where the farmer will not be cheated by the dalals-and-arhatiyas.
- The number of intermediaries should be as small as possible, so that the middleman's profits are reduced. this increases the returns to the farmers.

Problems of Agriculture Marketing in India : Agricultural marketing needs to come a long way and grow before it can meet the objective, There is lack of proper and sufficient storing facilities for the produce. The storage facilities which are available in the villages at present are so bad and on unscientific that 10 to 20 percent of the produce is eaten away by rats.

- The average farmer is so poor and indebted that he has no capacity to wait for better prices . He is forced to sell his output to the money lender or to the trader so as to clear his debts. Such distress sales weaken the already miserable position of the average Indian farmer further.
- Different varieties of agriculture produce are not graded properly. The practice usually are not graded properly. The practice usually prevalent is the one known as dara sales wherein heap of all quantities of produce are sold in one common lot. Thus the farmer producing better qualities is not assured of a better price seeds and produce better varieties.
- Transport facilities are highly inadequate in India. Only a small number of villages are joined by railways and pucca roads to mandies. Produce has to be carried on slow moving transport vehicles like bullock cart. Obviously such means of transport cannot be used to carry produce to far-off places and the farmers has to dump his produce in the nearby markets even if the price obtained in these markets are considerably low. This is even truer with the perishable commodities.
- The chain of middlemen in the agriculture marketing is so large that the share of farmers' is reduced substantially. For instance, a study of D.D. Sidhan revealed, that farmers obtain only about 53% of the price of rice, 31% being the share of middlemen (the remaining 16% being the marketing cost). In case of vegetables and fruits the share was even less, 39% in the former case and 34% in the latter. The share of middlemen in the case of vegetable was 29.5% and in case of fruits was 46.5% . Some of the intermediaries in the agricultural marketing system are village traders, kutchra arhatiyas, pucca arhatiyas, brokers, wholesalers, retailers, money lenders, etc.
- Even now the number of unregulated markets in the country is substantially large. Arhatiyas and brokers, taking advantage of the ignorance, and illiteracy of the farmers,

use of unfair means to cheat them the farmers are required to pay arhat (pledging charge) for weighing the produce, "palledari" to unload the bullock carts and for doing other miscellaneous types of allied works, "garda" for impurities in the produce and a number of undefined and unspecified charges. Another malpractice in the mandies relates to use of wrong weights and measures in the regulated markets. Working weights continue to be used in some unregulated markets with the object of cheating the farmers.

- Finally the farmers do not ordinarily get information about the ruling price in the big markets. As a result the farmers have to accept whatever price is quoted to them and have to believe what ever the trader tell them.

Suggestions:

- **Setting up of the Regulated Markets:** A very important step taken up by the government to improve agricultural marketing has been setting up of regulated markets in the country. With the establishment of these regulated markets.
- **Provision of Warehousing facilities:** To prevent distress sale by the farmers, particularly, the small and marginal farmers, due to prevailing low prices, rural godowns have been set up.
- **Mrket Surveys:** The government has taken marketing surveys of various goods and has published these surveys. The government gives wide publicity to prices of agricultural goods in all major markets. With these information farmers can organize their work in accordance with the requirements of the markets. consumers too will benefit from them.
- **Availability of credit:** It is necessary to make arrangement to supply credit to farmers to tide over the period between production and sale of the produce.
- **Efficient Transport Arrangement:** An essential requirement for improving India's marketing system is the availability for transport which can carry goods to markets at low cost, each and speedily. For this purpose there should be all weather roads in villages. Besides, bullock-carts with rubber wheels and trucks run on petrol and diesel are needed Rail and water transport should also be further developed, keeping in view the special features of agricultural goods.

Conclusions:

With the advance in intensive cropping, processing, storage and marketing of agricultural produces are becoming more and more important. In the absence of sound marketing facilities, the farmers have to depend on local traders and (middlemen for the disposal of their farm produce which is flood at throwaway prices. In the case of small and marginal; farmers marketing of produce is still more critical . Since the amount of produce they are able to sell is small and overhead expenditure on processing transport and marketing of the luce is heavy, the marketing of their produce is hardly emanative if they do it on their own . Owens and Shaw very aptly pointed out. "Agricultural development is first of all a human problem, not a technical problem.

If all farmers have access to production inputs, the financial system, the market and agricultural knowledge, then they can improve the state of agriculture. But most farmers lack access to the market system and thus lack both the resources and the incentives to modernize their production methods." The authors add, "Unequal access to the market is one of the reasons why the Green Revolution in India has benefited mostly large farmers.

Thus, for the development of the agricultural sector, it is essential to develop agricultural marketing so as to match with the production surplus resulting from technological innovations and exploitation of the existing land and water resources. A part from increasing production, marketing and distribution can significantly help in improving the availability of

goods and services and also provide a stimulus to greater production. Had it not been for modern marketing, probably the Englishman would not have had his breakfast eggs from Denmark, COM flakes from Canada, and a cup of tea from the East. Marketing also increases demand which will provide its own incentive to increase supply.

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An Analysis of Social Security Provisions for Unorganised Sector in Agra city

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Abstract :

This study is carried out to understand and analyse the need of social security and the various provisions as available to people of unorganised sectors.

Govt of India has rolled out many schemes for Social security to the people of unorganised sectors, this study has selected the five schemes, namely-1)Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY) 2)Pradhan Mantri Surksha Bima Yojana (PMSBY). 3)Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) 4)Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)5) National Pension System

Five segments of unorganised sector have been chosen for this study – Auto Drivers, Shopkeepers, Carpenters, House Maids and Home Tutors.

Primary data in the form of questionnaire is collected from 10 persons of each category, by way of random sampling.

The objective is to get the awareness of these schemes, their willingness to opt for them , convenience in availing benefits .

It is observed that the educated persons , namely Home Tutors were better aware of such schemes and avail them. The mode of awareness is also analysed, as the illiterate persons mostly depend on others to make them aware of such schemes, the category of House maids is not availing these schemes of Govt, but they rely mostly on their employers for any need.

A lot of people are not confident about how easily they can avail the benefits, involving the paperwork at the time of entry and at settlement.

It is suggested that a convenience centre be set up , which can be easily approached for availing the Govt run schemes.

Introduction :

As per the Periodic Labour Force Survey (PLFS) carried out by the National Sample Survey Organisation (NSSO) in the year 2017-18, the total employment in both organized and unorganized sector in the country was around 47 crores. Out of this, around 9 crores are engaged in the organized sector and the balance of 38 crores are in the unorganized sector. The majority of the workforce is engaged in unorganized sector.

The unorganised sector was relatively unaddressed by any formal social security benefits for a long time. For the workers engaged in the Unorganised sector, social security benefits are being addressed through the Unorganised Workers' Social Security Act, 2008. The Act empowers the Central Government to provide Social Security benefits to unorganised sector workers by formulating suitable welfare schemes on matters relating to -

- (i) life and disability cover,
- (ii) health and maternity benefits,
- (iii) old age protection and
- (iv) any other benefit as may be determined by the Central Government.

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(v) The State Governments are also empowered to formulate suitable welfare schemes on the matters regarding housing, provident funds, educational schemes, skill upgradation, old age homes etc.

For the scope of our study we have taken five schemes as listed below :

1. Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY)
2. Pradhan Mantri Surksha Bima Yojana (PMSBY).
3. Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)
4. Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)
5. National Pension System

Life and disability cover is provided through -
Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY) and
Pradhan Mantri Surksha Bima Yojana (PMSBY).

Pradhan Mantri Jeevan Jyoti Bima Yojana is available to people between 18 and 50 years of age with bank accounts. It has an annual premium of ₹330 .

The amount will be automatically debited from the account on or before 31st of May every year. Period for which insurance covered is 12 months i.e, from 1 June till 31 May.

Those who register for auto debit facility will have auto renewal up to 55 years.

There is no need for a person to submit health report or certificate while joining to this scheme.

In case of death due to any cause, the payment to the nominee will be ₹2 lakh In order to avail of the benefits offered by the **Pradhan Mantri Jeevan Jyoti Bima Yojana** policy, it is mandatory to link aadhaar card to the participatory bank account.

The premium is deducted automatically from the insured's bank account. Insured's family members will receive a sum insured of 2 lac Rupees after insured's death.

Pradhan Mantri Suraksha Bima Yojana is available to people (Indian Resident or NRI) between 18 and 70 years of age with bank accounts. It has an annual premium of ₹12 . The amount is automatically debited from the account. This insurance scheme can have one year cover from 1 June to 31 May and is offered through banks. It is administered through public sector general insurance companies.

In case of death or full disability, the payment to the nominee will be Rs. 200,000 and in case of partial permanent disability Rs. 100,000.

Benefits under the schemes are for Rs.2 lakh on death due to any cause & permanent disability , Rs.1.0 Lakh on partial disability and Rs.4 lakh on death due to accident to the unorganised workers at the annual premium of Rs.342/- (Rs.330/- for PMJJBY + Rs.12/- for PMSBY) depending upon their eligibility.

The eligible Unorganised Workers can avail the scheme from their respective banks at annual premium of Rs. 342/-..

Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

The health and maternity benefits are addressed through Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) which is a universal health scheme administered by the National Health Authority.

- AB-PMJAY provides a defined benefit cover of Rs. 5 lakh per family per year. This cover will take care of almost all secondary care and most of tertiary care procedures.
- To ensure that nobody is left out (especially women, children and elderly) there will be no cap on family size and age in the scheme.

- The benefit cover will also include pre and post-hospitalisation expenses. All pre-existing conditions will be covered from day one of the policy. A defined transport allowance per hospitalization will also be paid to the beneficiary.

Pradhan Mantri Shram Yogi Maan-Dhan Yojana (PM-SYM)

Government of India has introduced a pension scheme for unorganised workers namely **Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)** to ensure old age protection for Unorganised Workers.

The unorganised workers whose monthly income is Rs 15,000/ per month or less and belong to the entry age group of 18-40 years. They should not be covered under New Pension Scheme (NPS), Employees' State Insurance Corporation (ESIC) scheme or Employees' Provident Fund Organisation (EPFO). Further, he/she should not be an income tax payer.

PM-SYM: It is a voluntary and contributory pension scheme, under which the subscriber would receive the following benefits :

- Minimum Assured Pension:** Each subscriber under the PM-SYM, shall receive minimum assured pension of Rs 3000/- per month after attaining the age of 60 years.
- Family Pension:** During the receipt of pension, if the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension received by the beneficiary as family pension. Family pension is applicable only to spouse.
- If a beneficiary has given regular contribution and died due to any cause (before age of 60 years), his/her spouse will be entitled to join and continue the scheme subsequently by payment of regular contribution or exit the scheme as per provisions of exit and withdrawal.

National Pension System

- National Pension System (NPS) is a voluntary retirement savings scheme laid out to allow the subscribers to make defined contribution towards planned savings thereby securing the future in the form of Pension. It is an attempt towards a sustainable solution to the problem of providing adequate retirement income to every citizen of India.
- At the time of normal exit from NPS, the subscribers may use the accumulated pension wealth under the scheme to purchase a life annuity from a PFRDA empaneled life insurance company apart from withdrawing a part of the accumulated pension wealth as lump-sum, if they choose so. PFRDA is the nodal agency for implementation and monitoring of NPS.

Who can open a NPS account

- A citizen of India, whether resident or non-resident, subject to the following conditions:
- Applicant should be between 18 – 65 years of age as on the date of submission of his/her application and should comply with KYC norms prescribed.

Objectives :

The objective of this paper is to find out -

- The level of awareness of unorganised workers on these schemes
- To gauge the popularity of these schemes
- The reasons behind the popularity of any of these schemes
- Are there other avenues available to such people for social security
- Suggestions for improvements so as make these schemes more meaningful.

Methodology :

To understand the schemes awareness and usefulness, with the above objectives in focus, author carried out a survey in Agra City. Random sampling is the selected methodology. The five groups of unorganised sector workers are selected – Auto Drivers, Standalone shopkeepers, Carpenters, Home Tutors and House maids. Sample of ten workers is taken from each group randomly. A schedule was used as a tool and interviewing and observation were the techniques of data collection, through personal survey.

Though workers of unorganized sector are more prone to social insecurities, especially old age insecurities, yet they were not very enthusiastic towards the government schemes of social security. Author decided to know the status of awareness regarding government social security schemes.

Table No.1 Knowledge of SS Schemes

Groups	Having knowledge of SS provisions	PM JJBY	PM SBY	AB	PM SYMY	NPS	APS
a. Auto drivers	40%	-	20%	20%	-	-	-
b. Shopkeepers	60%	10%	-	40%	-	-	10%
c. Carpenters	20%	-	10%	10%	-	-	-
d. House maids	10%	-	10%	-	-	-	-
e. Home tutors	80%	20%	-	50%	-	-	10%

The level of awareness was quite satisfactory among the educated and skilled workers ie. Home tutors, shopkeepers and auto drivers. Awareness level of house maids and carpenter regarding government social security schemes was very disappointing, as shown above.

Sources of information regarding these social security schemes is also important to know, because if the source of information is not competent enough it may misguide the workers. An attempt is also made in this regard. Collected data indicated that the workers who were aware about those schemes, either got information through advertisement or by some co-workers as shown in Table No. 2.

Table No 2 : Sources of information

Groups of workers	Electronic Media, TV	News Paper	Co-Worker	Employer
Auto drivers	20%	-	20%	-
Shopkeepers	40%	-	20%	-
Carpenters	10%	-	10%	-
House Maids	-	-	-	10 %
Home tutor	50%	20 %	10 %	-

As far as preferences of social security provisions are concerned workers rely on Government more in comparison to personal social security sources, except house maids, who are much more prone to social insecurities.

All other workers, skilled and educated were more interested in government social security schemes. In case of house maids it is observed that due to their illiteracy they are less aware about the social security schemes and were quite fearful about cheating and frauds. Data depicted that houses maids rely on personal social security provisions more.

Table No 3. Social security provisions preferred by unorganized workers

Groups of workers	Gov. Social security provisions	Personal Social Security Provisions		
		Children	Extended Family	Employer
Auto drivers	80%	10%	10%	
Shopkeepers	60%	20%	20%	
Carpenters	40%	40%	20%	
House maids	-	40%	20%	40%
Home tutors	90%	10%	-	-

Percentage of workers, who themselves or their family members, have joined any scheme of Govt Social Security, shown in Table no 4

Group of Workers	% of workers	% of Family members	% Not joined any Govt Scheme
Auto Drivers	40	20	40
Shopkeepers	20	40	40
Carpenters	20	-	80
House Maids	-	10	90
Home Tutors	60	40	-

Group of Home Tutors have a lead in this regard, 60% of them have joined Govt Social Security Schemes and 40% Families of Home Tutors have at least one other member who has joined Govt. Social Security Schemes. Percentage of Carpenters and House maids is very disappointing in this respect. It is 80 % and 90 % respectively.

Author also tried to gather information about the choice of a particular plan over others. To most of auto drivers, reason behind choosing a particular plan is either requirement or they choose it on persuasion. Carpenters in good percentage were influenced most by others. 40% carpenters chose a social security plan by looking at the people who were availing social security schemes benefits. Tutors, being educated chose a plan according their requirements. Most of the house maids (80%) have shown no interest in those in scheme as depicted in Table No. 5.

**Table 5 Reasons of preference of a particular plan over other
% OF WORKERS**

Group of workers	Covers Higher Risk	Requirement	Most of other people availing it	Advertisement	On persuasion	Not interested in any scheme
Auto drivers	20	40	-	-	40	-
Shopkeeper	-	40	30	10	20	-
Carpenters	-	20	40	-	20	20
House maids	-	-	-	-	20	80
Home tutors	20	60	-	20	-	-

In the groups of unorganized sector workers, author observed that percentage of workers who still rely on personal social security measures and sources is less while most of others prefer government social security schemes.

Table No 6. Reasons of Preferances

Group of Worker	Govt. social security Provisions				Personal social security Provisions			
	Feel no obligation	Govt. will give good amount	In case of death Govt. is more reliable		No fear of cheating	Easy To access	Problem at claim	Other
Auto drivers	60	-	40	-				
Shopkeepers	40	20	20	-	-	20		
Carpenters	40	20	20	-	-	20		
House Maids	-	-	-	-	40	20	20	20
Home Tutors	80	-	20		-			

The reasons behind choosing a government social security scheme are that workers feel no obligation to any one while availing them and in case of death, workers of most of the groups except house maids, have more faith an government than to their personal security providers. The prominent reason of choosing personal social security provider by house maids was that they were easily accessible and they think that chances of cheating and frauds were minimum .

Author also tried to get suggestions from unorganized sector workers to make these schemes of social security's more useful and apt for them. Various types of answers were received and author categorized them into five category ie.

(a) Should get timely information (b) assistance while applying for a schemes (c) should avail benefits, in need, in time without any difficulty (d) Procedure should be cheating free (e) Other.

Related data is shown in Table no 7.

Table 7- Suggestions by workers to make social security schemes more useful to them.

Groups of workers	Should get timely information	Assistance while applying	Seamless settlement	Cheating free procedure	Other
Auto Drivers	30%	40%	20%	-	10%
Shop keepers	20%	20%	40%	-	20%
Carpenters	-	40%	40%	-	20%
House maids	-	40%	-	20%	40%
Home Tutors	40%	20%	30%	-	10%

By the Tabulation of suggestions given by workers, in these category, one can make out easily that workers of all groups need assistance while applying for a social security scheme. A good percentage of workers, of all groups, also suggested that benefits of social security schemes should be received without any difficulty and delay, in time of need. A number of workers also suggested that information regarding schemes should be given well in advance before last date of submission, so that all formalities can be done easily.

Thus the whole analysis of collected data leads towards the conclusion that inspite of so many insecurities, and intense need of social security provisions, workers of unorganized sectors are not very enthusiastic towards schemes launched by the government in this regard there is a list of reasons which abstain them from joining these schemes. Important factors behind this indifferent attitude are lack of awareness, lack of information and misinformation regarding these schemes, fear of cheating, frauds, difficulties faced while applying for the schemes and most important is that they want to avoid all problems which are faced by beneficiaries at the time of maturity of a scheme. The general perception in the workers about government schemes is that at the time of maturity one has to go through a lot of formal paper work, which is time consuming and tedious. Author observed that the low level of education is also a main cause behind this indifferent attitude of workers. While home tutors and their family members being educated, are availing the benefits in good percentage. House maids due to their illiteracy still rely much on either their family members or employers for social security.

To make social security schemes and programs more popular and implementation more effective, the most important thing which author feels is, to create awareness about the programs.

There should be some community services centers where workers could get assistance while applying for a scheme and can clear their doubts regarding a scheme. These centers should be one point for assisting the person to submit the necessary paper work at the time of settlement if any. These centres can be named as “ One Stop Convenience Centre” These centers can be instrumental in changing perception of workers towards government social security programs and prove themselves to be of great help in providing social security to workers of unorganized sectors.

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Theoretical Perspective of Security: An analysis of Maritime Piracy as a Non-Traditional Security Threat in Southeast Asia

*Dr. Vimal Kumar Kashyap**

With the Cold War coming to end in the aftermath of the disintegration of the Soviet Union, globalization emerged as the dominating feature of international politics. In an increasingly globalized world, political issues are deeply entangled with economic affairs (Collins 2000:1). The scope and significance of globalization have been significantly enveloped the entire global economic development. In response to this changing politico-economic scenario in the post-Cold War period, economic regionalism has spread. Many contemporary observers believe that globalization is neither as extensive nor as sweeping in its consequences. In the present era, national policies and economies are the primary elements of regional and international economic relations, creating a scenario where globalization and growing economic interdependence among national economies are indeed crucial (Gilpin 2001: 3-4).

Although, the driving force behind economic globalization has been certain distinct economic, political, and technological developments. Revolution in transportation technologies, especially trans-oceanic transport, galvanised international trade and made it feasible to integrate national economies into a global economic system. However, such integration also presents challenges as the underlying forces, both economic and technological, are beyond national control (Gilpin2001: -5).

As a measure of its growing integration with the global economy, in 2005 Asia's share of the world tonnage of seaborne cargo was the largest (United Nations Conference on Trade and Development 2006: 4). International trade in the region has been growing much faster than the growth of individual economies of the constituent countries, and most of this trade is seaborne. This increase has not only been in the traditional arena of commerce between East Asia and Europe and North America, but also in Southeast Asia. Growing domestic and international trade within Southeast Asia is mainly sea-borne, as in the large archipelagic states of Indonesia and the Philippines. This spurt can be observed in the increasing traffic volumes in the Malacca and Singapore Straits. This increase in sea-borne trade is expected to continue, with strong growth trends, into the future. An understanding of global trends in international shipping can be a useful background in analysing patterns and types of shipping in the Malacca and Singapore Straits (Bateman et al. 2006: 8).

Security is a complicated and multifaceted concept, which could imply freedom from threats (individual, national and international security). Since the origin of the nation-states, the issue of national security has dominated security studies. It is conceived as a paramount need for the survival of the nation-states. The term 'security' is a much-hyped approach in the domain of modern international relations which consolidate a variety of contested views (Sheehan 2005: 34).

Barry Buzan emphasized the conception of security as a link between power and peace (Buzan 2007). This notion of security is also applied to a central concern of national interest which is acknowledged as a particular form of politics called as a Tower of Babel

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(Kolodziej 2005:11). According to Romm (1993: 85), “A threat to national security is whatever threatens to significantly (1) degrade the quality of livelihood of the people, or (2) narrow the range of policy choices available to their government. “Another concept developed within the subject of national security is called International Security. Aravena (2002) calls it a new vulnerability which demands holistic perspectives. Further, he explains why states need international security: “Because the relationship is established simultaneously to meet global needs and the needs of the states, people, and peoples.”

An attempt has been made below to analyse various approaches to understanding regional responses to security threats.

Realist Approach

Realism, a pre-eminent theory that explains international appearances, relies on the traditional state-centric view of security. The approach has been criticized by some scholars, on the ground of its stimulating dimensions. In the traditional notion of security, the state is restricted to a solemn actor and safety is understood only in military terms. The use of force by a nation-state is the single biggest threat to a different country. These assumptions are being tested due to the acceleration of non-traditional security threat perceptions, i.e. environmental, societal, economic and social, in an interdependent world. In the current global scenario, Non-traditional Security Threats (NTS) have become the biggest threat to the nation-states and its citizens (Anthony 2007). The new dimensions of security include plenty of non-state actors along with the states.

Realist scholars’ term this new approach to ‘comprehensive security’ in the context of growing interdependence among the nation-states. Moreover, it considers all the threats to global transnational stability, which can embarrass the political, economic and security interests of any nation-state. Most importantly, this notion of security is also sensitive of the well-being of human beings, without losing sight of the safety and welfare of a country. Human Security has developed into another new vision, which brings the citizens in the center of security discussion. The citizens have a right to live without ‘fear and want’ in the age of interdependence (Bajpai 2000:196).

Neo-Realist Approach

The neo-realist approach principally defines power in global structure from the state-centric point of view, and it considers security as an integral part of national security. Kenneth N. Waltz argues that the state prefers balancing to bandwagoning (Waltz 1986: 127). Unlike realists, neorealists focused on the structure of the international system rather than human nature to the rise of anarchy. Neo-realist scholars, such as Kenneth Waltz and John Mearsheimer, believe that lack of a central authority to control the behaviour of the states in the international system is solemnly responsible to the rise of the chaotic situation. States are always grappling for independence and sovereignty, ultimately creating a threat to their survival. For this consideration, states develop offensive military capabilities i.e., alliances to protect their survival and to influence the behaviors of other countries. Under these circumstances, mistrust is always working on the states that are why countries are not confident about the intentions of other nation-states. States are often surviving in a system where they cannot guess exactly about the purpose and the potentiality of another state due to lack of information and continuous antagonism.

Therefore, neo-realism believes that the crisis of (in) security is the result of the structure of international relations and responsible for the anarchy, which ultimately leads to conflict and instability in the global system. The decades of Cold War (Bipolar system) were the most peaceful phase of power politics. After the end of the Cold War, the balance of

power politics was once again shifted which ushered great power politics and threatened international security (Mearsheimer 1994: 5).

However, the outcomes of these changes do not mean genesis of wars, but it brought the world to the brink of war with a lack of cooperation and constraints to the possibilities of peace. That is why the security dilemma is an integral part of the conflict between the states and forces them to act according to the logic of self-help. Consequently, an unending cycle of action and reaction of mistrust (Security Dilemma) enhances the agony of both sides by generating suspicion and fear. Neo-realism also argues that there are little prospects of changing this scenario in the post-Cold War era due to some constraints in cooperation among the states. While states are cooperating in the globalizing world, but due to an over-emphasis on the states' relative gains (respect to power balances), it is hard to sustain long-lasting peace and stability (Ibid.). The Gulf War 1991, Iraq War of 2003, issues of terrorism and other transnational crimes are the examples of this adverse situation.

Liberal-Institutionalist Approach

Liberals also accept the underlying assumption of realism i.e. anarchy and importance of military power. Liberal theorists believe that international institutions and organizations can help prevent and overcome this problem by providing an avenue for cooperation between states. Where realism argues that institutions are merely a product and instrument to fulfil the interest of powerful countries, Liberals concentrate on the underlying assumption that organizations can provide the framework to enhance cooperation and stability among countries. Institutions and regimes are confined to developing information, reducing transition costs, making commitments, increasing coordination's and reciprocity (Keohane and Martin 1995: 42). The expansion of the European Union (EU) and the North Atlantic Treaty Organization (NATO) are the most exemplary of the necessities of institutions in the post-Cold War era. Institutions are the most important component of reducing the possibilities of war, establishing peace and helping to restore the credibility and cooperation among the states.

As an integral part of the liberal institutionalism, the 'democratic peace theory' argues that democracy is the most important component of restoring order in the international system because there is a lesser possibility of occurrence of war between two democratic countries. Michael Doyle and Bruce Russett are two prominent scholars of democratic peace theory who believe that democracy can make the world safer and peaceful. While accepting the Kantian tenets of logic-republican democratic representation, ideological commitment to human rights and transnational interdependence, these scholars assert that instead of using force against each other, democracies are believed to settle their problem with mutual understanding and respect (Russett 1995: 175).

The theory does not entirely reject the essential elements of realism, but it has dismissed the pessimistic-called 'vulgar preoccupation' about the nature of the international system. There is hardly a situation of war always existing between the states and the institutions and norms fundamentally matter (Ibid: 180).

Constructivist Approach

While power politics is the most discussed factor to the study of international relations, constructivist theorist, especially Alexander Wendt, believed that the fundamental structure of international politics is socially constructed rather than materially. The constructivist theorists fundamentally accept some fundamental conceptions of neo-realism, for instance, the structure of international politics. However, the constructivist theorists reject the contention that the structure can exist only by material capabilities. They emphasized that

the structure was the result of social relationships and social structures such as shared knowledge, material resources, and practices. Alexander Wendt further argues by giving the example of security dilemma that is considered as a worst-case assumption about the intention of each other and that defines interest merely with the logic of self-help. Moreover, the idea of the security community is also a construction of shared knowledge that helps resolve their problems. The security community adopts the mechanism of mutual understanding and consultation instead of going to the war.

The social constructivist scholars believe that the material things acquire meaning only through the structure of shared knowledge in which they are embedded. In constructivist conception, the assumption of shared knowledge is imperative i.e., resources can only be gained from shared experience. The realist assumption of power politics and realpolitik is also disputed by constructivist scholars who argue that power politics not define the behaviour of all states. Most of the time, states are also influenced by the other ideas, viz. the rule of law and institutional cooperation. In his seminal work *Anarchy is What States Make of it* Alexander Wendt argued that wars are the result of self-fulfilling prophecies of states.

Regional Security Complex Theory and the Process of Securitisation

Globalization has formed a sense of uniformity in every sphere of economic, social and political life. It is also responsible for reconstructing the traditional understanding of nation-state. In the post-Cold War era, there are discernible actors emerging in the arena of the international security system. Along with the state, organizations, individuals, global systems, NGOs, and local governments are also regarded as actors in the sphere of security (Rothschild 1995).

Buzan's seminal work *People, States, and Fear* (1983) derived 'classical Regional Security Complex Theory'. In this theory, Buzan emphasized the social aspects of security. The concept of security is cohesive and deep-rooted with five principal categories- political, societal, economic, environmental and military (Buzan et al. 1998: 24).

'Security' is thus a self-referential practice; because within this exercise, an issue becomes a security-related issue- not because a real existential threat exists, but because the problem is presented in the form of a threat. The process of security is what in language theory is called a speech act. It is the utterance itself, not the sign that is the action. By saying the words, something is done (like betting, giving a promise, naming a ship, etc.) (Ibid: 26).

Peter Chalk (1998) has further described security as invisible threats to the whole nation-state and clubbed the new term "Grey Area Phenomena." The approach has restored the traditional comprehension of the danger in the modern era. The method consists of two types of threats, violent and non-violent threats, where non-governmental process and organizations are considered as a constant peril. Starvation, hunger, pandemics and unlawful immigration are the most implicit non-violent threats. Also, the violent actors i.e. transnational crimes, syndicates, drug trafficking and terrorism are considered a threat to the stability of the sovereign states (Chalk 2000:67).

The applicability of the "Grey Area Phenomena" in Southeast Asia can be clearly seen in the turbulent history of the region. The conflictual national building, inherent conflicts, and the superpower struggle have represented a distorted portrait of stability of Southeast Asia. The increase in violent non-traditional security threats has likewise jeopardised safety and stability of the region.

In many societies, piracy was historically a common phenomenon, where it was regarded as an act of bravery, for example, the "Pirate Kingdoms" of the 8th century Southeast Asia (Young 2007:26). Other examples include the Caribbean Island of Port Royal in the

17th century (Frick 2008). We can also readily observe that the recent surge in the piracy in Somalia is the testimony of the acceptability of piracy as a profession. These are all examples of instances where piracy was and is flourishing on the fringe of civilizations.

Political factors are also one of the key factors that help in the growth of piracy. The countries which are grappling with chaos are more susceptible to piracy, as here they operate out of the reach of the instruments of legitimate state power. Lack of governance can occur either because the government is complicit in piracy, is too weak to provide sufficient security in the area, or is not concerned with the problem.

Globalization is also an important factor in the recent upsurge in the incidents of the piracy. Pirates are very much aware of the importance of global trade. Globalization also helps to equip pirates with modern information technologies and arms. These new trends of globalization tremendously change the understanding about piracy (Young 2005: 2). It is also made more relevant of to the geographical location of the region. The topography of an area or country and famous sea passes attract the pirates. The area around harbors makes vessels vulnerable to attacks while they are at anchor waiting to enter the port. (Johnson et al., 2005)

Globalization has also been one of the most important reasons for the rise registration of vessels in second countries. The process is known as Flag of Convenience (FOC) registries, the Bahamas, Liberia and Panama merchant fleets account for almost half of global merchant shipping tonnage (Upadhyaya 2010: 52). These are mostly developing and small island States. An FOC ship is a ship flying the flag of a country other than the country of ownership (Ibid). High registration fees and taxes can be avoided in this way. In some cases, the registration of a ship can even be done on-line. Registries are in some cases administered by companies and not by the flag countries. A US private company, for example, conducts Liberia's registry (Ibid.).

Non-traditional Security Threats in the ASEAN Region

Once called Balkan of East, Southeast Asia is undergoing a new kind of security riddle in the entire region (Gerstl 2008; Wei 2014). The security of the region was extremely endangered during this time of development. Certainly, China is more proactive and is prevailing in the maritime domain of Asia. China is striving to strengthen the remote Maritime connectivity to solidify its presence in the oceans of whole Asia. The expression 'Maritime Silk Route' is the most strident effort of the Chinese government in the recent years. This route is regarded a new strategic construction of dominance in the entire Asia. It is also concentrated to assure reliable connectivity and linkages between maritime routes of West Asia, South Asia and Southeast Asia (Chaturvedy 2014:3)

The security of ASEAN region can be divided into three groups: internal (in) security, traditional security challenges and the non-traditional security problems (Sukma 2007). The end of Cold War was seen as the most significant development in Southeast Asia. The non-traditional security threats have upsurged dramatically in the ASEAN region since last few decades. The transnational crimes such as drug trafficking, terrorism, piracy, human trafficking have become a common threat to the political and social stability. The trans-boundary security threats faced by the ASEAN countries have an interesting dimension to it. These are a complicated interrelationship between domestic predicaments, regional tests, and global necessity (Bhattacharyya, 2007:13).

The 9/11 attack is also held accountable for some other significant change in the security drift, which pushed the US to re-engage in this area. The growth of terrorism on a global level gave a boost to local separatists and rebellions to unite with them. The possibility of 'the second front' brings the US once again as an important part of the Southeast Asia.

This re-engagement helped the US to consolidate its security structure. The US also regarded pervasiveness of piracy, and maritime terrorism is an immediate threat to her homeland (Acharya and Acharya 2007).

One specific threat that is increasingly emerging as a real menace is the re-emerging spectre of maritime piracy. Although the problem has been manifesting since the late 1990s, especially in the waters of Southeast Asia, it has started assuming dangerous proportion only in the last ten years, mostly in the form of attacks perpetrated by gangs operating in and around the narrow Malacca Straits. Incidents in this region reached unprecedented proportions and started impacting the perceived viability of the main SLOCs that is of critical importance to global energy supplies, international commerce, and maritime trade in general. Moreover, the areas where pirates are rampant change quickly, and new zones of danger could quickly emerge with little prior notice (Chalk 2009: 3)

Furthermore, substantial economic growth generates more trade, which means more ships that can be victims of piracy. The increasing trade and commerce also tempt organised criminal gangs to devise ways to cut into legitimate business. Until the recent past, countering maritime piracy was a relatively low priority for most Southeast Asian nations. Greater threats, including the prospect of regional naval warfare, international drug trafficking, maritime terrorism and counterinsurgency, and policing illegal fishing and smuggling, preoccupied maritime security forces (Bradford 2008:478).

Most of the incidents of piracy depend on the existence of valuable geographical conditions, namely narrow straits to place future preys, islets, or coastal areas remote enough to escape any form of authority (Ong-Webb 2007; Murphy 2008). Not only geographical conditions are important, but also the geo-economics and political context of the countries suitably located to host piracy. Maritime piracy could indeed take roots when intensively used maritime trade routes pass nearby potential pirates' harbours located in failed or weak states.

Shipping is the largest industry in the Southeast Asian region and is essential to the efficient functioning of this region's economy. It also has potential threats to both the marine environment and social security through the consequences of shipping accidents, or the furtherance of illegal activity at sea, including piracy and armed robbery against ships. It is a largely self-regulated activity controlled at the global level through the International Maritime Organization (IMO) by flag States and ship owning interests (International Maritime Organization 2008).

Piracy in Southeast Asia

The geography of Southeast Asia provides an ideal environment for piracy, and the region's pirate traditions go back virtually uninterrupted to the 5th century BC. A British traveller writing more than a century ago observed that: "as surely as spiders abound where there are nooks and corners, so have pirates sprung up wherever there is a nest of islands." More incidents are reported in this region than anywhere else. Pirates can escape easily amongst the maze of islands, reefs, shift shoals and sandbars that require intimate knowledge to be safely navigated. They can hide in the creeks, small rivers and mangrove swamps that puncture the coast, and amongst the thousands of other small craft that ply between Islands: estimates suggest that 80,000 people crossed the Malacca Strait and fished by 10,000 boats daily (Murphy 2007: 12). It is challenging to explore the history of piracy within an appropriate time, although, the problem of piracy has existed ever since the advent of a sea voyage.

Piracy also has been a local affair throughout much of the history of Southeast Asia. Most piracy occurs at the port or anchor, low-level armed robbery. In the history of Southeast

Asia, the region has remained a hot spot as far as piracy is concerned. The early history of piracy was written by the Ban Gu, a Chinese historian, who emphasised the seaborne trade route from China via Du Yuan Guo (Singapore). The kingdom of Champa, the famous Cham coast had adorned the emblem of this notorious crime during this time. A further most noteworthy dynasty of Sumatra Srivijaya was helpless to maintain their sea trade and maritime boundaries from the pirates and was forced to share revenues with pirates (Young 2006:). In Southeast Asia, several local tribes are linked to piracy. Among some local clans involved for centuries, the earliest pirates were the Illanum of the Indonesian archipelago. They operated in the sea lanes from the Philippines to the South China Sea. Other famous clans include the Balanani Pirates of the Jolo Island, the Bugs of the Sulawesi, the Riau Pirates of the Sumatra Sea, and the Dyak pirates of Borneo. These tribes constantly endangered the entire sea lanes of medieval Southeast Asia. In the colonial period, piracy flourished, especially around busy colonial trade routes where the pirates were tarnished by the European expeditions and missions (Ibid.). The first incident of piracy in the Malacca Straits was recorded in the fifth century. Piracy in Southeast Asia was seen by rulers as a legitimate activity to supplement income. This perception of piracy was changed in the early 16th century with the arrival of Europeans. (Young 2005: 2, 9, 10)

Piracy was at a high in the 17th and 18th centuries. The Dutch East India Company monopolized trade in the East Indies, which led to a decline in employment opportunities for seamen and a consequent rise in piracy. Poor small States in the Malay Peninsula and Indonesian Archipelago levied taxes on cargo or turned to piracy as an alternative source of income. Other unprotected States were themselves vulnerable to attacks. The topography and maritime nature of the area made the sea a point of easy access. By the late 18th century European trade in the East, particularly in tea, led to an increase in demand for labour. Two networks are controlled trade to and from Southeast Asia. The first was centered on the Island of Lingga, in the Malacca Straits. The second network had the Mindanao and the Sulu Sultanate (now the Southern Philippines) as core, which became a centre of piracy and slave raids, financially gaining from raids on the coasts of Borneo, Celebes (now Sulawesi), the Moluccas and the Malay Peninsula (Ibid)

Chinese merchants estimated losses to piracy in the early 1830s between US\$ 15,000 to US\$ 20,000 per year (about 2 percent of total trade). European traders did not petition the government of Britain, the governor of Singapore or the East India Company to act against piracy for fear that the cost of protective measures would mean an increase in taxes (Anderson 1997: 88-96). As a result of the lack of protection from the British government and the East India Company, Singapore merchants armed their vessels to reduce losses. In 1832, the Chinese merchants sent four sampan-pukats armed with 30 swivel guns to drive the pirates away from Singapore. In 1833, an armed brig was used as an escort for boats that were blockaded by the pirates in the port of Pahang. Finally, the Chinese merchants petitioned the British government, which sent warships to drive out the pirates. Piracy incidents were significantly reduced with the help of the British ships (Anderson 1997: 96; Frecon 2008: 23).

In 1836, a pirate base on the island of Galang near Singapore was destroyed, and expeditions led against the coastal Sultans of Borneo finally broke the Pirates' power. Political domination led to a significant decrease in piracy in Southeast Asia over this time, but after the British East India Company had established a base on Penang Island, the increase in trade led to a rise in piracy in the area and left the State of Kedah impoverished. The company created a concentration of rich targets, and poor Malay seamen and traders were left with no other alternative income than piracy. In 1874, the British changed their policy of non-

interference in local politics to protect their tin interests and, as a result, the pirate problem in Malaysian waters was brought under control. (Anderson 1997: 96-97)

It is a crucial fact that between 1750 and 1850 piracy along the Chinese coast was rampant as a result of the decline of the vast Chinese empire. Pirates were dominant and acted as auxiliaries of the Vietnamese Tay-son Emperor. A rise in piracy is often experienced where weak political control exists. After the Tay-son Empire collapsed in 1801, the Pirates were highly organised, skilled in warfare and dominated the South China Sea. Thousands of pirates formed a confederacy based on family and clan structures. They defeated Chinese naval forces and undermined European vessels, selling safe passage and kidnapping sailors for ransom. The Chinese government was busy repressing internal rebellion with the result that the piracy problem received no attention. Chinese naval forces were also poorly equipped with inefficient command structures. The pre-existing poverty and poor social conditions the local population experienced also acted as a breeding ground for piracy in this area (Young 2005: 21; Murray 1997: 62; Anderson 1997: 98-100)

Thus, piracy is a major maritime security issue in the Indo-Pacific region. Nowadays, the two most famous piracy hot spots, the Malacca Straits and the Gulf of Aden, both have conditions favourable to the emergence of piracy. Against this backdrop, Somali piracy plays the leading role today. These two hot spots of maritime piracy are located on the trade routes linking Asia to Europe. The situation in Southeast and South Asia has improved overall, but there has been a worrying increase in the number of attacks in the southern part of the South China Sea (Chow, 2009).

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Relevance of Gandhi in the Development of Egalitarian Society In India.

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“VAISHNAV JANA TO TENE KAHIYE JE PEER PARAI JAANE RE.....”

Abstract

Egalitarianism is a type of thought that supports equality in all ways. It's a general conception that people should be treated equal in their caste, religion, sect, races, color, culture, etc. People should get equal rights. Gandhi was very much against social injustice, tyrannies and oppressions. The views of Gandhi are valuable and it continued to develop interest among the people. He worked against untouchability, women empowerment, and diversity and dialogue between religions. Religion perpetuated by extremist or religious heads is totally different from religion as described by Gandhi was divided into two types:- (A) Denominational sense (B) Traditional sense.

Denominational sense included Hinduism, Islam, Christianity, Sikhism, etc. while traditional sense followed the Dharma which carries a code of conduct in a person's life. Gandhi saw religion as an idea of timeliness whereas religion as an institution is time bound. According to Gandhiji religion was a private thing and it should not be joined with Dharma or morality. He also mentioned that religion should remain separate from politics, economy, education and social life. He promoted secularism meaning showing equal respect and faith of all religions. Being a Hindu, Gandhi further went and adopted elements from various other religions viz. Jainism, Buddhism, Islam and he developed himself as per humanism. One religion past through human medium and became man. God unveiled himself to humanity and which at the same time humanity received the response differently, depending upon culture and language. Gandhiji distinctly proved that how sovereign and welfare oriented Gandhis' religion was! He says, "My religious ambition will not be satisfied until and unless my affection does not become one with humanity that too is possible only when I'll find myself active in poly-morality." Gandhiji has taken polity in such a magnanimous way where he writes, "I don't accept the politics without religion. Polity is a servant of religion, a polity without religion leads to doom as it kills one's soul". He wants to tread the magnanimous and radical principles of Jesus and Buddha quite mandatory.

This Hinduism sustained and not giving up attitude to save human life made him to go into the politics. He believed, it was the correct way and thought it to be the ultimate salutation. He says, "For realization of God, I am ready to sacrifice at any cost. My social, political morality and attitudes for the services of mankind have been directed towards this noble cause. I realize God's presence among the oppressed and for all such, I have a great feeling of compassion for these in me, as it is not possible for me to do something for them without being an active politician, so I am in active politics. By this way, I would be able to free the oppressed India and by doing so, will be striving hard for mankind on the wider scale".

Keywords: Egalitarian, Religion, Denominational, Traditional, Humanity.

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Introduction

In the view point of Gandhi, He was more like of the concept that there is abundance of natural resources which is generally required for our daily basic needs. He found to be against Exploitation, disparities among caste and unequal distribution of wealth among different section of society. His motive was sustainable development and balanced development of Human resource. He was of a view point that human development is just not confined to economic or material but It is more like moral value. That it should be on the ground of equality, liberty and dignity in the people which will help them further to protest against injustice. He want to do economic development through proper and efficient capital resources in an economy, Rural development, generation of Employment opportunities, Technological development and sufficient natural resources with optimum utilization which will somewhere makes the economy self-reliant and complete.

In the opinion of Gandhi, Human resource and its development are actually twisted. His aim was to develop every aspect of society in every terms. He want to reduce the poverty through generation of income and employment and wanted to attain self-sufficiency. He inaugurated the principle of justice. According to which the society fight against injustice by adopting truth, non violence and purity of means. This principle will ultimately bring egalitarian society in practice.

Gandhi foresee a society based on harmony and dialogue where equality and justice practices will help to transform the lives of millions. On this Gandhi elaborate that "If a person want to be independent than it is his responsibility to become self-reliant by developing their villages so that these villages will become self sufficient collectively".

Gandhi has a strong belief that there should be a unity of life. A life cannot be divided into social, political, religion, economical, cultural aspects because if any single part of life suffers than it would shackles all the other parts of life. He wanted freedom and equality for all. He never ran away from any condition he faced in life. He has a different perspective that nothing is made of difference, Everything is integrated. He committed what he preached and did everything to identify himself

Gandhi had made several changes on different aspects according to his thoughts

- Towards Religion-There are different religions been followed in this world and Everyone consider his religion as supreme and treating other's religion as inferior. Due to which, there develop a feeling of war amongst people on the basis of degradation of one another religion. Gandhi says that On the basis of religion there should be only one acceptance of thought and this is "Truth is god". If It is so for one religion than it will be so other religion and so If this concept "Truth is God" is universally accepted then there shall be no hatred or violence amongst people for religion. In this way every religion will be respected by everyone. At the end, Gandhi came out with a conclusion that-

- 1) Every religion is true
- 2) And there is some fault in every religion.

Gandhi belongs to **Hinduism** Religion where he was very much against on caste system. He said that his love for his religion cannot be described in words but even so he was against some faults and limitations in **Hinduism**. He was deeply impressed by the teaching of his religion that all life comes from single source whether it is Allah, God or parameshwara. He said that "is there one God for Mussulman and other for Sikh, Christians and Hindu?" According to him there is one God who is Omnipresent. Another religion on which Gandhi emphasis is **Islam**. He said that he is very much fond of love, respect, brotherhood, kindness of **Islam**. He further added that its true the Muslims sometimes often took to sword to spread its

religion but it is too regarded as a religion of peace like all other religions. He justifies the true meaning of jihad and said there are several principles of jihad which are needed to be followed by a person and therefore due to these strict rules, it becomes impossible to adopt it by everyone. He was infatuated with the social and personal behavior that Islam basically worked on. There are five pillars of **Islam** like **faith** (Allah ek Hai), **prayer** (Namaz), **alms** (Zakaat), **fasting** (Roza) and **pilgrimage** (Haj) which are mandatory for every Muslim to follow. Thus Gandhi gave a great deal to this religion. On the other hand, Gandhi was very much impressed by **Christianity**. He was impressed by Jesus who sacrificed during crucifixion in the principles of Satyagraha. **Christian** stands for follower of Christ. But Gandhi had a different experience with this religion. He said through his experience that being a non-Christian, a Christian does not follow the principles being mentioned in the Bible. The Christians are required to uplift their standard. He mentioned that "I am not against your Christ, I love your Christ. It is just so many of your Christians do not follow your **Christ**". Gandhi was in awe of Punjab. He said that **Sikhism** is a different religion where the followers of **Guru Nanak** being originated in Hinduism, yet they were committed to non-violence. According to him, **Sikhism** is considered to be a distinct identity as a religion all over the world but except in India.

- **Towards Politics**- On the ground of politics, Gandhi says that politics is one of the fastest growing problems of value. Politics is regarded as a weapon through which one can earn power. Gandhi criticises this point and said that politics opens the gates of services and should not be used to earn power. He further added that like an independence war is won on the basis of two weapons known as truth and non-violence which is known as Satyagrah movement. Hence, Gandhi's politics is pervading.
- **Towards Education**- As we all are aware that education is a tool through which we can change the world towards growth and with the same opinion Gandhi threw a light on this concept. He said that we can achieve universality of religion through education and which in turn will lead to national integration. According to him, literacy is not confined to education but it means overall development of an individual. He recommended that free education should be provided to every child aged between 7-14 years. His motto was to learn. He was also in favor of women education and believed that imparting education to women will lead to her improvement in society.
- **In the opinion of Gandhi**, violence is one of the worst practices which is adopted by the world. He taught the world that anything can be achieved by tolerance, non-violence and determination. This is the concept through which Gandhi gave India's independence.

Conclusion

Thus, through this Mahatma Gandhi emerges his opinion on different aspects and gives due importance in every field. He had taught us that this world can achieve anything by adapting to tolerance and by neglecting the aspect of non-violence and added that love, emotion and sentiment can lead to every positive result of life. He also mentioned that truth is God and every religion has some basic principles which are important for each religion, so one should not degrade the value and principle of religion and we belong to the same God. Every religion has some faults but every religion is also true contrary. Gandhi had also thrown light on education and revealed his thoughts by adding that education is not confined to theoretical knowledge but there should be overall development of human which in turn can help the nationality to grow. He was more concerned towards women education where he said it is women who can give a spark to society's position. Through politics, Gandhi said that one should not use the field of politics just to earn power but should follow the path of Satyagrah movement, that is through patience and love-understanding.

In this way, Gandhi's points causes a development of egalitarian society of India and because of these principles we are emerging out to be best and developing on every step by following our culture and being engraved to our roots.

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Examining the role of Char Dham in Cultural Integration- Philosophy of Shankaracharya

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Abstract: Before nationalists and patriots, before colonizers and invaders, before emperors and kings, India was woven together by pilgrim paths. Seekers and sages travelled north and south, east and west, across mountains and along rivers, ignoring artificial boundaries, seeking and finding gods. The Char Dham and other important pilgrimage sites are where ancient and modern deities unravel the complex and layered history, geography, and imagination of the land once known as 'land of the Indian blackberry' (Jambudvīpa), 'land of rivers' (Sindhusthala in Sanskrit, or Hindustan in Persian), 'expanse of King Bharata' (Bharatvarsha, or Bharatkhandā), and even 'abode of joy' (Sukhavatī to the Chinese).

Key Words : Cultural Integration, Shankracharya, Indian Philosophy, Char Dham.

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Indian culture is very complex. It can be seen as being structured according to regional and supra-regional formations. Regional cultures, historically matured over millennia, are embedded in regional geographies, with their integrated and shared cultural archetypes through history. But regional cultures are clearly not identical to one another. Language, ethnicity and historical experience have shaped distinct regional entities within regions of shared values. Although our categories are always neater than reality, it can be said that regional cultures are the sub-units of one large culture. The regions have both their unique and shared cultural characteristics. The unique features of the region contribute to its cultural distinctiveness and help to define it as a cultural unit.

India's history and culture is dynamic, spanning back to the beginning of human civilization. It begins with a mysterious culture along the Indus River and in farming communities in the southern lands of India. India comprises with such a large size of geographical area and cultural diversities, although there has been a general consciousness, among the common Indians and elites that India as a single geographical and cultural entity from the very early time. Despite the long distances and the differences in climate and physical features involved in an area of this magnitude, nature does not compartmentalize the country into discrete units. Most of the geographical features separating one area from the others were more like boundary fences than total barriers. The fences were high enough to safeguard privacy of the separate households, but low enough to enable some consciousness of what was going on the other side. Thus, while maintaining their separate identities, the diverse regions were all the time conscious of their essential cultural unity.

Throughout history each of the distinctive but identical geographical regions of India maintained some kind of separate historical identity. However, there were continued attempts to weld the diverse regions together into a single body politic and cultural entity, and some measure of success was achieved in the different periods of history. Char Dhams too have contributed in cultural integration and exchange of cultural knowledge.

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Christianity in the West, Islam in the Gulf and middle east and Buddhism in East and South East Asia has been a unifying force of cultural integration though they have been contesting and had been divided in different community state and political state though they aspired to become associated with larger cultural space which had religion as common factor. South Asia and this part of the world too had been recognized by the global community for their Hindu legacy and entire cultural space of this part of the world had a common Hindu history where several unifying elements can be traced.

The concept of nation and nation state is debated and contested over the period of time but the essence of the char dham always keeps the co-ordinates of the cultural integrity intact and alive. These four sacred places, always kept the people of this part of the world, related to the entire region which comes under the invisible boundary drawn by connecting one temple to another temple in four distant geographical directions and these cultural epicenters also continue to bind up the people under the concept of religio-cultural nationhood. While all the people of rural or urban livings can frame a mental map by joining the co-ordinates of these dhams and can surely construct a mental map of cultural nationhood.

The diversity of India relative to the Middle East, Europe and America is undeniable. It bewilders the world. For outsiders, it is chaotic, on the verge of collapse and division. For insiders, there is meaning underlying the madness. The outsider and insider view of India is therefore divergent.

Outsiders tend to see India's diversity in divisive terms: it is either the outcome of hierarchy (casteism, Brahminism imposed through Manusmriti), or complex postmodern arguments are used to say India did not exist, mirroring the shunya-vada of Buddhists that denies continuity. By contrast, Shankara, an insider, used the doctrine of illusion to democratise fragmented and limited worldviews: all views, all perceptions, all understanding of these words are imperfect and incomplete, but they delude us into assuming they are perfect and complete.

To understand Shankara, we need to break free from the fixed Abrahamic binary of one true God and other false gods, which even influences much of today's political and scientific discourse, and move into the Hindu, rather fluid, binary where the divine can be limited (god, without capitalisation) and limitless (God, with capitalisation), and where the relationship of form and formless divine is much like the relationship between sound and meaning without which no word can exist.

Shankara sees the world around him as full of fragmented ephemeral limited truths, just like Buddhists. However, unlike Buddhists, he insists that they exist on a platform of an unfragmented eternal limitless truth, that attributes meaning and value to existence. The former is accessible; the latter is transcendental and elusive. Life's experiences are full of limited and temporary joys and sorrows. Without a transcendental underpinning, life becomes meaningless, valueless.

In the 8th century AD, the revival of Hinduism is largely credited to the efforts of AdiShankacharya, who was a great spiritual leader, philosopher and social reformer. He re-established Hindu religion in India as Bhuddhism started to weaken. In order to bring the Hindu culture and values on the forefront, he took many steps, one of them being the formation of Char DhamYatra. Char Dham means "four abodes or seats of god". It included four pious spots scattered in four directions of India-Dwarka (west), Badrinath (north), Puri (east) and Rameshwaram (south). Yatra (or pilgrimage) in Hindu religion is considered as one of the ways of attaining Moksha.

Char DhamYatra has a great significance among the Hindus. There is a belief among the Hindu community that a yatra to the Char Dham washes away all the sins of a person and takes him to 'Moksha'. It is also believed that a Hindu must visit these pilgrimage sites once in his lifetime. Char Dham are the different abodes of God widely revered by the Hindus. These destinations are spread across four different directions of the country-Badrinath in the north,

Puri in the east, Rameswaram in the south and Dwarka in the west. The term 'Char Dham' was given by Sri AdiShankaracharya.

Conclusion:

In India, Language and taste of water changes every 20 km. India is a rich country of diverse culture and practices. It also invites lots of differences because of this diversity. What we talk of national integration today, was already achieved in 8th Century by AdiShankaracharya!! The great 8th century reformer and Sage, AdiShankaracharya was prominently involved in reviving the Hindu Dharma in India.

He travelled throughout the country and grouped the four sacred places Badrinath, Rameshwaram, Puri and Dwarka as the Char Dham which are dedicated to the Vishnu Avatars (incarnations). Geographically speaking the char dham make a perfect square with Badrinath and Rameswaram falling on same longitude and Dwarka(old) and Puri on same latitude, representing the farthest north east west and south points of India (at that time, before coastlines changed). When people from south travel to north, and east to west, they get to know their country, the people of their country, the diversity of culture and so many differences fizzle out. India is a country of unity in diversity, and its origins lie in this great work of Sages.

So these Char Dhams located at four corners of Bharat stand today giving a message of national and cultural unity of Bharat and remind people of the land to stand united forgetting all the regional and language barriers.

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Djibouti And Its Strategic Relevance For India

*Deepak Setia**

Pressed between the Horn of Africa and the Gulf region and a prominent political, economic and military base for the major powers in the contemporary world, Djibouti is emerging as a powerhouse in the African continent. This is so because Djibouti has in its possession a very remarkable asset that makes it an attractive destination and an area of central importance to the global military powers that is its location. It is located on the Bab el-Mandeb Strait which makes it a gateway to one of the world's busiest trade routes, the Suez Canal. Considered as the health of the world economy, the route is of paramount importance to many countries. Djibouti's vicinage to regions tensed with prevailing unrest in the Middle East and Africa marks it increasing strategic importance for military superpowers to set up their bases here. International intervention and setting up of the military bases in Djibouti are justified as a measure against the crises that mars the region. Major powers like the USA, Japan, France and Italy have already made their presence with their military bases in the Horn of Africa. Djibouti city is the eponymous capital of the Republic of Djibouti. The geostrategic position of Djibouti and the diplomacy of military base accords it the strategic importance in the global and regional affairs. It is situated at the crossroads of the Red Sea, Africa, and the Arab world. Due to its strategic location at the junction of the African Horn, Djibouti was a battlefield during the colonial period and continues to be so within the global economy.

According to Alfred Thayer Mahan, *"Whoever controls the Indian Ocean controls Asia. The ocean is the key to the seven seas"*. This signifies well the ever-growing and noteworthy significance of the Indian Ocean as the centre stage for power politics in the contemporary world. The third largest water body in the world has become the focal point for great power competition at the centre of which lie mainly India, China and The United States of America. The prominence that the region holds in the above-mentioned terms including trade and tourism has attracted many distant countries that are not connected geographically to the Indian Ocean region. The Indian Ocean region acts as a major avenue through which several crucial sea routes pass that act as a connecting link for Europe and America with the Middle East, Africa and East Asia. The energy-rich region mainly in terms of Oil, minerals, fishing resources, gas Reserves make it the attractive destination for countries seeking to enhance their position in the world economy. The region has also been a pivotal point for extra-regional powers around the world mainly that of the U.S.A., France who have stationed their military forces in the area. The region is also a home to the strategic choke points like the Straits of Hormuz, Malacca, and the Bab-El Mandeb that are of undue importance for global trade and energy flow. The countries in the Indian Ocean littorals also constitute centrepiece in today's world as rapidly growing economies. These include India, Bangladesh and Pakistan in the north, Malay peninsula and Australia to the east, Southern Ocean to the south and Africa and Arabian Peninsula to the west. Advancements have been made by several powers seeking countries through their policies to expand their influence in the Indian Ocean region. According to the think tank, Institute for Defence studies and analyses (IDSA), the Western Indian Ocean (WIO) has come to constitute the "centre stage in the geopolitics of the Indian Ocean" in the recent times. China seeks to further its interests in the region through

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its aggressive yet soft and diplomatically oriented approach through which it has become the major shareholder in the changing dynamics of the region.

India as the major regional power which is centrally located in the region has indissoluble strategic interests tied up with the Indian Ocean. India which is a prominent player in the region as well as geographically connected to the Indian ocean to a great extent aims to bring about the development of “*Blue economy*” in the zone which is “*a home to considerable cultural and commercial intercourse*” as defined by leading security advisor, Sanjay Baru who also describes the zone as the theatre for commerce and conflict. India has always looked forward to eliminating or limiting the conflict in the region through its cooperation enhancing policies like Look East policy and Indian Ocean rim association for regional cooperation. Having highlighted the significance of the Indian ocean region and the great power competition that hovers over it, it is also important to bring to attention the activities that problematize the region and constitute a trans-boundary menace thus posing a threat to the Indian ocean and growing activities in and around it. Criminal activities including ‘illegal, unreported and unregulated fishing (IUUF), trafficking in persons (TiP) and smuggling of migrants (SoM)’ and most importantly, Piracy have casted their shadow over the rising Indian ocean which makes welfare around the coast along with the economic and other strategic activities in the region vulnerable to these maritime threats. Human smuggling also constitutes an important challenge among the several criminal activities that take place. Another danger that lingers in the region is that of environmental exploitation due to the unsanctioned and law-breaking misuse of the marine resources that impacts the climate of the marine domain. These extra-regional activities have posed a constant obstacle to the smooth and effective carrying out of the trade activities in the Indian Ocean region. The Indian Ocean region is a region of major geo-strategic significance from where significant proportion of world trade passes. The region faces major traditional and non-traditional security challenges like incidents of piracy and region’s vulnerability to radical terrorism. In order to accelerate capacity-building within the region to strengthen efforts to counter threats of piracy in the western Indian Ocean region, the Djibouti code of conduct was signed. India also joined the Djibouti Code of Conduct (DCOC) as an observer country along with Japan, Norway, the UK and the USA. The international law secures cooperation from the signatories in ensuring efficacious implementation of the agreement. According to the International maritime organisation, this cooperative framework includes combined efforts towards ‘investigation, arrest and prosecution of persons, who are reasonably suspected of having committed acts of piracy and armed robbery against ships, including those inciting or intentionally facilitating such acts. The illicit activities in the region also include trafficking of arms, narcotics and psychotropic substances trafficking, trade activities of illegal nature in wildlife sector, theft of crude oil, human trafficking and smuggling along with polluting the ocean with illegal and uncontrolled dumping of waste that are extremely toxic in nature. All of these activities have been recognised under the code and demand greater attention from the actors tied to the code.

The above discussion directs us towards an important conclusion that along with the already established security mechanism there is a need for enhanced maritime security in the Indian Ocean in particular. Indian Ocean’s pre-eminence as one of the key routes of international trade necessitates its protection from piracy and terrorism which can otherwise constitute a major hindrance to the trade that passes through the region that in turn would harshly impact the global economy. Preservation of maritime environment and resources is equally important to prevent the degradation of marine life and hence, to balance the marine ecology.

The strategic relevance of Djibouti is also important in the light of contestations in Indian ocean. According to recent reports, Indian Ocean is responsible for transportation of 75% of the world's maritime trade and 50% of daily oil consumption. Along with this, the sea lanes of communication (SLOCs) connecting the red sea to the Indian ocean via Bab al-Mandeb, the SLOCs connecting Persian Gulf to the strait of Hormuz and the SLOCs connecting the Indian and the Pacific Ocean are of central importance to security in terms of energy and economic prosperity of the states. Therefore, a holistic approach in responding to the natural and man-made maritime threats needs to be evolved with effective maritime cooperation among the actors involved as central to the concern. A collective effort to combat the threats posed by non-state actors and natural calamities along with elevated role of international maritime organisation is the urgent need of the hour to strengthen maritime trade and international cooperation. The shared history that has been lived by the African continent and the Indian subcontinent is none other than imperial oppression for major part of the eighteenth and nineteenth century. In recent years, it has come to the realization of the Indian leadership, the need to foster friendly relationships with the west, especially with regard to the western maritime security. Djibouti's strategic location at the entrance of the red sea has led to India cultivating close relations with the tiny country of huge geo-strategic importance. By improving engagement with India, Djibouti welcomes another investor who can fund the country's attempts at turning themselves into a major international trade hub, while India will be afforded the opportunity to be present in an increasingly vital Indo-Pacific maritime domain. Very recently, the current prime minister of India, Narendra Modi, accorded top-priority status to African countries in foreign and economic policies.

With India becoming the observer state to the Djibouti code of conduct, it seeks to enhance maritime security in the Indian Ocean region by working together with the signatories to the agreement. The joining of the agreement marked a major breakthrough for India because of the high stakes that IOR holds for it. The tie-up will also help India gain improved access to information regarding ongoing military shipping activities, commercial activities and other such developments taking place in the region. As an observer state to DCOC along with its framework of Indian Ocean Rim association, India will be able to focus on the growth of blue economy in the region and also increase its impressions and pursue its strategic interests in the western and eastern Indian Ocean. With this enduring achievement, measures have been made on the part of India through bilateral and multilateral cooperation with several countries to make the security initiative. This includes coordination with associations such as the Indian Ocean Rim Association (IORA), Indian Ocean Tuna Commission (IOTC) and the Indian Ocean Naval Symposium (IONS).

One of the many collective significant measures through which India intends to secure the maritime domain from challenges is the 'Indo-Pacific Oceans Initiative' announced by India at the East Asia Summit in 2019. The initiative underscores seven pillars mainstays that include maritime ecology, maritime security, marine resources, capacity building and resource sharing, disaster risk reduction and management, science, technology and academic cooperation, trade, connectivity and maritime transport. The agreement will help India boost and strengthen its Indian ocean outreach and in increasing its strategic presence in Western and Eastern Indian Ocean apart from Eastern African coastal states.

It can be inferred from the discussion above that through this tie up, India will be able to enhance its room for manoeuvre in the Western Indian Ocean region and provide a boost to its trade related and other strategic prospects in the region of contested claims. The presence of Indian naval forces in the region can contribute towards creating favourable circumstances

for smooth operation of important sea lanes of communication and trade routes thereby enhancing the capacity of the member states of the Djibouti code of conduct and other such organisations to respond to the maritime threats. Therefore, joining the code as an observer state has brought for India a key advancement towards its strategic interests which would help in increasing its footprint in the region along with added responsibility of acting as a key player in securing the zone from the non-traditional threats. One of the major sources of concerns that confronts the international politics in the 21st century has been China's ever expanding military ties especially with regard to the African continent in the recent years. It is quite evident that Africa plays a prominent role in providing a momentum to China's Belt and Road initiative which is also the reason behind China's active pursuit of political influence on Djibouti in particular.

As claimed by China, the naval base has the purpose of serving the humanitarian and security needs in the region such as countering piracy. Beijing's multi-pronged strategy includes search for resources and markets, establishing military, diplomatic and economic influence, revising the existing rules-based order and controlling the strategic choke points and critical sea lanes. Beijing's interests in cultivating strategic interests with Djibouti is largely motivated by its economic interests that are connected to the Middle East and North Africa region. The most critical asset that Djibouti has to its fortune is its strategic location that is also a major reason behind China's increased interest in it. However, all of these moves by China have raised eyebrows of several countries including The United States of America and India who see it as a strategic move by Beijing in pursuit of its commercial and security interests. The conviction of India being the backyard to the Indian Ocean has not been accepted by China thus denying India's transcendent position in the region. With India's elevation to the post of an observer state under the Djibouti code of conduct, it can be viewed as India's response to Beijing's increasing presence in the Indian Ocean in pursuit of its hegemonic ambitions.

Therefore, it can be rightly concluded that the Horn of Africa, especially Djibouti has become a centre for contestations on various levels amongst the world's major powers. Such militarisation activities by external forces in the horn is promoting a shift in the regional as well as global level. The escalation of international security politics in the horn raises a lot of issues, struggles, and tensions of geopolitics. Initially, the Asian powers like Beijing, Tokyo and New Delhi started off as a helping partner of The Horn to counter the piracy issues of the region. However, realizing the importance of the region these powers strengthen their grips on the location by setting up their military and naval bases. Due to China's vision of expansion, idea of a string of pearls, domination over Indo-pacific region and pushing forward its belt and road policy a lot of concern has been raised by other nations around the world.

The expansionist tendencies of China along with its manipulative techniques through which it trespasses international rules and regulations have become a source of major concern for the international community especially with regard to the response it is provoking on America's side. Similar activities have also been a part of Beijing's policies with regard to Djibouti. At this stage of growing power struggles, India and Japan have entered the regional platform as the powers making efforts to balance the rising China. India, in particular, has displayed a genuine interest in balancing China's political, economic and military pursuits in the Indian Ocean region. Japan also seeks to nurture strategic and diplomatic relations with Djibouti. It has been a close alliance of India whose interests also lie in countering the ambitious China. Agreements between the two nations such as Acquisition and Cross-Servicing Agreement have enabled them to foster defence ties in the Djibouti region as a part of their balancing acts. Their main concern has been the Indian

Ocean region, the Indo-pacific and the Horn of Africa particularly Djibouti. In the backdrop of changing nature of the fragile world order, Japan and India have sought to increase their efforts in order to contain the tensions that inflict their foreign interests and the interests of the international sphere as a whole. Both the nations have made significant advancements with regard to overall cooperation in various areas. These areas include “logistic support, including food, water, billet, transport, petroleum, oils, lubricants, clothing, communications, medical services, base support, storage, use of facilities, training services, spare parts, repair and maintenance and airport and seaport services.” With regard to increasing security in the western Indian Ocean region near Djibouti and the Indian Ocean as a whole, various initiatives have been taken to bolster defence cooperation which includes logistical support as well.

There are various reasons that drive the cooperation that both the nations have forged with each other. Most significant driver of their cooperation revolves around the issue of Chinese expansion. China’s ambitions to encircle in its hegemonic project of string of pearls all nations which are preoccupied with their political, social and developmental activities has been the main reason that has evoked responses on the part of Japan and India. Both the nations have also agreed to observe the principle of reciprocity with regard to checking the growing Chinese aggression in the Indo-pacific region. In order to boost up the security in the region, the security forces of both the nations have agreed to cooperate in areas through which the security of the region can be boosted. India, with the help of its ease of access to use the Japanese military base in Djibouti, would be able to gain its sound presence in the most strategically important region in the Horn of Africa. With the establishment of Chinese naval base in the region, India has also become alarmed with regard to the foreseen consequences it holds for it. India’s presence in Djibouti through the Japanese naval base would be a key step in the direction of keeping a track over the activities of China in the Indian Ocean region.

The agreement between Japan and India would prove to be an important check on Chinese activities. This bilateral cooperation with Japan has provided India with an efficient partner in the background of its standoff with the Dragon, China. These trailblazing developments in Indo-Japanese bilateral relations are going to act as a major containment measure to contain China’s growing dominance in the region and also ease the increasing tensions between the United States of America and China as a result of China’s day-by-day multiplying ascendancy over America in the region. It has become an imperative to balance the growing hegemon of China in order to lessen the impact of great power competition that is already evident in the region. Japan and India together can act as an effective measure in this direction. According to C.Rajamohan, “*the unintended consequences of China is that it compels India to think strategically and to do something. China provides momentum to India to come out of the slumber. India ought to be imaginative, open-minded, neither complacent nor rhetorical in its dealing with China*”. These wordshold pertinence in the present situation.

Djibouti, a tiny nation became globally attractive because of these aforementioned conditions. It also became the centre for many military and maritime bases including that of USA, France, Japan and the most recent being that of China which also led to the development of new areas of cooperation in the region which have political, economic and security implications for Djibouti. The rising Chinese influence has led many commentators to predict the dawn of a new era of cold war that might inflict the Indian ocean region and Djibouti too as the hegemonic ambitions of China have become a reason of anxiety for the United States of America which is constantly engaging in a search for different alternatives such as forming alliances, conducting maritime drills with the alliances, increasing its

engagements with Djibouti and emphasising the importance of Djibouti's role in its foreign policy now and then in order to exert its influence in the region.

In the light of above arguments, it can be evidently concluded that Djibouti's geo-strategic importance and growth prospects are expected to reach new heights in the upcoming years. Its' regional status as a pre-eminent nation due to its geo-strategic location which is a main factor of appeal for the external cooperation and investment involving major global powers has also favoured its fast economic growth and rise to the status of prominence in the Horn of Africa. The strategic relevance of Djibouti for India is ever-expanding in the context of growing IOR contestations, climate change, maritime security, rule based order and so on. It is imperative for India to follow the path of VasudhevKutumbakam (the world is a family) in dealing with Djibouti. To conclude in the words of Prime Minister Narendra Modi, “*India's foreign policy is not about canging mindsets but about finding the common meeting points*”.

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Algae As Biofertilizers

*Khushaboo Soni & Sanjay Singh**

Abstract

Exponential growth in the global human population and depletion of natural energy resources pose a threat to the environment, necessitating a sustainable supply of food and energy. Bio fertilizers are organic compounds derived from living microorganisms that are used to encourage the growth of seeds, plants, or soil bacterial consortia by providing essential nutrients. Bio fertilizers become popular in sustainable agriculture as they are increasing crop productivity while remaining environmentally friendly and economically viable as well as minimizing the environmentally harmful impacts of fertilizer application. Microalgae have the potency to be a sustainable option for crop enhancement and protection. Extensive studies on the implementation of cyano bacteria as bio fertilizers and soil conditioners have demonstrated the organisms' potential in sustainable agriculture. An oxygenic Phototrophic Bacteria (APBs) are an evolutionarily diverse group of organisms that have benefits over algae and cyano bacteria. Research study for algae-based bio fertilizers combined with high energy generation. They are capable of increasing the fertility of the soil in addition to N₂ fixation. Bio fertilizers based on algae have shown considerable advantages in the implementation of green agriculture. This present review focuses on the research accomplishments in plant bio fertilizers and bio stimulants based on microalgae and cyano bacteria in agricultural applications.

Keywords : Algae, Biofertilizers, Biostimulants, Cyanobacteria, Sustainable Agriculture

1. Introduction

Continuous global human population growth and depleting natural energy resources pose a risk to the environment, requiring a sustainable food and energy supply. Biofertilizers are organic compounds produced by living microorganisms that are used to promote the growth of seeds, plants, or soil bacterial consortia by supplying essential nutrients. These provide plants with essential macronutrients (nitrogen, phosphorus, potassium, calcium, sulfur, and magnesium) as well as multiple micronutrients (zinc, copper, iron, boron, and molybdenum). Biofertilizers are getting more popular in sustainable agriculture as a way of improving crop productivity while remaining environmentally friendly and economically feasible, as well as lowering the environmental pollution caused by synthetic fertilizers.

Sustainable agriculture concepts are more than just a way to grow crops to their maximum potential; maintaining ecology is also a determinant factor in the success of sustainability in agriculture. In today's world, farming techniques are changing mystically as people have focused on the preservation of natural resources and are only concerned with the agriculture system for optimum agro-productions. Chemical fertilizers have degraded soil fertility in modern agriculture, making it acidic and inappropriate for crop plant cultivation. Soil erosion, water contamination, pesticide poisoning, falling groundwater table, water logging, and biodiversity depletion have all resulted from the intensive use of inputs. Fertilizer research is thus switching to the use of microbes as a more environmentally friendly approach to sustainable agriculture. Microorganisms that can live in association with higher plants, such as microalgae, cyanobacteria, endo and ectomycorrhizal fungi, rhizobacteria, and

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others, are included in the biotechnological toolbox. The use of biofertilizers rather than chemical products in agriculture could usher in a new era of industrialization.

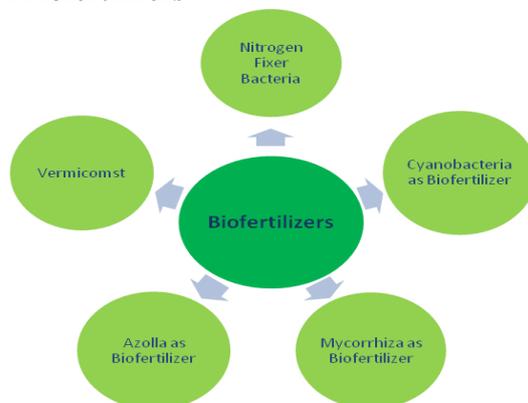
Biofertilizers and biostimulants from all over the world have been employed in agriculture to boost plant growth and output. There are about 9,000 species of macroalgae, which are divided into three divisions based on their pigmentation: Phaeophyta, Rhodophyta, and Chlorophyta, or brown, red, and green algae respectively. Brown macroalgae, such as *Ascophyllum nodosum* (L.), are the most widely utilized in agriculture. Other brown algae, such as *Fucus spp.*, *Laminaria spp.*, *Sargassum spp.*, *Turbinaria spp.*, and *Ecklonia maxima* (Osbeck) Papenfuss are utilized as biofertilizers in addition to *A. nodosum*. Plant growth biostimulants have also been employed with red algae like *Coralline mediterranean* and green algae such *Cladophora dalmatica* Kützing, *Enteromorpha intestinalis* (L.) Nees, and *Ulva lactuca* (L.). Commercially available microalgae include *Isochrysis spp.*, *Chaetoceros spp.*, *Chlorella spp.*, *Arthrospira spp.*, and *Dunaliella spp.* They have been used in the food chain for marine ecosystems, the pharmaceutical industry, human consumption, and agriculture. *Arthrospira platensis* Gomont (spirulina) is the most well-known cyanobacterium, and it has been used to produce biofuels, animal feed and agricultural fertilisers. Algae can also be a valuable source of plant defence stimulants because they contain a variety of substances that permit this operation to take place. Short-term incorporation of organic manures and biofertilizers, either alone or in combined application with inorganic fertilizers, was also found to improve soil properties. Microalgae can be a sustainable approach for crop augmentation and protection. The filamentous cyanobacteria are classified as heterocystous or non-heterocystous. Most algae, both micro and macro, play a significant role in environmental carbon sequestration and account for 50% of total photosynthesis on the planet. The participation of cyanobacteria and eukaryotic green microalgae in mineralization, movement of organic and inorganic, macro and micronutrients and production of bioactive compounds (polysaccharides, growth hormones, antimicrobial compounds, and so on) can enhance plant growth, making them useful as biofertilizers.

Algalization, or the employment of nitrogen-fixing cyanobacteria, improves the N status of soil and plants while reducing the usage of chemical nitrogen fertilizers. Microalgae can survive, multiply, and even dominate such niches because they are all-permeable and pioneers in challenging ecosystems such as metal-contaminated plains, salt-affected places, wastelands, and so on. They may also make it easier to rehabilitate such dangerous environments. Microalgae, particularly cyanobacteria, are also thought to be effective biological control agents since they have an adversarial effect on a variety of plant pathogens like bacteria, fungus, and nematodes, owing to the production of hydrolytic enzymes and biocidal chemicals such as benzoic acid.

The exogenous application of these microbes affects various metabolic processes in plants by eliciting the activity of plant defence enzymes, thus also transporters, chelating agents, and so on, resulting in increased plant immunity to pathogens, as well as increased plant growth and crop productivity. Detailed research on the use of cyanobacteria as a biofertilizer and soil conditioner has demonstrated the organisms' potency in sustainable agriculture. APB, unlike oxygenic phototrophic bacteria like algae and cyanobacteria, can use both organic and inorganic electron donors for light-dependent carbon dioxide fixation without producing oxygen. APB is preferred for wastewater treatment, resource recovery, and the production of high-value compounds due to its flexible metabolism, the capability of adapting to extreme conditions, low maintenance cost, and high biomass production. Microorganisms can attain Fe under Fe-limiting conditions by secreting siderophores, which

are low-molecular-mass iron chelators (400–1,500 Dalton) with a greater affinity for Fe^{3+} ions. Siderophore binds to Fe^{3+} ions to form complexes, which are then given back to the cytosol where Fe^{3+} is reduced, followed by the secretion of Fe^{2+} into the cell via gating machinery, making Fe available to the microorganism.

2. Classification of Biofertilizers



A group of photosynthetic organisms that is ubiquitous constitutes eukaryotes as green algae and prokaryotes as cyano bacteria (Gram-negative). These organisms have the great capacity as an important bio resource for numerous industrial products like biofuels, nutra ceuticals, pharmaceuticals and so on. These captivating groups of organisms have a major implementation in modern agriculture as well, for their potentiality of nutrients, maintenance of organic carbon content and soil fertility. It increases plant growth and improves crop yield. This crop improvement and gain in plant growth are due to the stimulation of microbial activities in soil. Various blue-green algae perform biological fixation of nitrogen through the activity of different enzymes. These enzymatic activities reciprocate and mobilize different nitrogen forms. These prokaryotic and eukaryotic photosynthetic organisms produce metabolites like polysaccharides, growth hormones and antimicrobial compounds etc. have a very important role in plant colonization, microbial and eukaryotic communities' proliferation in soil. The cyanobacterial consortia development with fungi or bacteria or microalgae has expanded their utilization scope. This review aims at the anticipation of these photosynthetic algae as possibilities of bio fertilization, bio remediating agents and soil structure and function improving agents and gaining crop yields and growth of plants.

3. Microalgae as Biofertilizers, Plant Growth Promoters and Soil Fertility Enhancing Options

Algae are ubiquitous, and also exist in extreme environments, soil crusts, rock fissures, or depths of the ocean. Predominant microalgae in these habitats include unicellular, colonial forms, instead also mutually linked with fungi as lichens, and contributing significantly for carbon sequestration in these habitats. Algae appear to have positive effects even in soil quality improvement for sustainable agriculture. Algae enhance the fertility of the soil by enhancing the overall soil microbial activity and further surpassing microbial interactions.

3.1. Nitrogen Fixation and its Cycling by Cyanobacteria

Heterocysts are specialized cells of cyano bacteria having the capability to fix atmospheric N and thereby meet the requirements of micro and macro fauna and flora and plants of soil. The

studies showed a crucial gain in the N content of the soil, it is due to the inoculation of consortia of cyano bacteria in crops and plants. 25- 40 % savings of chemical N fertilizers can be done by cyano bacterial inoculation. From the studies, it can be concluded that 50% of the chemical fertilizers can be reduced by the filamentous N fixing cyano bacteria inoculated to rice crop allowed, with relatively similar yields and quality of grain. The inoculation of soil with a bio film of *Anabaena sp.* in wheat crop *Nostoc entophyllum* and *Oscillatoria augustissima* as biofertilizers for pea plants enhanced the soil quality. Exopolysaccharides produce cyano bacteria from biological soil crusts, and are also reported immobilizing access of N; there by preventing the leaching of soil nitrogen.

3.2. Soil Organic Matter, Mineralization and Solubilisation of Macro/Micro Nutrients

Imprudent heavy machinery uses and immoderate tilling in fields often make differences in structural features, water infiltration and nutrient uptake ability of soil. It is essential to maintain the ample level of organic matter in soil and apt structure of soil for sustainable agriculture. These cyano bacteria and green micro algae are directly used in carbon dioxide assimilation into the organic biomass of algae. Thus, these photosynthetic organisms play as sources of significant organic matters in the agro system. These photosynthetic organisms are also responsible for an increase in more carbon in the soil carbon pool by the excretion of carbon (exo polysaccharides) in soil. This increase in soil carbon pool improves the growth of other micro flora and fauna. Through the process of bio mineralization, precipitation of organic or inorganic mineral compounds occurs by living organisms. Biomineralization of compounds either by organic acid production or by the production of siderophore is reported mainly by cyano bacteria. Humic acids are humic-like substances that are secreted by cyanobacteria can be important in agriculture. Biosorption of phenanthrene facilitated by exopolysaccharides function as biological pumps, secreted from cyanobacterium *Microcystis aeruginosa*, *Westiellopsis prolifica*, *Anabaena variabilis*. Studies revealed efficient solubilization of extracellular insoluble tricalcium phosphate and Mussorie rock phosphate by cyanobacterium. Microorganisms produce an organic compound that is siderophore which helps in iron-deficient conditions by chelating ferric iron and making iron available to the microbes and plants. Chelation of micronutrients such as Fe, Cu can be done by cyanobacterial species such as *Anabaena flos-aquae*, *Anabaena cylindrica*, *Anabaena spp.*, etc. by forming siderophore. Inoculation of cyano bacteria promotes modulation of the rhizosphere microbial biome, bringing changes in the structure and abundance of microbial communities that help in the mineralization and solubilization of nutrients. This modulation and improvement of microbial activity in soil by the cyanobacterial inoculation majorly by the production of exopolysaccharides. Exopolysaccharides secreted by cyanobacteria and green algae may produce organic carbon that helps in the growth of microbes of agricultural benefit and this EPS led to the formation of beneficial biofloc and biofilm in the plant rhizosphere. Components of EPS include organic macromolecules (extracellular polysaccharides, proteins, nucleic acids, etc.) and inorganic components (carbonate, silica, etc.) are the primary source of soil organic carbon.

3.3. Colonization of Plant Tissues

Cyanobacteria are reported to establish in soil successfully and colonize the plant parts. Several species of cyano bacteria have symbiotic associations with various vascular and non-vascular plants. Various types of symbiotic associations are reported between cyanobacteria and other algae, fungi, gymnosperms, pteridophytes and vascular plants. Cyanobacteria have also reported with ability to colonize substomatal chambers through entering via stomata. Cyanobacteria can also colonize intercellular spaces, parenchyma cells

and mycorrhizal arbuscule-zone, and form loops or intracellular coils. The potential of cyanobacteria to colonize different parts of the plant in different plants like rice and wheat is found to know about plant defence, nitrogen fixation enhancement, thereby improving growth and yield of the plant which was illustrated using scanning electron microscopy and DNA fingerprinting tools. Inoculations of cyano bacteria ameliorate the mutual performance of chickpea and brought about profitable changes in the soil rhizosphere to microbial community profile, therefore improvement in crop growth and fertility of the soil.

3.4. Production of Growth Hormones

Phytohormones have a very important role in the growth and development of plants. Exogenous treatment of plant hormones (synthetic or natural) in agronomic has been an operation for enhancing crop productivity and yield; it is also useful in weed control. Growth hormones such as auxin, cytokinin, jasmonic acid etc. can be produced by algae which are utilized in agriculture as a biostimulant. Many cyano bacterial strains and green microalgae excrete these phytohormones in the growing medium and their surrounding environment while they also produce intracellular hormones. Studies revealed that axenic strains of microalgae from Chlorophyta and Cyanophyta produce cytokinins and auxins are low to be of agricultural significance. Inoculations of microalgae have improved the androgenic response in anther culture and regeneration studies of maize. Growth hormones from cyano bacterium *Phormidium foveolarum* in paddy fields hastened the germination and significant increase in the growth of rice seedlings. An increased phytohormone level in plants could be accredited to the cyanobacteria and plant interaction in the rhizosphere.

3.5. Elicitation of Plant Defense Mechanisms

Cyanobacteria are known to regulate the mitigation mechanisms in plants by bringing out the antioxidant and etiology related machinery of the plant. This machinery in plants includes the activity of enzymes such as β -1, 3 endoglucanases, chitinase, catalase, peroxidase, polyphenol oxidase, phenylalanine ammonia-lyase (PAL) etc. Studies showed that the inoculation of cyanobacterium *Calothrix elenkinii* remarkably increased the activity of plant defence enzymes in shoot and root in rice plants. Experimental studies revealed the effect of different cyanobacteria (*Anabaena laxa* RPAN8, *Calothrix* sp. and *Anabaena* sp. CW2) inoculation on the activity of plant defence enzymes in the wheat plant. Enzymes such as peroxidase, polyphenol oxidase and phenylalanine ammonia-lyase were obtained in having the highest activity with the treatments, inoculated with *Calothrix* sp. This potential of different cyanobacteria may add advantages towards the build-up of immunity in plants. Treatments with inoculation of green algae could also improve the defence mechanisms by modified RNA activity in plants. Using green algae as biofertilizers enhance the activity of nutrient assimilating enzymes such as nitrate reductase, acid or alkaline phosphatase in *Salix viminalis* L. leaves.

4. Pest and Disease Management using Microalgae

The use of chemical-based bio fertilizers and chemical biocides for pathogen and pest management in agricultural practices is perilous to the sustainability of agro ecosystems. This has led to a need for an alternative sustainable perspective for pathogen control. The most familiarly recognized organisms for bio control include some bacteria and fungi. In the last few decades, microalgae, especially cyano bacteria, have also been come into existence as potential organisms for the bio control of pathogens and pests. Cyano bacteria provide additional advantages of nutrition amass, besides reducing the use of the crucial amount of harmful chemicals of environmental concern. Thereby, leading to improved resistance to diseases in the plants and increased crop yields.

5. Microalgae as Soil Conditioners and Bioremediating Agents

5.1. Improving Soil Structure

Productivity of agricultural soil has been affected by the physical forces or a biotic factors such as water, wind, farming activities etc. and this led to the erosion of soil and ostracism of the topmost fertile layer of soil. EPS have a very significant role in maintaining soil structure and porosity of the soil. EPS have been produced or excreted by many cyano bacteria and green algae in their surrounding environment. EPS provides help in soil organic carbon content; it also enables the avoidance of soil erosion to a remarkable extent. EPS from these microalgae and cyano bacteria have adhesion features and are useful in soil particle aggregation, improving soil structure. The role of EPS in the porosity of soil is required for the growth and root penetration into the soil.

5.2. Retrieval of Degraded Habitats

Cyano bacteria and green microalgae are ever-present organisms that can survive in extreme or unusual environments. They can tolerate the drought, salt-affected soil and sites with metal contamination, this makes them a suitable alternative for the restoration of such contaminated wastelands. From the experimental studies, it is evaluated that the potential of green algae *Chlorella sorokiniana* and *Azospirillum brasilense* in the form of immobilized beads obtained after tertiary wastewater treatment in the recovery of desert-eroded soil. Researchers reported that the application of *Oscillatoria*, *Nostoc* or *Scytonema* could help in the restoration of heated soil. The inoculation of cyano bacteria was evinced advantageous in the rejuvenation of the microbiological crusts of the heated soil (350 °C), with a considerable number of nitrate and nitrite producers, and starch and cellulose mineralizing microbes. The potential of green algae and cyanobacteria in the stabilization and reclamation of desertified soil through the production of polysaccharides is well scouted. A study revealed the importance of cyano bacterial polysaccharides on the growth and nutritional attribute of shrub *Caragana korshinskii* in desert soil. The addition of polysaccharides synthesized by *Phormidium tenue* improved seed germination, plant growth and nutritional attributes in *Caragana korshinskii*. Cyano bacteria and microalgae are also helpful in the debasement of oil and petroleum compounds, besides promoting the growth of oil-degrading heterotrophic bacteria.

5.3. Carbon sequestration and Reduction in Greenhouse Gas (GHG) Emissions

Carbon dioxide (CO₂) is solely (approx.68%) responsible for greenhouse gases (GHGs) emission. Chemical fertilizers contribute to the emission of GHGs in different ways, while extraction of crude materials and energy profound production processes involved in their production, and raise CO₂ emanation. Transportation and applying chemical fertilizers (spraying) in large farms use mechanical systems that can directly contribute to the emission of CO₂ into the atmosphere. Chemical fertilizers applied in the soil are also responsible for emitting GHGs such as CO₂ and NO₂. Green algae and cyano bacteria both generate nutrient-rich biomass by utilizing CO₂ during photosynthesis. Cyano bacteria can sequester CO₂ as well as N fixation. Algae and cyano bacteria can utilize CO₂ from the flue gasses that emanate from combustion plants such as energy generation, cement etc. Consumption of atmospheric CO₂ by algae and enrichment of carbon content in soil has great potential to minimize the carbon footprint of agriculture practices. Further, the algal bio fertilizer production also decreases the air pollution by CO₂ confiscation, less emission of GHGs and release of oxygen. It has been reported that algae bio fertilizers have vast prospective in the amelioration of soil organic carbon and crop yield, besides advantages of CO₂ utilization and minimization in greenhouse emanation. The use of algal bio fertilizers in the development of sustainable modern agriculture can be forecast as an optimistic environment-friendly approach.

6. Role of Algae in Melioration of Sodic Soil

Around the world, almost one billion hectares of soil are affected by soil salinization and sodification. This seriously influences the productivity in agriculture and is detrimental to the sustainability of agriculture. Soil has a defined capacity to adsorb cations. Soil can adsorb cations (such as Ca^{2+} , Mg^{2+} , K^+ , or Na^+) from the dissolved salts in a defined capacity and this is known as cation exchange capacity. From the experimental studies, it has been devised the commended range of cation in the soil as 60-75% Ca, 10-20% Mg, 2-5% K, 0.5-5.0% Na, and 5% other cations. When clay particles adhered Na^+ more than 5% of all cations, the soil is referred to as sodic soil. These sodic soils may be either saline or non-saline. Alkalinity can be upraised up to pH 10 by sodic soil and this increased alkalinity causes considerable clay dispersion, leading to poor hydraulic conductivity and this reduces the aeration of the soil. Consequently, reduced crop production. Whereas salinity refers to high salt concentration in soil (predominantly NaCl, Na_2SO_4 , and seldom NaNO_3) in both liquid and solid phases. An increase in salinity causes high osmotic pressure and ultimately below par yield and productivity in agriculture. In the findings of new methods which make favourable changes in salt-affected soils, inoculation of algae in paddy fields come out as an efficacious biological solution. Usually, cyanobacteria are remarkably survived in saline environments and capable of flourishing in alkaline or Usar soil in India and saline soil of the USSR. Some cyanobacteria such as *Plectonema*, *Nostoc*, *Calothrix*, *Scytonema*, *Hapalosiphon*, *Microchaete*, and *Westiellops* is predominantly grow in saline soil. About the survival of cyano bacteria in a saline environment, recent years have noticed substantial research on cyano bacterial tolerance in an environment of salinity stress. 4 important strategies help cyano bacteria to survive under salt-affected environments: (1) Cyano bacteria express a set of proteins that is responsible for salt stress tolerance; (2) They synthesize and accumulate the os more gulatory compounds; (3) They produce extracellular polysaccharides; and (4) they maintain their internal Na^+ low (either by limited uptake or efflux). It is suggested that the capacity of cyano bacteria to survive in salinity also bestows them improvement ability in salty and alkali soils. Improved sodic soil have the requirement of displacing Na^+ from another beneficial cation such as Ca^{2+} from the replaceable site of clay particles. One very common method for this is introducing gypsum then drainage of displaced Na^+ from the root site through surplus watering. Now in recent, it is found from research that inoculation of a mixture of cyanobacterial spp.viz. *Calothrix braunii*, *Hapalosiphonintricatus*, *Scytonematolypothricoides*, and *Tolypothrixceylonica* is similarly efficient in the restoration of sodic soil as gypsum. It also has been proposed that one-time application of cyano bacteria may not be adequate for improving highly sodic soil; it needs more than one repeat treatment for 3 years. Although the combination of both i.e., BGA and 50% gypsum can give an even better outcome.

7. Anoxygenic Phototrophic Bacteria (APB)

An oxygenic phototrophic bacteria (APB) are a diverse phylogenetic group of bacteria that use a variety of organic/inorganic electron donors to perform an oxygenic photosynthesis. They contain various profitable properties, including low energy requirements, anaerobic growth, diverse modes of metabolism, low growth and maintenance costs, and can be used for a variety of applications related to environmental biotechnology. APB can also be used to generate a variety of valuable metabolic and cellular products. However, APB-based applications have received far less attention when compared to algae and cyano bacteria-based applications. Even though various life cycle assessment studies have focused on the unsustainable nature of algae-derived bio energy and the practicable risks of unwanted cyano

toxin production in mixed algal cultures. As a result, a fundamental change with an emphasis on identifying and developing the techniques for extracting bio energy and value-added materials from APB has been validated. In open bioreactors, research-based studies assessed the wastewater management attributes of algae-bacteria vs. purple phototrophic bacteria (PPB). When compared to the algae-bacteria consortia, they demonstrated the ability of PPB to grow in toxic conditions while retaining high organic carbon removal rates, which makes them suitable for outdoor applications.

8. Conclusions

Recent research on the use of consortia/bio film of green algae and cyano bacteria with various agro beneficial microorganisms as bio fertilizers has shown impressive outcomes. Bio fertilizers based on algae have shown substantial advantages in the development of green agriculture. Areas of future research for algae-based bio fertilizers combined with high energy generation. They are capable of increasing soil fertility in addition to N₂ fixation. Because some algal fertilizers can be produced as metabolic byproducts during wastewater treatment processes, they are renewable sources for sustainable agriculture. Aside from serving as nutrient supplements, algal bio fertilizers provide added benefits such as biocontrol of phytopathogens, limiting chemical use, and reduced greenhouse gas emissions. The success of algal fertilizers, on the other hand, is heavily reliant on the economics of biomass production.

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An Arduous Road For Self Identity : A Study of Shashi Deshpande's That Long Silence

*Dewan Khairul Alom**

In the literary galaxy of the last half of 20th century, one of the luminous award winning woman novelists is Shashi Deshpande. The most important aspect of Shashi Deshpande's novels is that she very minutely delineates some modern educated women characters, who suffer the contradictions of the minds of our society.

This Research paper is an honest attempt to examine the feminist perspective in That Long Silence and to show how patriarchy hampers and hinders woman's assertion and oppresses her in each and every possible way; and how a woman projects herself as a subject and denies to live her life in a servile manner.

Keywords:- Suppression, Patriarchy, Marital-disharmony, Feminism, Compromise, Injustice

Introduction : Indian Society belongs to the man since times immemorial. The woman has been given a secondary and inferior position in her family and society. She has been facing oppression, suppression, subjugation, exploitation and injustice in a male dominated Indian Society. She has been looked down upon with contempt in spite of being educated. Her status has been reduced to an inanimate object merely to fulfill the sexual desires of man. The male members of the society treat her as a commodity to be used, controlled and disposed of. She has been always supposed to be submissive, sober, patient and placid. But, with the passage of time and advent of modern education and culture, Indian woman has come out as a new individual. Now, they feel that they can stand on their own and look after the entire family by themselves. Employment opportunities have boosted their self respect and self confidence. Women no longer prefer to be caged birds and are no longer passive characters who easily conform to the conventions of the society. Most of the women resist the patriarchal norms in their own ways.

Shashi Deshpande's women characters are modern, educated, career oriented middle class married women, who are sensitive to the changing times and circumstances. Though her women protagonists are crushed under patriarchal norms but they never think about scoffing the sacred institution of marriage. In order to achieve their individuality, they make clear strategic use of their multilayered silences. The different nuances of long and oppressive silence, when peeled off in relation to lives and situations of women, reveal an altogether different world a world of tyranny, a world of repression and suppression, a feeling of pain, loss, rebellion, redefining, confrontation and revisioning the equations of relations of power and much more including the multiple attempts at affirmation and realization of self. Shashi Deshpande's quest for identity and freedom has become dominant theme in literature. She unfolds the problems of women in patriarchal society in a very positive way. She opines that a woman has every right to live her life, to develop her qualities, to take her decisions, to be independent and to take the charge of her destiny. The whole aspect of using silence as a strategy is that her central woman protagonist might appear to be compromising with their lot in the form of seeking security within the domains of the family or submitting their wills to their husbands or silently bearing up with all the trials and tribulations of life.

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"A woman can never be angry; she can only be neurotic, hysterical, frustrated."

-Shashi Deshpande, That Long

Silence

That Long Silence (1989) is a modern novel, revolving round its central protagonist, Jaya, who is in search of herself in a conservative society. She is an educated woman with good fluency in English having great literary sensibility. The name Jaya i.e 'victory' is nowhere applicable in her life. She has to play a role of an ideal and obedient wife. Her mother 'Ai' didn't support her in any way which made her more feeble and vulnerable. Like all the mothers, her mother always preferred her sons. She even gifted the Dadar Flat, their ancestral property to her son rather than to her daughter Jaya. Her mother's preferential treatment hurt her more and made her resentful. Those childhood disappointments as a hallmark of Jaya's initial failure resulted in a kind of inner silence that made her too meek to face the life boldly. Jaya opted silence to find easy way out from all the difficulties. In 'That Long Silence' Jaya symbolizes the silence of the entire womankind. After her marriage, she decided to perform her role as dutiful wife, confining herself to the norms of the society. Her husband, Mohan worked as Junior Engineer in a steel plant at Lohanagar at the time of their marriage.

"And then, as we grew into young women, we realized it was not love, but marriage that was the destiny waiting for us." (ibid)

There was no place for poverty, ugliness and shabbiness in his life. He determined to marry a well-educated and cultured lady who could speak good English. It is only for his societal betterment, he married Jaya. Jaya was renamed by her husband as 'Suhashini' wanting her to be always soft, smiling, placid, motherly woman. Subsequent to her first quarrel with Mohan, Jaya learnt that woman should never be angry. For Mohan, anger makes a woman 'unwomanly'. He even quotes his mother's silent suffering in spite of her husband's harassment as strength while Jaya considered it as a misery. To avoid the untoward circumstances, Jaya began to compromise all her desires for marital harmony. She thought that her words of resentment affected Mohan's personality. That understanding froze her into silence as she was scared of her endangered marriage.

Mohan, who had a materialistic outlook, measured life only in terms of earnings, wearing expensive clothes, having good hold over English and admitting children in reputed schools. Their inability to express their real feelings kept them detached.

"Surely there comes a moment in every human's life when he or she says, like the Sibyl-I wish to die." (ibid)

The unfriendly atmosphere in her seventeen years of married life resulted in her extra-marital relationship with Kamat, her neighbor in Dadar Flat. Kamat turned to be reliable companion for Jaya. Jaya felt to be individualistic only in the presence of Kamat as she says, "With this man I had not been a woman. I had been just myself- Jaya. There had been an ease in our relationship I had never known in any other. There had been nothing I couldn't say to him. And he too..." Unfortunately he died unexpectedly and Jaya left him deliberately in silence as she was scared to acknowledge her concealed relationship with Kamat for the fear of ruining her marital life. However, she carried that guilt throughout her life. Jaya's normal routine was disrupted and was performing the role of a wife and mother meticulously doing all household chores. She failed to provide herself with any intellectual and emotional fulfillment as she admits, 'Mohan's wife...Rahul's and Rati's mother...not myself. 'When one of her novels won the prize, her husband was not happy. He related the theme of the story to their life and rebuked her and insisted not to write on such themes thereafter. She didn't argue

but retreated into silence as she thought that it was much simpler to say nothing. Eventually in course of time, Jaya began to lose her true identity. She found herself as an unfulfilled wife, a disappointed mother, and a failed writer.

Jaya's loyalty as well as her identity received a great blow when Mohan was found involved in some crime in his office, due to which he had to leave his job. Jaya broke down when Mohan tried to absolve himself from that crime by saying that it was due to her and children that he slipped from the right track to give them more comforts. Jaya who always subdued her real self, her identity and her real character in order to appease her husband, felt tormented. She always had the fear of losing her house, her husband and her children. Mohan suppressed both the woman and creative genius in her.

"it is not just that life is cruel, but that in the very process of our birth we submit to life's cruelty" (ibid)

To quote **Jaya**; *"I was full of sense of angry confusion. What was he charging me with? And, oh God, Why couldn't I speak? Why couldn't I say something? I felt foolishly inadequate, having nothing to offer him in exchange for all the charges he was pouring onto me."*

Jaya resolved to break the silence and the shackles and be what she really was. Her giving up writing for the newspaper column 'Seeta' indicated giving up her subdued housewife role of Sita as she no longer could be dictated upon to write according to her husband's wishes. She thought what she had achieved by that writing. She said that she had achieved that and she was not afraid anymore.

"I have often watched in fascination the leaps and bounds of her mind as, starting from the banks of uncomfortable facts, she reaches the safety of easier to live- with invention" (ibid)

Sumitra Kukreti says, "The realization that she can have her own way...gives a new confidence to Jaya." By way of writing Jaya achieved articulation of her torments and thereby started to break her silence as she said that she would have to erase the silence between them. She understood the fact that silence could never make their married life successful.

Theme of Marriage in "That Long Silence"

All the marriages in the novel reveal that marriage is used as a tool in patriarchy for the advantage of man and to suppress woman. Tolerance, lack of protest, submissiveness and faithfulness are the qualities that the society expects to be in a woman. Conformity to these characteristics is appreciated whereas any deviation from these is considered as bad or unwomanly. Shashi Deshpande shows that woman aspires for love, respect and expression of herself in marriage, but they do not get what they aspire for. Deshpande suggests that a balanced and purposeful life is not utopian fancy for a woman if she liberates herself from the stereotyped conditioning of the society and does not depend on the male presence to authenticate her thoughts, emotions and actions at every step. A woman's relation with her family must develop within the totality of her life as a woman. Only then it can lead to a harmonious fulfillment. So, Shashi Deshpande gives the message that *"Women should accept their own responsibility for what they are, see how much they have contributed to their own victimization....It is only through self analysis and self understanding, through vigilance and courage, they can begin to change their lives."*

Theme of Silence in "That Long Silence"

Shashi Deshpande conveys the fact that women writers have curbed themselves from telling the truth, giving greater importance to their roles as wives than to themselves as individuals. History has been witness to this injustice as Simon De Beauvoir suggests: "The

history of humanity is a history of systematic attempt to silence the female.”At every step Jaya has to prove to be an ideal wife and mother but Jaya is a human being, who always looks for love, respect and freedom. When Jaya doesn’t get enough respect and love, she gets inclined towards Kamat who is a widower as well as her neighbor. She utters, "It had been a revelation to me that two people, a man and a woman, could talk this way, with this man I had not been a woman. I had been just myself, Jaya.

Through Jaya, Deshpande has depicted the predicament of a married woman who is supposed to behave according to culturally constructed norms.

The Problem of Identity in “That Long Silence”

The novel highlights the struggle of the conscience of shackled Indian women characters, their journey from darkness to light presenting the problems that majority of women are still facing at both the social and domestic levels. Shashi Deshpande portrays the new Indian woman and her dilemma. She concerns herself with the plight of the modern Indian woman trying to understand herself and to preserve her identity as wife, mother and above all as a human being. She developed quite revolutionary ideas about the representation of female voice and quest for their identity. She also wisely stresses the dire need for becoming constructive and to move a step ahead in order to gain individuality and better existence in this contemporary world.

Conclusion : The novel 'That Long Silence', about the suffering of an educated woman has focused the difficulties faced by the Indian woman due to the insensitivity and rigidity of her husband. It has also dramatized transformation of woman of our time, through self recognition and self analysis. Jaya has faced adverse situations boldly and realized that the wheel has turned a full circle and the shadow that lurked between husband and wife for about seventeen years has disappeared. The novel portrays the sufferings and deprivations of women in general by presenting various characters as stereotyped representatives of traditional womanhood. The novel boldly analysis the realities about the Indian womanhood. The novel advocates that a woman should keep her individuality, should be assertive, and take her own decisions about her life and future.

So the paper has attempted to focus on how patriarchy hampers and hinders woman’s assertion and tries to oppress and suppress her in each and every step. It is an attempt to show how patriarchal system forces women to change themselves according to social norms. The society treats them as inanimate objects meant merely for entertainment and satisfying men’s sexual urges. But it is shown that by shedding her fears, a woman can find her true self and assert her individuality as Jaya does in the novel and projects herself as a subject and refuses to live her life in a servile manner.

Suggestions : We can learn to be strong and to say ‘no’ to gender discrimination. We can travel the world and teach women empowerment courses and the importance of girl education. We can fight against mental health stigma and learn self defense. We can work barefoot in the kitchen and earn a six-figure salary. It becomes the responsibility of our society to overcome the gender gap by teaching men, from the young age, how valuable and how strong women are. Establish the right moment to break the silence. Talk softly, enquire the reason for your cut in communication. Embrace each other’s differences, apologise and move on with clear minds

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*Amit Kumar Sharma**

“Without translation, we would be living in provinces of silence”, George Steiner states. Countries like India and Canada, about which the whole book of translation and multilingualism is, suits the above quote. Both countries have long been multicultural and multilingual. Without translation, these countries would also have provinces of silence. Translation has always been an integral part of their cultural and political history. The issues of translation and multilingualism have fully engaged the experts of these countries for some time. The book is a transnational collaboration of the academics, translators and linguists of Canada and India. It is mainly a collection of articles that explores a range of topics including multilingualism, language policy and planning, translation perspectives, and approaches and strategies to translation. Here, translation is also defined as an activity. The activity reflects and influences intercultural relations.

Canadian and Indian translators share the experience of translating in a multilingual country and the awareness that translation is not only an international issue but also an intranational one. Both countries have substantial populations that speak more than one language. It is a well-known fact that English is a common language in both countries. In India, there is a growing awareness of the importance of translations. Although there is no well-defined policy and action for the development of translation studies. India is a country with more than 1,650 native languages and 22 official languages. The challenges of translation in India are more complex than in Canada. It is because of the complex socio-political-cultural history. In Canada, the focus has been on translation between the two official languages (French and English). Here, it’s also important to emphasize that Canada is a developed country while India is a developing country. The Indian government's attempts to establish linguistic hegemony after independence and replace English with Hindi as the national language were not successful. It was because of regional conflicts. In 1968, the government introduced a three-language policy, recognizing Hindi for national unity, English for administrative purposes, and regional languages to maintain and preserve the status quo of various group identities. Today, both English and Hindi operate as the lingua franca in the various states and regions.

This book deals with some of the concerns and problems that occupy translators and linguists alike. It has the specific purpose of initiating a debate about translation in multilingual postcolonial contexts and countries. The book is divided into four parts. The first part deals with multilingualism; the second, language planning; the third, postcolonial theoretical perspectives in translation; and the fourth, existing translation approaches and strategies. In the first part, Nirad N. Chaudhari argues that the use of *upbhasas* or tribal languages in literature as the standard language forces translation theory to reconsider and survey certain fixed ideas. I am in complete agreement with him. The languages are not as a form of hybridity, but they are represented with the help of other culture or literature. They also penetrate the hierarchies. In history, there was never a standard form of language. But

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among them there was never a sign of disagreement also. For example- In *Shakuntala* (in Sanskrit), *Saursheni*, *Maharasti* and *Magadhi* are also used. Nowadays, many minority languages are being ignored. They do not come into the mainstream. It is true that in the name of multilingualism and equality, the government should not support 1652 native languages. At the same time, certain languages should not be favored. In "Multilingualism, Colonialism, and Translation," the essentially monolingual approach to pedagogy in India is criticized. The potential of the multilingual classroom is also highlighted here. Multilingualism is potentially positive. M. K. Gandhi was in favour of giving primary education in the mother tongue. But he had no scientific basis to support his arguments. In reality, education in mother tongue is great, but in practice it is very impractical. I fully support the opinion that more languages can be introduced in childhood. This will also help to preserve the diversity of languages and cultures.

In "A Troubled Turf," Lakshmi Kannan talks about social diglossia and also how the unequal power differences affect the people. She describes her experience of undermining patriarchal and colonial power by acquiring an academic background in English. She suggests bilingualism. Acquiring regional languages and acquiring a global language might solve the problem of languages and inequalities. This proposal sounds good. But at this point I would also like to note that everyone cannot afford the school of English Medium. In many areas they are also not widely available. Later she talks about the racism of the language. The authors who do not write in English are called "language authors". To answer this theme (In relation to India), I begin with an extensive consideration of Premchand. He is known as a Hindi writer. But why "Hindi?" Why not just writer? On the other hand, many writers like Arundhati Roy, Ruskin Bond and others are not known as ,English writers, but as writers. Is English not a language? In "Science Education, Language Dominance and Multilingualism", the situation of Indian languages is discussed. Hans goes on to say that despite all the policy goals and commissions, Indian languages are not able to realize the main goal of education planning. This is because English has become a dominant language not only in science but also in other domains. It also supports multilingual approach to challenge the dominance of English. But what I personally find very interesting is that he writes himself in English, not in any Indian language to reach the audience. It is the time to accept that English is a global language. This will allow us to reach a wider audience. If we really want to continue our education in Indian languages, we need the translators of high competence. Later, it's about the abolition of English-language schools, which I don't support. Because if we support the abolition, we need again an educational medium and what will it be? Will be again a very controversial and important question? If we really want to develop our languages, we need to do more and more scientific research in our language. The teaching system of languages must be restructured. Later, Imtiaz Hasnain talks about the impact of NEP (National Education policy) on minority languages and also about globalization. Globalization has a history of inequality. Many questions also arise here, for example: What will be the future of the minority languages? Are we on the path of a monolingual country? He also discusses the important role of translation in a multilingual society. I personally found that there is less creativity in Indian languages. For example - Hindi mostly looks to Sanskrit language for new vocabularies (e.g .संकाय for faculty, जानपद for civil engineering, परिषण for transmission etc). New words can also be adopted from other languages. Many translation centers (Sahitya Academy, Nation Transaltion Mission, etc.) have been established by the government. But are they enough? Languages need to come into use with the help of new technologies (news channels, radios etc.). These steps will be helpful. In the last article ,Organic and Structural

Pluralism: A Review of Translation Activity in India and Canada, the term "cultural pluralism" is discussed. Translation in India is "organic" in nature (where it initially plays a complementary role), while that in Canada is "structural" (where it plays an "adversative" role). It should also not go unmentioned that in India translation is a part of our daily life. The role of translation is not structural. It is more about the application. Example- Even normal TV commercials are broadcast in more than 4 or 5 languages. In the context of Canada, translation is more about politics.

The second part mainly focuses on government and institutional interventions in language planning. Policies are examined and compared in both (India and Canada) contexts from a number of perspectives. Each policy is determined and influenced by social, cultural and economic factors. On the other hand, language policies in Canada have been established for a long time. It is already mentioned in the Indian context that the establishment and implementation of language policies are much more complex. In "Language Policy and Planning: An Indian Perspective," D. P. Pattanayak examines the languages that were included in the eighth Schedule of Constitution and concludes that there is no coherent policy for the preference of one language over another. There is no hard and fast rule to get recognized as an official language. There are conflicting decisions. Basically I agree with this because even today there is no reason why Maithili is an official language and Bhojpuri is not. Gondi and Bhilai are greater in number than Kashmiri and Sindhi, but they have not been recognized, Why? Many languages are not recognized in their own state. The three language formula has not been implemented rightly. Many minority groups that have been marginalized have been ignored. In reality, Indian languages are not developing as they should. Later, Monique C. Cormier and Paul St-Pierre are dedicated to studying a history and analysis of the linguistic and terminological interventions of the Quebec government. In the context of Canada, the state of indigenous languages is very poor. Only 2 languages (English and French) are recognized. In Canada, the French language takes on a symbolic dimension, with the rejection of the language being perceived as a rejection of its speakers. There is a struggle of the French language with English. Although there are about 60 other languages. Later, B. Mallikarjun on the regional level. The language policy of Karnataka in the context of administration, education, mass communication and literature is briefly discussed. His view is understandable and I fully support the opinion that Planned Translation is mainly institutionally necessary to fulfil some obligations. Translation as a voluntary activity is more successful. In the end, following "Teaching the Other Official Language" Gabriel Moyal have pointed out that in most universities in Canada, French language has hardly been offered as a long-term educational program and this is because of fiscal and financial reasons. In the context of India, similar things can also be noticed. In Jawaharlal Nehru University, there are only 3 departments of Indian languages. And these departments are running under the title of "Center of Indian languages" Are 3 languages enough? In Banaras Hindu University there are also departments of other Indian languages (mainly Tamil, Telugu and Marathi languages) but there are only few students. The same thing can be observed in almost all the educational institutions. Indian languages are considered foreign languages in their own country. The third part of the book deals with the most direct theoretical and metatheoretical problems of translation. In "Translation in a Plural Post-Colonial Context: India," Paul St-Pierres illuminates the theoretical problems that link translation practice and political-cultural authority, showing that translation is a site of actualization. Here it also transfers the balance of power between certain Indian languages. In postcolonial contexts, translation is an intercultural activity. Rather than loss and assimilation, we engage in transcreation, vitality,

reproduction, renewal, and new writing. It is as a form of resistance. To read the texts, readers must be moved to the texts. New words and methods are introduced. Examples- eye-rolling, high-wailing, mammary-thumping, etc. These words are used by Salman Rushdie.

Kapil Kapoor examines the renewal of codes (cultural norms) in cultural communities through translation. He emphasizes the importance of Sanskrit texts. I wholly support the opinion that ancient texts should be reproduced and retranslated. I would say that it is only through translation that we can reach to our glorious past and take treasures from there. It is also necessary to break the conventional and stereotypical ideas about India and the Indian text. Nowadays, Indians are participating in the debates on the linguistic and cultural issues. In the context of India, it is the time to redefine what translation actually is. In the early centuries of the Christian era, Buddhist texts were translated into Tibetan. There was also considerable interaction between the Hindus and pre-Islamic Arabs. Dara Shikoh himself translated Upanishads in Persian.

In addition, Barbara Godard compares and analyzes the translation theories of Sherry Simon, Annie Brisset, and Betty Bednarski. They focus on cultural and linguistic heterogeneity in Quebec. Brisset's translation theory focuses on "transformation" and "alterity". In my opinion, it will lead to "non-equivalence". Here the emphasis is on cultural creation. Translation will be heterogeneous. In general, translators are always concerned with the production of meaning. But Simon is not concerned with translation of texts, but translation in texts and the texts will be in the line of feminist and postcolonial writing. Visibility of translators has also come up for discussion. Controlling hegemonic orthodoxies will also help make minorities visible. Further, he says that there is no meaning without questions. During translation mainly what, why and how should be focused. Place and time should be focused because translation never takes place in a vacuum. Translation is not only a mode of production, but also a catalyst for writing. Personally, I would also prefer Brisset's theoretical position, which also focuses on the function of translation. This will support the "emerging literature". In the article „Translation: A Sociolinguistic Perspective", R. S. Gupta lists the contextual factors that determine the fate of a translation. He explains that the nature of literary translation differs according to the perspective (performance, projection, etc.) of the reader. It seems to me that who translates and what is translated is usually decided by publishers. He also argues that translation theorists focus too much on elaborating theories and concepts of equivalence and have failed to consider sociolinguistic factors and the target culture. I believe that the principle of reader's pleasure and satisfaction is of paramount importance. In the final article of this part, Translation and Cultural Politics in Canada, Sherry Simon argues that all translation practice and theory is grounded in cultural theory. In relation to Canada, translation has remained marginal. Since the beginning, the focus has been on intranational translation, not international translation. Today, micro-identity (feminism) also influences the translation and cultural identity of Canada. Luise von Flotow and Barbara Godard are some important names. They consider translation as a political activity. We can see the same thing in the Indian perspective. Tejaswini Niranjana, Meena Kandasamy (Tamil), Rakhshanda Jalil are important names. This fourth and last part of the book is entirely about "cultural appropriation and describes post-colonial strategies in cultural translation. In the article, K. Chellappan argues that Canadian translators generally try to show the cultural differences between the two language groups, while Indian translators try to exploit that which unites the same groups. That is, in Canada, translation is perceived as a form of cultural assimilation and Indian translators often use translation as a form of cultural subversion and appropriation. The arguments above demonstrate that translation is not simply

a linguistic and textual activity. It is more about ideologies. It is my belief that, by and large, every text will always be in a certain context.

Therefore, in my opinion, translation is always a new production and re-creation. Benjamin calls translation the afterlife of the original. Derrida also argues that translation creates an original text. In the article, "Translation as Subversion: The Case of an Oriya Adaptation of Charles Dickens' A Tale of Two Cities," Jatindra K. Nayak and HS Mohapatra talk about a translation adaptation of Dickens' novel. There is naturalization in this novel. For example- "A Tale of Two Cities" has become "Athara se Satara". The names of the characters and names of the cities are also naturalized. but it is simply not naturalization, but a process of emptying all imperial assumptions(elements). He has filled it with anti-colonial and nationalist content. It has adopted subversive translational strategies. From this we can see that translation can also be used as subversion. I have already mentioned about postcolonial writing. Post-colonialists subvert the language of colonialists. In the article,, Language as Content: Literary Translation into English" Sukrita Paul Kumar talks about the novel Nishtar by Hassan Shaq and The Nautch Girl by Qurratulain Hyder. During the colonial period, Indian English translations were presented as homogeneous. Now the regional differences appear in English translations example- typical Hindi/Urdu, Punjabi tone etc. Many writers were ignored because of linguistic hegemony. Colonists had a fixed notation. At that time only those writers who had the power of English language were known. Example- R.N. Tagore. In the article „Re-Presentation of Indian Women in Translation" deals with the issue of translation and "anthologizing" English short stories by Indian writers. Power structures, the relationship between national and regional cultures, and asymmetrical relationships between English and regional languages are discussed. Now I am concerned with Power Structure. Translations by Hindi Writer Krishna Sobti and Balamani Amma were dropped (p.232). Because of the typical language. Sobti's writings are very typical. She uses Punjabi, Urdu and Rajasthani. For this reason, it is considered difficult to translate. Few years back (2017) she received Jnanpith Award (most prestigious award in Hindi literature) . Is there any publisher who will refuse her translations just because of her "typicality"? No, no one will refuse. Now everyone wants to publish her. Later, Malashri Lal tries to determine whether Indian writers living abroad have gained the intellectual freedom necessary to (re)present their culture of origin. One would expect them to be sensitive to issues of representation. Example- In one text someone anglicized Kirpal Singh as Kip. In the last article, "India, England, France: A Post-Colonial Translational Triangle," Harish Trivedi explains the historical and political reasons that have characterized the extraordinary reception of French literature in India (especially through Hindi translations). He analyzes the translation of Thais (Anatole France), made by Premchand (a Hindi translator and one of the greatest Hindi novelists) to show that the appreciation and appropriation of French literature by Hindi novelists was a strategy to undermine the colonial power of the English language. This was also a strategy of cultural nationalist resistance.

After, discussing all this, it can be stated that this analysis would serve as an opportunity to understand the situation of minority languages. One more thing I would like to mention is that the comparison of linguistic and translational practices leads readers to wonder why Native languages and their translations in Canada or Quebec have not been included in this discussion. With respect to India, the three language formulas ignored many minority languages. As one reads, many questions also arise. For example- How are the languages implemented? What are the steps taken by the government for their preservation? What was the condition of translation during colonialism among Indian languages? The

discourse of Canadian translation is totally different from the Indian context. They have a different goal. Although the methods are somewhat similar. The preceding discussion will also lead to the question of India's national literature through translation. In national literature, literature can be introduced from all corners of India. I also like the fact that many new approaches to translation are being discussed, for example, postcolonialism and feminism. They break the notion of traditional theories. More and more translations need to be done within regional languages. Unity in diversity can also be celebrated with the use of translation as a tool. In this way, the identity of minorities can also be preserved. "Translation and Multilingualism" serves as a stimulating and informative springboard for further discussion and research on translational practices, theories, and policies.

Temsula Ao's *Laburnum for My Head*: Reflections on Provincial life

*Dr. Najmul Hasan**

Abstract

Literary manifestations are beyond linguistical and geographical contours. Literature always narrates human endeavour with a purpose and that purpose can be obtained by employing different myths, legends and history through artistry. The tradition of short stories and folk tales in India is since times immemorial. Emergence of short story as one of the literary genres enables short story writers to depict sociological poetics with utmost sensitivity and sincerity. The creative genius of short story writers has potential to encompass the sequential growth of the plot of fiction or drama. Myriad subjects have been the thrust of Indian English short story writers which includes in its canvas themes from ancient fables of sixth century AD to the present day crisis of love, madness, death, gender and other discourses of minorities. In short stories creative imagination of the writers bring in to being tradition, culture and personal experiences in a metaphorical way that it turns into a delightful instruction or a clarion call to the entire humanity. Temsula Ao's *Laburnum of My Head* (2009) is a collection of eight short stories who is an established Indian poet and short story writer from the north east and won Sahitya Akademi Award in 2013 for this collection. The present paper aims to delineate chosen stories from the collection which try to bring in the mainstream cultural locale of the north east. The paper highlights imaginative context of her stories is recurring in nature, through the archetypal consciousness of Northrop Frye the search of collective consciousness is visible.

Key Words: Humanism, Sensitivity towards Animal, Tribal Consciousness.

Laburnam of My Head, first story from the collection reveals the strange obsession and desire of a woman for Laburnamtree. It is a journey of Lentina who craved to have some laburnum in her garden and subsequently beside her grave. The yellow laburnum flowers stand as a metaphor for femaleness, personal space and identity. Lentina admired these flowers because she took it as the representative of 'their femininity'. She yearns to have laburnum that was imaginatively connected to her gender identity. "The way the laburnum flowers hung their heads earthward appealed to her because she attributed humility to the gesture" (2). She tried consecutively for three years to grow these trees in her garden but failed. "Lentina was devastated and began to think that her efforts at bringing the strange beauty into her garden would never be successful" (3). The sights of flowers in others gardens used to increase her yearning even more. The death of her husband brings her to graveyard where she contemplates on man's feeble attempt to defy death by erecting a memorial. There she experiences an epiphany to have laburnum tree instead of stone memorial. Since that day she attempts to actualize her wish. She takes Babu, the driver, in her confidence and begins to secure a personal plot in cemetery so that she can plant laburnum tree there. The decision brings clash in family but she boldly convinces, "I have not spent anyone else's money" (11). Her life and physical condition corresponds to the condition of laburnum trees. As the tree grows Lentina grows older and older and closer to death. Babu noticed that one of the planted tree languished and died but the surviving one flourished and wonder of wonders even produced a tiny spring bearing a few yellow blossoms. The decay of Lentina and progress of Laburnum go hand in hand. Her connection with laburnum tree supplies divine strength to

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survive against rigid climates. She survived in winter when all are expecting her to surrender to the climate. Her infatuation to have a tree after death is distinctive to the tribal people. Worldly objects and splendid monuments are not in their wish list. It is the mother and sustainer nature that they live in and crave for after death.

Death of a Hunter is a poignant story of Imchanok who is a primary school teacher and a renowned hunter of his region. The story reveals a strong bond between human and animal life as well as the practice of hunting. The story sensitizes us for the life of animals. They are in no way inferior to us. They too have love for their life and family to serve. Imchanok's experience during the hunt of an Elephant, a Monkey and a boar caused a deep psychological effect. The satisfaction momentarily, turned into unexpressed anxiety and haunted dreams. The sense of accomplishment was missing that he used to enjoy after every killing. The narrative conveys that the animals are in no way different from human beings; they too have responsibly to accomplish. Once Imchanok was asked by the government to kill an elephant who had destroyed farmland and trampled a number of people. He remarked, "What do these sahibs know about the jungle? Do they think that the elephant will be waiting at a convenient place for me to go and shoot him? Don't they know how intelligent these animals are, that they can almost think like human beings? And the area that they can cover when they decide to run?" (23-24) Animals can think and can hide themselves in fear of killing like humans. They have their own agreements for this world. During the hunt of elephant, the description of elephant's calm and serene look, his enjoying of dust bath like a child, his breaking of twigs and eagerness of tasting everything like a young innocent boys, all makes his killing more coldhearted and gruesome. Imchanok had a realization of this. Narrator remarks:

Imchanok happened to look into the unblinking, unseeing eye of his adversary, lying there so helpless, divested of his menacing power of destruction. Was it his imagination? He would wonder forever because he thought he saw tears in those beady eyes and something else; it was as though the dying animal were trying to convey some message to his destroyer which remained frozen in time: this was to haunt Imchanok for a very long time. (28-29)

Imchanok grumbles why he is the part of killing and at the center of the endless contest between man and animal for domination over land? The process of self-realization starts and culminates in burying his gun and identity as hunter. The episode of monkey killing who were threat to his grains, young children and women Imchanok went under same agony and pain as experienced in elephant hunting. Imchanok cunningly makes a trap to entice monkeys and kills in consequence which was an open celebration of the superiority of human intelligence. The description after firing bullets goes like this:

But the monkey was quick in dodging the bullet which hit him only on his fat flank, Even then he did not yield; he stood there until his entire group had managed to get out of the hut through the single door. Only then did he try to get away. . . . When Imchanok took aim once again, the monkey raised his arms as though in surrender or supplication, and slowly covered his eyes even as the hunter released the fatal shot to his heart. (31)

Family was in festive mood; monkey was killed and they had meat to cook for few days. But Imchanok heart was not happy. Something burst in him. He did not take part in celebration and instructed his wife to leave the room open where he had killed monkey. As the years passes by the hunter lost the spirit of hunting. But once again he has to play the role of family man against a rampaging boar. He performs his duty and give evidence of his skills and strategies.

Boar was killed and search hunt end. The suffering of Imhanok starts again. He suffers from nightmares. The fearless hunter shriek out in his sleep crying, “look at him, he is as big as barn and as black as charcoal” (37). It stops only after reaching at the same place form where he had shot him dead. He takes teeth of the boar and consequently after some days he digs a hole and buries the teeth of boar, his gun and symbolically he buries Imachanok the hunter. The mental agony ends with the end of hunter.

The boy who sold an airfield is a story of a youngtribal boy named Pokenmongwho leaves his home and engaged himself in menial services in the households of plains of Assam.The story attacks on the gullibility and illiteracy ofTribal farmerswho suffer andthe free spiritedinnocent tribal boy who innocently sells the airfield as the owner of the land. His stay with Jitan and his family paints a picture of small family living happily, all working together and sharing love and affection. Pekenmong was quite happy in this family and started calling Jitan as ‘baba’. After some customary trouble the children of Jitan acceptsPekenmong in thefamily.It was not like a master and servant relation rather father and son bonding. Pokenmong started helping Jitan in his job of railway lineman like waving flag and opening railway gate etc. He has cleared the kitchen garden and planted beautiful flowers there. But the love and affection of Jitan could not stop the free and adventurous spirit of the boy. One day Jitandetected that Pokenmong was on one of the trucks of Soldiers and left him with grinning face with something to communicate. Jitan felt that he has lost his son. Pokenmong’s lifeamong soldiers was also quite interesting. He started helping in every menial activates like washing the pots and pans, picking up bricks to clear the footpath. As the time goes by he adopts some essential words and expression to communicate with. Consequently, instead of being at everyone’s beck and call he became the commander’s Man on Friday. On Sunday, when commander is not in camp, heused to ventureoutside the boundary to experience the nearby scenery and beauty. He finds a village near the camp and visits whenever he is free. He was leading a blissful life. Suddenly, the thought of future disturbed his vitality. Distraction from works were obvious, commander sensed his worry and decided to do something for this boy. Before going to America, Commander has written,“Whateverwe leave behind will be yours: clothes, shoes, utensils, furniture, food, tents, tires and even a jeep in running condition” (49).Commander left the desolate camp to a bewildered youth with a sheet of paper carrying the insignia of the conquerors telling him that he was now lord and master of the vacant space. The boy calculates everything and reaches to the head of the village with his offer to sell the land. They all ponder over and eventually they purchase the land for five hundred rupees. The real trouble starts when they begin digging and dividing the land.The official comes and burst into laughing after reading the document. The airfield had never belonged to the person who had sold it. The villagers were naïve and innocent and their gullibility has given them a fatal blow.

The story *The Letter* reveals the torture and fear of underground government i.e. internal rebellions faced by common villagers of Nagaland. The story narrates the troubled life of villagers as well as draws our sympathy to rebellions. Both are in some need to be fulfilled. The common villagers were the subject of humiliation from both the sides: the underground and ruling government. The old woman was the victim of both during the peak of the insurgency movement she lived in ‘grouping zone’ and survived beating at the hands of army. She has been livingin trauma after the abdication and eventual killing of her husband by the underground forces.Villagers often had to work free or with insufficient wages for government. Consequently, the hard-earned money was taken by the agents of underground government as necessary tax. The denial would cause deaths in families. The life was under

the constant threat. In this story a portion of the hard-earned cash received after making some road is grabbed to run the underground government. All their hope got ruined. Ao writes:

The villagers sensed immediately that their plans for utilizing the hard-earned cash would come to nothing because they knew that these fierce-looking goons from the forest had come to the village at night with only one purpose: to rob them in the name of the underground government. (55)

An old man emotionally debates that he has little money and has to give examination fee of his son but the unmoved agent knocked him with the butt of his rifle and comments, "what examination, what fees? Don't you know what sacrifices we have made in our fight against the government? And how we are suffering in the forest?" (56) The old man was saved by the headman. The people of the village were generally submissive and tried their best to avoid conflicts with both the governments: the ground and underground. But after this incident a kind of rage has taken birth in the heart of all the villagers especially in young bloods. They don't want to let Naga society immerse in anarchy. Therefore, the decision was no tax to underground, no 'free' labour and they would discourage the army visits by refusing to sell vegetables. Eventually, an agent of underground came in the village and asked for 'emergency tax'. Youngsters came to know his arrival and gathered around him. Since, he was alone so he could not resist the beating and consequently lost consciousness. After that he was dropped down from hill point and was removed from the memory. Before dropping him Long legs, the group leader of youngsters, finds a letter from his pocket. It was the letter from the dead man's son, begging the father to send his exam fee. The unpaid fee, in the beginning and at the end reveals the motif of the story. Both were in need of money but applied different methods to earn money, positive and negative. The lack of proper settlement and incomplete education is the major reason behind the conflict. Naga rebellions are fighting for their own cause but have adopted corrupt path. Common villagers are suffering in between. Author adamantly satirizes the practice, "collecting taxes in the name of the underground government and using money to feed their drug and drinking habits." (57)

The story of *Three Women* is quite different in narrative technique unlike rest of the stories it has episodic plot and stream of consciousness technique. It has three female figures and their story in three part along with prologue and epilogue. Martha's story, Medelma's history and Lipoktula's secret throw the light on the life of women in family, their search for identity, motherhood, body politics, emotional ordeal, freedom, immaturity, social shame etc. The story of three women raises grave questions in society and attacks on patriarchal and social conventions. Martha was living in a society which has not accepted her. She was called 'Coolie' and laughed at her dark complexion and strange feature. She was not from that tribe and was different. But the innocent queries of Martha calm down by adult's convincing answers. But one day the secret got revealed, Martha is not a biological daughter rather a deserted baby brought up by Medelma. A child named Chubala reveals, "don't you know that you do not belong to our village and that Madelma is not your real mother? Haven't you ever wondered why you look so different from us? You speak just like we do but it is not your language" (64). This was a heartbreaking blow to Martha that has shaken the blissful identity and cozy dwelling in that house. She asks, "Where did I belong and who were my people?" It was the patriarchal social practice that made her father to desert a baby girl in the hospital. He says to nurse, "What will I do with another girl? Do whatever you want" (68). The setting and characters are particular but their trauma and struggles are universal. She is informed about the death of her mother while her birth and consequent abandonment of her by her father. She realizes the role of her present mother and says, "Mother, I may look different

from you or grandmother or from all others in the village but I feel no difference in my heart”(72). Subsequently Martha in her life journey gets pregnant before marriage. This act spoils the expectation of Medelma for grand celebration. Medelma remarks, “You have brought shame upon the family by becoming pregnant before the wedding”(77). Martha couldn’t resist the gentle ardour of Apok her beloved. The love bond, the touch to female body got a very progressive opinion that TemsulaAo presents. The history of Medelma has a stock plot. A female deserted by her fiancé manages to lead a reputed life after emotion breakdown. Imstemjen, her lover, rejects her informing that his father is not agree. The years long relations breaks in few seconds. The feeling of rejection and betrayal was beyond communication. She determines to remain single throughout her life. In her hospital Martha’s mother lose her life and left Martha alone. Medelma adopts her after facing many social and familial challenges. The problem of race and skin color doesn’t leave her behind. She was Ao-Naga, of medium height with fair complexion while Martha was Dark as bat with distinctly aboriginal features. The power of motherly love unites the three and never separates them. The secret of Lipoktula is the secret of many women. They don’t reveals it because of the fear of social and familial castigation. Author here realistically narrates the hiding of rape case and male atrocities for public shame. The victims of rape are numerous but the fear of public shame and societal mind set never let them to reveal it which in future gives more pain. As happens with Lipoktula, she had veiled the truth of her rape by Merensashi. Now it is revealed to her that the father of Medelma and her fiancé are same. Lipoktula asks Merensashi to cancel this consanguinity. This secret of her past life destroys the life of Medelma and her beloved. The epilogue reads the labour pain of Martha and child birth. Temsula realistically describes the process and affirms motherhood as the blessing. She states, “when the child is brought to her, Martha looks at it with awe, and thinks with a deep sadness of her mother who has never experienced the pleasurable pains of Motherhood” (79). The mother and the grandmother are there she ceremoniously lay the baby next to her in a ritualistic acknowledgement of her motherhood. Apok is presented as a progressive male. He doesn’t want to spoil the personal space of female bonding. He observes that all three are enjoying the miracle of new life. He is reluctant to break this spell and slips out unobserved.

A Simple Question paints the story of an illiterate simple woman who manages to influence an army captain to get her husband free from his custody. It is the narration of the tensed life of common villagers living under the thread of Naga rebellions and Indian army. The support to Indian government would invite rage of Naga rebellions and vice versa. The life of gaonburahs who were appointed by the government from the major clans as their agents to help to maintain order in the village were more vulnerable than others. They were answerable to both the forces and were always under the radar. “On the one hand, they were held responsible by the government if any young men from their villages were reported to have joined the rebel force; on the other, the underground forces order them to identify young men representing each clan to join their army, failing which they threatened to burn down the village granaries” (82). There were incidences when these gaonburahs got executed as well. It was extremely untenable situation for them. The demands of rebels were restricted not only to force youngsters of the village to join rebel force but also for material support: “like money, grain and livestock”. They called it taxes to pay the travelling expenses of leaders. At the moment of clashes the life of gaonburahs are more in the lurch. At one incident Tekaba has provided lands to set army camps in village and this action was indigestible to rebellions. Non-cooperation with army would also bring actions. All able bodied are forced to work with government without wages or food. “Villagers who persistently resisted the setting up of

army camps would be forced out of their village; their houses and granaries would be burnt and they would be relocated..." (84). The double tax of rice imposed during a particular bad year. The frustration of inaction and care of family poignantly comes out from Imdongla, she says, "just think how our daughter will feed her children . . . And you venerable elders, where is your wisdom? Your courage? Can't some of you go to the jungle and talk to the leaders"(85). Later, she came to know that her husband along with other elders were dragged by soldiers in charge of helping rebellions. She rushed to the camp with warm clothing since it was winter. She somehow manages to reach near the cell of her husband and determined not to go without husband. She has calculated that as long she would be here the soldiers would not dare beat up her husband and other elders. Captain was informed about her tension and agony, she had said, "look at them; aren't they like your own fathers? How would you feel if your fathers were punished for acting out of fear? Fear of you Indian soldiers and fear of the mongrels of the jungle"(87). The un-sharable pain of all villagers come to light from the very simple question, "what do you want from us?"(87) The dreadful situation of villagers drag the captain from his disciplined law to the emotional ground. He orders to release Tekaba. She, a simple and coarse woman, challenges the validity of Captain's presence in this alien terrain. It is her love that got an emotional touch which makes her to get her husband back.

The story *Sonny* is a narrative of unfulfilled love, ambitions and ideological contest. Sonny the protagonist of the story is the victim of internal rivalries among the different groups of freedom-fighters. 'Sonny dead' makes 'Sonny alive'. The narrator, who was in love with Sonny, highlights the bleak side of region. Activists for the sake of region and ideology are ready to sacrifice their love and comfortable future. Narrator is the victim of such an ideology. Sonny who was in love with narrator doesn't reveal his heart and leaves her for his commitment to go China for training. Their life was under constant menace. They are to face dual fight once against the ruling forces and the other against internal rival groups. The death of Sonny and revelations of his messages brings back narrator's old memories with Sonny. The messages revealed the hardships of activists. After reading the messages narrator realizes the tussle and anxiety Sonny was confronting with. She reveals:

In the first one he wrote about life on the run and the hardships faced by the group. The second one was pathetic: almost incoherent, it spoke of his disillusionment, frustration and suicidal tendencies due to not succeeding in his endeavours. (94)

Further Sonny has confessed, "Sweetheart, there were often times when I felt grateful that you did not try to stop me from going in, but now I wish you had"(94). This was different Sonny, his present situation was really miserable. She wept and dimly utters, "I had lost twice, once to his idealism and now to death"(94). His death reminds her all suppressed and forgotten incidents. Though Sonny was dead now but in her mind 'Sonny would always be alive'. The man who once was the people's hope for a new life is now going to be buried. The exciting days of national fervor hindered the thought of marriage between them. The fight was against the inequalities and injustices of the repressive occupation forces. This was also against the alien way of life for the rural people. It was an opportunity to return to utopian state of self-rule. The story poignantly reveals the retaliatory mayhems of government like burning of villages, turning people into creature sending in concentration camp, families were separated, women were raped and killed. These stories added fuel to the angry minds of students pursuing higher studies. In these upheavals the thought of marriage was ingenuous. Presently she accepts the grief with equanimity. She present herself calm and composed and behaves normally. The packet containing floppy handed to her by her brother suggests some secret should be revealed. Brother regretfully says, "I should have given it to you much earlier;

please forgive me if you can" (99). She receives a friend's suggestion not to publish this message this expressed the tension and vulnerability of life in the region. She decides not to publish and put it in safe deposit box to be opened by her inheritor only. How the internal rivalries among groups of freedom fighter and conflicts between rebellions and Indian national forces influence the lives of region and left an indelible memory. Those who are actively involved in activities received notable changes in the lives of persons who are connected or attached to them.

Flight is the story of a boy and his infatuation to keep caterpillar. The story is narrated through the eyes of caterpillar that grieves over his present confinement in a shoe box. His natural environment got replaced with darkness and momentary display of light. The wish of the boy to have caterpillar was granted by his father. His father consents, "you may keep him. Put your dragon-box on the dresser beside your bed. And remember, you will be responsible for any consequence regarding this" (104). Jonny finds a box and excitingly keeps the caterpillar inside. Caterpillar remarks, "my former life of wide-open spaces and bright sunshine vanished, and the new one of intermittent light and darkness began" (105). Soon Jonny lost the heat of his excitement and caterpillar is left without attention. One day caterpillar realized that Jonny is ill and everyone is engaged in his caring. Without proper care I too was feeling sick and longed for my previous life. Throughout illness Jonny was calling me 'I want my dragon, I want my dragon'. His sister opened the lid and surprisingly Jonny remarked, "Beautiful? Dragon, what happened to you? You look ugly" (106). Jonny slumped back and remained still. The connection of caterpillar with Jonny is gone now. Caterpillar was fit till Jonny was with him but caterpillar left the dying universe of Jonny. The concept of each and all justified here. Caterpillar leaves the pale and grief-stricken body and long for new bubbling universe and fly to his own destiny. The story deals with the subject of freedom. We for our personal happiness detained some birds but they are beautiful only in their natural settings.

To conclude, it can be said that most of the short story writers are same in the treatment of their subject matters. They deal with the burning issues of their time, about the human aspects of life through their immortal characters. Here to include the remark of Shiv K. Kumar. He says, "Our women writers seem to have lent a new dimension of sensitivity and perception to the short story in English. They find its limited canvas quite congenial to their sensibilities in confronting their brief, often muted, experiences. They prefer to say a thing or two, and then let the rest fade away into silence" (110). Tamsula Ao is one of them. She has narrated the different colors of human life along with a conscious attempt to sensitize us for animals too. The stories dealt particularly the life and culture of Naga people. On the whole, in spite of dealing with contemporary problems and mirroring them, the mind of the author is not cynical. The stories have been crafted with sympathy for characters, close observation of social types as well as strange characters, presented with philosophical touch that is subtle and understated.

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Comparative Study of Occupational Stress of Male and Female Teachers Working in Colleges of Uttar Pradesh

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Abstract : *Job stress is the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. In present study the research investigate the present level and compare the job stress between male and female teachers working in four districts in Uttar Pradesh. In this research 200 teachers has selected for the subject of study out of which 100 male and 100 female. To objective of study job stress has examined Occupational Stress Index (OSI) by Srivastava and Singh (1984)) was used for the investigation. For the result t- test and descriptive analysis is taken as a statistical technique. The job stress between male and female was found insignificant differences at the .05 level of significant.*

Keywords : Occupational Stress

Introduction

Today the teachers are greatly responsible for the student's time to come. So the teacher should be physically and mentally strong so that they can reach their targets successfully. For a good teacher it is important that he should be free from physical and psychological diseases. To stay fit a teacher should therefore be out of stress. However, if the teacher is subjected to excessive stress and strain, he can't maintain his mental balance. If not dealt seriously teacher's stress is one of the major factors influencing his teaching efficiency. If the teacher has job stress, then he can't well adjust with the organizational climate and can't feel satisfied with his job. Job stress, also known as occupational stress, has been defined as the experience of negative emotional states such as frustration, worry, anxiety and depression attributed to work related factors (Kyriacou, 2001).

Occupational stress or occupational stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. The concept of Occupational stress is often confused with challenge, but these concepts are not the same. Challenge energizes us psychologically and physically, and it motivates us to learn new skills and master our Occupations. When a challenge is met, we feel relaxed and satisfied (U.S NIOSH, 1999).

Thus, challenge is an important ingredient for healthy and productive work. The importance of challenge in our work lives is probably what people are referring to when they say, "a little bit of stress is good for you. Occupational stress is that which derives specifically from conditions in the work place. These may either cause stress initially or aggravate the stress already present from other sources. In today's typical workplace, stress is seen as becoming increasingly more common. People appear to be working longer hours, taking on higher level of responsibilities and exerting themselves even more strenuously to meet rising expectations about Occupational performance. Competition is

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sharp. There is always someone else ready to “step into one’s shoes” should one be found wanting.

Statement of The Problem :

To investigate the Occupational Stress of Male and Female Teachers Working in Colleges of Uttar Pradesh.

Objective of The Study:

To compare the difference in Occupational stress of Male and Female teachers working in colleges of Uttar Pradesh .

Selection of Subject:

The study was delimited to college teachers of Uttar Pradesh state. 200 subject, 100 male and 100 female teaches were selected for the present study from colleges of Uttar Pradesh. The study was delimited to of 4 districts of Uttar Pradesh state. The districts under study were Varanasi, Chandauli, Gazipur and Jaunpur.

Design of the study :

Descriptive Survey Method was used in the present study for the investigation.

Tool Used:

Occupational Stress Index (OSI) by Srivastava and Singh (1984)) was used for the investigation.

Statistical Technique: For the investigation of study Descriptive Survey Method and Mean, Standard Deviation & t-ratio were used as statistical technique for calculation and analysis of data .

Table 1: Showing t-ratio of Occupational stress of Male and Female teachers working in colleges of Uttar Pradesh

Sr. No.	Group	N	Mean	S.D.	SE	df	t-ratio	Level of Significance at 0.05 and 0.01
1	Male	100	131.12	14.51	2.19	198	.84	Not Significant
2	Female	100	132.97	16.40				

Table 1 indicates that the computed t-ratio has come out to be .84 which is less than the t-value 1.96 in table at .05 level of significance. Therefore, from the table it may be concluded that there is no significant difference in the Occupational stress of male and female teachers working in colleges of Uttar Pradesh state. Male and Female felt same level of stress during their job May be the teaching and administrative load had been same as per the regulation and norms and nature and environment remain same for both the gender. Hence our null hypothesis that there is no significant difference in Occupational stress of male and female teachers working in colleges of Uttar Pradesh state is accepted.

Fig.1 graphical representation of mean scores of Occupational stress of Male and Female teachers working in colleges ofUttar Pradesh.

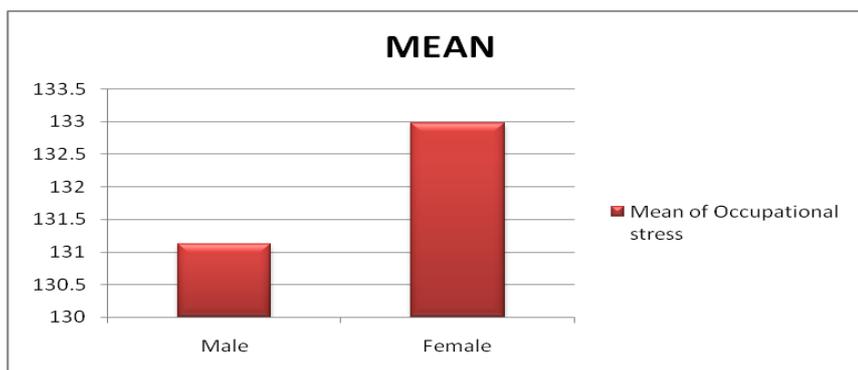


Fig.1 graphical representation of mean scores of Occupational stress of Male teachers (131.12) and Female teachers (132.97) working in colleges of Uttar Pradesh

Conclusions:

There may be concluded that there is no significant difference in the Occupational stress of male and female teachers working in colleges of Uttar Pradesh state. Male and Female felt same level of stress during their job. May be the teaching and administrative load had been same as per the regulation and norms and nature and environment remain same for both the gender. Hence our null hypothesis that there is no significant difference in Occupational stress of male and female teachers working in colleges of Uttar Pradesh state is accepted.

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Marital Disharmony in Girish Karnad's *Nag-Mandala*

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Abstract

The present paper aims to study the great Indian writer Girish Karnad's *Nag-Mandala* from the perspective of marital relationship, showing primarily disharmony in the lives of the husband and the wife. Every folk-lore and myth has a powerful message to convey. The great dramatist like Girish Karnad shows that marital disharmony and infidelity is not only a problem of a couple but this is a universal phenomenon. In this play Karnad has rejected the value of marital chastity. Rani, the key-figure of this play, can be seen as a metaphor for the situation of a young girl in the core of a joint family when she finds her life partner in two unconnected roles as a stranger during day and as a lover at night. Karnad emphasizes that lover is always present in the heart and house of a girl. In this play husband and wife pass through different stages of disbelief and doubt before they become mature and learn to live as a husband and wife within the family-fold. Girish Karnad, through this play tries to show that the solution of marital disharmony can be resolved by compromise, reconciliation and mutual trust reposed in each other.

Keywords: Marital, disharmony, problem, chastity, infidelity, relationship, social.

Marital Disharmony in Girish Karnad's *Nag-Mandala*

The present paper proposes to study Girish Karnad's *Nag-Mandala* from the perspective of marital relationship, showing primarily disharmony in the lives of the husband and the wife. Karnad is the foremost bi-lingual playwright of the contemporary Indian stage. He is such a versatile personality with encyclopedic range of mind that he has not only contributed to Indian theatre but also, he has directed feature films, documentaries and television serials in Kannada, Hindi and English and has played leading roles as an actor in many films. Various awards such as Jnanpeth (1998), Padamshri (1974), Padmabhushan (1992), Sahitya Academy (1994) etc. that he has won, are the tokens of recognition of his great talent and potential.

Nag-Mandala was originally written in Kannada. In his note to the play, Karnad writes that this English translation of the play must be "seen only as an approximation to the original"¹. The story of the play is based on the two oral tales that he had heard several years ago from Professor A.K. Ramanujan. While using mythology the playwright has questioned some of the values of contemporary life style. Pranav Joshipura puts it thus:

While we are busy satisfying ourselves, our desires, thirsts, we forget or overlook certain values which may lead us towards a stage from where we feel satisfied with ourselves, with what we have, what we possess although we live in this so called "society" where we are closely "related" to one another, we are totally "alien" to each other.²

Every folk-lore and myths have powerful messages to convey. A serious writer like Karnad uses the myth of *Nag-Mandala* metaphorically to convey that marital disharmony is a universal phenomenon. In fact, the problem of marital disharmony has been seen in ancient time, that is still prevailing in the society and that will continue to prevail so long as the institution of marriage would be in existence.

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It is remarkable that the very title of the play comes not from any human character, but from a snake-Naga. The story of Cobra suggests that the play not merely dramatizes the folk-tales in modern interpretation it also implies a deeper meaning at various levels. In our Hindu mythology, the Naga represents several images. Snakes are also symbols of human masculinity and strength. Nagas are sometimes portrayed as handsome men, or a half man and half snake. The folk tale element of *Nag-Mandala* and the magical power which the cobra possesses remind us that we are watching a play. The playwright has mixed the human and the supernatural world in this play.

Nag-Mandala is the story of a young girl, Rani, newly married to Appanna, and their gradual understanding of the roles, function and responsibilities of the institution of marriage. The play begins in a temple on the outskirts of a village, where a passer-by stops at night for shelter. He then finds many flames entering the premises, then start talking to each other. All the flames have come from different households in the village, who, after the lights have been put out for the night escape to their houses, to collect, to gossip and have some entertainment. Each flame is a female, a story teller, sharing with the others her observations and new experiences.

In *Nag-Mandala* the playwright has rejected the value of emotional identification. Rani in the play can be seen as a metaphor for the situation of a young girl in the core of a joint family where she sees her husband in two unconnected roles as a stranger during day and as a lover at night. The empty house Rani is locked in could be the family she is married to? The initial stage is painful for Rani, who is still very much attached to her parents. The pain and loneliness of Rani are emphasized by the narrator, drawing attention to her emotional estate.

Kurudavva, the blind woman, plays an important role in the play, though the only way she is connected with the plot of the play is that the Cobra falls in love with Rani because of the magical influence of the root given by Kurudavva to Rani. She gives solution to Rani's problem. But an error of destiny prevails and the entire story moves towards a literal disaster. We can call this disaster a part of human destiny, or a result of human error.

Appanna's violent reaction to his wife 'infidelity' does not make him consider for a moment his own 'infidelity' towards Rani, his wife. The other villagers also ignore this lapse on his part but they emphasize the institution of marriage and the procreative function of the couple. The husband and the wife turn towards each other with a greater sense of relationship. The girl-bride now becomes the "mother-to be" and as such receives a new social recognition. As a mother, Rani is seen, in the last part of the story, to making power. In Sudhir Kakar's words:

An Indian woman knows that motherhood confers upon her a purpose of identity that nothing else in her culture can.³

Appanna even agrees to her, rather strange demand, that their son should perform an usual "pinda-dan" in the memory of the dead snake.

The events which take place in Act Two raise many questions. Rani is sleeping in her bedroom. Naga moves near her and caresses her. Rani, not recognizing Naga disguised as Appanna submit to Naga's advances. Rani's gesture is questionable because there are sufficient reasons to believe that Naga is not Appanna. On the night when the Cobra enters the darkened front yard of Rani's house, she hears the sound of dog's growling and fighting, mixed with the hiss of the snake which ends shortly after the dog dies with a long painful howl. On the night when she moves into his arms, she notices blood on the Cobra's cheeks and shoulders. She opens her mirror-box for the healing ointment. She screams in fright as she sees in the

mirror a Cobra in the place the Naga was sitting. The next morning when Appanna comes Rani's confusion is worst confounded.

The other event is that of the fight between the Cobra and the mongoose in which Cobra is badly bitten by mongoose and as a result of which he could not visit Rani for next fifteen days. During this period Rani spends her nights crying, wailing pining for him. In the words of Story:

When he started coming again, his body was covered with wounds which had only partly healed. She applied her ointment to the wounds, tended him. But she never questioned him about them. It was enough that he had returned. Needless to say, when her husband came during day, there were no scars on him.⁴

These are the sufficient reasons to believe that the man who comes at night and the man who comes at day are different. If she takes it as illusion, or a dream, then there are enough instances in the play to come to reality. Moreover, the outcome of this situation applies to the fact that in this modern world the physical satisfaction is given high priority. This is clearly evident in Rani's words:

The smell of the blossoming night queen! How it fills the house before he comes! How it welcomes him! God, how it takes me sets each fiber in me on fire! (P. 30)

Rani cannot comprehend the situation since Appanna cannot be so affectionate and compassionate. Yet she willingly suspends her disbelief and enjoys the concern and affection of Naga who is in the guise of Appanna. She feels happy and secure in his company. She becomes bold enough to talk to him and falls asleep in his embrace. Naga is happy about his success.

In spite of the tangible proof that Naga is not Appanna it is not clear whether Rani at all discovers the reality. The argument is very well supported by the story when she expresses her doubts as to whether Rani could have lived happily even after. She reveals Rani's anguish in her narrative speech:

No two men make love alike. And that night of Village Court, when her true husband climbed in to bed with her, how could she fail to realize it was someone new? Every night this conundrum must have spread its hood at her. Don't you think she must have cried out in anguish to know the answer? (P. 41)

Since neither Rani, nor Appanna nor Naga is chaste, we may ponder over the idea that this world which is dominated by compromises, happiness is incompatible with purity. It uncovers the injustice of the patriarchal moral code which demands the faithfulness of woman to her husband but not the faithfulness of a man to his wife.

The name Appanna means 'any man' and it is a wry comment on any man who tries to enforce chastity on his wife, while he himself indulges in extra-marital relationships. The irony of the term 'fidelity' comes through in the sequence of events. Appanna and Naga, the two faces of one man, one seen at day, the other at night symbolize the exploitation and double standard of man, while Rani is the symbol of a woman's eternal endurance of this oppression.

The situation of crisis comes when Rani becomes pregnant. It is a moment of public acknowledgement of the private desire and act. Appanna is aghast at this development and takes his wife in a public trial. Rani is asked by the man at night, whom she takes to be her husband, to speak the truth. The truth for Rani is that she has been faithful to her husband. This conviction comes into the public. The nervous frightened young girl finds, within herself a new courage and confidence and gains social respectability. She emerges triumphant

from the public trial, as the snake does not bite her. The cold, aggressive and indifferent husband is subdued, mildly tamed and accepts the judgement even if he is not fully convinced.

Appanna's violent reaction to his wife's 'infidelity' does not make him consider for a moment his own 'infidelity' towards his wife. The other villagers also ignore this lapse on his part but they emphasize the institution of marriage and the procreative function of the couple. The husband and the wife turn towards each other, with a greater sense of relationship. The girl bride now becomes the "mother- to be" and as such receives a new social recognition.

Nag-Mangala depicts that the husband and the wife pass through several stages of doubt and disbelief before they become mature and learn to live harmoniously as husband and wife within the family-fold. The transformation of Appanna and Rani presents the significance of the institution of marriage. It is through their adjustment that they gain a status within the life of the community. Both man and woman accept the social pressure in putting aside personal feeling about selfhood. Rani's dream of a lover who had awakened her and loved her as a woman, and Appanna's self-centered and physical relationship with the prostitute, are given up, and they work together in the interest of the family and the community.

In Act Two of the play, the snake does not die. He is allowed by Rani to live in her tresses. The lover is always present and he lives with her, within the family. The danger of male authority as a husband and patriarch lives on constantly, at close quarters, but mostly in the woman's imagination. The dutiful and loyal wife may observe the social, moral code entirely, yet within her live the memories of the perfect lover who had given her first emotional and erotic experience.

To sum up we may draw a conclusion that the problem of marital harmony that Karnad has depicted in this play is universal. Since the very dawn of human civilization this problem has existed. The solution of the problem is, as Karnad shows, the reconciliation and the trust reposed in each other. Marital disharmony has been a very burning issue, especially in the highly civilized society world over just because of the lack of trust and mutual understanding between husband and wife. Marriage is not nearly a source of personal fulfillment but as a social institution, its importance has to be seen in terms of its role and commitment in the larger social perspective. Hence, there should be an earnest endeavor on the part of both the husband and the wife that they should strive together to achieve harmony in their marital relationship.

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The Only Way To NIBBĀNA

*Thitzana**

ABSTRACT

This is one and only way which can lead us to the Nibbāna. Therefore Buddha said: “ekāyano ayaṃ bhikkhave maggo sattānaṃ visuddhiyā.” In the Mahā Satipaṭṭhāna Sutta commentary, it is said there is the one and the way; there are no two ways. The path which can lead to Nibbāna is the one and only way. If a yogi follows the very way he will certainly attain Nibbāna. Without practicing Satipaṭṭhāna contemplation, no one can attain Nibbāna.

KEYWORDS : carefulness, notice, attention, contemplation, heedfulness, concentration etc.

INTRODUCTION

“Ekāyano” is composed of two parts, “eka” and “ayana”. Ayana means way, path or road, and eka means one. So, ekāyano literally means one way. This one way is interpreted to mean one way which has no forks, no branches. There is just one way and if you tread this way you will surely reach your destination. There are no misleading branches of this way.

Three kinds of genesis of Kilesa

According to the scriptures there are three ways in which the defilement develop in living being,

1. Latent defilements
2. Internally active defilements
3. Externally active defilements.

Latent defilements (anusaya kilesa)

Anusaya is defined as something which always lives latent in the physical and mental process of living being. For example, there are badam trees everywhere in the country. The fruits of these trees contain some good seeds that clearly have the potential for developing into trees with sprouts, leaves, branches, stem, etc. Similarly the anusaya kilesa is inborn at the time when the embryo arises along with the rebirth consciousness.

Then until you become an Arahant with all defilements extinct, it is inherent in the physical and mental process through the whole life. It is there no matter whether you are doing evil deeds such as killing or good deeds such as charity or meditation. It is with you when you are dying, then it passes on and inheres in your new existence right from the moment of conception and the conjunction of rebirth consciousness, mental factors and corporeal group. So it goes on. It is innate in the mental and physical process through the whole life-cycle in the lower world, the human world and the six worlds of devas.

The anusaya kilesa is to be found even in the world of unconscious beings where only corporality exists. The latent defilement is of two kinds. The first kind of kilesa is latent in us because we have not yet removed them through the path-consciousness. The other kind of kilesa is based on the ego-centered belief in the permanence and pleasantness of all physical and mental phenomena if one does not simply note seeing, hearing, smelling, eating, touching, thinking, etc, at the moment of contact between the six sense-objects viz. visual object, sound, odour, taste, sensation and mind-object and the six sense-organs viz. eye, ear, nose, tongue, body and mind.

The real Anusaya Kilesa

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Of the ten defilements the six viz. greed, hatred, delusion, conceit, wrong view and doubt are more powerful and effective than the others. They make us do evil effectively. The other defilements viz. mental torpor, restlessness, lack of moral sense and lack of moral scruple are not potent and effective. Therefore these four kilesas are not latent defilements.

Only the first six kilesas such as greed, hatred and so forth always lie latent in the mental process of an ordinary person as long as they are not eliminated through the attainment of insight on the Ariya path. Hence only they are called latent defilements. In particular when in the “Yamaka” of abhidha-mma pitaka these six defilements are described as latent or anusaya, greed and hatred are called “raga-nusaya” and “patigha nusaya” respectively. So the term “anusaya kilesa” denotes the six kilesas viz. greed, hatred, delusion, conceit, wrong belief and doubt which are potentially powerful enough to become active under appropriate conditions.

Internally active defilements (Pariyutthana Kilesa)

Pariyutthana kilesa are those which become active and violent at the moment of contact between the six sense-organs and six sense objects. They occur in living beings who have not yet overcome latent defilements through the attainment of insight on the noble path.

At the sight of a pleasant object there arise craving and the defilement of greed. On the other hand an unpleasant object makes us dejected and gives rise to the defilement of hatred. Not to know the arising of greed or hatred is the defilement of ignorance or delusion. These are pariyutthana kilesa which become internally active and violent just as the seed of a badam fruit produces a tree when it is planted in good soil and watered.

Externally active kilesa (Vitikkama kilesa)

When the internally active and violent defilements are not controlled they find an outlet in verbal and corporeal transgressions and we have vitikkama kilesa.

Some forms of this defilement are filling, stealing, committing adultery, lying, slandering, abusing, talking frivolously, etc.. These verbal and corporeal misdeeds lead to suffering in afterlife where the evil doer is still under the influence of latent defilements. It is just like the badam tree which bears some fruits containing procreative seeds that lead to the reproduction of badam trees. The group of mind and corporeality gives rise to one new existence after another and leads to endless suffering through the life-cycle.

If this violent, rebellious and defiled mind is not disciplined and restrained, it turns into vitikkama kilesa in the form of bodily and verbal transgressions. Then we will have to continue our endless wandering through the life-cycle that is fraught with suffering in the lower worlds and the evils of birth, old age, sickness, death and dissolution. We will continue to be tormented, harassed and blindly set adrift in the ocean of life-cycle (samsara).

Therefore it is good to discipline the ruthless and unscrupulous mind through the practice of morality, concentration and wisdom. This threefold practice or training is essential to the conquest of rebellious (pariyuttham) kilesa together with its cause viz. the latent kilesa and the deterrence of external (vitikkama) kilesa.

Morality as a deterrent to transgression

The Buddha’s moral teaching serves as a deterrent to transgression (vitikkama kilesa). Those who live up to his moral precepts guard their verbal and bodily actions so as to avoid moral lapses and transgressions. For example, a man who keeps Sabbath will not kill a mosquito that is biting him because he is mindful of his commitment to non-killing. He will only drive it away. This is just an example of the way the moral training helps us avoid transgression. We may elaborate it but what I have said will suffice.

Concentration (Samadhi) as an antidote to rebellious defilement

The rebellious kilesa is to be eliminated through concentration (Samadhi). In order to attain concentration (Samadhi) we should adopt one of the forty methods of training in concentration. The yogi who takes up training in concentration focuses his mind on a wholesome object instead of allowing it to be infected with defilement.

For example, he concentrates his mind on the attributes of the Buddha, such as “The Blessed One possesses the Arahān attribute because he is worthy of being especially honoured by men, devas and Brahmas”, etc. His mind does not wander elsewhere but is confined to his memory of the Buddha. Thus the yogi who contemplates on the noble attributes of the Buddha is not in contact with pleasant or unpleasant object and so he does not harbour greed, hatred, etc. In this way he overcomes rebellious defilements. It is said that those who practice concentration on earth and land in the Brahma world after death are free from the active rebellious defilement for many world-periods.

Insight-knowledge as a remedy for latent defilement

As for the anusaya kilesa which lies latent in living beings they are to be eradicated through insight-knowledge or in other words knowledge of truth or reality. There are three kinds of knowledge. The first kind of knowledge is the knowledge which we acquire from books and teachers. On the basis of such knowledge we use our intellect, think, reason and arrive at conclusions. This is the second kind of knowledge. These two kinds of knowledge lead to insight-knowledge about the origin, effect and cessation of physical and mental phenomena such as seeing, hearing, etc. that arise at every moment of contact between the sense-organs and sense-objects. Such knowledge is called insight-knowledge.

We should carefully bear in mind that it is only through insight-knowledge that we can overcome latent defilement.

The word ekāyana is explained in five ways. The first explanation is that it is the “single way” that does not branch off. There are no branches in this way, so that you can follow this way with assurance from beginning to deliverance.

The second explanation is that this way has to be trodden “alone”. In practicing meditation, you are making this journey alone, without companions. You may be in a group, you may be in a retreat, but actually you are going your own way. You are alone. No one is with you. No one can give his or her concentration or wisdom to you and you cannot give any of your concentration or wisdom to anybody else. So, Even though you may be in group, you are really practicing alone. Therefore, this is the “only way”, the “way to be trodden alone”.

The third explanation is that this is the “way of the One”. The “way of the One” means the “way of the Excellent One”, the way discovered by the Buddha.

The fourth explanation is that it exists in this dispensation only. Here eka means one and ayana means existing; therefore, ekāyana means existing (ayana) in this one only (eka). It is in the dispensation only, in the teaching of Buddha only, that the teaching of Foundations of Mindfulness or rather, of the Eightfold Path is found.

The fifth explanation is that it is the “only way” because it is the way that leads only to one destination, that is, to nibbāna. So, when you go along this way, you will surely reach the destination. Nibbāna will be the only destination you reach, when you go along this way.

Now, with regard to the translation “the only way” there are two questions. One is that here, Four foundations of Mindfulness mean mindfulness only. But, there are other factors of the Noble Eightfold Path. So, are they also not the way to purification of beings? The answer is that they are also the way to purification of beings, but they do not exist without mindfulness. So, when mindfulness is mentioned, they are virtually mentioned, i.e.,

although mindfulness alone is mentioned here, we should understand that all the other seven factors that are concomitant with the Noble Path are also implied.

The other question raised by people, especially of West, is “Why did Buddha say, “This is the only way”? Aren’t there other ways to the purification of beings? They argue that there are different roads to reach a city and just as there are different roads to a city there must be different ways to reach purification of beings or to reach Nibbāna. Some people do not like this or they thought the Buddha would not have said this, “The only way”. Sometimes analogues are not really correct. It is true that there are different roads to reach this town. (I am not familiar with this country, so I do not know which roads reach this town.) But they are roads; they are not marshes or forests. And so, the road is the only way to reach this town. There may be different roads but they are roads. In the same way, there may be different ways of practicing mindfulness but they must be mindfulness. Only mindfulness can lead us to the attainment of Nibbāna. Also, if we say physical exercise is the only way to build big muscles, I think no one would object to that. If you want to build big muscles you have to do physical exercise. Without physical exercise, you cannot hope to build muscles. But, physical exercise can take different forms such as weight lifting or using machines and so on. In the same way, mindfulness is the only way to reach Nibbāna, but mindfulness may take different forms. Even in this discourse on the foundation of mindfulness, mindfulness practice is taught in twenty-one ways. There are twenty-one different kinds of mindfulness practice to choose form. Therefore, I think it is correct to say that this is the only way. So, mindfulness is the only way.

CONCLUSION

If you want to overcome sorrow, defilements and lamentation or crying aloud you should practice mindfulness. Mindfulness is the only way to overcome sorrow and lamentation. There is no other way to reach Nibbāna. The mindfulness of Satipaṭṭhāna way is the only way to nibbāna, the end of suffering, destruction of mental defilement.

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Six Supreme Attributes of The Dhamma

Ven. Cancavara*

ABSTRACT

A yogi who contemplates the *Dhamma* repeatedly is imbued with the intrinsic value of the *Dhamma* in its being worthy of constant companionship so much so that he feels a deep sense of awe and gratitude towards the Buddha, the fount of the *Dhamma*. For never was this *Dhamma* propounded by the other teacher. Thus, through the habitual contemplation of the *Dhamma*, one naturally becomes devoted to the Buddha exceeding other person's devotion. Therefore his devotion to the Buddha is comparable to that of the *Ariya*. He gains a stable mindfulness, a profound wisdom, and much merit. He becomes possessed of much delightful satisfaction, first of the feeble kind but later, of an ecstatic kind. He becomes indifferent to fearful things, great or small. He becomes tolerant to pain. He feels that he is in the company of the *Dhamma*. The body of one whose mind is steeped in the *Dhamma* is like a shrine worth paying homage to. His mind is always inclined to and desirous of attaining the nine *Supramundane* factors being constantly aware of the attributes of the *Dhamma*, he is incapable of allowing himself to commit evil, through shame and dread to do it, whenever occasion for it arises. Contemplation of the *Dhamma* is a sure basis for gaining *Magga Phala*. If the yogi does not attain *Magga Phala* in this existence for want of sufficient past merit, he is reborn in the fortunate existence.

KEYWORDS: well-expounded, svakhato, sanditthiko, akaliko, ehipssiko, opaneyyiko, paccattam veditabbo, path-knowledge, supramundane.

INTRODUCTION

The Buddha's Pariyat Doctrine clearly chalks out two modes of the practice, the practice conforming to the teaching sasana brahma cariya, and noble practice of the Path, magga brahma cariya. In teaching these two modes of the practice the Buddha defined the noble practice in terms of the deepest significance in meaning. For instance, if a religious teacher were to give emphasis on such mundane words as gruel, rice, or men, or women, those terms do not have any intrinsic value that can lead to the ending of the woefulness of the round of existences. So such words do not carry any significant meaning from a truly religious point of view. The Buddha rejects giving emphasis on those mundane terms but expounds the four foundations of steadfast mindfulness (*Satipathana*), the four earnest endeavours (*Sammappadhana*) etc. in detail which have the effect of gaining release from the round of existences. Thus the *Pariyat* doctrine defines the noble practice in these significant absolute terms, replete with profound meaning.

(1) In *svakkhata*, *Dhamma* refers to the doctrine (*pariyat*), the four *Magga*, the four *Phalas* and *Nibbana* (the *pariyat* and the nine supra mundane factors.)

The *Pariyat* is excellent at the beginning, excellent at the middle and excellent at the end because it is perfect in meaning and in words and because it proclaims the threefold training and *Ariya* path, *Maggas* the pure and complete way of practice. The *pariyat* is perfect because even within a single stanza its first line is perfect, and therefore perfect at the beginning; its second and third lines are perfect and therefore perfect at the middle; its fourth line is perfect and therefore perfect at the end. In a discourse, it has an introduction that makes it perfect at the beginning. It has a conclusion that makes it perfect at the end. And the middle

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portion with its logical connections between various points makes it the middle. In a discourse consisting of a number of connected thoughts the first connection of logical relationships is perfection at the beginning. The last connection of logical relationships is perfection at the end. The remaining logical relationships are perfection at the middle.

The Buddha Doctrine requires his disciples two steps to take: the first step is for them to listen attentively with a certain faith, and the second is to take up the practice of the *Dhamma*. When the above steps are taken in their order and the proper practice is done, a disciple attains *Arahattaphala*. Therefore, in listening to the Doctrine, if you have the ultimate objective of *Arahattaphala*, you gain the knowledge of what has been heard, *Sutamayanana* the repeated arising of which can put away the hindrances of the mind. Hence paying good attention to the Doctrine is excellence at the beginning. If you take up the Practice of the *Dhamma* after repeatedly listening to it, you get calm that comes with concentration *Samatha Sukha*, and then if pursued correctly, you gain insight into phenomena which gives you peace and satisfaction *Vipassana Sukha*. Thus the practice of the *Dhamma* is excellence at the middle. Since proper practice leads to *Arahattaphala*, the result of the practice is the excellent at the end. In this way is the *Pariyat* Doctrine excellent at the beginning, at the middle and at the end, and therefore it is truly acclaimed as *Svakkhato*.

(2) Sanditthiko.

This attribute only relates to the *Supramundane sam*, self, *dittha*, and the truth realisable by the *Ariya*. All *Ariya*, be he a stream-enterer, or a Once Returner, or a Never-Returner, having destroyed the various defilements each according to his status, have no business of harming oneself or harming another, or harming both because they are not subject to defilements such as attachment (*raga*). Therefore they have no bodily pain. Since the defilements are extinct they are free from mental pain. On pondering over this bodily and mental ease, the *Ariya* perceives that his freedom from physical and mental troubles is due to the absence of defilements such as attachment which he has destroyed through Path-Knowledge. He knows it from personal experience and not from hearsay. Thus the *Ariya Magga* is perceivable by the *Ariya* by his own experience, i.e., it is *Sanditthiko*.

(3) Akāliko.

This attribute relates only to the *Ariya* path. Refer to the meaning of *akaliko* given above. The *Ariya* Path fructifies without delay, and so it is timeless in bringing benefit. Consider mundane merit and its benefit which must take a day or at least a few hours to fructify, even if it is the type of merit bearing fruit at present. With the *Supramundane Ariya* Path it is not so. No time clasps between the arising of *Magga ñāna* and the fruition thereof, *Phala ñāna*. The Path knowledge gives rise to the Fruition Knowledge immediately. Hence the *Supramundane Magga* is timeless in its fruition, *akāliko*.

(4) Ehipassiko.

The nine *Supramundane* factors are real things in the ultimate sense. They exist in truth and reality. They are beautiful things because they are pure, not defiled by mental taints. They are worth inspection. “Come, see for yourself, and experience it yourself! Try it out yourself!” they seem to be inviting. For example, if you have nothing worthwhile in hand to show such as a piece of gold or silver, you cannot invite others, “Come and see what is here.” Again, if you have something horrible or detestable in hand, such as excreta, you cannot gladly invite other to come and see it. Rather, something detestable or impure is only kept hidden and is not displayed. The nine *Supramundane* factors are real things in the ultimate sense. They are like the full disc of the moon in a clear sky, like a big ruby placed on a white velvet cloth. These *dhamma* are stainless, spotless, and perfectly pure. They are therefore

worth inspection, worth appreciation. They invite anyone to testify for himself their presence and their true worth.

(5) Opaneyyiko.

Worldlings do not have the experience of the *Supramundane*. Their mind has never attained *Magga*-consciousness and *Phala*-consciousness. Therefore they have never realized *Nibbana*. It is just because they have never attained *Magga*-consciousness and *Phala*-consciousness and never realized *Nibbana* that they wallow in the mire of the woeful round of existences endlessly. If the lowest level of the *Supramundane* Knowledge as Stream-Entry is attained, if *SotapattiMagga*-consciousness has ever arisen in one, the yogi as an *Ariya* has realized *Nibbana* as clearly and unmistakably as he has seen something with his own eyes. Once this realization has taken place, he can make an end of all sufferings i.e. the woeful round of rebirths in utmost seven further existences in the fortunate destinations. Once one occasion, the *Bhagava* placed a pinch of dirt on his finger-nail and said to the Monks: “monk, which is greater this pinch of dirt on my finger-nail or the great earth? And the monks replied, “Venerable Sir, the dirt on the finger-nail is infinitesimal; the great earth is far greater beyond comparison.” “Similarly, monks,” said the *Bhagavā*, the number of existences that have been prevented from arising by *Sotapatti Magga* by an *Ariya* disciple is as great as the great earth; the number of existences that remain to arise for him is as little as the pinch of dirt on my finger-nail.

Thus the *Supramundane* factors have the effect of cutting down the role of the farer in *samsara* into a few further existences only, with the ultimate effect of total release from *samsāra*, according to the attainment of each individual *Ariya*. That being so, a virtuous one wishing to make an end of *dukkha* should give top priority to gain *Magga Phala*. Even if one’s head be on fire, the extinguishing of the fire is not such a matter of urgency as the gaining of Path-Knowledge because fire on the head can destroy the present life only whereas the fire of defilements within can cause endless trouble throughout *samsāra*. The *Supramundanedhamma* should be borne in mind diligently until Path-Knowledge with its fruition is attained. *Nibbana* should be made the mind-object with diligence. Thus the nine *supramundane* factors are worthy of being constantly borne in one’s mind, *opaneyyiko*.

(6) Paccattam Veditabbo.

All the three types, after attaining the path, known for themselves, that they have taken up the Noble Practice, that they have attained the path, the fruition, and have realized *Nibbana* through their own experience. For the eradication of defilements is to be accomplished directly by oneself. A close disciple cannot discard his defilements through the attainment of the path by his master. Nor can he dwell in the fruition of the path through the attainment of the fruition by his master. Neither can he make *Nibbana* his own mind-object through the master’s making *Nibbana* his mind-object. Only by the attainment of *Magga* by one’s own self can one get rid of the defilements within oneself. Dwelling in the Fruition is possible only when one has attained the Fruition-Knowledge oneself. *Nibbana* also is likewise a matter for direct experience, and not realizable through another’s experience. Thus the nine *Supramundane* factors are not to be considered as ornaments that adorn other people but are only the property of the *Ariyas* who only can enjoy them. Since they pertain to the wise, these factors are beyond the pale of fools. Thus the nine *Supramundane* factors are the property of the *Ariyas* who alone can realize them in their mind and enjoy them, *paccattamveditabbo*.

CONCLUSION

Although the commentary says that in specific terms the five attributes beginning with *sanditthiko* belong to the *supramundane*, they can also be considered as belonging to the doctrine or *pariyatti dhamma* on the following grounds.

A wise person who is learned, who has memorized much *Pali*, who is of very stable mindfulness, can perceive the doctrine as being excellent at the beginning, etc. and so the Doctrine is *sanditthiko* as *sanditthiko* is “That the knowledge of the doctrine can be a tool to conquer believers of other doctrines” it is specifically *sanditthiko*. In conquering the defilements, knowledge of the doctrine is a contributing factor and so the doctrine is by inference *sanditthiko*: as another definition puts it: “That the doctrine has been expounded to clear away all defiling factors” and directed at the promotion of pure meritorious factors, it is worth to be studied closely to gain perception. Hence it is *sandhitthiko*. Since the Doctrine is the true condition for the attainment of the *supramundane magga*, which may be realized at all times, it is *akaliko*, considered from the point of probable result. The Doctrine itself is real and is perfectly pure. So it also is open to inspection and can invite all the world to come and see it, to learn it, and to examine it. Hence it is also *ehipassiko*.

Being replete with those attributes, the Doctrine is worthy of being constantly borne in mind by the wise who wish to make an end of *dukkha*. Therefore it is *opaneyyiko*. One who studies the Doctrine with a mind intent on *Arahatship*, will get delightful satisfaction both on account of its excellence in language and excellence in meaning. This quality of giving delightful satisfaction to the wise individually, according to their capacity, is truly *paccattamveditabbo*.

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Essence of The Ten Perfections In Theravāda Buddhism

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Abstract

Pāramī is a Pāli word which briefly means “deeds of the noble ones.” So, to understand it well, it will be necessary to know who the noble ones are. They are those who pay no attention to their own will being but who do for the good of others and for their liberation from the round of rebirths (*samsarā*). They do not use themselves for accumulation of wealth and luxury, for achievement of high offices, fame and honor and for the esteem of others. They do not use the loka for the sake of their lives but use themselves for the sake of the loka. They sacrifice their lives for the loka. Among these noble ones, prince siddhattha, the embryo Buddha Gotama, was the most outstanding model. For this reason, the deeds of the noble ones are called ‘Pāramīs’. The deeds of the noble ones can be of different kinds, but when grouped by their nature, there are only 10 kinds.

Keywords : Perfection of Almsgiving, Perfection of Morality, Perfection of Renunciation, Perfection of Wisdom, Perfection of Energy, Perfection of Forbearance, Perfection of Truthfulness, Perfection of Resolution, Perfection of Loving-Kindness, Perfection of Equanimity.

Introduction

Man begins his life with greed (lobha). ‘lobha’ is defined in Pali ‘bhava nīkantalobha’, which means craving (tanha) that adores bhava (existence). In order to prevent his life from being ruined, man strives with lobha (greed) to get whatever he wants. This is only natural. It, however, is the nature of atta (love of self), which the virtuous ones do not practise but strive to be able to get rid of. It is true that one has to build one’s life according to the Buddhist doctrine. Life, however, is not to be built like the hti (pinnacle) of a pagoda. It has to be built only like a ‘scaffolding’. However strongly a scaffolding is built, once the purpose for which it is built is served, it inevitably has to be pulled down, to be done away with. Only according to other doctrines, life is built like the ‘hti’ and as long as life is built as such, man will never escape from the whirlpool of samsara (round of rebirths) and will drift in it bobbing up and down, enjoying pleasures at times and contending with pains and miseries (suffering) at other times, but at all times clasping ‘soka’ (grief) to his breast.

How Pāramī are accomplished

When the majority of the people who are worldlings (*puthujjanas*) look at objects, they always see them wrongly (*Diṭṭhi Vipallasa*), they always understand them wrongly (*cittavipallasa*) and they always perceive them wrongly (*saññāvipallasa*). For this reason, though there exist no such things as persons or objects in the loka, they see them, understand them and perceive them as though they exist. In seeing, understanding and perceiving thus, though according to Vipallasa they are equally wrong, from the point of view of performance or execution of deeds, they differ, because one kind directs its attention towards the loka and the other kind directs its attention towards themselves.

In reality, according to the ultimate truth Sammuti Sacca, the loka is saṅkhāra (of conditioned and compounded) nature, but they do not see it, understand it and perceive it as such; they see, understand and perceive it wrongly as persons and objects, as places and

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abodes. In truth, the world (*loka*) is of saṅkhārā nature (of decay and dissolution), but this nature is not seen, understood and perceived.

They see it, understand it and perceive it according to reverse (*Vipallasa*) nature, as person or beings, or as abodes. Then they call the persons or beings they see, understand and perceive as world of sentient beings (*Satta Loka*) and as world of space (*Okasa Loka*). Thus, those who see, understand and perceive do so on the basis of Vipallasa perspective. And the objects seen, understood and perceived are also centred on Vipallasa. Thus, human beings are drifting along in the ocean of Vipallasa and it shall be absolutely necessary to strive to get out of it and reach the right place of land.

It is not at all easy for one to strive to escape from the wrong place of the ocean and to get to the right place of land. In spite of this difficulty, there have been those who have attempted in the past as well as in the present and succeeded and there will also be such persons in the future. This is quite natural. Such persons are called the noble ones. They are also named virtuous worldlings (*kalyānaputhujjanas*), who have still to learn and who have not yet attained the final magga (*sekhas*), ordinary arahats (*pakatisāvakas*), senior arahats (*mahāsākhavas*), chief disciples (*aggasavakas*), who like the Buddha are self-enlightened but cannot teach others (*paccekabuddha*) and Buddhas who truly comprehend the dhamma by their own intellect and insight (*sammāsambuddhas*).

Deeds of Pāramī

Among the noble ones who strive to escape from the wrong place of the ocean and to get to the right place of land, the sammāsambuddhas are the leaders. They are called ‘myat-swā-payā’ in Myanmar, meaning the noblest of the noble ones. All their deeds are, therefore, called ‘Pāramī’. These deeds cover everything they have done from the time they receive the prophesy that they will become the Buddhas up to the time of their passing away into Nibbāna (*mahāparinibbāna*).

In truth, all the deeds of the noble ones from kalayānaputhujjanas up to the paccekabuddhas are embraced by the deeds of the Buddhas, just as the footprints of the elephant can contain the footprints of all other animals. To determine whether a deed amounts to an act of Pāramī, the deeds of the Bodhisatta from the time he received the prophesy up to the time of his final passing away should be studied and used it as the yardstick for comparison.

To speak candidly, the really noble ones are all who have extinguished defilements (*kilesas*) and moral intoxicants (*āsavas*). However, those who are practicing for the extinction of āsavas have also been counted as noble ones to stretch the meaning. Therefore, though it should be said that only the deeds of ariyas (those who have gained at least one magga), beginning with Buddhas who have extinguished kilesas and āsavas are Pāramīs, all the deeds done in their past existences of the Buddhas and other ariyas should also be called Pāramīs, the Pitakas say.

Two main Characteristics

To know if a deed is a Pāramī or not, there are two distinguishing characteristics to consider. They are: (1) whether its aim is to have compassion on others and to be liberated from the round of rebirths, and (2) whether deeds done, such as almsgiving, etc. are based on the above aim. Otherwise, they are not Pāramīs.

As according to the first aim, it will be necessary to work for the welfare of others without paying attention to one’s own welfare, it will be not easy for a person with ordinary loving-kindness (*mettā*), ordinary compassion (*karunā*) and ordinary volition (*cetanā*) to

perform it. As it is the nature of a worldlying (*puthujjana*) to love himself best (*atta samampemamnatthi*), unless a person is a noble man, he will think of his own welfare first.

Therefore, not to put one's welfare first, a person must have love for others more than he loves himself, otherwise it will be impossible for him not to think of his welfare and to work for the welfare of the others. It would be just an imagination. It might be so, but those who imagine thus must be those of ordinary intelligence who fail to catch the meaning of the poem of Minister Ananda Thuriya, in the days of Pagan dynasty.

The poem says! 'The pomp, splendor, luxuries and pleasures of a king are ephemeral like the bubbles in the ocean which appear just for a moment...' They cannot be noble persons like Ananda Thuriya. They will be just common people who have normal views, who have normal thought and who draw normal conclusions. It is quite natural. In truth, Pāramīs are not for normal persons but are for the noble ones. Therefore, only the noble ones really know the meaning and connotations of Pāramī. Normal persons do not know it.

Bhava and Saṃsara

This is because of the difference in views in the understanding of the meaning of life (*bhava*). Really, bhava having no essence, is annata (non-self). As it is impermanent, it is anicca. As it is really suffering, it is dukka. However, using bhava which is anicca, dukka and anatta, as capital, a person can gain supreme bliss (*santisukha*).

This is the way the noble ones see. When the life-span of bhava is compared to the length of the round of rebirths (*saṃsara*) it is as short as the life of a bubble that appears in the water of the ocean. It can exist just for a very short moment and then perishes. There is no substance in it whatever. Therefore, the lifetime of life of a person, when compared to the length of the saṃsarā, round of rebirths, is only a very short moment.

Both animate and inanimate things have their life spans. The universe (*cakkāvalā*) also has its life span. The world also has it; a country also has it; a Brahma also has it; a deva also has it; a human being also has it. However, within the life span, there is time for arising (*upāda*), time for developing of standing (*thiti*) and time for dissolving (*bhanga*). When the time comes for arising, there is arising; when the time comes for developing, there is developing; when the time comes dissolving, there is dissolving. This law cannot be bypassed. However, ordinary persons, who are not the noble ones, wish to go contrary to this law. When the time for dissolving comes, they forcibly want to be arising or developing. They forcibly want to be developing or arising though the time has come for dissolving because they do not know the length of the spans.

Although one is a human being, he thinks he will live the life span of a deva or of a brahma. Some even think that the life span of a human being is as long as the life span of the saṃsarā. Then, they also think that human existence is a permanent one. Their views are wrong views. Being persons with wrong views-

-though existence (bhava) is impermanent (*anicca*) they do not see it as such. They see it as permanent (*nicca*).

-though it is dukkha, they do not see it as such. They see it as happiness (*sukha*).

-though it is non-self (*anatta*), they do not see it as such. They see it as self (*atta*).

-though it is an unpleasant object (*asubha*), they do not see it as such. They see it as pleasant object (*subha*).

Seeing in this way, though the pleasures and luxuries connected with their life (bhava) will last only their limited life spans, they make the utmost effort to preserve them as if they will last the whole of the saṃsara. They do their best to do it.

In spite of their utmost effort to preserve them, when these pleasures and luxuries are destroyed or lost, they are filled with great distress and despair. As these persons regard their pleasures and luxuries as their own lives, their destruction or loss is death to them. For those who regard life as of two kinds- external and internal, pleasures and luxuries are external life (*material life*) and rūpajivita and nāmajivita are internal life and the destruction and loss of pleasures and luxuries is death to him.

The cessation of rūpajivita and nāmajivita is also death to them. For this reason, ordinary persons, compared with the noble ones, have double chances for death.

CONCLUSION

The virtuous personages perform ten kinds of basic tasks in paying their debts of gratitude to the surrounding world. They are also called ten kinds of Pāramīs (perfections). In every task, some kind of sacrifice is usually called for. Accordingly, if the need for sacrifice in the discharge of a task is accepted and one does that task, it is the fulfilling of the Perfection of Almsgiving, Dāna Pāramī.

If one does the task with pure volition without regard to one's self-interest, it is the fulfilling of the perfection of Morality, SīlaPāramī.

If one does the task without any hope or longing whatever for material affluence, high offices or honour, leadership, respect by others, fame or other privileges, or to use the common terminology, bhava sampatti and bhogasampatti, but does the task accepting it as worthy, it is the fulfilling of the perfection of Renunciation, NikkhemaPāramī.

If one does the task, not regarding it as the highest advantage for oneself, but regarding it as of the highest advantage to the loka, using his physical and mental capabilities to the utmost, studying its cause and effects, it is the fulfilling of the Perfection of Wisdom, PaññaPāramī.

If one does the task with unremitting zeal and energy, it is the fulfilling of the Perfection of Diligence, ViriyaPāramī.

If one does the task undaunted by the difficulties and obstacles encountered, it is the fulfilling of the Perfection of Forbearance, KhantiPāramī.

If one does the task believing it to be deserving and without betraying this belief physically, verbally and mentally, faithfully goes on with the task in accordance with this belief, it is the fulfilling of the Perfection of Truth, Sacca Pāramī.

If one does the task, though he has to change the manner, in which it is being done to be in keeping with the changing times and conditions, he does not let any deviation from the original aim. It is the fulfilling of the Perfection of Resolution, AdhiṭṭhānaPāramī.

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Work Ethics Among Genders A Comparative Study of Working Employee in IT Industry

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Introduction

This research work is to find out the degree of established work ethics in the working employees respective to their gender, especially male, female in the service industry. The research is to give a quick relationship of work ethics and productivity through literature reviews and start working on the vacuum that no fact is available to show the degree of work ethics among genders. The current research work is to find out if there is any advantage to a particular gender directly while evaluating work ethics as the basis of productivity and organizational development. To meet this objective the research is to test the concept empirically in the service organizations as Information Technology. The finding of the research is a great help for HR in hiring, promotion, for making development programs, job analysis. The findings are to help the managers too in delegation of authority, assigning roles and responsibilities, formulating teams. In the present organizational set-up the workforce sums-up permanent employee or contractual employee, freelancer or outsourced worker, WFH (work from home) employees after the Covid-19 outburst or on the job employees in the different organization in service sector, especially in IT industry. The clients and other stakeholders for the industry too are diversified demographically. For this diversified workforce including woman represents considerable ratio in workforce and the issue of discrimination among gender in promotion, responsibility assignments, remuneration also comes up time to time in notice. Thus a scientific finding which comes up after a through research studying the relation of work ethics in genders, relationship between work ethics and productivity, and even is try to give an order of hierarchy of work ethics highly confirms productive. The research finding gives a justified tool for consideration in aforementioned decisions. The findings of the research are to reduce challenges of stereotype, and prejudices at workplace. The research is to list the work ethics, for example professionalism and initiative; the next, it will compare its relation with productivity in the industry then is to rank the work ethics in hierarchy and finally will check comparatively, presence of each in gender. For its objectives researcher is to prepare a highly validated questionnaire and collect the data from the sample population and for removing any biases will re-examine the respondents' responses in a focused group representing managers and HR managers, next the researcher administered the data as tabulating it and finding the numerical values, the researcher will use the inferential statistics then and present her finding carefully. The questionnaire is to prepare for executive and lower managerial level in hierarchy. For ordering the work ethics in the importance of productivity, the thorough literature reviews is to be carried out and discussions with the different departments; i.e., HR, sales, operations, product development, finance, accounting.

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Background-

(John Deigh) Ethics is the study of what are good and bad ends to pursue in life, human conduct and its rightness and wrongness of certain actions and goodness and badness of the motives and ends of such action. The origin of "Ethics" is from the Greek word 'Ethos' which means customs and traditions and represents belief, norms, value endures by a society. In business ethics, we are concerned fundamentally about the ethical aspects of exchange in society.

(Jeffrey Moriarty, 2021). Through earlier research there is a positive relation has been set up between work ethics and productivity. Meanwhile, work ethic and organizational learning affect employee productivity. (Samaneh Faregh, Ramezan Jahanianb, Mahtab Salimi, 2021).

After literature reviews the researcher comes up with the gap to assert the prevalence of work ethics respective to genders in service sector. Now the researcher starts working on the vacuum that no fact is available to show the degree of work ethics and its prevalence among genders. The finding of the research is to be a great help for HR and managers in hiring, promotion, for making development programs, assigning role and responsibility, team selection which are few named here. The motivation for the research is the prevalence of the general belief that women are highly focused to their job responsibility and work in hand as well as can perform effectively multiple tasks simultaneously comparing to man (Stoet, G., O'Connor, D.B., Conner, M. 2013). The woman also carries work life balances and organization commitment better than other gender (Liu. T. 2021). Importance of the research outcome is the knowledge that clearly establishes the degree of ethical acceptance in gender. For the industry, It helps establish factual relations about why to hire a gender and how it helps in productivity. The research outcome is to help in delegating authority, selecting teams, promoting executives, remuneration, executive training and development programs. The finding of the research work gives new knowledge for the field of HRM and its practitioners and management.

Research Problem Statement

Human resource management is the backbone of any industry and establishment. It starts from accessing the gap and filling those gaps through hiring the best among the best. HRM has to deal continuously with the factors like attitude, perception, learning, leadership skills, motivation level, satisfaction, work life balances and even disputes and conflicts, allegations, grievances to establish the policies and code of conduct, corporate governance and industrial relations to bring out balance among parties involved in an organization. HRM is about bringing the best fit in job description and job specification. Managers also face the problem of bounded rationality in taking decisions regarding subordinates and his/her jobs. Both needs better factual scientific findings which eliminate risk in their decisions. After literature review the researcher finds a need and problem to have tool which shows prevalence of work ethics, values and code of conduct respective to gender in the workforce. And give an order to required work ethics in accordance with productivity.

Preliminary Literature Reviews

'A country should be defended not by arms, but by ethical behavior.' (Vinoba Bhave)
 'When you are interested in doing something, you do it only when it is convenient, when you are committed to something, you accept no excuses; only results.' (Kenneth Blanchard)
 'Everyone talks about age, but it is not about age. It is about 'Work Ethics'. Winning never gets old.' (Lisa Leslie)
 'The first qualification for success in my view is a strong 'Work Ethic'. (Henry Ford II)

Ethics- There is three most widely accepted theories of ethics which we are must consider relevant in the subject.

Aristotle ‘Virtues Approach’

Solomon (2003) believes that an institution must not speak the language of profit, but also of virtue. Aristotle firmly believes that wealth is not the only purpose of a human life but it is a means to achieve something far more valued than wealth.

Kant ‘Deontological Approach’

An action has a moral worth if it is done for the sake of duty. An action is morally correct if its maxim can be willed as a universal law. Humanity has to be treated as an end in itself and merely as a means to an end. *Wiggins(2006)* states that a reasonable being is important amongst the things in nature by being capable of acting in accordance with a conception of laws which in turn is according to the principles.

Mill’s ‘Utilitarianism Approach’

Standard of right conduct is maximization of good consequences. *“If all mankind minus one, were of one opinion, and only one person were of the contrary opinion, mankind would be no more justified in silencing that one person, than he, if he had the power, would be justified in silencing mankind.” (John Stuart Mill)* When utilitarianism is applied to a business decision, there is no absolute right or wrong choices. Rather, the right decision is the decision that leads to the most benefit and the least detriment

'Rights and Duties- Ethical Model'

The rights and duties ethical model rests on the concept that individual people and groups have rights and that the company has the duty to respect these rights. The company recognizes its duty as a parent.

'Virtue Ethics- Ethical Model'

Under this model business behavior is driven by asking ‘what would a virtuous company/person do?’ one ideal company where the company strives to emulate, Kind, Helpful, Responsible, Compassionate, Progressive, Fair.

Justice Model of Ethics- is equal distributions of benefit and harm to all stakeholders. Equity and fairness are important for organization. The employee who contributed more will get a higher share of the benefit

Few more concepts on work ethics are like Sacredness of means and ends, Not to do any evil, Principle of proportionality, Non-cooperation in evils, Cooperation with others, Principle of publicity, Equivalent price, Universal value, Human dignity, Nonviolence.

Models of Ethics in Business

Business ethics is a derived knowledge which has been adopted from philosophy and other disciplines of study. The principle has been developed by *Cantt, JS Mill, Herbert Spencer, Plato, Thomas Garret, Woodard and Wilson.*

Ethics for Organization

Data protection, Customer prioritization, Workplace diversity, Whistleblower protection, corporate transparency, Community outreach, Environmental awareness, Employee compensation.

Kofi Annan in his speech in Davos in 1999, laid stress on the fact that Economic crisis in modern times has increased the importance of ethics in practices.

Work Ethics for Employee

Every company has a code of conduct which applies to both its business and employees, these are Employee Codes of conducts, Employee Handbook, Professional code, Government code (legally bound by some law- SEBI/Companies Law 2013, Industrial policy

1946) To ensure that the employee makes ethical considerations in its business, the company frames certain ethical codes displaying its mission statement. This is a set of guidance to follow. It helps in creating a code of conduct for its employees. Work ethics is a value based on hard work, integrity and diligence; it includes your attitudes, communication skills, behavior with co-workers, honesty and accountability at work place.

Value and Ethics

Ethics is a discipline that scrutinizes one’s moral standards with the moral standards of the societies as a whole. (Velasquez, 2002) Whereas value is a conviction upon which a person acts by his own inclinations. (Allport, 1931)

Morals and Ethics

(Taylor 1975) defines ethics as an enquiry into the nature and roots of morality wherein morality consists of judgments, standards and codes of conduct. It pertains to what we ought to do and what we ought not to do.

Work Ethics and Productivity

Through earlier research there is a positive relation has been set up between work ethics and productivity. As employee’s productivity is affected by many factors but by working on the work ethics components, productivity could be enhanced.

Does workplace productivity increase when an organization dedicates resources to developing and prioritizing an ethics program? ‘Yes’, of course, it does. (Gaillard Megan, DeCorte J. Melinda. 2016)

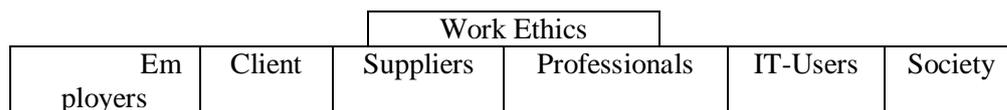
(Kelly and Caplan .1991) They found that various traits traditionally thought to distinguish stars from average performers such as IQ, problem solving skills, will to win and so on did not fully explain the differences in performance between stars and average workers. Instead the authors found that there are nine major areas where the stars shine better brighter than their average colleagues.

IT Sector and

Work Force Profile in IT Industry

Work Professional in IT Industry
Programmers
Systems Analysts
Software Developers
Database Administrator
LAN – Local Area Network
Chief Information Officers (CIOs)

IT Employees and Relationship with the Industry’s Stakeholders



After a series of literature review including journals regarding the research problem statement, ethical considerations in the field of HRM and management is very negligible. Considerable findings are there, showing the importance of work ethics in productivity and organizational development. So the research is to take the work ahead to answer the problem statements and is to fill the gap in the concerned area of HRM and Organizational behavior.

Model For The Study-

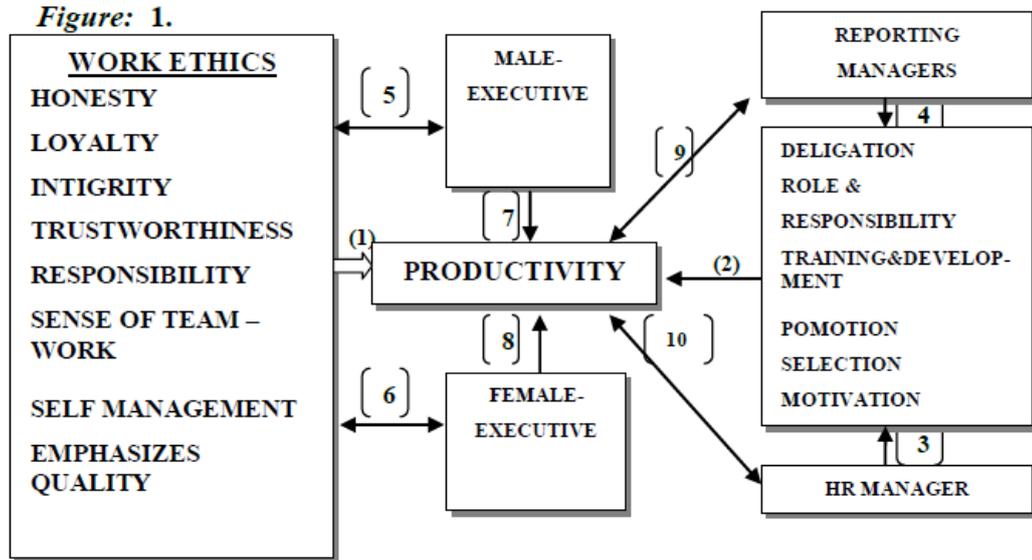


Figure (1) Relationship between productivity and work ethics(1), Input for Productivity(2), HR Tasks(3), Reporting Manager and Task (4), Male employee and degree of work ethics(5), Female employees and degree of work ethics(6), Reporting managers and productivity(9), HR managers and productivity (10), Female Executive and productivity(8), Male executive and productivity(7)

Figure: 2
Hierarchy of Work Ethics in Productivity



Figure 2 (Hypothetical Model)
Placing the Work Ethics as Element of Importance in Productivity

Objective of The Research - This proposed research work's main objective is to shed light on the ethical considerations among genders and the workforce. The main objective has further sub-objectives to be found out in the research:

1. The research is to shed light on work ethics practices and its effects on productivity and outcome in service industry.
2. The research is to shed light on each work ethics and its degree with respect to gender among the workforce (male and female)
3. To identify the order of important work ethics in relation to productivity.
4. To proposed a model of work ethics elements and its relation to productivity and the comparative presence of work ethics elements in male and female employees in service sector. (Figure: 1 & 1.1. page no.)
5. The research is to shed light on the usefulness of the derived model in the area of HRM, Organizational behavior and Management as whole. and

Hypothesis of The Study

Hypothesis 1: There are differences in work ethics according to personal characteristics education, age, socio economic status, country of origin.

Hypothesis 2: There are differences in work ethics according to gender

Hypothesis 3: There is positive relation between work ethics and productivity

Research Methodology

This is the blueprint of the research. The research methodology discusses here the Research Design, Measures Undertaken, Questionnaire Development, and Statistical Techniques used for Data Analysis. Research Design is to Exploratory cum descriptive.

Data Sources

Both secondary data and primary data is to be administered. With the study of secondary data from articles in journals, academic works, books, study reports the supposition and theory for the research developed. Primary data is to selected with properly administered questionnaire and based on primary data the objective and hypothesis of the research being achieved.

Sample

The research work undertakes a study comprising of the sample given below-

Selection of Sectors - Information Technology Industry.

Selection of Respondents- A cross section of the people from the selected industry is to be included in the sample. The questionnaire is to be administered to a total number of 300 respondents, 100 each from all the three metros, Delhi/Mumbai/Bengaluru and among 100, 50 female executive and 50 male executives will be contacted and to the bosses of the respective respondents. The sampling technique is to employs in convenience based non-probability sampling.

Pilot Survey – the scales is to be adapted and customize to collect primary data that suit the study undertaken. A pilot survey is to be undertaken on 30 respondents, 10 each from the cities selected. The subsequent changes are to be made accordingly in the questionnaires. Reliability of the scale can be determined by the Test-Retest method, from 7 to 10 days interval from 30 subjects. Validity for the content is to be maintaining in the questionnaire.

Questionnaire Development-Is to be developed with a collaborative help from academicians, survey of the related work, discussion with the professionals of the Industry. The scale development process proceeds in phases. Questionnaire(s)

1. To be filled by the executive level of employee in IT industry
2. Is administered among focused groups - at Management level of employee

Questionnaire is to be formed using *Likert scale* - 5 scales

It is to be structured using Open ended, close ended and pictorial questions.

Method of Data Collection-

Data is to be collected after the formality of gaining the permission to conduct the study. Data is to be collected through self- administered questionnaires and is to ensure high response rate. It is to be collected personally or tacking the help of digital platform. The questionnaire is to be self – explanatory so the respondents will answer as per the instructions in the questionnaire. To reduce the biasness from the respondent sides or from the researcher's side, the people on managerial or reporting heads will be involved. If will be needed Interviews, Focused group, Observation methods are to be applied.

Method of Data Analysis

The data obtained from the survey were coded and fed into the computer. This included processing, coding, tabulation and analysis of the data. The available software tools will be applied as per the requirement like SPSS as per say. Statistical tools like mean, standard deviation, t test, ANOVA, correlation and multiple regressions will be used as to say inferential statistics will be applied as the requirement suggests.

Research Design for the Study- (Figur: 3.)

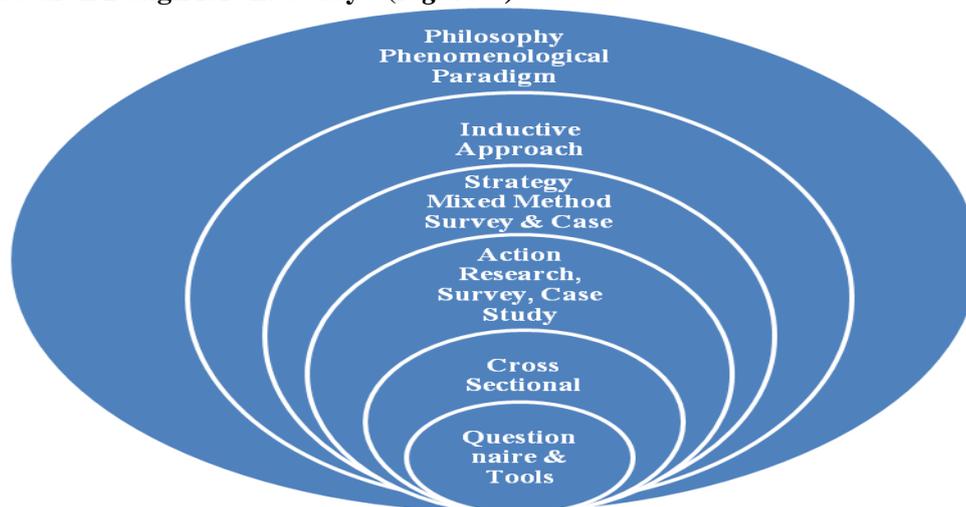


Figure: 3 By Saunders' (2007) Research Design

Scope of The Study

The scope of the study is Specific-Measurable-Achievable - Realistic - Time Bound. The research work is '*specific*' in its objective and goal to establish the degree of work ethics as per the genders. The objectives of the research work is '*measurable*' after using different tools including psychological analysis based questionnaires, interviewing the focus group with set questions able to answer the specific objective, with the observation in a natural setup. The questionnaire is to be checked on a pilot level and after checking and rechecking its validity and reliability the final questionnaire is administered on the whole sample. The

research outcome is very much 'achievable' among the sample population. All the required resources are there within the reach of the researcher. The research work is 'realistic' as it has chosen the existing gap in the field that exists after through literature reviews, subject of the research is very much evident in the service industry and they are approachable too. After having the psychologically set questionnaire and interview question the researcher will visit/so send the questionnaire and conduct the interview through electronic medium in the city (Mumbai- TCS office / Delhi- HCL office/ Bangalore- Infosys office) to collect the data and response, after data collection, the analysis with accurate available and suggestive statistical tools.

The research work is to be completed within the 3 years of its desired 'time limit'. After completion of course work, a questionnaire has been set with caution and considerations, its validity and reliability has been checked and rechecked and then the data will be collected and tabulated, then with very caution the data has been analyzed and the outcome will be there to present.

Expected Outcome

The scope of the research work has been introduced now the expected outcome of the research in brief, the research outcome will present the finding for HRM and management in form of a scientifically proven facts showing relationship between productivity and work ethics, the work ethics will be placed in the order of importance for better focus on each, the quotient of each in the gender will be presented in the different organizations of service industry. HRM can use the data in recruitment and selection, job analysis, job evaluation, promotion, development and training programs, remuneration. And Management can use the data for delegation, creating role and responsibility, selection of team.

Singnificance of The Research

This research will come out with a model of work ethics and productivity as well as its comparative presence in genders in workforce for service sector employees. The model will help HRM and management as well as for the stakeholders involved in this field. The finding of the research will eliminate the biases regarding genders and their efficiency. It will give a tool while recruiting executing concerning productivity and output. It will give a fair and reliable tool to be used in recruitment and selection, team formation, promotion, role and responsibility assignment and creating training and development plans.

Student Contribution-

Specifically the research student is to do the extensive literature reviews and case study to know the prevailing work ethics and its relation to productivity, she will try to study elements of work ethics according to its importance and role in productivity, then she will find out gender wise presence of each elements of work ethics in workforce in service industry. In general the researcher is to study the functioning of IT industry in India and its business model, its work diversity and culture, organizational setup and functioning of team. Student is to so extensive literature reviews, develop the questionnaires and other data collection tools' is to check its validity and reliability on pilot basis, then will collect the data from the population, she will document all the data and use inferential statistics as per the requirement of the research, analyze it using proper statistical tools and software. She will validate the set hypothesis accordingly and at the later will present the findings of the research. The outcome will be a scientific fact for the industry.

Limitations of The Study

The study has its limitation, and future uncertainty which is to be taken into consideration. The research is limited regarding its finding as the respondent may answers and

manipulates the responses. The research is to give finding in IT industry, which shows the possibility of inapplicability for other service sector's organization. The other psychological tools like clinical testing are not in the research design and data collection tools.

Further Scope of The Study

In further research the responded may ask for a clinical trial regarding more factual and strong finding of the presence of work ethics among genders in the service sector. The findings of the research can be assessed for LGBT genders to tackle the issue of work diversity and prejudices and group thinks relating to them in the service industry. The research can be taken to the other industries in the service sectors.

Ethica Consideration

Ethical considerations to be taken care of at every step of the research work. All proper consent from the participant will be sought. No manipulation will have been carried out while collecting the data and using analysis tools. The finding will be presented accordingly, the researcher will remain neutral during research period regarding set hypothesizes and finding.

Conclusion

Work ethics is the life blood for companies in service industry and HR teams now and again run programs working on ethics. The employees have been briefed again and again to be ethical and its importance for the company, its clients and for the whole industry. Work ethics is of highly important in nature when it comes for IT industry as all the companies in the industry handling the client not only from India but mostly from the outside India, so the research work and its finding is to shed light on work ethics, its importance in the Industry, relation of it with productivity and in specific the degree of desirous work ethics with respect to the genders in workforce.

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Changing Formats of Library Collection And The Role of Librarian

*Praveen Kumar Paliwal**

Nowadays, content is no longer restricted to one or two formats. It is expanding in terms of formats and the channels where it can be published. Consumers are also looking for new ways of getting content. And since digital media has witnessed exponential growth in the past few years, the formats have also diversified¹. The present paper covers the changing collection format (CD, DVD, E-Journals, E-book, e-database, e-mail etc.) in libraries. Libraries are bound to purchase this type of e-resource according to needs of their users and librarian play an important role in its selection, which is well defined in this paper in present context of changing formats of content at the end of this paper.

1. Prep To The Collection

Human civilization has grown in many ages with new inventions as fire, wheel and papers. The present age is the age of knowledge and every country of the world is investing a very huge amount of funds on research and development to extract the information, data and knowledge for the benefit of people. This is very much true in present scenario, the country has more information (useful and meaningful) will lead and dominate over other countries. The library of the future will be impacted by several factors, one of which is the newly digital nature or format for information. Another is the redefinition of the book in at least some cases from a static to a fluid or dynamic medium. The seeming inability to archive fluid media has changed libraries. Libraries are now distributed constructs of the mind rather than physical buildings with paper content. All of this, in turn, has led to new means and mechanisms for the management, classification, distribution, identification, retrieval, and storage of information in ways heretofore unimaginable. In the medium to long term, new means as yet not imagined will be developed to meet our information needs to further redefine libraries.

Libraries as disseminator of knowledge play an important role to connect knowledge or information or data to concerned user community. The intervention of communication technology has been seen in every field of knowledge. Information management is the management of collection and information from one or more sources and the distribution of the concerned information to one or more users. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the structure, processing and delivery of information. The core of the collection should consist of books and media in the library general stacks. Collection should include monographs, annuals, videos, DVD's and other media. The Reference collection should support the reference librarians in answering patron questions in a timely, systematic way. The collection should focus on e-books that are encyclopedic, statistical and current trends. The periodicals collection must contains current and back issues of all serials published more frequently than annually and now this be hosted on library home page with linkage to the concerned publisher².

2. changing formates of library collection

The production of digital information is increasing faster than most librarians would have predicted. According to Nicolas Negroponte in *Wired Magazine*³ the Web doubled in

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size every fifty days in 1996, with a homepage added every four seconds, now this situation will be unpredictable. Despite this phenomenal growth, research libraries, for reasons stated above, are still largely dominated by print resources, both in acquisitions and collection management. It is unlikely that more than 10 to 15 percent of a research library's collection budget is used today to purchase or provide access to digital information in libraries and information center. Now electronic resources are increasing in every type of library. The definitions of e-resources are as under:

E- Resource: "A publication in digital format which must be stored and read on a computer device. There are two types: Direct access: These are physical objects such as CD-ROMs, diskettes, computer tapes, and computer cards, containing text, images, software, etc." ⁴ or any library material available electronically, such as an eBook, database or journal article is known as e-resource.

The some important e-resources or e-collection formats are as under:

E-Book: also known as an "Electronic Book." An electronic book (variously: e-book, eBook, e-Book, eBook, digital book, or even e-edition) is a book-length publication in digital form, consisting of text, images, or both, readable on computers or other electronic devices⁵. Electronic books offer creative possibilities for expanding access as well as changing learning behavior and academic research. These e-books are easy access through Internet and may be very useful to e-learner community. Contents of e-books can always be accessible, regardless of time or place, to be read on PCs or on portable book readers. One can carry several titles at once on a portable reader and, over time, build a personal library. Features such as full text searching, changeable font size, mark-up, citation creation, and note taking will enhance usability.

E-Journal: also known as "Electronic Journal " a journal published in an electronic format, which may be published in print then made available electronically. Some electronic journals are online-only journals; some are online versions of printed journals, and some consist of the online equivalent of a printed journal, but with additional online-only (sometimes video and interactive media) material. Most commercial journals are subscription-based, or allow pay-per-view access. Many universities subscribe in bulk to packages of electronic journals, so as to provide access to them to their students and faculty.

The Compact Disc (also known as a **CD**) is an optical disc used to store digital data. It was originally developed to store and playback sound recordings exclusively, but later expanded to encompass data storage (CD-ROM), write-once audio and data storage (CD-R), rewritable media (CD-RW), Video Compact Discs (VCD), Super Video Compact Discs (SVCD), Photo CD, Picture CD, CD-i, and Enhanced CD. Audio CDs and audio CD players have been commercially available since October 1982.⁶

Standard CDs have a diameter of 120 millimeters (4.7 in) and can hold up to 80 minutes of uncompressed audio or 700 MB (700×2^{20} bytes) of data. The Mini CD has various diameters ranging from 60 to 80 millimeters (2.4 to 3.1 in); they are sometimes used for CD singles, storing up to 24 minutes of audio or delivering device drivers.

A **DVD** is an optical disc storage media format, invented and developed by Philips, Sony, Toshiba, and Panasonic in 1995. DVD originally stood for Digital Versatile Disk, or Digital Video Disk. The acronym was dropped after DVD proved to have more uses than just storing video content. DVDs offer higher storage capacity than Compact Discs while having the same dimensions.

Blu-ray Disc (official abbreviation **BD**) is an optical disc storage medium designed to supersede the DVD format. The disc diameter is 120 mm and disc thickness 1.2 mm plastic

optical disc, the same size as DVDs and CDs. Blu-ray Discs contain 25 GB (23.31 GiB) per layer, with dual layer discs (50 GB) being the norm for feature-length video discs. Triple layer discs (100 GB) and quadruple layers (128 GB) are available for BD-XL Blu-ray re-writer drives. Currently movie production companies have not utilized the triple or quadruple layer discs; most consumer owned Blu-ray players will not be able to read the additional layers, while newer Blu-ray players may require a firmware update to play the triple and quadruple sized discs. The first Blu-ray Disc prototypes were unveiled in October 2000, and the first prototype player was released in April 2003 in Japan. Afterwards, it continued to be developed until its official release in June 2006.⁷

An **e-database**⁸ is an organized collection of information, of a particular subject or multi-disciplinary subject areas. The information of an e-database can be searched and retrieved electronically. Full-text databases contain the whole content of an article such as citation information, text, illustrations, diagrams and tables. Bibliographic databases only contain citation information of an article, such as author name, journal title, publication date and page numbers.

The **Internet** is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a *network of networks* that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail.⁹

A **website** (also spelled Web site) is a collection of related web pages, images, videos or other digital assets that are addressed relative to a common Uniform Resource Locator (URL), often consisting of only the domain name (or, in rare cases, the IP address) and the root path ('/') in an Internet Protocol-based network. A web site is hosted on at least one web server, accessible via a network such as the Internet or a private local area network¹⁰.

Web pages are accessed and transported with the Hypertext Transfer Protocol (HTTP), which may optionally employ encryption (HTTP Secure, HTTPS) to provide security and privacy for the user of the web page content. The user's application, often a web browser, renders the page content according to its HTML markup instructions onto a display terminal. All publicly accessible websites collectively constitute the World Wide Web. The pages of a website can usually be accessed from a simple Uniform Resource Locator (URL) called the homepage. The URLs of the pages organize them into a hierarchy, although hyper-linking between them conveys the reader's perceived site structure and guides the reader's navigation of the site.

Electronic mail, commonly called email or e-mail, is a method of exchanging digital messages across the Internet or other computer networks. Originally, email was transmitted directly from one user to another computer. This required both computers to be online at the same time. Today's email systems are based on a store-and-forward model. Email servers accept, forward, deliver and store messages. Users no longer need be online simultaneously and need only connect briefly, typically to an email server, for as long as it takes to send or receive messages.

An email message consists of three components, the message envelope, the message header, and the message body. The message header contains control information, including, minimally, an originator's email address and one or more recipient addresses. Usually descriptive information is also added, such as a subject header field and a message submission

date/time stamp.

Originally a text only (7 bit ASCII and others) communications medium, email was extended to carry multi-media content attachments, a process standardized in RFC 2045 through 2049. Collectively, these RFCs have come to be called Multipurpose Internet Mail Extensions (MIME).

The history of modern, global Internet email services reaches back to the early ARPANET. Standards for encoding email messages were proposed as early as 1973 (RFC 561). Conversion from ARPANET to the Internet in the early 1980s produced the core of the current services. An email sent in the early 1970s looks quite similar to a basic text message sent on the Internet today.

E-magazine:

An online magazine shares some features with a blog and also with online newspapers, but can usually be distinguished by its approach to editorial control. Magazines typically have editors or editorial boards who review submissions and perform a quality control function to ensure that all material meets the expectations of the publishers (those investing time or money in its production) and the readership.

As mentioned above, these new age content formats and channels are for everyone. New age content is exciting but it can also become overwhelming as there are so many formats and channels. That is why their list is quite long. Some other formats can use for better content strategy are:

- Info-graphics
- AR overlays
- GIFs
- Webinars etc...

3. Characteristics of new formates :

New formats of information are also known as E-resource, which is a term used to describe all of the information products that a library provides through a computer network or in electronic format. This includes electronic books and journals, bibliographic databases, and library website pages. E-resources are plays a vital role in all the field of education especially Library and Information science to provide better services and easy access to user of the library. The characteristics of e-resources are as follow:

Speed: we may access, extract, integrate and browse electronic resources very quickly. In hard copy prints takes much time even sometimes many weeks for processing.

Storage & Preservation: e-resources may be preserved for long time and having ability to store and retrieve large amounts of information

Multi-user access: the accessibility of information is made available for multiple users at a time with their terminals.

More Search facilities: in comparison to traditional document e-resources have different search options like simple or quick, advance search and Boolean- logic search.

Huge Content: e-resources can storage and contain a vast amount of information in digital format.

Economical: One time initial expenditure on infrastructure (Computer, net printer etc) is high but maintenance of these electronic resources is very economic.

4. Role of Librarians

Librarian is associated with collections of reading materials. The role of a librarian is continually changed to meet sociological and technological needs of users. In this age of information, library profession is one of the most challenging professions. Librarians face

many problems posed by recent developments in ICT¹¹. Librarian and information officer are accountable by their nature of work for collection assessment including evaluation of current collection and development of collection goals for specific subject areas. Collection is maintained by the libraries by the regular practices such as weeding, evaluation of gift materials for inclusion in the collection. Working with the library web team should evaluate and recommend internet sites for inclusion in the library web pages. Faculty should work with the collection development librarian to determine appropriate electronic and serials resources needed for specific subject areas.

The Librarian is responsible for organizing and developing collection assessment and development activities. These responsibilities include updating and revising the collection development policy as needed, providing planning, information and support to subject experts as they evaluate specific subject collections, responsibility for implementation of overall collection assessment. These accountabilities of library depend on the budget and cooperation of the authority and attitude of managing authority toward the library and library professionals. Thus librarians play an important role in selection of good collection according to needs of their users. "There is a continue process of acquiring, organising and protecting to print and electronic documents in management libraries. Management libraries are provided to their user technology based services, local and online OPAC, online databases, full text electronic journals, reference tools, online documents ordering, online interlibrary loan and electronic equipped library. Print and electronic information must be selected, organised, protected and delivered and so the process of collection development and collection management has done in management libraries."¹²

5. Conclusion

Libraries acquire books, electronic information sources, newspapers, periodicals, pamphlets and other material which may reasonably be needed by users and their faculty in related to their teaching subject, or which is needed by library and research staff in connection to their research work. Online and hard copies of information should not be considered in isolation but these are complementary resources along with printed and existing one. Within this general approach it will help to classify subject areas according to how comprehensive a collection is desirable. Here it is notable that the significance of information, the way it is provided, and the impact of its format are addressed. Finally, the advent of the electronic format has required libraries to regard themselves as information providers instead of format collectors.

¹ <https://www.quintype.com/blog/business/new-age-content-formats-and-channels>
web:17.08.2022

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³ Nicholas Negroponte, "Message 32: The Future of Books," *Wired Magazine* (February 1, 1996). Also available at <http://www.media.mit.edu/~nicholas/Wired/WIRED4-02.html>. Web 10-12-2014

⁴ www.lib.unc.edu/cat/localdocs/gradman/glossary.html Accessed on: 11-12-2014.

⁵ Gardiner, Eileen and Ronald G. Musto. "The Electronic Book." In Suarez, Michael Felix, and H. R. Woudhuysen. *The Oxford Companion to the Book*. Oxford: Oxford University Press, 2010, p. 164.

⁶ <http://en.wikipedia.org/wiki/CD> web 02-01-2015

⁷ http://en.wikipedia.org/wiki/Blue-ray_Disc Web 03-01-2015

⁸ http://www.lib.ied.edu.hk/is/tutorial/module2/e_resources/2_1/2_1_content.htm Web 05-01-2015

⁹ Internet, n." *Oxford English Dictionary* (Draft Ed.). March 2009. Retrieved 2010-10-26. "Shortened < INTERNETWORK n., perhaps influenced by similar words in -net".

¹⁰ <http://en.wikipedia.org/wiki/Website> Web 24-01-2015

¹¹ Shah, Ashraf (2018). Role of Library and Information Professionals in Digital Environment, In ates Proceedings of the Conference: Role of Information center in Teaching Learning Process, Aurangabad.

¹² Kumar, Sanjay and Gaur, R C (2018). International Journal of Librarianship and administration , Volume 9, Number 1, pp. 1-8
