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EDITORIAL

As if the poverty, unemployment and corruption were less, the pandemic threatened the society across the globe with several problems related to the medical and health, mental health, education, economy, employment, inflation etc. After two months lock down and the false imprisonment with the corona on the media, now each one is atiptoe. At last, when the lock down was most required, the society was let to be free for the economy was detoriating and the strong people have started with their jobs most of them from their office at their own risk. The worst part of the pandemic is the fact that every society has just a mask of development. Whether it is country or the organisations and institutions, in two or three months only all the said development is clear. The steep down wards graph of the economy and the increasing unemployment questions the development and its sustainability. The worst part comes when the schools and the universities who charge the fees regularly are unable to pay to their staff. Here the question arises if the school, colleges don't have money or they don't have the willingness or attitude to pay? Again it questions, who runs these colleges and universities – whether educationists or the business minded people? As if these were less the incidents of fake corona cases by some of the hospitals as well the business people taking it as an opportunity to earn profits present the poor face of the valueless society. When social distancing is must and time to time sanitisation is must, the high cost of the sanitisers could be just a business proposition. With increased costs of fuel, vegetables, oils and food grains life has turned tough but yet human is no less. He stands up, faces upright and moves stealthily with the idea of survival and sustainability. Though the situation is not good but yet Voice of Research is privileged to have the strong support of the researchers striving hard and hard searching for truth. The current issue with the papers related to health and health care, green bond, platform as service, consumer behaviour, foreign investment, role played by the Indian Pharmacopoeia Commission and the interview of the needonomist presents the society with potential researchers as the strong backbone.

To add to the education and society Sharma relates Optimism with Physical and Mental Health and Gupta describes Health Care Programmes. To add to management and humanities Amarnani focusses on Green Bonds; Shrivastava presents Platform as a Service and Saidkarimova develops relationship between Foreign Investments and Sustainable Development whereas Basu sensitizes about Indian Pharmacopoeia Commission in the field of law. The current issue is especially different with the interaction of the NEEDONOMIST, M. M. Goel.

Last but not the least every threat is not an opportunity; especially when the threat is to the society, it should remain only the opportunity of service to the society and not business. The threat to the society should be handled as to depict the social and moral richness of the individuals as well the value, ethics and cultural richness of society. Only such a society can create a history otherwise it takes no time to turn itself as history. With a hope of best for the mankind, I am sure this issue will enlighten the potential researchers and the society as well it will help us all think about the sustainability of the development.

With the hope of best for mankind,
Avdhesh Jha
Chief Editor
Voice of Research

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OPTIMISM: PHYSICAL AND MENTAL HEALTH
OPTIMISM AND ITS RELATIONSHIP WITH
PHYSICAL AND MENTAL HEALTH

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Abstract

Various researches have been carried out optimism as a psychological phenomenon. Optimists are people who anticipate future outcomes to be positive. Conversely, pessimistic people are those who display more negative anticipations for the future. Positive and negative expectations regarding the future play an important role in understanding the vulnerability to psychological disorders and physical illness as well. A significant positive connection arises between optimism and coping strategies emphasized on social support and insistence on positive facets of stressful events. By employing of specific strategies, optimism also influences quality of life indirectly. Many researchers also confirmed that the optimistic people showed a higher level of life as compared to those with low levels of optimism. Optimism may also significantly impacts physical and mental wellbeing of individuals by the promotion of a healthy life style patterns and also by adaptive behaviours linked with greater decision making, flexible approach and problem solving capability. This paper focuses on optimism and its important constructs. This paper is also an attempt to explore the relationship of optimism with physical health, mental health, coping, quality of life and adaptation to purpose, healthy life style and risk perception.

Keywords:*Optimism, physical health, mental health, coping strategies.*

Scheier and Carver (1985) defined optimism as “the global generalized tendency to believe that one will generally experience good versus bad outcomes in life”. Optimism refers disposition to anticipate the greatest and viewsituations and circumstances in a positive manner. There are various benefits of optimism. Thefirst and foremost benefit of optimism is that it naturally advancesa more positive and favourable mood& emotions, which further helps to beat off depression, tension, negativity and anxiety. TheSecond benefit of optimism is that itpromotesbetter persistence in the face of difficult problems which in turn is likely to outcomein greater accomplishments and achievements The third benefit of optimism is that optimisticpeople actually bettertake care oftheir physical and mentalhealth better as compared to pessimistic people.Optimists are more likely to look up for information and instructions regarding potentialphysical & mental health perils and change&modify their behaviour to evade those perils. Optimistic individuals are thosewho display more positive expectations for the future.In the contrary, pessimistic individuals are those who expect future outcomes to be negative (Scheier, Carver & Bridges 1992).Peterson (2000) confirmed that optimism playsa significant role in positive mood, consistency perseverance, efficientproblem solving, and scholastic as well as professional success.

Constructs of Optimism: There are two main constructs of optimism namely, the explanatory or attributional optimism and the dispositional optimism.

Explanatory or Attributional Optimism

The explanatory or attributional style of optimism applies previous experiences to anticipate eventual results. According to Seligman (1991) explanatory or attributional

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style comprises of three main facets namely, permanence, pervasiveness and personalization. Permanence is the faith that the reasons behind the unfavourable occurrences are permanent. Individuals high on this facet think in terms of always and never when they examine the possibility of unfavourable occurrences. Pervasiveness or globality looks at either the individual believes the bad or good event as specific or universal. Optimistic people believe that negative events have specific causes, whereas positive or favourable events will embellish everything he does, the pessimistic people consider that unfavourable occurrences have universal causes and that positive events are caused by specific determinants. (Seligman, 1991). In personalization or locus of causality of explanatory or attributional style of optimism, occurrences can be attributed to whether intrinsic or extrinsic causes. People can blame themselves for the unfavourable events (an intrinsic cause), or can attribute other individuals or circumstances as the extrinsic causes of the unfavourable event. According to Seligman (1991) this facet has less peculiar effect than the other two aforementioned facets specifically, pervasiveness and permanence, because personalization only limits how we feel about ourselves while the other two facets limit what we do how long we are incapable and crosswise how many situations or circumstances.

Dispositional Optimism

The dispositional optimism examines the direct convictions people have about forthcoming life events without taking into consideration previous experiences. It assesses disposition or temperament. It considers optimistic faith anticipation regarding forthcoming events whereas the attributional optimism attempts to comprehend the reasons why individuals are optimistic or pessimistic by analysing the interpretations for previous unfavourable events. The dispositional optimism is a more direct study of the optimistic attribute than attributional optimism because it measures the extent of optimism or pessimism an individual shortly possesses rather than considering interpretations from previous situations (Rabiega & Cannon, 2001). One important merit of direct assessment is that it particularly targets the accurate construct of concerns and anticipations. In the contrary, attributions are always a step away in the plausible series from the anticipations that are captious (Carver and Scheier, 2003). Farther, the direct measure of optimism permits researchers to ponder optimism along with other determinants which advances physical as well as psychological wellbeing (Rabiega & Cannon, 2001).

Relationship between Optimism and Physical Health: Despite the very few number of researches published on this subject matter, the relationship between optimism and physical health is very prominent. Various researchers have found that there is a positive correlation between optimism and better physical well-being as compared to pessimism. In contrast with optimism, pessimism is positively related with excessive somatic complaints (Marinez-Correa et al., 2006). Giltay et al., (2004) conducted a study on elderly male and females aged between 65-85 years and found that the dispositional optimism predicted less probability of mortality in general and of cardiovascular mortality in particular. These data have been confirmed in a longitudinal study on a population of males aged between 64 - 84 years and found a negative correlation between dispositional optimism and the risk of

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cardiovascular death (Giltay et al.,2006). In reference to oncological patients, Schulz et al. (1996) reported that high scores on the pessimism items of the LOT (a measure of dispositional optimism) (Scheier& Carver, 1985) significantly predicted premature death in young patients with breast cancer as compared to optimists. Allison, Guichard, Fung & Gilain (2003) found among patients with neck and head cancer, optimists exhibited significantly better survival a year after diagnosis when compared with pessimists. Though optimism is usually considered to be a protective determinant with regard to well-being and physical as well as psychological health (Scheier& Carver, 1985). Schofield et al., (2004) observed that optimism did not anticipate lower mortality rates among lung cancer patients. Tomakowsky et al., (2001) examined the relationship between the dispositional optimism (Scheier& Carver, 1985) and the attributional optimism (Peterson & Seligman,1987 and Peterson & Avila, 1995). The results of their study showed that both constructs of optimism were related with an improvement of the symptomatology of AIDS. Nonetheless, in the long term, higher level of the attributional type were correlated with a significant impairment of the immune defence system. Milam et al., (2004) found that higher levels of optimism do not confer any clinical recovery to AIDS patients, though moderate levels of optimism were found to be correlated with more effectual immune systems. Segerstrom (2005) and Segerstrom (2006) investigated two hypotheses that may interpret these results that the disappointment hypothesis refers to which tenacious and unmanageable stressors lower the favourable anticipations that are typical of optimistic individuals and thus consequently control over the stress determinants, leading to diminish in immune defence. Engagement hypothesis speculating that more optimistic individuals are more easily drawn to trying to clear up a difficulty whereas pessimistic individuals tend to let the matter drop, hence, ending up with more exposed to stress.

Relationship between Optimism and Mental Health: Positive and negative anticipations about the future are very significant for apprehending the vulnerability to mental disorders specifically mood disorders. Various researches (Chang&Sanna, 2001; Hart, Vella & Mohr 2008 and Hirsch, Conner & Duberstein, 2007) have found a negative correlation between optimism and depressive symptoms and also found an inverse correlation between optimism and suicidal ideation. As such, optimism seems to play a significant moderating role in the correlation between feelings of loss of hope and suicidal ideation (Hirsch & Conner,2006). Similarly, Van der Velden et al.,(2007) have recently observed the link between dispositional optimism and depression in victims of a natural disaster and found that pessimistic people nurtured little hope for the future and were more at peril for depressive and anxiety disorders, with consequent impairment of societal functioning and quality of life as compared to optimistic people. The role of optimism in the quality of life has also been examined in various depressive disorders arising in patients suffering from somatic diseases for example acute coronary syndrome in which a significant negative association was found between the level of satisfaction in life and dispositional optimism and also found depressive symptoms arising after the cardiovascular event on the other hand (Steele & Wade, 2004). Giltay et al., (2006) raised the matter of applying psychotherapy to

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promote and encourage an optimistic disposition in pessimistic individuals, hence developing an efficient strategy to fight depression. Basoglu, Sciscioglu, Livanou, Kalender & Acar (2005) observed that even one single session of cognitive-behavioural therapy enhances the sense of control and coping with immobilizing turmoil that ensue after a natural disaster, may contribute to improving individual's well-being. This kind of intervention focused on convalescing an effective coping strategy and regaining control may be important for pessimistic victims as they are more prone to evade obstacles and give up instead of attempt to regain control of their lives (Giltay et al., 2006)

Relationship between Optimism and Coping: According to Lazarus and Opton (1966) "Coping refers to those mechanisms and mental processes enacted by the individual as an adaptive response to reduce the stress deriving from a threatening situation". Previous researches (Scheier et al., 1986) found that there is a significant positive relation between optimism and different aspects of life for instance coping strategies focalized on the problem, looking for social support and emphasis of the positive aspects of the stressful situation. Nes & Segerstrom (2006) found that there is a positive correlation between dispositional optimism and those coping strategies ideated to eliminate, reduce or manage the stressors and inversely correlated with those employed to ignore, avoid or distance oneself from stressors and emotions. Lower levels of dispositional optimism were noticed in students who were particularly susceptible to the usual complications encountered in academic environments and who developed fanaticism or even enmity towards the school (Boman & Yates, 2001). Also in the work environment a positive relation was found between optimism and performance moderated by the affirmative influence that optimism has on coping strategies (Strutton & Lumpkin, 1992). A large number of studies (Scheier et al., 1986; Rasmussen et al., 2006; Scheier Carver & Bridges, 1992 & Worsch & Sacher, 2003) have accepted that the optimistic individuals tend to apply coping strategies that centralize on the problem more frequently as compared to pessimistic individuals. When these strategies cannot be accomplished, optimistic individuals resort to adaptive strategies that centralize on the emotions, for instance, acceptance, humour and positive re-assessment of the situation. Through execution and application of particular coping strategies, optimism wields an indirect impact on the quality of life. Schou et al., (2005) conducted a study on women with breast cancer and found that optimistic women showed coping strategies characterized by acceptance of the situation, emphasis of the affirmative aspects and attempts to lighten their condition with a sense of humour, showing evident positive outcomes on their quality of life. In contrary, the pessimistic women responded with emotions of barrenness and loss of hope which significantly deteriorated their quality of life.

Relationship among Optimism, Quality of Life and Adaptation of Purpose: Quality of life is the standard of health, comfort and happiness experienced by an individual or group. Wrosch and Scheier (2003) evidenced that two main variables are capable of influencing quality of life namely optimism and adaptation of purpose. Both play a fundamental role in adaptive management of captious circumstances in life and of goals to reach as well. There is evidence (Sacher & Carver, 1992 & Scheier & Carver, 2003) that optimists present a higher level of quality of life as compared to

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those with lower levels of optimism or pessimists. It has been shown that in the presence of serious pathological conditions, optimistic patients adapt better to stressful situations as compared to pessimistic patients, with positive repercussions on their quality of life. For instance, Scheier & Matthews & Owens (1989) conducted a study on a sample of patients who underwent an aortic-coronary bypass and found that there is a significant positive correlation between optimism and quality of life in the six months following the operation. The optimistic patients showed a more quick clinical recovery during the period of hospitalization and a rapid return to daily routine after getting discharge from hospital. Pais-Ribeiro et al., (2007) conducted a study on patients affected with epilepsy and observed that as compared to pessimistic individuals optimistic individuals showed an improved perception of their physical and mental health and reported higher level of quality of life. Kung et al., (2006) investigated the relationship between optimism-pessimism and quality of life in patients with cancer of the neck, head or thyroid. In all the group of patients, optimism was positively correlated with better quality of life in both the scales of the physical and mental components of the MMPI (Minnesota Multiphasic Personality Inventory) (Hathaway & Mckinley, 1940), in six of the eight subscales of the SF-12 (12-item Short Form Health Survey) (Ware, Kosinski & Keller, 1996) and of the SF-36 (36-item Short Form Health Survey) (Ware, 1993). Rasmussen et al., (2006) & Worsch & Scheier (2003) conducted a study on women with breast cancer and found that optimism was associated with better quality of life in context of emotional, functional and socio-familial well-being.

Relationship among Optimism, Healthy Lifestyle and Risk Perception:

Through promotion of a healthy lifestyle, optimism may significantly influence physical well-being. In fact, it is considered that optimism expedites adaptive behaviours as well as cognitive responses that consent negative information to be elaborated more expertly and that are linked with greater adaptability and problem-solving capability (Aspinwall, Richter & Hoffman, 2001). Various researches have observed the correlations between optimism and healthy behaviours. In particular Steptoe et al., (2006) conducted a study on males and females aged between 65 – 80 years and found that optimism was positively correlated with healthy behaviours for instance abstaining from regular smoking, lessen consumption of alcohol, the habit of brisk walk and regular physical activity, regardless of demographical determinants, present psycho-physical conditions and body mass. A recent cohort study conducted by Giltay et al., (2007) which investigated 545 males aged between 64 – 84 for fifteen years revealed that there is a significant negative correlation between dispositional optimism and death for cardio-vascular diseases, with a reduction of 50% of the risk of cardio-vascular death in the optimists. McKenna et al., (1993) demonstrated that considering themselves to have a higher peril of contracting pathologies associated with smoking as compared to non-smokers, nevertheless perceived such a peril as inferior when compared to the average number of smokers (optimistic bias). Numerous recent researches (Weinstein, Marcus & Moser, 2005) have confirmed that smokers have a significantly lower perception of peril as compared to non-smokers. It was found that the smokers with unrealistic optimism likely to accept that smoking

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only for few years they would not arouse any peril to lung cancer and that developing lung cancer depends only on genesiological predisposition (Dillard, McCaul& Klein, 2006).Furthermore, in realistic optimistic individuals hardly considered the hypothesis of giving up smoking in order to lessen the peril of cancer.

Conclusion

Optimism is a penchant to anticipate favourable things in the future. From the aforementioned literature, it is very clear that optimism is a mental attitude that greatly effects physical and mental health and coping with daily life activities. By employing an adaptive management of personal goals and development and by using effective coping strategies, optimists experience more success in their lives as compared to pessimists.

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A CRITICAL APPRAISAL OF HEALTH CARE PROGRAMMES FOR
RURAL WOMEN TOWARDS A BETTER INDIA WITH SPECIAL
REFERENCE TO U.P.

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Abstract

Today globalization is posing new challenges to the improvement of living conditions of rural habitants and we know a community can-not foster a development without an educated population. Since the dawn of civilization and growing awareness of healthy human survival there have been efforts to mobilize the resources to ensure better health and hygiene in the human community as a whole and among the rural women in particular. Rural women are facing problems in getting even basic facilities in every field primarily in Health care sector which is the major concern area of this paper.

Keywords: Rural women, Health care, Education and Government Policies.

Women, the word sounds so powerful. Since eternity, women have played a role more important than men and that is no exaggeration. It has been said that, you teach a female and you build up a nation and truth can't be closer than that. Women have always carried the burden of being a wife, mother, sister all on their own and we need not to explain how magnificently they have carried this position. Pandit Jawaharlal Nehru had once said, "You can tell the condition of a nation by looking at the status of its women". However, things have not remained the same in the recent past. The social fabric has acquired completely new dimensions. The women are considered less powerful and important than men. . India in last few decades has remained more of a male-dominated society. Women suffer from hunger and poverty in greater numbers and to a great degree than men. At the same time, it is women who bear the primary responsibility for actions needed to end hunger and improve education, nutrition, health and family income. How ironical situation Is this? The Indian constitution grants women equal rights with men, but strong patriarchal traditions persist, with women's lives shaped by customs that are centuries old.

Looking through the lens of hunger and poverty, there are many major areas of discrimination against women in India:--

Malnutrition: India has exceptionally high rates of child malnutrition, because in India women eat last and least throughout their lives, even when pregnant and lactating.

Malnourished women give birth to malnourished children and this way cycle perpetuates;

Poor Health: Females receive less health care than males. Many women die during childbirth. Working conditions and environmental pollution further deteriorate women's health;

Lack of Education: Families are far less likely to educate girls than boys, and far more likely to pull them out of school, either to help out at home or from fear of violence;

Overwork: Women work longer hours and, yet their work is unrecognized. Men report that "women, like children, eat and do nothing.";

Unskilled: Women's primary employment is in agriculture which is an unskilled job;

Mistreatment: In recent years, there has been an alarming rise in atrocities against women in India, in terms of rapes, assaults and dowry-related murders. Female infanticide and sex elective abortions are additional forms of violence that reflect the

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devaluing of females in Indian society; Powerlessness: While women are guaranteed equality under the constitution, legal protection has little effect in the face of prevailing patriarchal traditions.. Legal loopholes are used to deny women inheritance right; In the light of the above points one can say women live a miserable life and belongs to a marginalized society. It is more prevalent with the rural women in comparison to urban women.

Urban women in India always had more advantages and opportunities than women residing in rural places.Like better education, better economic resource, and more availability of required things for urban women. Rural women are facing problems in getting even basic facilities in every field primarily in Health care sector which is the major concern area of this paper. With the dismal picture of health care in India, not much can be expected in favor of rural women as user of the health system. The present paper is a humble attempt to critically analyze the Health status of rural women.

Health is defined by the World Health Organization (WHO) as a state of complete physical, mental, and social well being. This definition is accepted by all the signatories to the Alma-Ata Declaration on health adopted by the thirty-first World Health Assembly in 1978. This declaration gave the call of ‘Health for All by 2000 AD’ and accepted that Primary Health Care was a key to attaining this goal.

Health is thus not only about disease and medical care system but also about the environment around us, which influences the mental and physical state of a person. It is multidimensional phenomenon (Hema and Muraleedharan: 1983).The World Development Report[1993] considers good health as an input for increasing productivity, leading to economic growth. The National Council of Applied Economic Research considers health status as “an important indicator of the level of economic development” and it includes mainly mortality and morbidity(NCAR: 1992).

So, we see, Health care is right of every individual but lack of quality infrastructure, dearth of qualified medical functionaries, and non- access to basic medicines and medical facilities thwarts its reach to 60% of population in India. A majority of 700 million people lives in rural areas where the condition of medical facilities is deplorable. Hence, Rural Health care has become one of biggest challenges facing the Health Ministry of India’

Uttar Pradesh is one of the largest, densely populated, and backward states of India which has a socio-economical and thus health related problems for women.Considering the grim picture of the fact the present paper endeavors to critically analyze the health conditions of rural women in up.

Though a lot of policies and programs are being run by the Government but the success and effectiveness of these programs is questionable due to the lack of awareness of Govt. policies and their implementation in rural areas of the districts of up.

Programs and Policies of Government

If we glance some of the important programs of government are-

Pre Alma Ata Declaration

National Health and Development Committee (1946) known as the “Bhore Committee”, stressed on understanding of people’s health and its importance in improving national productivity.; 1948Sokhey Committee Report on National Health.

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Also known as “Sokhey Committee”, which recommended state to set up plans for the protection of helpless and dependent mother and child. The striking feature of the committee was the recognition of women’s economic role and concern for their health in relation to the environment; 1952Community Development Programme; 1962Mudaliar Committee Report on Health Survey and Planning; 1966Mukheree Committee Reports on Basic Health Services; 1967Jungalwalla Committee Report on Integration of HealthServices ; 1973Kartarsingh Committee report on Multipurpose Health Workers; 1975Shrivastav Committee Report on Medical Education and Support manpower; 1977Rural Health Scheme: Community Health Volunteer Scheme-Village Health guides.

Alma Ata Declaration and beyond

1978Alma Ata Declaration – Health For All by 2000; 1980ICSSR and ICMR Report – “Health for all- An alternate Strategy”; 1983Mehta Committee on Medical Education Review; 1983First National Health Policy; 1987Bajaj Committee on Health Manpower Planning, Production and Management; 1996Bajaj Committee on Public Health Systems; 2000National Population Policy; 2002Second National Health Policy; 2005National Rural Health Mission (NRHM] The key core strategies under NRHM are- Train and enhance capacity of Panchayat Raj Institutions (PRIs) to own, control and manage public health services; Promote access to improved health care at household level through the village level worker , ASHA; Health plan for each village through Village Health Committee of the Panchayat.

Supplementary Strategies under mission- Regulation for private sector including the informal Rural Medical Practitioners (RMPs) to ensure availability of quality service to citizens at reasonable cost; Promotion of Public Private Partnership for achieving public health goals; Mainstreaming the Indian System of medicine (AYUSH) revitalizing local health traditions; Reorienting medical education to support rural health issues including regulation of medical care to medical ethics; Effective and viable risk pooling and social health insurance to provide health security to the poor by ensuring accessible, affordable, accountable and good quality hospital care.

NRHM and Convergence with different health related sectors: Common District Health society is created under NRHM to promote the convergence within the health department of various different disease related activities. The indicators of health depend as much on drinking water, female literacy, nutrition, early childhood development, sanitation, women’s empowerment etc. Realizing the importance of wider determinants of health, NRHM sought to adopt a convergent approach for interventions under the umbrella of the District Plan. The Anganwadi Centre under the ICDS and Village Health and Sanitation Committees at the village level would be the principal hub for the health action.

Convergence with Indian System of Medicine (AYUSH): The officially recognized codified traditional medical systems are Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy. AYUSH is the Government approved acronym used to represent these systems. On 29.09.2014 Department of AYUSH, Ministry of Health and Family Welfare, Government of India has launched National AYUSH Mission (NAM) during 12th Plan for implementing through States/UTs.

National Health Policy 2015 Preventive and Promotive Health; addressing the wider social & environmental determinants of health: The health policy identifies coordinated action on seven priority areas for improving the environment for health. These include: The Swachh Bharat Abhiyan, This program was launched on 2nd October 2014 with a target to have clean India by 2nd October 2019; Balanced and Healthy Diets: This would be promoted through action in Anganwadi centers and schools and would be measured by the reduction of malnutrition, and improved food safety; Addressing Tobacco, Alcohol and Substance Abuse: (NashaMuktiAbhiyan) Success would be judged in terms of measurable decreases in use of tobacco, alcohol and substance abuse; Yatri Suraksha: Deaths due to rail and road traffic accidents should decline through a combination of response and prevention measures that ensure road and rail safety; NirbhayaNari- Action against gender violence ranging from sex determination, to sexual violence; Reduced stress and improved safety in the work place would include action on issues of employment security, preventive measures at the work place; Action would be taken on reducing indoor and outdoor air pollution and measured through decreases in respiratory disease especially in children, and other pollution related illnesses.

Other Government Programs are- BetiBachaoBetiPadhoYojna which was launched on 22nd January 2015 whose main aim is to generate awareness of welfare service meant for girl child and women; Bal Rashmi; The IEC Rajlaxmi and Jan Mangal Project; Immunization Programmes in India; Polio Eradication Programme; Major Nutrition Programmes in India; Integrated Child Developmental Services; Mid-Day Meal Scheme (MDMS); The NavjatShishu Suraksha Karyakram (NSSK); Safe water and Basic Sanitation Programmes in India; Access to Toilets; Sewerage and sanitation: Technology for Rural Health Care- Several organizations are working alongside the government and NGOs to help relieve the burden on the public health system using mobile technology. India has over 900 million mobile phone users and this fact can be leveraged to employ better practices in even the remote areas.

Gram Vaani started in 2009. Using simple technologies and social context to design tools, we have been able to impact communities at large. Forty rural radio stations are able to manage and share content over mobiles and the web. Women Sarpanches in Uttar Pradesh shared learning and opinions on their work with senior government officials..Through simple education and discussion programs on mobile we make the marginalized communities aware of best practices in healthcare.

The different Five-Year Plans as from the First Plan 1951-56 to the Twelfth Plan 2012-17, health planning in India has been shaped by different strategies of overall development; In 2018, the administration of Prime Minister Narendra Modi launched, a new public health insurance program (*Ayushman Bharat*), colloquially known as “Modicare.” The program is supposed to automatically cover hospitalization costs of up to 500,000 Indian rupees (USD\$7,025) per year, per family for the poorest 40 percent of Indian society—some 500 million people—and establish 150,000 health and wellness centers throughout India by the end of 2020; The Indian government is

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consequently pushing for extensive reforms in medical education. In August 2019, it succeeded in getting through parliament a major reform package, the National Medical Commission Bill, 2019—legislation Modi hailed as a milestone achievement to “curb avenues of corruption and boost transparency ... accountability and quality in the governance of medical education.”; The NITI Aayog report, *‘Healthy States, Progressive India’* outlines India’s performance in health and highlights the varied complexities and challenges therein, as well as the scope for improvement. Recognizing the complexities in understanding the problems of healthcare access at the federal level, the NITI Aayog uses a Health Index as a pillar for tracking health goals; To improve public healthcare infrastructure and management, the Uttar Pradesh government has been open to partnerships with international institutions like the World Bank and private foundations like the Gates Foundation. An example is the World Bank assisted, Uttar Pradesh Health System Strengthening Project (UPHSSP). This aims to enhance medical health care facilities in the state with a grant of 170 million US Dollars; There are also several ongoing public health projects and programs supported by the Gates Foundation under its 2012 agreement with the state government to improve health, agriculture and financial services to the poor.

Though the above policies of Government accepted health as an important area of women’s development but receive the lowest priority when it comes to health. There is a low utilization of public health facilities in Uttar Pradesh. The health system views women as ‘mother not as women’. Most of the strategies of both public and private sector centers around mother- MCH, family planning, child survival, safe mother hood etc. Tragically this too is not adequately provided. High maternal mortality rates, unsafe motherhood, unhygienic births, diseases like TB, malaria, dysentery, cancer etc., are common reasons for mortality in most of the urban, slum and especially in rural areas. Practically these policies are not of much utility as a woman has not realization of their own power and potential.

Findings of Some Relevant Studies - Studies in Uttar Pradesh (Khan and Others: 1989) indicate that female children are discriminated when it comes to the allocation of food within household. Marked differences exist between what is fed to boys and girls, the discrepancy increases with age. According to figures obtained from the National Nutrition Monitoring Bureau, in the age-group of 10-15 years, boys are fed 31 gm of pulses a day. Girl gets only 25 gm a day. As a boy grows and takes a sedentary or active job, the gap in the degrees of nutrition widens even more. For instance women in a sedentary job get 403 gm of cereals a day. A man in a similar job gets 475 gm. (NNMB: 1980); even when women are aware of the importance of a nourishing diet during pregnancy, cultural and economic constraints deny them access to better nutrition (Khan et al: 1988); Levels of anemia are higher in such states as Bihar and Uttar Pradesh where feeling beliefs in ‘eating down’ inhibit adequate diets among women (Agarwal: 1987), and rural in areas where hookworm infestation is endemic (Ramachandran: 1989); The consequences of maternal anemia for infants are equally acute in terms of prenatal mortality, low birth weight and failure to thrive (Mathai, 1989; Ramachandram: 1989). Moreover, women’s poor health and nutrition’s

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status can also lead to repeated miscarriages, fetal wastage and infertility; Chatterjee (1990) estimates that deaths of young girls in India exceed those of young boys by over 300,000 each year and every sixth infant death is specifically due to gender discrimination. Of the 15 million baby girls born in India each year, nearly 25 percent will not live to see their 15th birth; All nutritional programmes are directed towards the needs of pregnant and lactating mothers. However, in spite of these programmes, there is nutritional deficiency in women starting from infancy to pregnancy and then again after crossing the childbearing age. Poor nutrition of girls, especially in childhood and adolescence, has serious consequences (Jejeebhoy): 1994; A better strategy would be to widen the focus of the Programme and provide micronutrient supplements and nutrition education to adolescent girls and all women rather than only those who are pregnant (Pachuri: 1995); (Rao: 1998). Rural communities adhere more rigorously to customary laws and norms of social stratification that perpetuate biases against rural women-biases which impact the allocation of assets, power, rights, status, and opportunities Rural women have less access to basic resources (e.g. social, health, educational, and agricultural service systems) compared to their male counterparts. Moreover, biases result in rural women being treated with contempt, humiliated, violated, and discriminated against, which leads to their lowered self-esteem and feelings of fear and loneliness; (Solomon, S. et al: 1998). Pregnancy often follows soon after marriage, which carries a higher risk of complications for adolescences as their reproductive systems are not fully developed. Women who marry at a young age, who often drop out of school, also have less of an opportunity to learn about their sexual and reproductive health and rights and how to access related ser; The NNMB surveys (1980) documented low intakes of Vitamin A and iron among girl children and adolescents. Vitamin A deficiency is likely to be firmly linked to high mortality and morbidity in children, and to be an underlying cause of high levels of respiratory and genitourinary tract infection in women; (Johnston: 2003). Literacy and education also play a role in rural women's reduced health status; Shukla K.P 2003 conducted the study on nutritional status on National Status on Adolescents Girls in Rural Area of Varanasi. Major findings of the study were –A considerable proportion of adolescent girls had clinical nutritional deficiency diseases. Two-third study subjects were undernourished. Anemia was significantly found and there is a need to promote sound eating habits, personal hygiene related habits in rural adolescent; (Shah: 2005). Poverty also plays a role in rural women being forced to partake in activities that increase their exposure to HIV and other; National Rural Health Mission (NHRM 2005-12) is a government flagship program launched on 12th April 2005 in 18 States across the country to provide effective health care to the rural population especially the disadvantaged group by improving access, enabling community ownership and demand for services and strengthening public health system for efficient delivery. One of the key components of NRHM was to create a bond of female health volunteers named “Accredited Social Health Activist” (ASHA) in each village within the identified states; (Dasgupta: 2006) India's maternal mortality rates in rural areas are among the world's highest. From a global perspective, Indian accounts for 19 percent of all lives births and 27 percent of all maternal deaths. There seems to be a consensus

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that higher female mortality between ages one and five and high maternal mortality rates result in a deficit of females in the population; (Burnad: 2006). The violence that many rural women faces at the hands of their husbands and other family members is one of the most physically and psychologically damaging experiences faced by them; Nair & panda (2011) conducted the study and found that although India was able to improve some majors of maternal health since enactment of NHRM in 2005, country was still far behind most emerging ec; Kimuna 2012 conducted the study and found that poorest women fared worst among middle and high-income women. Researchers believe that reason for higher rates of domestic violence come from greater familiar pressures resulting from poverty; Rawat CMS, Garg SK, Singh JV, Bhatnagar M conducted the study to find out prevalence of anemia in adolescent girls of rural Meerut. Findings were- a significant association of anemia with socio-economic status, type family, father occupation, mother education, family size stressed the need to develop strategies for intensive adult education, nutrition education and dietary supplementation including anemia prophylaxis.

Access to healthcare services is a critical task, and rural residents face a variety of access barriers. According to Healthy People 2020, access to healthcare is important for: Overall physical, social, and mental health status; Disease prevention; Detection, diagnosis, and treatment of illness; Quality of life; Preventable death; Life expectancy Rural residents often encounter barriers to healthcare that limit their ability to obtain the care they need. The barriers to healthcare access in rural areas are:- Distance and Transportation:- Rural populations are more likely to have to travel long distances to access healthcare services; Health Insurance Coverage:- Individuals without health insurance have less access to healthcare services.; Social Stigma and Privacy Issues: - patients can feel fear or shame such as counseling or HIV testing etc.; Workforce Shortages; Healthcare workforce shortages impact healthcare access in rural communities; Women's ignorance about Government policies; Women's ignorance about diseases and their serious consequences; Women's ignorance about environment and environmental pollution; Women's ignorance to retain their autonomy and freedom to sustain the resources of survival; Women's lack of resources to medical aids; Grip of orthodoxy and superstition.; Idea of guilt and shame; Lack of rationale insight.

Conclusion

The data shows that one of the leading causes of death in UP is diarrheal diseases. This raises concern about the ability of the public health institutions to treat common ailments such as diarrhea. UP, Bihar, and Jharkhand are the lowest ranked states in terms of overall quantity and quality of public health infrastructure in India.

Hence, we see improving access to information through a range of health education strategies has been a significant component of all the national health programs in India. This includes information about immunization schedules, dissemination of treatment protocols such as for TB, Diarrhea, leprosy and communication for behavioral changes to prevent HIV/AIDS and other life style diseases The Pulse Polio Immunization Programme and the Leprosy Control Programme have been cited as having successful social mobilization components utilizing several innovative

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approaches for effective communication.. National Health Policy – 2015 acknowledges the limited accountability of existing health education programs. The NRHM promotes health education on a sustained basis in multiple ways. It urges ASHA, ANM, AWW and VHSCs in coordination to organize village health and nutrition days. Many states have organized Health Melas (Fairs) to spread health awareness to masses.

If we have to restore the real health conditions for women, we have to eliminate the ignorance through organized methods. Education plays a pivotal role like communicating government policies, good information about conducive and healthy environment, imparting the idea of cleanliness, scientific and rational attitude to health..The mission of Make in India will be accomplished with educational awareness programs. It will give new suggestions and recommendations for the policy makers because a big segment of population of women is illiterate and not living good and healthy life, so to make reforms and seek the attention of policy makers it is essential that this segment of population should be added in the government policies of diversified population especially the rural women of Today, India is the world's largest democracy, with a population of over 1.37 billion people in 2019. Given current trends, India is expected to overtake China's population by 2027. The country's literacy rates have risen to 69.1 percent, with male literacy at 75.7 percent and that for females, 62 percent. The country's burden of disease, for one, specifically non-communicable diseases, has risen in recent years. Yet, India's expenditure on health remains stagnant at approximately 2.25 percent of total central budgetary expenditure. This figure comes to just over one percent of Gross Domestic Product (GDP), well below the 2.5-percent goal set by the National Health Policy of 2017. Indeed, the country's contribution to the global healthcare infrastructure is highly inadequate, despite the highest-ever budgetary allocation of INR 690 billion to health for 2020-21, a six-percent rise from 2019-20

As the Indian government strives to provide comprehensive health coverage for all, the country's rapidly developing health system remains an area of concern. There are disparities in health and health care systems between poorer and richer and underfunded health care systems that in many cases are inefficiently run and under regulated.

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GREEN BONDS: A GROWING PHENOMENA OR A PASSING FAD?

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Abstract

Green bonds are fixed income securities whose proceeds are used for environmental friendly projects. They were first issued by World Bank and since have gained popularity especially during last five years. However, in the absence of a standard metrics to assess the 'greenness' or the impact of the money invested there appears to be scepticism about their long term survival in the global financial markets. An improvement in the risk return profile of these bonds with the help of policy makers could help the sustainability of these bond.

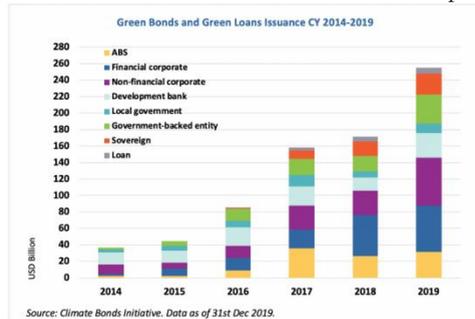
Keywords: *Green Bonds, sustainable finance, Environmental friendly investments, Risk management*

Climate change is one of the greatest problems that mankind has been facing over the last decade or more. The Paris Agreement in 2015 is regarded as a landmark event in our fight to save the planet from exploitative actions of human race. This event marked the beginning of a global group action and commitment to climate change. A total of 195 countries signed the agreement. The Organisation for Economic Co-operation and Development (OECD) estimates that to meet the global infrastructure development requirement in a sustainable manner a total of US\$6.9 trillion will be needed every year till 2030 (OECD,2020). Over and above this, investment will also be needed to make the existing infrastructure green. Public funds alone cannot generate this quantum. The funds need to be raised from both public and private sector through both financial institutions and markets. There is a need to innovate and introduce financial instruments that can allocate the risk appropriately to the party that is willing and able to take it. Green bonds have emerged as one such innovation. Green bonds are financial debt securities issued by financial institutions, non-financial institutions and public enterprises, the proceeds of which are used for environmental friendly investments only (Zachariah, 2020). This financial product ensures flow of funds for sustainable projects at the same time giving an opportunity to the environmentally conscious investor. According to the World Bank, (World Bank, 2019) the first issue of green bond came to the market in November 2008, on request of a group of Swedish Pension Funds who wanted to contribute to the cause of environmental sustainability in November 2008. In other words, the biggest challenge was in ascertaining the impact of projects for the purpose of investment. This pioneering issue developed an awareness of the challenges of climate change and also demonstrated to the investors the possibility of their contributing towards this cause while earning positive returns (OECD, 2020). However, one of the major concerns even at that time was how the investor could ascertain that his money was being used only for environmental friendly projects and contributing towards a positive impact on climate. The need for transparency in the bond processes was felt and resulted in

GREEN BONDS

the International Capital Markets Association (ICMA, 2018) framing the Green Bond Principles that are voluntary process guidelines to promote transparency and thus help in developing integrity in the green bond market.

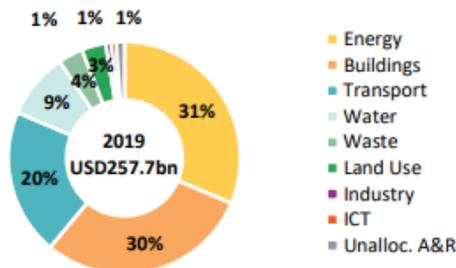
The interest in green bonds have been growing over the last decade and more so, over the last five years. Year 2019 saw a 51% increase in the issuance amount over 2018 at a total amount of US\$257.5 bn (Climate Bond Initiative, 2020). Over the years these bonds are being issued by a variety of different entities (Chart 1). While a large portion of the green bonds are being issued by international agencies like the World Bank, International Finance Corporation and other such institutions, the point to note here is that over the last few years the money being raised through sovereign green bond has been increasing and same is the case with non-financial corporate entities.



Source: Climate Bond Initiative, Data as of 31st Dec 2019

Chart1: Green Bonds and Green Loan Issuance 2014-2019

According to a report published by Climate Bonds Initiative in 2019, USA, China and France are the three countries that have raised maximum amount of funds through Green Bonds and energy and buildings are the largest users of these proceeds.



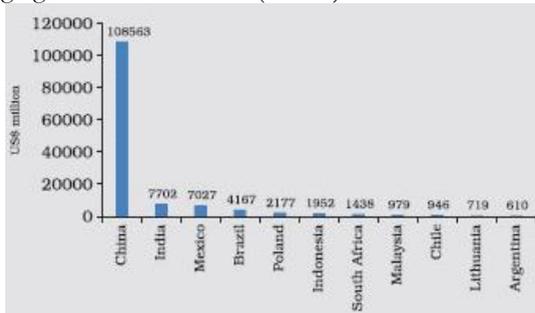
Source: Climate Bond Initiative

Chart 2: Use of proceeds of Green Bonds

Green Bonds in India: According to the environment ministry estimates, India will need \$2.5 trillion to meet climate change targets, of which \$280 billion is needed in the next five years for green infrastructure alone. This is a large size of investment needed especially when we consider that the expenditure made in India on

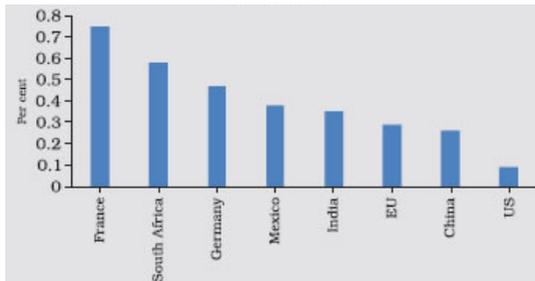
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infrastructure over the last decade and a half has been a little over US\$1 trillion (Agrawal, 2019). This increases the relevance of green finance sources in the country. According to a RBI report (RBI, 2019), India ranks second in green bond issuance among the Emerging Market Economies (Chart3).



Source: Emerging Market Green Bond Report, 2018, International Finance Corporation
Chart 3: Emerging Market Green Bond Issuance, 2012-18

As a percentage of the total bond issuance, India has numbers that are comparable to the other countries.



Source: Climate Transparency Group, G20 Brown to Green Report, 2017
Chart 4: Green Bond as a percentage of total Debt (As of 2017)

India's efforts to streamline green finance started in 2007, when RBI insisted on sustainable development practices to be followed by financial institutions and at the same time emphasized on non-financial reporting. In 2015, RBI included small renewable energy projects and social infrastructure projects within the priority sector lending requirements of the banks, thus, ensuring flow of funds in this sector. In 2017, SEBI came up with disclosure norms for issuance and listing of green debt securities (SEBI, 2017).

Innovations in the Green Bond Markets

As the popularity of green bonds increased, there were some innovations on the terms and conditions of the original bonds that appeared in the market.

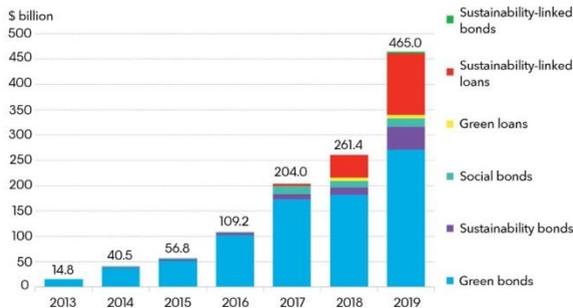
Green Sukuk: The green bond market encouraged an innovation in the Islamic finance market too with the issue of Shariah compliant green sukuk. A green sukuk,

GREEN BONDS

like a conventional sukuk, buys assets which the investor partially owns and gets a share of the profits generated from it. However, after a pre-determined period, the issuer pays back the par value and the contract is terminated. In case of green sukuk the proceeds are used to buy environmental friendly assets like the assets for renewable energy.

The Green Sukuk was first issued by a renewable energy group, Tadau Energy, in Malaysia. Through this issue Tadau Energy raised US\$59 mn. This was followed by Sovereign Green Sukuk issued by the Indonesian Government to raise US\$1.2 bn and US\$750 mn in 2018 and 2019 respectively. In 2019, a supranational agency, Islamic Development Bank raised US\$1.12bn to invest in projects related to green transportation, renewable energy and pollution control in its member countries (Noronha, 2020).

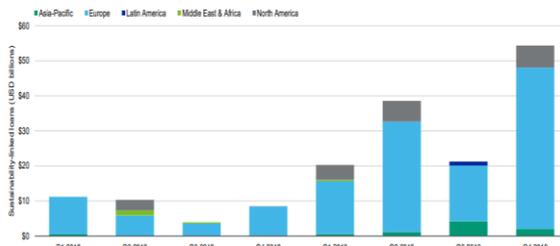
Sustainability linked loans: Sustainability-linked loans account for 25% of the Green bonds issued globally (Economist, The, 2020). These bond are different in the sense that they are not issued for a specific project but depend on the overall performance of the issuer. In this green paper, the coupon rate varies according to the performance of the borrower on the sustainability related key parameters. The chart below shows the growing popularity of these bonds within the overall sustainability debt which also includes the social bonds over the last couple of years.



Source: BloombergNEF, Bloomberg L.P.

Chart5: Global Sustainable Debt Annual Issuance, 2013-2019

If we look at the geographical distribution, these have been largely popular in the European countries.



Source: Moody's Investor Service, Dealogic

Chart6: Growth of sustainability-linked loans region-wise

The main challenge that may hamper the growth of these bonds is the unclear definitions of the key sustainability performance parameters. This could lead to greenwashing¹ rather than an actual green investment. Several global agencies like the International Capital Market Association are working on guiding principles for sustainability linked loans that may help the investors (ICMA, 2020). However, given the range of possible areas of investment there may still continue to be some ambiguity possible in this segment of green paper.

Technological Innovations: In February 2019, BBVA issued the first ever Green Bond using blockchain, for EUR 35 million, on behalf of the Spanish insurance company, MAPFRE using a fully automated blockchain platform that allows the client to structure the instrument directly (Fariña, 2019). Since then there have been several reports on the benefits of using blockchain and distributed ledger technology for the issuing and monitoring of green bond. Experts also see benefit in using technology to assess the impact of green investments.

Issues and Challenges: While green bond seems to be the need of the hour and have generated interest from both borrowers as well as investors there are still some issues that need to be addressed.

Initial Authentication and monitoring: The problem with green bond is that there needs to be authentication of the claimed greenness (positive impact on the environment) for the bonds that have been issued. This is needed to give credibility to the green bonds as the investors themselves cannot access the impact of their funds. There are several ways of achieving this. Some issuers follow the Green Bond Principles that are endorsed by the International Capital Market Association (ICMA). These principle were the first set of guiding principles on ways to invest the proceeds in order to be defined as green and are voluntary. While there are other set of issuers that go in for a private party validation. These private parties include credit rating companies like the Moody's or specialised firms like the Climate Bonds Initiative, Sustainability, Cicero Shades of Green and many more. However, the point to be noted here is that there is no universally accepted framework available and the green definition varies from one offer to another and one industry to another and this has led to controversies in the green bond market.

China has faced criticism that it has been using its green bond proceeds to finance the efficiency improvement measures of its fossil-fuel powered power plants (Shepherd & Weinland, 2020). It can be argued that these funds are having a positive impact on the environment, however, the fact remains that they are supporting the use of fossil fuel. Similarly there has been debate on whether the issuers overall commitment to environment and their total carbon footprints should be considered or not. Poland sovereign Green bonds were in a controversy because of the country's overall dependence on coal-based power plants. To handle these differences in the various investment proposals, rating frameworks like Cicero's have come up with the idea of

¹ Green washing is the term being used to refer to the process of manipulating the information in a manner that it makes the investment seem much more environmental friendly than it actually is. This is a play on the term 'whitewashing' which means using misleading information to disguise bad/wrong behaviour.

different shades of green. It lefts to be seen if this improves the information communicated to the investor.

Risk Management

Green bonds carry two types of risks- financial risk and green risk. Financial risk coming from the fact that it is a financial instrument and different types of risks associated with a debt instrument will be applicable here. At the same time since it has a green agenda, in other words, the proceeds are being used for environmental friendly projects, and the risk here is that the shade of green may be other than what the investor expected (Bigger, 2017).

The green risk can be put into categories- impact of the investment and information asymmetry. According to Tripathy 2017, due to lack of development of a standardized metrics to communicate to the investor both green benefits and risk leads to an uneven use of green bonds across jurisdictions and industries. This results in variation in actual use of the proceeds vis-a vis the committed use and further resulting into variation in the perception of risk vis-a vis the actual risk.

Conclusion

Although green bonds have been quite successful over the last few years, the debate about their long-term sustainability continues. A senior executive at the world's largest pension fund states that in the current form these bonds could be just a passing fad and may not last long (Asgari, 2019). Two aspects need to be considered by the policy makers to ensure that this unique debt instrument continues to remain in the market instead of dying a slow death – risk and return associated with these bonds. As the risk-return profile of the green bonds improve, it will be possible to sustain them in the long term.

The cost of issuing a green bond is higher due to the fact that you need to validate the use of it's proceeds and at the same time the returns for the investors have been found to be same as that of the conventional bonds. As a result these bonds turn out to be costlier for the issuer. Green bond can be made attractive for the issuer if the price of carbon goes up. As the carbon pricing increases, environmental friendly projects are likely to have higher returns compared to the non-environmental projects. This implies that the cost of polluting will be factored into the cost of production which will indirectly incentivise the green bond market.

The Central banks can consider making investment in green bonds especially the sovereign green bonds as a part of reserve requirements for the banks in their countries. Other possibility could be to include them in the priority-sector lending category for the various banks to invest. But this would be possible only in count that have the provision for priority sector lending like India.

The policy makers should also consider reducing the risk associated with the sustainable investments by offering higher amount of guarantees and insurances. This will make them more attractive and make them sustainable instruments rather than a passing fad.

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BEAUTY OF PLATFORM AS A SERVICE :
NEITHER READY TO USE NOR BARE BOXES

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Abstract

Information Technology has occupied substantial space in our day to day life and in running of businesses. How does society regulate I T providers especially when they operate across the globe, beyond the control of nation-states. How do we balance rewarding tech companies for their innovation, and possibility of unfair exploitation, particularly where I T services are 'free'. 'Free' services are 'paid' by consumers by their time, attention and data. This paper examines possibility of promoting use of Cloud computing technology Platform as a Service (PaaS) by regulators as a means to catalyse competition and curb monopolistic power of I T service-providers.

Keywords: PaaS, Laws for Cloud Computing, I T monopolies, Anti-trust in Infotech.

Like the war is too important to be left to generals, by now the information technology is too important to be left to tech-titans and techno-entrepreneurs. Society and lawmakers have to get actively involved. Books needed copyright laws, air travel needed passports, and telephones needed rules for interconnections. Does I T need anything special?

Cloud is a clear paradigm shift. Open your laptop, tablet or mobile and get working, for your personal things, your job, as a consumer or citizen quite effortlessly. Press the switch and you get power, let the electricity company and city take care of everything behind the switch. Does this happen with your data and software or apps? Does it throw new challenges? Fundamentally, clouds come in three flavors- Infrastructure as a Service (IaaS), where Cloud has most basic functions and the user does the rest; Software as a Service (SaaS) a plug and play model where cloud has everything and something in-between called Platform as a service (PaaS).

Tech neutrality has been talked about extensively. While the concept appears pristine simple and attractive, complexities do arise in working out details, particularly in cases where legally binding definitions are needed. For instance, net neutrality could be strong or weak (Gans, 2015). How neutral is neutral enough, and what is an appropriate balance of interests is the moot question.

Notwithstanding complexities, the intention of society and polity is to create a level playing field so that innovation is awarded, and we distinguish Knowledge and Know-How. Knowledge is available freely. This is an underlying principle in recognizing patents and copyrights. Drugs are patented, but can you imagine a language getting a patent? Every hour you write or speak in English you may give 0.01 cent to someone. In a democracy, the Society intervenes to break monopolies, thru means such as anti-trust laws. Genuine competition-the invisible hand- brings efficiencies in the marketplace resulting in the common good.

Big technology companies have huge money muscle, and most valued tech companies have more financial clout than every country other than likes of the US and China. They also wield great capacity to influence, not only business, but also thinking, and

development of personality (Kavitha, 2019). Of course, they have earned the place by providing service we all wish to use, so their money power is a reward for the capacity to invent and create, but can it lead to unreasonable gains? An intangible- technology- has so much importance, probably for the first time in human history. Another first is doing business without physical presence and contact, reducing the ability of a nation-state to control tech giants.

The question we face is: What is the best way to strike a balance between allowing a tech business to reap the benefit of their efforts and strategy and emergence of 'brave new world' of I. T. monopolies controlling our minds and actions. Is there a possibility of a preference for a broad technology choice, which strikes the best balance?

Now, let us examine the three options: IaaS, SaaS, and PaaS. (ibm.com, 2020) IaaS is by the techies, for the techies. Buyers and Sellers understand the product, the technology is evolving but reasonably mature, market logic of competition and cost-benefit can bring in required efficiencies. IaaS uses anytime, anywhere power of the internet to share resources. It is essentially rent rather than buy model for tech resources; akin to downtowners preferring to use taxis, rather than buy cars; wherein providers gain the ability to get better utilization, by selling idle resources to another customer. IaaS a business-to-business phenomenon, does not raise major societal issues. Full ownership of all resources is always available as an option to a buyer, and this option places a natural ceiling on the price a provider can charge for IaaS facilities. IaaS represents continuity in some sense; we had faster and faster computers, now we have a better sharing mechanism, for benefit of technology users.

On the other hand, SaaS is for the consumer. Choice and cost-benefit payoff, as seen by the decision-maker were always drivers for commercial transactions. We paid dollars for everything! Technology is now ushering a new market where we do not pay in dollars and cents, but pay by our time, attention, and data, sometimes without fully realizing how the payment is being done. We choose to join a group and by virtue of joining, and using a service, we inadvertently support one tech option over others. Joining expands the group and gives it a larger base, possibly larger share, and a larger voice to attract others and spread costs to a larger base, with zero or near-zero cost for serving additional consumers. Success breeds success and more success. It will keep booming until the disruption happens by a totally novel technology, or, a superior concept. You may choose to join, sometimes because you do not have time or energy or expertise to find the best option. There is an inherent comfort in numbers and after the initial critical mass, the popular choice may not always be the best option!

The beauty of SaaS is customer can use rich software without the need to do any learning, somewhat like putting on your fan, rather than driving. Many offerings of 'free' software are structured as SaaS. The danger of SaaS can be an imbalance of millions of individual consumers, each with a small stake, drawn by attractive offerings and the presence of her friends, 'buying' from a highly sophisticated technology provider, possibly with large financial muscle. Entire structuring- for example, what all data consumers should provide to use the software- is done by the

tech company, and 'fairness' of the price depends on the good sense of service provider, given the near-monopoly situation for many, at least, some services.

PaaS may have the potential to offer level playing field and induce competition, and garner market forces to ensure fairness in the pricing of services, and the possibility of self-regulation by knowledgeable players, while providing good services to a multitude of lay or disinterested customers. In the broadest sense, the platform will be the responsibility of techies, with insight and wherewithal to harness the power of technology, whereas consumer interface will be built by either smaller, perhaps local front-end service provider, or by larger consumers for themselves. PaaS may present options similar to a sturdy chassis, and fully working engine available for customized bodybuilding for your car, semi-processed food with a choice of final dish done by Chef to taste of diner, Lego of various colors and size available for building almost anything you fancy, wooden boards and blocks designed to fit and assemble a large variety of furniture, etc.

Is there a case for society to encourage PaaS over IaaS and SaaS? And if so how? IaaS is bare-bones infrastructure, far short of what consumers can relate to; and SaaS can result in very inflexible take-it-or-leave-it offering with fears of tendencies to curb competition and possibility of tech providers turning into monopoly 'utilities' with the need for regulation and monitoring. Utilities provide a fascinating scenario of the societal struggle of determining the ownership and extent of regulation, identifying ways to generate competition in an essentially monopolistic situation, and restricting private ownership in strategic areas. Utilities regulations have been altering and evolving (Clifton, Lanthier and Schröter, 2011) and may provide useful lessons for dealing with hi-tech industry.

Platform as a service offers a combination of structure and flexibility, and this uniqueness of PaaS makes it an attractive option. This uniqueness, noticed by both scholars and practitioners (gartner.com, arxiv.org 2020) is one of the key drivers for growth of PaaS.

PaaS has scope for built-in competition at two levels- Platform offering competing with one another and final software done by front-end service provider for consumers, competing with similar offerings on same or different platform, with market forces bringing in price and product efficiencies, and avoiding fear of emergence of monopolistic behemoths. In other words, this chain has two links, the first is platforms selling to front-end service providers, and the other is front-end service provider selling to consumers or consumer product companies. Front-end service provider, with the capacity and commercial interest to evaluate platform and choose the most cost-effective one, will ensure that competitive forces prevail in the platform offering. Consumers will get to choose from multiple offerings, broadly meeting the requirements and depending on the volume, possibility of getting it customized to their own needs or preferences. Gaps- in say geographies served or functionality catered to- are likely to be filled quickly by entrepreneurs spotting the opportunity. Two sets of competitive forces will bring in market efficiency and keep a check on unfair pricing, and creation of a market with superior market forces as compared to both other possibilities- IaaS and SaaS.

What could be the downsides? Big providers may claim that their know-how is not shareable and they can be effective only if they interface with the ultimate consumer, using SaaS model to offer their services. They may even argue that to recoup the cost of technology used they need control over the entire chain. Data available to service provider can be instrumental in 'knowing' the consumer, for running analytics resulting in better targeting of service. Businesses can benefit by 'selling' data with the consent of the consumer and in the worst-case scenario without the consent of consumer.

Let us try to look at the details when we have multiple players involved. Who will own the data and where will it be stored? Just to illustrate, a cookie is stored on consumers' computers but is really owned by the software service generating the cookie. There would be a need to share the data between front-end service providers and platforms and possibly a need to share data across platforms, akin to telephone calls seamlessly getting routed from one telephone company to another.

What could be possible models for data gathering, storing and sharing to facilitate superior services, for instance, targeted service based on customer profile, but avoiding monopoly of data in hands of some tech companies. The proposed market dynamics of two link chain is likely to push entity closer to consumers- front-end service provider- to store data, whereas platforms- the core technology providers- will determine the data elements. The involvement of two players itself will curb the tendency for monopoly.

Let us now consider how to catalyse preference for PaaS. Society and legislators have carefully looked at businesses developing into a monopoly, and regulators in Europe, United States and elsewhere have examined and acted on unfair dominance. The power of large firms, including those in the Tech sector is a matter of attention for governments. While the current regulatory framework does help in stifling concentration, it may not be very effective in curbing the power of firms (Shapiro, 2018). Ever-evolving nature of technology, the inherent slow pace of legal proceedings, and tightly knit global ecosystem for technology renders such actions difficult and rare. While PaaS may have better safeguards, how can it emerge as the alternative of choice? One possibility is that regulators may indicate their preference in consultative processes with the industry, and their proceedings while examining dominance. Including technology choices ('prefer PaaS') in laws may be near impossible, but incorporating these in codes of conduct and industry norms may be feasible. As long as the markets appear to be open for competition, even a near-monopoly will serve consumers well, to ward off emergence of a competitor.

Fully integrated service, by itself, does not reduce competition (think of an App playing randomly chosen songs, like a radio station), SaaS offerings tend towards monopoly only when user data is exploited. Data is at heart of digital economy, and data collected (age of a consumer) and data observed (behaviour of a consumer on a website) can provide significant leverage to service provider to reduce cost, or, increase service quality. Exploitation of data may involve need to use propriety technologies, and tech companies will be reluctant to share it, especially when the

entire service is 'free' to the consumer, that is consumer pays by her own time and attention, which is of commercial value to the service provider.

Let us look at a parallel. Underlying factor of success of world wide web is a simple, powerful, universal standard for sharing. No one owns it, everyone uses it. It is like English- the world language. A common, widely acceptable, simple standard for consumer data- collected and observed- can be the foundation for the two-layer model, consisting of platform and front-end service provider. As long as possibility of emergence of front-end service providers serving consumers exists, monopolistic tendencies will be curbed. Front end service provider is likely to pay real money (not time and attention!) for consumer data, even if consumers get service 'free'. We may even see platforms sharing data, amongst themselves, with explicit permission of consumer.

Fear of technology autocrats, their money and muscle of ability to influence the population they have, is real. Big tech companies may have acted, in their own belief, very responsibly and without any political agenda, and still, the political leadership may have a very different take. Worst, consumers may be getting influenced, and have no way to influence Big tech companies. Success of democracy depends on elected government to exercise control over most (not all- think global warming) matters important to nation-state and its people, and people exercise control, by electing the government they prefer (sometimes by referendums!). Regulation of I. T. service providers poses a challenge, as they do not need a physical presence to do business. Of course, despite it, governments have taken actions to ensure fairplay and promote competition, specifically amongst I. T. service providers and have indeed framed laws. (gdpr-info.eu, oag.ca.gov, 2020) General Data Protection Regulation (GDPR) of European Union is one of strictest regulations and has resulted in legal disputes with large monetary stakes. Many American states have their regulations with similar objectives, for example, California has California Consumer Privacy Act (CCPA). Our country has its own Competition Act.

As seen in an interesting study (Hovenkemp, 2017) on anti-trust and Information technology, extensive usage of digital goods and growth in use of I T has resulted in two contradictory influences. On one hand, it has elevated competitive practices with greater information sharing, on other hand, it has enhanced chances of collusion and anti-competitive practices.

Legal process may prove to be expensive, cumbersome and slow. PaaS model boosts up a possibility of a local Front-end service provider, present in the country, providing a service that utilizes a global platform. Front-end service provider will understand the culture of the market and will be governed by the laws of country. One attractive option is to mandate this model specifically for I. T. services provided 'free' to all consumers or in other words are paid by user's time, attention and data. Mandate could be in form of laws, or, code of conduct, or, industry norms. Form of mandate may vary from country to country.

Thus, we see that widespread use of I. T. services by lay consumers is ideally served by PaaS model. It facilitates building of an efficient and competitive marketplace. It can be supported by an explicit preference of technology model (PaaS) by regulators, the

global standard for consumer data collected or observed, and a mandate that only a locally incorporated entity will provide free services. There may be a potential for a quantum leap, in promoting competitiveness.

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FOREIGN INVESTMENTS AND SUSTAINABLE DEVELOPMENT
THE ROLE OF FOREIGN INVESTMENTS IN THE SUSTAINABLE
DEVELOPMENT IN UZBEKISTAN

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At the current time, the trends of investment are rapidly increasing as a result of the ongoing globalization of world economy, the widespread trade relations, the relative liberalization of tax policies and regimes in the countries. The experience of developed countries confirms that the active investment policy occupies a central place in their economic growth. Therefore, the full socio-economic development of our country requires to be fully reflected in its investment policy.

From the years of independence, our state has not only been following the path of economic development of transition to a market economy, but has also managed to create its own investment program. The investment program of the Republic of Uzbekistan is the system, which is undertaken by the government and directed to develop the most prior tendencies for the support of foreign investments as well as the creation of a favorable investment climate for foreign investors, and also composing a comprehensive legal framework and appropriate institutions for the achievement of high economic efficiency of inputs. As a result of these efforts, more than 4.2 thousand enterprises with foreign investments were established and being successfully operated in leading sectors of the economy. Annually, more than 3 billion US dollars are mainly funded from direct foreign investment, and more than 26.6 percent of the total attracted investment of the country's economy belongs to the share of them. This is testified by the interest and confidence of foreign investors in the stability and duration of the economy of the republic, the prospects for its development.

The scope of investments is not only limited to the material production process, but also to socio-cultural fields, science, education, health, physical education and sports, information and communication, environmental protection, application of new technologies. At present, the main content of the agreement, which is beneficial for both sides, is indicated via existing subsidiary banks operating in our country, established on the basis of foreign investment, enterprises and organizations, which are specialized in certain specialities, branches of various well-known foreign institutions in the territory of the republic.

Statistical data show that the investment policy implemented in recent years, has not only been justified in our country, but also obtained to attract more means of foreign investors than it was planned.

Considering the types of investment activities, which are implemented in our country within recent years and the dynamics of their obligations, the attracted foreign investments do not only serve as the basis for the activities of manufacture, but also the sharp decline in the level of unemployment in our country, and it can be observed in the following table:

FOREIGN INVESTMENTS AND SUSTAINABLE DEVELOPMENT

Data on the attracted investments in the National Economy of the Republic¹

By the end of the year	Amount of foreign investments to be introduced	Actually introduced foreign investments	Number of jobs created on the basis of investments
In case of 2015 th year	4.3million USD, 98.7 billion UZS	1.4 mln. AQSh dollari, 102.4 mlrd. so'm	1500
In case of 2016 th year	5.2 million USD, 229.2 billion UZS	5.4 mln. AQSh dollari, 243.7 mlrd.so'm	2050
In case of 2017 th year	16.1million USD, 575.9 billion USZ	40.4 mln. AQSh dollari, 594.3 mlrd. so'm	4913
In case of the first quarter of 2018 th year	6.2 million USD, 183.2 billion UZS (for 2018 th year)	5.5 million USD, 128.8 billion UZS	1736

In general, considering the fact that the future development of Uzbekistan and the world economy, mainly dependent on investments, and at the current time, it will be understood by almost every specialist and managing company, it is not difficult to understand that the wide involvement of investments into the national economy has become an important basis for the effective implementation of economic reforms in our country. Coming up to the prospects of investment activities of our country, it is being envisaged to introduce foreign investments worth about \$ 1.5 billion from the account of all financial sources by this year. As a result, the growth rate of the attracted foreign investments in the national economy will exceed by 40%. Over 80 investment projects worth to be implemented, and generally, 1.4 billion USD will be commissioned through the expenses of attracting foreign investments.

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<http://www.uzinfoinvest.uz/>

http://www.navoi.uz/en/aboutnavoi/potential/industrial_zone/

www.cbu.uz National bank of Uzbekistan

¹ gkk.uz, prepared by the State Committee of the Republic of Uzbekistan on privatized enterprises and development of competition.

INDIAN PHARMACOPOEIA COMMISSION
THE ROLE PLAYED BY THE INDIAN PHARMACOPOEIA
COMMISSION IN TODAY'S ERA: A CRITICAL STUDY

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Abstract

The Indian Pharmacopoeia Commission is a separate, autonomous institution under Ministry of Health and Family Welfare of the Government of India. The Indian Pharmacopoeia Commission was established in 2005 by the Government of India to deal with matter relating to timely publication of the Indian Pharmacopoeia, which is official book of standards for drug included there in, under the Second Schedule of the Drugs and Cosmetics Act, 1940 so as to specify the standards of identify, purity and strength of the drugs imported, manufactured for sale, stocked or exhibited for sale or distributed in India. This Commission has become fully operational from 1st January, 2009. In the present day's scenario, this Commission plays very important role.

Keywords: *Indian Constitution, Law, Indian Pharmacopoeia, Monograph, IP Reference Substances.*

The object of Indian Pharmacopoeia Commission is to promote public health by establishing and disseminating officially recognized standards quality for and authoritative information about the use of medicines and health care technologies by health care professionals, patients, and consumers.¹ The main function of this Commission is to review and publish of the Indian Pharmacopoeia and National Formulary of India on a regular basis. It is also the objectives of the Commission to develop comprehensive monographs for drugs to be included in Indian Pharmacopoeia, to accord priority to monographs of drugs included in the National Essential Medicines List and to provide IP Reference Substances and to organize educational programs and research activities for spreading and establishing awareness on the need and scope of quality standards for drugs and related materials. IP Reference Substances mean the official standards issued by the Indian Pharmacopoeia Commission.² Indian Pharmacopoeia contains a collection of authoritative procedures of analysis and specifications for Drugs. A Pharmacopoeia is a book containing directions for the identification of compound medicines and published by the authority of a government.³ A pharmacopoeia is an official book describing medicines or other pharmacological substances, especially their use, preparation and regulation

¹Dr. Sanvidhan G Suke, 'Indian Pharmacopoeia Commission: Structure and Role in Formulation of IP and NFI', World Academy of Science, Engineering and Technology International Journal of Pharmacological and Pharmaceutical Sciences Vol:9, No:2, 2015. scholar.waset.org/1307-6892/10001727.

²'As per the policy of IPC, IP monographs are not framed to detect all possible impurities. The prescribed tests are designed to determine impurities on which attention are required to be focused, to fix the limits of those that are tolerable to a certain extent, and to indicate methods for ensuring the absence of those, that are undesirable. It is, therefore, not to be presumed that the impurities can be tolerated because they have not been precluded by the prescribed tests.'

³<http://chromachemie.co.in/indian-pharmacopoeia-reference-standards.html>, visited 18.05.2020 at 10.41 A.M.

³<https://en.wikipedia.org/wiki/Pharmacopoeia>, visited on 18.05.2020 at 12.16 P.M.

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while formulary is a list of available drugs, particularly prescription drugs.⁴ A National Formulary contains a list of medicines that are approved for prescription throughout the country.⁵ Multiplicity of drugs made it difficult even for a qualified and experienced physician to discriminate the choice of drugs. For the guidance of medical practitioners, medical students and pharmacists in hospitals and in sales departments, National Formulary of India have been formulated. Monograph (till date total numbers of monograph are 2829) usually contains basic chemical information for the ingredients as well as its description and function of drugs. Till date total eight IP editions and their supplements/addendums and 5th edition of National Formulary of India have been published by the Commission.⁶

Rationale and Scope of the Study

The inquisitiveness of the author with respect to know about the importance of the Commission as well as to know the various activities which the Commission is performing compelled the author to go ahead with this direction. The scope of this study is to know about the law sanctioning the establishment of the Commission.

Research Methodology

This study will be partly empirical and partly doctrinal. In Doctrinal part, two types of reference will be used i.e. primary sources and secondary sources. Primary sources consist of statute and legislations and secondary sources are books, journals, articles. In Empirical part, the primary data was obtained by sending the questionnaires through social sites such as mail, phone, skype, face book messenger to the common people to assess the knowledge of the common people with respect to this. The samples of 35 persons were taken up for data collection from selected areas by means of opinion survey through questionnaires. Basically the structured questionnaires were asked. Questionnaire method is helpful to collect data from large, diverse and widely scattered people. Accordingly 35 common people were given opinion who were resident of Kolkata Metropolitan Area. The information has been collected on stratified random sampling method. The data obtained through the field survey is processed and presented in appropriate table for deriving conclusions. Simple statistical tools like percentages, is used for deriving inferences and conclusions.

Research Questions: The basic questions which the present study has raised for considerations are: Whether the general masses know about the Indian Pharmacopoeia Commission? What is the role of the Indian Pharmacopoeia Commission? Which law is backing for the establishment of this Commission? Are any changes required for better performance of the Commission?

Hypothesis: The Indian Pharmacopoeia Commission plays an important role in the life of the peoples of India.

Literature Review: In any research, literature review plays an important role. It is not only important but also essential when the author writes about any research report. It is a required homework that ought to have been done carefully. It is a fact finding task and initial step of any research. It depicts the pictures about what research has

⁴<https://wikidiff.com/pharmacopoeia/formulary>, visited on 18.05.2020 at 3.56 p.m.

⁵[https://en.wikipedia.org/wiki/Formulary_\(pharmacy\)](https://en.wikipedia.org/wiki/Formulary_(pharmacy)), visited on 18.05.2020 at 4.13 p.m.

⁶ Supra note 1.

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been done in the past of the topic chosen by the author. The main aspect of literature review is that it judge, sums up, compares and contrasts, connects various books, articles, other relevant sources that are very much related to the present topic. It sharpens the focus of the researcher. A comprehensive review of relevant literature is essential as it place the research study in its proper perspective by narrating the amount of work already done in the related area. To build clarity of thought literature review plays a pivotal role. By identifying gaps in the existing literature, the researcher can justify the originality of the proposed research. The analytical features of a literature review might trace the intellectual progression of the field; identify the gaps exist till date. A good number of studies relevant for the present study have been studied.

Origin of Indian Pharmacopoeia: The Bengal Pharmacopoeia and General Conspectus of Medicinal Plants was published in 1844, which mainly listed most of the commonly used indigenous remedies. Thereafter Indian Pharmacopoeia was published in 1868 based on British Pharmacopoeia 1867 covering both the drugs of and indigenous drugs used in India, with a supplement published in 1869 incorporating the vernacular names of indigenous drugs and plants. However, from 1885 the British Pharmacopoeia was made official in India. Afterwards the Indian Pharmacopoeia was published in 1946⁷. After independence, an Indian Pharmacopoeia Committee was constituted in 1948, which prepared the Pharmacopoeia of India in 1955.⁸

Vision and Mission of the Commission: It is the objective of the Commission to promote the highest standards of drugs for use in humans and animals within practical limits of the technologies available for manufacturing and analysis. To promote public health and animal health in India by bringing out authoritative and officially accepted standards for quality of drugs including active pharmaceutical ingredients, excipients and dosage forms, used by health professionals, patients and consumers.⁹ In a move to strength the Indian Pharmacopoeia further, the Health Ministry in association with the Indian Pharmacopoeia Commission is closely working with other key global pharmaceuticals standard setting bodies to harmonise the IP standards¹⁰. Indian Pharmacopoeia or any part of it, has got legal status under page numbers 37 and 38 of the Second Schedule of the Drugs and Cosmetics Act, 1940. Standards of Drugs included in IP – Standards of Identity, Purity and Strength as specified in the Indian Pharmacopoeia for the time being in force as mandated in Drugs and Cosmetics Rules 1945.¹¹

⁷ Supra note 1. After Independence the IP Editions are: First-1955; Second-1966; Third-1985; Fourth-1996; Fifth-2007; Sixth-2010; Seventh-2014; Eighth edition-2018. The supplement to the IP published 1960;1975;1989&1991; 2000,2002,2005;2008; 2012; 2015. 6th edition IP contained total 2000 monographs including 287 new monographs and more than 600 updated monographs.

⁸Jai Prakash et al., 'Current Status of Herbal Drug Standards in the Indian Pharmacopoeia', PHYTOTHERAPY RESEARCH Phytother. Res. (2017) Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/ptr.5933.

https://www.researchgate.net/publication/332268739_Current_Status_of_Herbal_Drug_Standards_in_the_Indian_Pharmacopoeia/link/5cab17d0a6fdcca26d066797/download 17.05.2020 at 12.57 pm

⁹<https://www.pmda.go.jp/files/000214416.pdf> visited on 17.05.2020 AT 12.02.P.M.

¹⁰<http://www.pharmabiz.com/NewsDetails.aspx?aid=88331&sid=1> 17.05.2020 at 3.44 pm.

¹¹ <https://www.idma-assn.org/pdf/dr-pl-sahu.pdf> 17.05.2020 at 2.48 pm

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Structure of the Commission: The IPC is a three-tier structure comprising of the General Body (25 members), Governing body (13 members) and Scientific Body (15-23 members from different related scientific fields). The Secretary-cum-Scientific Director of the Commission is the Member Secretary of all three bodies of the Commission as well as the Chief Scientific and Executive Officer of the Commission. The Secretary, Ministry of Health and Family Welfare is the Chairman of the Commission.¹²

The 7th and 8th Edition of Indian Pharmacopoeia: The seventh editions published in accordance with the principles and designed plan decided by the Scientific Body of the Commission. The 7th edition incorporates 2548 monographs.¹³ The Indian Pharmacopoeia Commission has released the 8th Edition of Indian Pharmacopoeia on 2018 consisting of 4 Volumes incorporating 220 new monographs [Chemical Monographs (170), Herbal Monographs (15), Blood and Blood related products (10), Vaccines and Immunoserum for Human use monographs (02), Radiopharmaceutical monographs (03), Biotechnology Derived Therapeutic Products (06), Veterinary monographs (14)], 366 revised monographs and 7 omissions.¹⁴ The Indian Pharmacopoeia Commission is set to become the first WHO Collaborating Centre for Safety of Medicines and Vaccines in the South-East Asia Region.¹⁵ However, the Pharmacopoeial standards are enforced by the Central, State and Union Territory drug regulatory authorities of India in accordance with the Drugs and Cosmetics Act 1940 and Rules 1945.¹⁶

¹² Supra note 1.

¹³ Supra note 1.

The 7th edition incorporates 2548 monographs of drugs out of which 577 new monographs, 134 API monographs, 161 formulations monographs, 18 excipient monographs, 43 NDS monographs, 10 antibiotic monographs, 19 anticancer monographs, 11 antiviral monographs are included in this edition. Also 31 herbal monographs, 05 monographs on Vaccine and Immunoserum for human use, 06 monographs on insulin products and 07 monographs on biotechnology products are included.

¹⁴ <https://www.mondaq.com/india/food-and-drugs-law/671182/indian-pharmacopoeia-commission-ipc-releases-eighth-edition-of-indian-pharmacopoeia-ip> visited on 17.05.2020 at 12.34 pm.

“Salient Features of IP-2018 are: Keeping in view the essential requirement for harmonization of analytical methods with those accepted internationally, steps have been taken for monitoring drug standards. General Chemical tests & Thin Layer Chromatography (TLC) for identification of an article have been almost eliminated; and more specific infrared, ultraviolet spectrophotometer and HPLC tests have been emphasized. The concept of relying on published infrared spectra as a basis for identification has been continued. The use of chromatographic methods has been extended to cope with the need for more specificity in assays and in particular, in assessing the nature and extent of impurities in ingredients and products. Most of the existing Assays and Related Substances Test methods have been upgraded by liquid chromatography to harmonize with other International Pharmacopoeias. Pyrogen test has been replaced by Bacterial Endotoxin test (BET) in parenteral preparations and other monographs. For ease of access to make Pharmacopoeia more user-friendly, an Index has been incorporated in Volume-I along with the already existing one in Volume-IV of IP. 53 New Fixed Dose Combination (FDCs) monographs have been included, out of which 25 FDC monographs are not available in any Pharmacopoeia. General Chapters on Volumetric Glassware, Conductivity, Dissolution test, Disintegration test, Dimensions of Hard Gelatin Capsule Shells etc. have been revised.”

¹⁵ <https://pib.gov.in/newsite/mbErel.aspx?relid=130201> 17.05.2020 at 12.42 pm.

¹⁶ Jai Prakash et al., ‘Current Status of Herbal Drug Standards in the Indian Pharmacopoeia’, PHYTOTHERAPY RESEARCH Phytother. Res. (2017) Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/ptr.5933.

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History of Pharmacopoeias: A Global Perspective: According to the latest index of the World Health Organisation, there are 40 Pharmacopoeias published around the world.¹⁷ In the 16th century some city of Europe maintained Pharmacopoeias containing medical prescription for physicians. In the 19th century, there was an emerging focus to standardize the content in the pharmacopoeias. In 1820, the United States Pharmacopoeia; in 1858, the British Pharmacopoeia, and in 1953 Chinese Pharmacopoeia were created with an object of providing quality standards for medicines to benefit patients. The other countries published pharmacopoeia in the following year, for example Japanese Pharmacopoeia 1886; the pharmacopoeias in Mexico 1846; Argentina 1898; Brazilian Pharmacopoeia 1929; Korean Pharmacopoeia 1958; the Indonesian Pharmacopoeia in 1962. WHO adopted International Pharmacopoeia in 1951 and the eighth edition of International Pharmacopoeia was published in 2018 to serve as source material for reference or adaptation by any WHO Member State. However, it was recommended that International Pharmacopoeia was not intended to be a legal pharmacopoeia in any country unless adopted by the pharmacopoeial authority of that country.¹⁸

Kelsen's theory and the Commission: According to Article 245 (1) of the Constitution, Parliament may make laws for the whole or any part of the territory of India, and the Legislature of a State may make laws for the whole or any part of the State. According to Article 246 (1) of the Constitution of India, Parliament has exclusive power to make laws with respect to any of the matters enumerated in the Union List. According to Article 13 (1) of the Constitution of India, 'all laws in force in the territory of India immediately before the commencement of this Constitution, in so far as they are inconsistent with the provisions of this Part, shall, to the extent of such inconsistency, be void'. Therefore it can be said that if that law not violates the provisions of the fundamental rights, then the law is valid. The Drugs and Cosmetics Act, 1940¹⁹ was enacted to regulate the import, manufacture, distribution and sale of drugs. Indian Pharmacopoeia or any part of it, has got legal status under page numbers 37 and 38 of the Second Schedule of the Drugs and Cosmetics Act, 1940 as well as in various provisions of the Drugs and Cosmetics Rules, 1945. In exercise of the powers conferred by Sections 6(2), 12, 33 and 33 N of the Drugs and Cosmetics Act, 1940,

¹⁷Indian Pharmacopoeia (2007a) incorporated for the first time each chapter on the general requirements of herbs and herbal products standards and a total of 58 specific monographs, including 23 new monographs. The new monographs included were Amalaki, Amra, Arjuna, Artemisia, Bhibhitaki, Bhringraj, Coleus, Gokhru, Gudmar, Guduchi, Haritaki, Kunduru, Kutki, Lasuna, Manjistha, Maricha, Pippali Large, Pippali Small, Punarnava, Sarpagandha, Shatavari, Shati and Tulasi. Indian Pharmacopoeia, Addendum 2008 (2007b) incorporated nine new monographs, namely, Ajwain, Anantmula, Daruharidra Roots, Daruharidra Stems, Kalmegh Dry Extract, Saunf, Senna Dry Extract, Senna Tablets and Yasti Dry Extract.

¹⁷J. Mark Wiggins and Joseph A. Albanese, 'A Brief History of Pharmacopoeias: A Global Perspective', Pharmaceutical Technology REGULATORY SOURCE BOOK SEPTEMBER 2019, Pp. 1-6, http://files.alfresco.mjh.group/alfresco_images/pharma//2019/09/25/173bf119-f56e-4e58-ac1d-9ae9d126a800/PTEbook0919_PharmacopoeiaCompendia_History_watermark.pdf 17.05.2020 at 1.46 pm.

¹⁸J. Mark Wiggins and Joseph A. Albanese, 'A Brief History of Pharmacopoeias: A Global Perspective', Pharmaceutical Technology REGULATORY SOURCE BOOK SEPTEMBER 2019, Pp. 1-6,

¹⁹[https://cdsco.gov.in/opencms/export/sites/CDSCO_WEB/Pdf-](https://cdsco.gov.in/opencms/export/sites/CDSCO_WEB/Pdf-documents/acts_rules/2016DrugsandCosmeticsAct1940Rules1945.pdf)

documents/acts_rules/2016DrugsandCosmeticsAct1940Rules1945.pdf, visited on 18.05.2020 at 11.10 am

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the Central Government made the Drugs and Cosmetics Rules, 1945 which contains 169 rules. The Indian Pharmacopoeia Committee (old name) was established by executive orders in 1945 according to the Indian Drugs and Cosmetics Act, 1940²⁰. According to the Pure Theory of Law²¹, a legal theory, in most cases, takes inspiration from the local legal system. It seeks to give a juristic basis of such legal system and tries to present solution of the problems. The Pure theory of law was propounded by Hans Kelsen. In every legal system there is a fundamental law as the basis of the legal system. The idea of 'Grundnorm' which may be said to be the foundation stone of the 'Pure Theory' and the law may be said as the 'hierarchy of norms'. According to Kelsen, law is a 'normative science'. Law norms are 'Ought' norms. It says, 'if one breaks the law, then he ought to be punished'. The science of law to Kelsen is the knowledge of hierarchy of normative relations. The task of legal theory is to clarify the relations between the fundamental and all lower norms. Every legal norm i.e. Act gains its force from more general norm which backs it. Ultimately that hierarchy relates back to an initial norm i.e. 'Grundnorm' and it is from this norm that all inferior norms derive their force. The 'Grundnorm' is the starting point in a legal system. In India, Indian Constitution is Grundnorm and the Act is inferior norm. Therefore it may be said that the activity of the Commission obtained legal force/sanction from the Drugs and Cosmetics Act, 1940.

Findings of the Empirical Study²²

Table 1 : Opinion given by the Common People at Kolkata Metropolitan Area (KMA)

Question Number	Questions put to the Respondents (Total No. of Respondents: 35)		Answers in %	
			YES	NO
1.	Do you know that Indian Constitution is the Supreme Law of the land?		91.42	8.58
2.	Do you know about the Drugs and Cosmetic Act, 1940?		45.71	54.29
3.	Do you know about the Drugs and Cosmetics Rules, 1945?		37.14	62.86
4.	Do you know about the Indian Pharmacopoeia Commission?		25.71	74.29
5.	Do you ever heard about the term Indian Pharmacopoeia?		22.85	77.15
6.	Do you think that the Indian Pharmacopoeia Commission plays an important role on the life of the people?		31.42	68.58
No. Of Male Respondent: 18		No. Of Female Respondent: 17		
Age wise-- Male	From 21-30 years: 08		Age wise-- Female	
	From 31-40 years: 07			
	From 41-50 years: 02			
	From 50 and above years: 01			
		From 21-30 years: 08		
		From 31-40 years: 05		
		From 41-50 years: 02		
		From 50 and above years: 02		

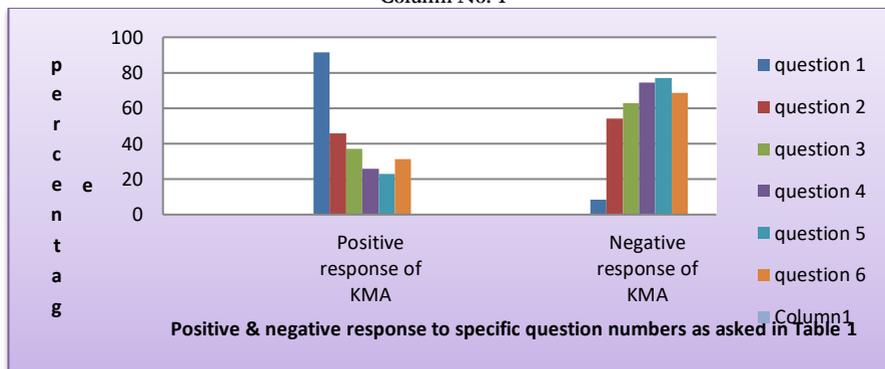
Table No. 1 is the data analysis of the opinion given by the respondent within the study area. The outcome of this Table is further elaborated in the subsequent Columns; pie and Line.

²⁰<http://www.ias4sure.com/wikiias/prelims/indian-pharmacopoeia-commission-ipc/>, visited on 19.05.2020 at 7.03 p.m.

²¹ Dr. B. N. Mani Tripathi, 'Jurisprudence, The Legal Theory', Allahabad Law Agency, Faridabad, 19th Edition, 2013

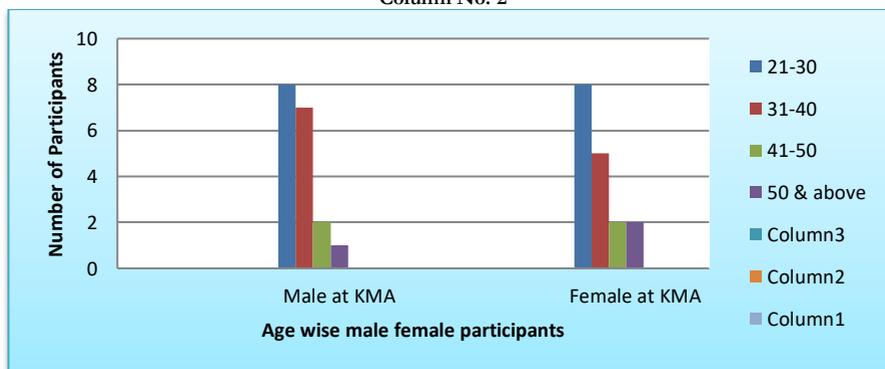
²²Source: Author

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Column No. 1



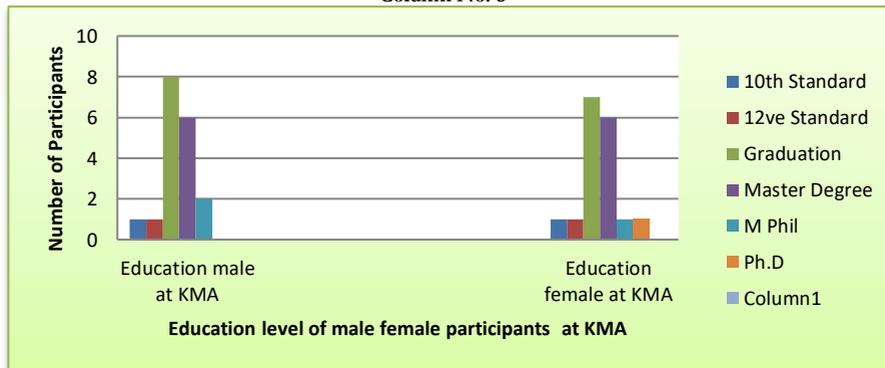
Column No.1 showing the positive and negative response of the respondents with respect to the questions as asked by the author with respect to the Kolkata Metropolitan Area. It is the Column showing the positive and negative percentage of the respondents.

Column No. 2



Column No. 2 showing the actual numbers of the respondents and they are further divided into male and female with a strata of age. The age of the male and female respondents are further divided into 21-30years; 31-40 years; 41-50 years; 50 and above.

Column No. 3

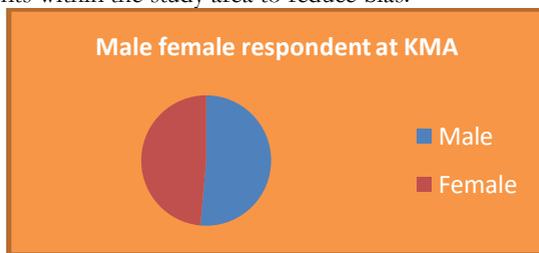


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Column No. 3 showing actual numbers of the education level of male and female respondents within the study area and the education level of the respondents are starting from 10th standard to Ph.d. The various education levels were chosen to testify the knowledge among different educated people with respect to the Commission.

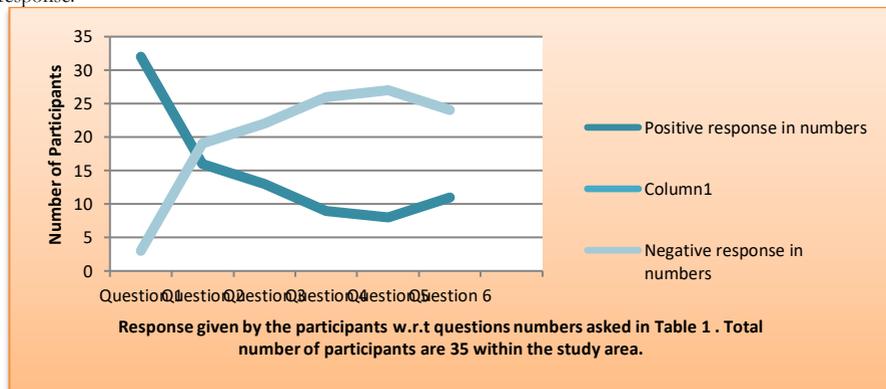
Pie diagram No. 1

The below is the Pie Diagram representing the male and female respondent of the study area i.e. Kolkata Metropolitan Area. The study is conducted with 35 respondents and out of 35 respondents 18 are male respondents and 17 are female respondents. This Pie Diagram showing almost the same numbers of the male and female respondents within the study area to reduce bias.



Line No. 1

This is a graph showing actual numbers of respondents responded with respect to specific questions. The positive response line is decreasing and the negative response line is increasing from question number 1 to question number 6. It is reflecting from the graph that the negative response is prevailing over the positive response.



Conclusion and Suggestions: Most of the people do not know about the Commission and therefore, the basic awareness is highly required in this regard. In the present day, the Commission is performing very important duty. The objective of the Commission is to promote the highest standards of drugs for humans use and to promote public health by bringing out authoritative and officially accepted standards for quality of drugs including active pharmaceutical ingredients, excipients and dosage forms, used by health professionals, patients and consumers. The hypothesis, which the author has framed, has been justified. So far as performance of the Commission is concerned, the author is of the view that the Commission is doing excellent job.

INDIAN PHARMACOPOEIA COMMISSION

Therefore it is suggested that the government create awareness in collaboration with the Commission among the general masses about the importance of the Commission.

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INTERACTION WITH NEEDONOMIST, DR. M.M.GOEL

Exclusive Interview with Former Vice Chancellor Dr. M.M. Goel, known as 'Needonomist' Professor retired from Kurukshetra University, Kurukshetra who talks of Gita based 'Needonomics' and street smart Indians for coping covid created crisis in the economy

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1 Conceptualise Needonomics with its scope in present times

Needonomics (economics of needs) is based on Bhagvad Gita as an 'Idea of India' which is nonviolent, ethical and spiritual in nature confining to needs. It says no to greed which falls in the domain of greedonomics (economics of greed). It authenticates economic thoughts of Mahatma Gandhi to considerable extent.

I believe that 'needonomics' is necessary and sufficient for solving the economic and non-economic problems anywhere in the world including India.

Needonomics is required for saying no to most of the problems caused by Greedonomics (economics of greed) including violence, terrorism, exploitation, deprivation, discrimination, discontent and corruption of all kinds prevailing in the society. Endless greed is the real menace facing the world today.

To my mind, an economist who speaks and argues needonomics is known as Needonomist.

2 Which strategy should be adopted to implement the principle of 'Needonomics'

To implement the principle of 'Needonomics', I believe that strategy of spiritually guided materialism (SGM) flowing from Life Insurance Corporation (LIC) of India's slogan seen in the logo 'yogakshemam vahamyaham' is in Sanskrit which loosely translates into English as "Your welfare is our responsibility" derived from sloka no 22 of chapter 9 of Bhagvad Gita "ananyāśh chintayanto māṁ ye janāḥ paryupāsate śhām nityābhiyuktānām yōga-kṣhemaṁ vahāmyaham". Meaning there by "There are those who always think of Me and engage in exclusive devotion to Me. To them, whose minds are always absorbed in Me, I provide what they need and preserve what they already possess"

Recession in the global economy including India is a reality to be accepted by all the stakeholders in an economy. It needs proper diagnosis by the economists of all shades and creed with Gita based wise words of wisdom (www) to create conducive climate and work culture with honesty of purpose. It needs to be understood, analysed and interpreted that spiritualism and materialism are complementary to each other and not substitutes. To mitigate the miseries of materialism, modern economics must consist of spiritualism which is necessary and sufficient for ethical behaviour of economic actors including consumers, producers, distributors, traders and above all policy makers and facilitators. Economists have the unique responsibility towards the moral empowerment of all the actors in the economy.

3 What is concept of consumer psychology to adopt Needonomics

A consumer as a hero of economics is always interested in a hero (goods and services) and all those who pollute the relationship are called villains in the real drama in the market. Everyone is a consumer and is expected to behave in the market with rational behaviour which falls in the domain of consumer psychology.

Consumer psychology is the study of why and how people buy things in the market (online and offline).

4 Conceptualise Street Smart person in present global dynamics

A person is street smart with the attributes including simple, moral, action oriented, responsive and transparent with needonomics in the present economic scenario of materialism and consumerism.

To ensure public participation in Atamnirbhar Bharat Abhiyan, we need to become street smart in using smart phones under digital India for most of the activities online during lockdown.

5 What is your perception about globalization in present times of Covid created economic crisis

To my mind, globalization is internationalization of Indianization which I have been promoting since 1991.

To implement the vision of 'Atamnirbhar Bharat Abhiyan' announced by Indian prime minister, we should avoid over-emphasizing 'vocal for local' and be little diplomatic and use the wisdom for 'Glocalization' meaning thereby think globally and act locally for promoting Vasudhiava Kutumbakam (the world is one family) as the Indian ethos.

6 What is your take about the epic Gita

Bhagavad Gita is a treatise on welfare economics and management and needs to be accepted as a sacro-secular epic for the entire humanity. For me, Gita is my guru which is the heart of Krishan.

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