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ENVIRONMENT AND HUMAN WELL-BEING: REVISITING LINKAGES AND MAJOR ISSUES

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Abstract

Ensuring a better state of well-being has become the core of the national building process since the decolonisation period of the 1950s. Improved Quality of Life (QoL) is possible only with a pristine availability of air, water, soil, forest and social settings. Environmental well-being is a situation where all the physical elements along with social components in-and-around the society are favourable to ensure the necessities for individuals and households for their development, growth and higher aspirations for the future. The current investigation aims to conceptualise the intertwined interaction between environmental variables and human well-being, particularly concerning Indian rural areas. The study is based on an analysis of a systematic review of selected literature, and the results are supplemented with various secondary data inputs. The study shows that states with low Human Development Index (HDI) are performing poorly with multiple indicators of environmental quality. An increasing number of suicides in high-income states is a serious concern to the sustainability of human environments. The study's findings underscore a strong association between the natural and social environment and individual, household and societal well-being.

Key Words: Environment, Water, Social Capital, Economy, Well-being

Introduction

Human beings are living in the dynamic interfaces of man- environment relationships since the beginning of early civilisation. This intertwined association is well reflected in transforming the symbiotic relationship between human adaptation and his environment. Modifying the environment for the expansion of his capabilities is a rudimentary characteristic of modern human beings. The basic material essential for a good life includes adequate income, household assets, food, water and shelter. Man is continuing his social tie-ups to avail these basic necessities. In modern society, the concerns over the quality of life have increased, when the life quality proportionately fluctuates with technological progress that has contributed to an improved income level. The circumstances which allow the growth of human life are the physical as well as the cultural environment (Van Kamp et al., 2003). It is assumed that the higher the quality of the environment, higher the state of well-being ofthe people. Here, human well-being refers to

everything important to people's lives, ranging from basic elements required for human survival (food, water, shelter) to the highest level of achievement of personal goals and spiritual fulfilment. Human well-being is a multi-dimensional concept which includes quality of life (QoL). This gradient reflects the spatio-temporal variability of material (food, water and shelter) and non-material needs (good health, social cohesion, security). Achieving well-being is possible by increasing the pace of the development process in a society (Singh and Chothodi, 2015).

The term' development' has undergone paradigm shifts in meaning and objectives in the last seven decades. The primary objective of the term' development' (before 1980s) was limited to the economic perspective by the maximisation of output and later the term become synonymous with the achievement of high rate of growth in Gross Domestic Product (GDP). It became highly significant in developing nations since the post-liberalisation periods of 1970s. The QoL and well-being have emerged as core areas of discussion since 1990s, when the world economic pool shifted towards developing nations. Improved QoL and a better state of well-being of the people are the major goals for states; the idea is adopted by the third world from the developed world since 1980s. Development as an enhancement of human freedom involves diverse concerns but incorporates the expansion of social opportunities and the QoL (Drèze and Sen, 2002). Many of the human freedoms and components of the QoL are dependent on the integrality of the environment (involving the air we breathe, the water we drink, the epidemiological surroundings in which we live, and so on), development cannot, but, be sensitive to the quality of the environment (Drèze and Sen, 2002). In a few circumstances, the better state of life was accessed at the cost of a better environment (Fig. 1). In the modern scenarios of development, therefore has a strong negative correlation between environmental quality and economic growth. On the contrary, the Sustainable Development Goals (SDG) 2030 aims for good health, clean water, gender equality and a better state of well-being of the people that are highlighted in the agenda.

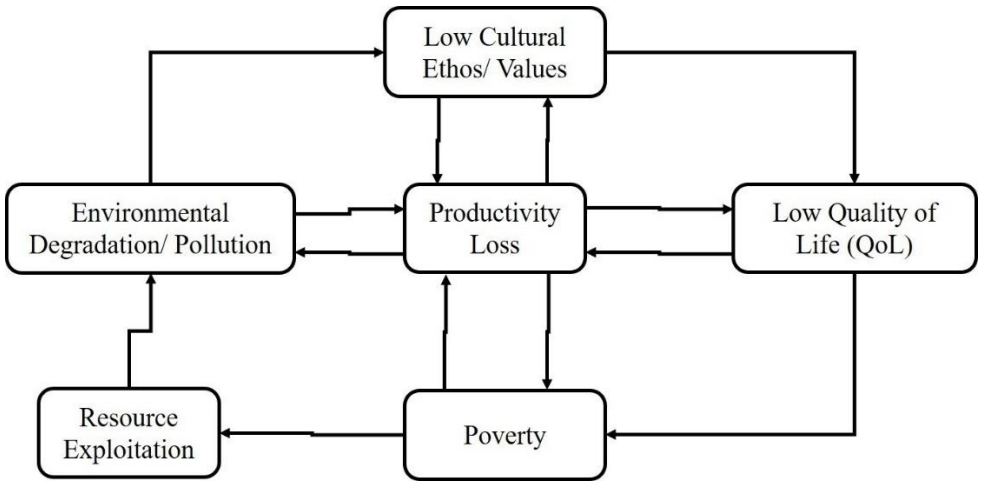

Figure 1. Environmental Degradation and Poverty

The post-world war economic growth was dependent on the implementation, application and marketing of science and technology. This advantage was largely dominated by the developed world up to the 1980s and in the 1990s the developing world accessed the technology at a large scale. This change has increased the pressure on the natural environment and made crucial changes in the social environment of the rural landscape, the world over especially in India. The development was equated always to economic growth with industrialisation and industrialisation with investment in physical capital formation.

Economic modernisation enhances the revolutionary changes in the social system. The urban ecosystems of the European Union are facing the problems such as segregation, neighbourhood, degradation, increased road traffic, socio-economic deprivation and inequalities in health that create inequalities in well-being. (Van Kamp et al., 2003). However, the temptation in public discussions to think of 'development' and 'environment' in antagonistic terms, the deteriorating environmental trends are linked with heightened economic activity (Drèze and Sen, 2002) (Figure 1).

The developmental initiatives, especially after the independence, gave a modern face to the rural areas of India. Reflections are visible in the improved QoL of the individuals in rural areas. The credit goes to the liberalisation initiatives of the late 1960s and the economic reforms of the early 1990s. Along with the infrastructural development, the social welfare policies of the state-sponsored have pushed up the growth of human capital. Economic growth is important to the development sequences, it is essential because economic welfare precedes developments related to well-being (Van Kamp et al., 2003). The exploitation of natural resources is integral to the physical capital formations. Environmental degradation is a major development issue that is inextricably and casually linked to the problems of poverty, hunger, gender inequalities and poor health. Various economic theories clearly show how continuous improvements in income depend on growing levels of assets, or wealth. If wealth does not grow, income will eventually fall. Ecological disturbances finally reduce the overall productivity in the majority of the rural scenarios. The low state of income in rural areas may be because of ecological disturbances that lead the poor productivity and withdraw the rural economy from further expansion, ultimately leading to negative growth (Conger et al., 2010) and causing outmigration.

The gap between access to services and opportunities has increased rural-urban migration and disturbs the equilibrium of the development processes (ILO, 2010). This gap is the difference in economic status, education, health care, sanitation, social relations, integrations, etc., making the few advanced and the rest backward and marginalised in the developmental paradigm (Singh and Satheesh, 2011). Changing nature of the climate, poor soil nutrients and quality, deforestation, and vulnerable land use convert rural life into pathetic, which converts the rural environment into a basket of physio-cultural turbulences. Numerous studies have already been made on various indicators of environmental quality, QoL and well-being. But the associationbetween environmental variables and well-being

are missing in the development studies. The current study aims to examine the status of indicators of the environment that influences human well-being at a large scale, particularly with reference to rural Indian circumstances. The study was based on systematically pursued literature surveys (content analysis method) (Fig 3) and the arguments are supplemented by secondary data inputs in the form of tables, graphs and maps.

Environmental conditions and human well-being

The concept of 'human well-being' intends to refer to the conditions of the environment in which people successfully live and have the opportunity to expand their capabilities (Singh and Chothodi, 2015). Well-being is the actual degree of satisfaction of the needs and wants of the community. The most critical one is to lead a long and healthy life, be educated and enjoy a decent living standard (McGillivary and Noorbaksh, 2004). The surrounding physical and cultural environments of individuals and households influence the levels of human development (Singh and Chothodi, 2015). It includes the quality of air, water (pollution status), health, housing, sanitation facilities and other aspects such as social qualities including education, communal and caste harmony, crime status and victimisation.

The living circumstances of the individuals and the households vary over space and time. However, the living environment considerably decides the state of well-being of the people. Intergenerational well-being increases over time if there is an increase in the comprehensive measure of wealth per capita. The measure of wealth includes not only manufactured capital, knowledge and human capital (education and health) but also natural capital (e.g. ecosystem). Environment connotes the sum of things or circumstances surrounding the organisms including humans. The physical environment incorporates all the natural events like climatic variations and local topographical variations. From a broader perspective, the physical environment includes air and water quality, noise, indoor, and other aspects of pollution (Smith, 1977). The physical environment has multiple dimensions: physical, chemical and biological. Economists call the natural capital (aquifers, ocean fisheries, tropical forests, estuaries, and the atmosphere as carbon sink-ecosystem generally) as a basis for human survival and growth. Therefore, the sustainability of the environment is essential for well-being.

Environmental sustainability can be defined as meeting human needs without undermining the capacity of the environment to provide those needs and support for life in the long term. Environmental resources such as the atmosphere, underground and surface water, fisheries, birds and animal species, forest, soil and soil cover are part of our capital assets. Some are pure amenities and others are providing partial services to human beings. The economics of sustainability resorted to the idea of maintaining the value of total capital intact, which usually comprises manufactured capital, natural capital and sometimes social capital (Fig 2). Natural capital encompasses everything in nature that provides human beings with well-being, from natural resources to the pollution and abortive capacity of the environment. Economic processes have beenhighly resource-depleting, causing crises in

the marine and forest sectors and disruption of the water cycle. Modern industrial development has also been highly energy-sensitive (Chakraborty, 2009) in nature. Therefore, the sustainability concept got critical importance in contemporary world patterns.

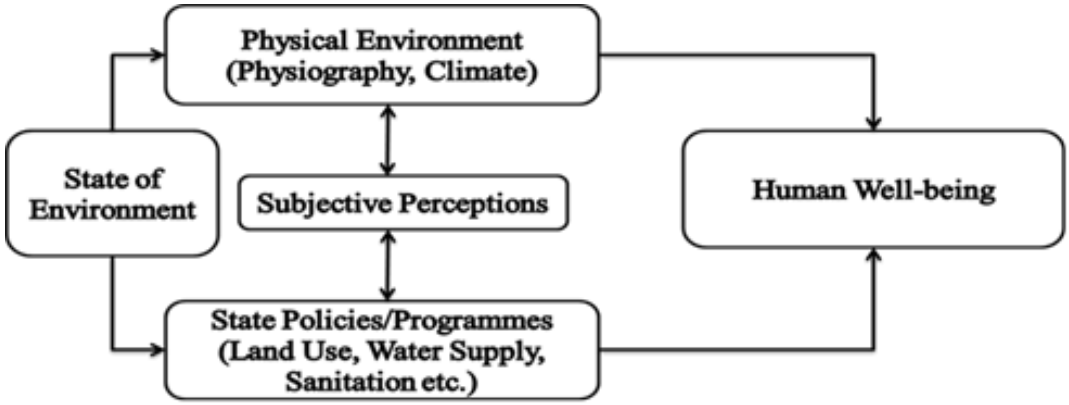

Figure 2. Environmental Perspectives on Human Well-being

Households are not isolated units but are connected to others in a pattern that creates a fabric of social life. The social congregation and amalgamation are part of a community or societal life. However, the polluted physical environment disturbs the normal life of the human being and creates a number of social as well as health problems and disorders. Environmental degradation is a major issue that is inextricably and easily linked with problems of poverty, hunger, gender inequality, health, etc. and it represents a variety of spatial as well as locational differences. The burdens of environmental problems largely affect the middle and low-income groups (have-nots) and these burdens were largely the creation of high-income groups (haves). As the poor are dependent on nature for their livelihood, they are vulnerable to natural calamities, environmental degradation and ecological disasters. The destructive form of development and economic growth aggravates poverty and inequality in society and paralyses a section of society with new-borne diseases. Some chronic, non-infectious diseases can also be classified as mediated effects of ecosystem change, including allergies, asthma and some forms of cancer and chronic lung disease.

Well-being is controlled by both physical and cultural landscapes in the Indian rural systems (Qureshi, 2010; Adger, 2000). The dominant economic practices in the rural area are agriculture and allied practices. The post-liberalisation period (after the 1990s) witnessed a change in occupational structure in rural India. The rapid rise in purchasing power of the people causes rapid changes in the social environment. Poor social and economic conditions of the villages compel them to over-exploit the environment, leading to the vicious circle of degradation of natural resources perpetuating poverty. The prolonged absence of basic needs causes the stunted structure of human development and causes extreme poverty. Poverty further increases exploitation, which ultimately makes a low state of well-being for the people (Fig. 1). There area number of environmental indicators that

influence the well-being state of individuals because the well-being indicators are having territorial and regional dimensions and character. Thus this paper tries to undetsand the environment and human well-being of India through a certain quantifiable parameters in a spatial context.

Proxies of environment and human well-being

Environmental qualities have individual perceptions as 'environmental quality is a complex issue including individuals' subjective perceptions, attitudes and values which vary among the groups and individuals' (Van Kamp et al., 2003). Subjective indicators allow for gaining insight into the well-being/satisfaction of a person, and also into what people consider important. It indicates the commitment of individuals to the environment and the creation of public support. Through objective indicators, the evaluation of environmental quality is so hard that they form the point of departure for the environmental policy and enable the validation of subjective measures (Van Kamp et al., 2003).

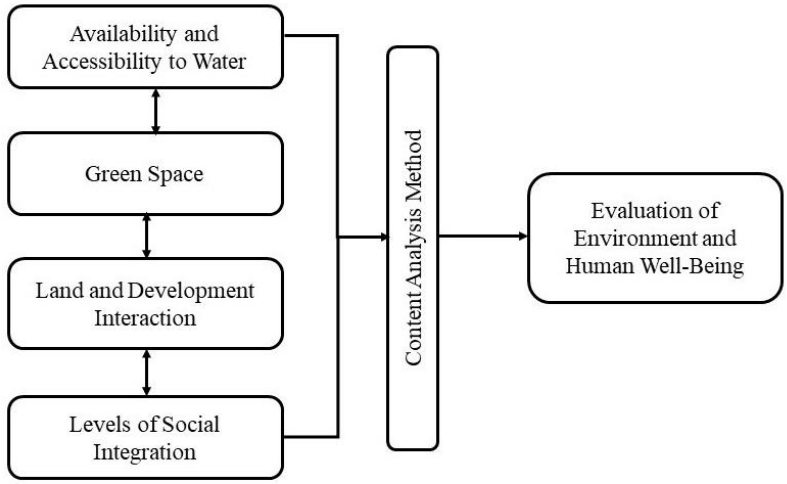

Figure 3. The Conceptual Flow of Environment and Human Well-being

The concept of an individual's well-being is the amalgamation of objective and subjective approaches (Costanza et al., 2007). The distribution of the objective indicators of environmental qualities has spatial as well as temporal similarities and differences all over the world and the variations in the subjective differences are truly different over space and time, especially between the individuals, who however have certain commonalities over the group and societies. Therefore, the state of the environment is an integration of bio-physical and socio-economic indicators needed to assess the spatial interactions and inferences of various processes, which ultimately express the pattern of human imprint on the environment. The discussion in this paper is oriented with following variables of environment and human well-being that directly involve deciding the levels and layers of well-being of the Indian rural masses.

1. Water Resources

Water is a fundamental necessity for survival as well as an asset for the growth and development processes of human society. Modernity and extensive developmental initiatives have increased the consumption and demand of water. Quality of water is closely linked to water quantity, which has economic, environmental and social importance. It has many aspects (physical, chemical, microbial, biological) and can be defined in terms of water suitability for various uses (OECD, 2001). The surface as well as groundwater are subject to pollution due to the extensive deposition of solid and liquid pollutants into the sources of water. As per United Nations International Children's Emergency Fund (UNICEF, 2022), water-borne diseases are imposing an economic burden of 600 million USD on the Indian economy. The extensive utilisation of ground and surface water reduces the amount of availability and increases the intensity of drought circumstances. Modern commercial agriculture consumes large amounts of water, which again contributes to worsening the situation. Contaminated water from industrial recharge, household waste, extensive use by domesticated animals and sewage pollution are the sources of water pollution in rural areas. The mounting density of the population and economic activities also increase water scarcity and reduce the quality of life in rural India.

The use of chemical fertilisers, which recorded an increase of more than 80% between 1984 and 1996, added to the salinity problem in the surface and groundwater reservoirs. The increased use of chemical fertilisers rapidly enhances the pH level of the water. This is harmful to the growth of flora and fauna (Fig. 4b). The extensive water shortage reduces agricultural productivity and increases the cost of agriculture production which includes livestock protection and growth. This has further alarmed the health risk to the population and negatively affects the level of well-being. The increasing population upsurges the pressure on natural resources especially on land and water resources. It affects environmental pollution primarily through the use of natural resources and generates the bulk of waste, particularly in the sources of water. This situation raises the public expenditure on water supply and other mitigation programmes which adversely affects the health of the people.

Sources of drinking water are the major indicators of the state of the physical environment's health of an area, especially in high-income growth countries like India in this globalised era. Extensive exploitation of the surface and groundwater has reduced the availability of water and miserably affected the life of low-income groups, in which females and children are the main victims. Long continuation of poverty, poor management of freshwater sources also with the increasing pressure of population have risen the severity of water scarcity. In India, the intensity has further risen with climate change and has the least investment in water and sanitation sectors in the state. Reports published by Central Ground Water Board (CGWB, 2021) showthat themajority of the Indian aquifers are in critical and semi-critical condition (Fig 4). Aquifers in states like Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Maharashtra, Karnataka, etc. are under high semi-critical to critical conditions (Fig 4).

Fluctuating rainfall, increased exploitation for feeding the cultural landscape and reduced infiltration are causes for the declining level of surface aground water level and are well reflected in the figures (Fig 4d and 5). States/Union Territories (UT) like Tamil Nadu, Maharashtra, Rajasthan and Delhi are with low groundwater levels. Declining levels of groundwater cause high contamination of harmful minerals in the drinking water.

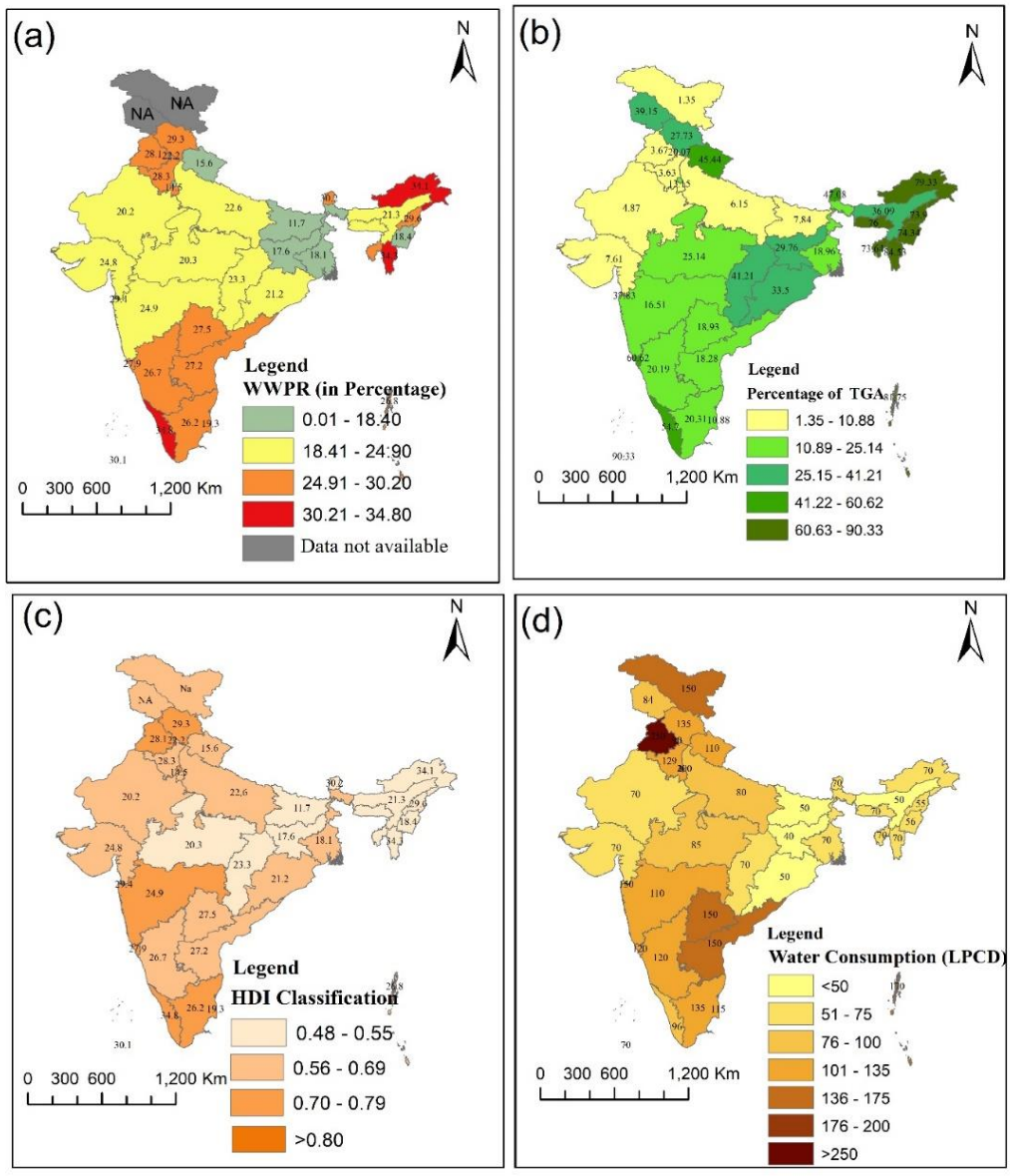

Figure. 4a. Women Workforce Participation in India, 2021(After World Bank, 2021) 4b. Forest Cover in India, 2019 (After FSI, 2019) 4c. Human Development Index- India, 2021 (After UNDP, 2022) 4d. Per capita Water Consumption in India, 2019 (After State and Union Government/s Documents of India, 2019, 2020, 2021)

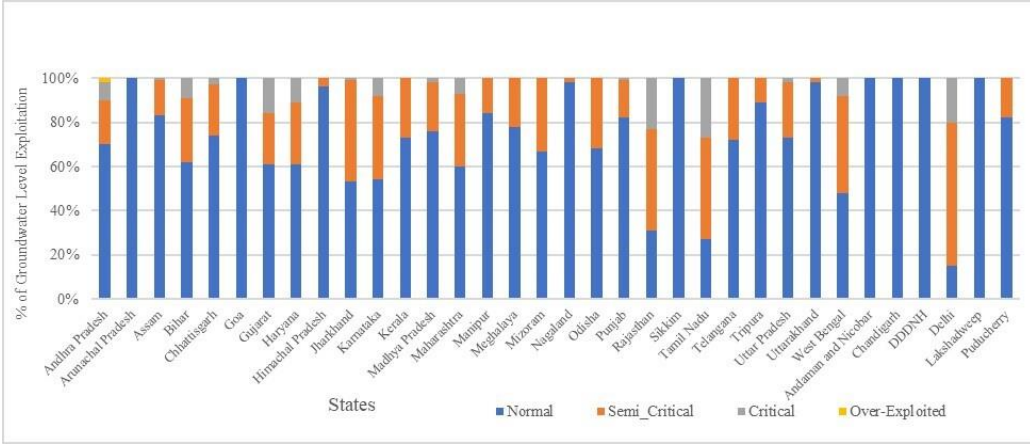

Figure 5. Level of Ground Water in Indian States, 2021 (After CGWB, 2021)

Agriculture production is reduced by the insufficient supply of fresh water, which also causes the rural population's animals to die off. The level of farmers' well-being will decline as a result of this. In India, a majority of the population depends on agriculture for their livelihood. Small and medium-scale manufacturing units and service centres cannot afford huge economic expenditures for accessing water. Shortage in natural availability causes over-exploitation, depletion and contamination of the natural resource.

The depth of groundwater and the nature of infiltration is important in deciding the quality as well as the availability of water. The increasing depth of the ground water table intensifies the effects of water scarcity and it impacts the local sources of livelihoods. Shortage in groundwater increases the concentration of chemical contaminants in the water, rendering it unsuitable for consumption purposes, (CGWB, 2014) and it may surge the health risk among the people (Table 1). Spending money for drinking water by the local population is a clear indication of the level of water scarcity and environmental vulnerabilities.

The quality of groundwater is directly related to the nature of the climate, in that the status of rainfall, geological configuration and anthropogenic activities are important (CGWB, 2014). Changes in the water level affect the physicochemical attributes of water. Extensive exploitation along with a low rate of infiltration has increased the contamination in groundwater. A majority of the South and Central Indian sub-surface is dominated by igneous and metamorphic rocks. These locations are facing the problems of geogenic contaminations along with large-scale anthropogenic inflexes to the groundwater (Fig. 4d and 5).

Increasing demand for freshwater has risen rapidly in the urban as well as in the rural areas. Per-capita share of fresh water is recorded as very poor in India in the year 2014. It was 5177 m^3/year in 1951 and in 2014 the availability had reached 1508 m^3/year (Ministry of Jal Shakti, 2020). Norway, a statewith a Human Development Index (HDI) of

0.957 recorded a per-capita share of fresh water 71,914 m^3/year in 2018 (OECD, 2022). It is recorded that a decrease in more than fifty percent of freshwater resources in the last seven decades in India. The increasing size of the population and resultant exploitation of water resources for satisfying the needs have risen fresh water scarcity. Water scarcity always makes a negative correlation with the state of well-being.

Table 1. Impact of Agro-chemicals on Human Health

Agro-chemicals	Maximum Contamination Levels	Health Effects	
		Established	Potential
Nitrates	10mg/NO_3^-N	Methaglominemia	Nitrate conversion to nitrite and N-Nitroso compounds affects the thyroid, and endocrine functions
Metals (Cd, As, Cr, Zn, Cu)	0.01 to 0.05 mg/L	Impact on kidney functions, skin disorder, tumour	Cancer risk
Pesticides (chlorinated hydrocarbons like DDT, organophosphate like Malathion, Carbamata like Carbaryl)		Affects the nervous system and reproduction, affects enzymes and muscles	Cancer risk

The situation of scarcity in the natural availability of water compels the state to arrange free and continuous availability of water in different parts of the country. As an essential commodity for human survival and growth, the utilisation of water has an important role in deciding the economic well-being of the people. There is a clear economic gap in the utilisation of water in India (OECD, 2014). The economically vulnerable section is unable to control the cost of fresh water for household consumption.

It is noticed that the levels of resource utilisation in a society reflect the political and economic freedom enjoyed by the people within the society. Economic empowerment has a reflection on the per-capita consumption and the quality of water. More than half of the states of India have recorded a per-capita fresh water consumption > 100 litre/ day limit (Fig 4d). As per the Bureau of Indian Standards (BIS), the minimum consumption status is 135 litres/ day in urban and 70 litres/ day in rural areas (Ministry of Jal Shakti, 2020). Based on the data available from state and the union governments, it is found that about 44 percent (in 2019) of the Indian rural population is unable to access the opportunity to enjoy quality water for an improved state of well-being (Fig. 4d). The stateslike Odisha, Chhattisgarh, Assam, Gujrat, Jharkhand, Rajasthan, Uttar Pradesh, and Madhya Pradesh are lagging in per-capita water consumption.

2. Land Resources

Land and water are the main supporters of almost every ecosystem on the earth, either natural or semi-natural, including the traditional land use system developed by human beings. The permanent utilisation of the land influences the environment at a large scale at the local and regional levels. Traditional agriculture was the major source of livelihood for the rural population. However, today rural traditional agriculture has changed due to mechanised, commercial agricultural practices. The dominance of modern agricultural practices has reduced the level of water and disturbs the ecological balance. Changing character of land use was largely determined by the economy and is reflected in the agricultural expansion, forest clearing, wetland drainage and irrigation, and expansion of human settlements (Bhattacharya, 2014). Agricultural activities that cause land degradation include shifting cultivation without an adequate fallow period, topsoil erosion (leaching) and the extensive use of chemical fertilisers which reduces the quality of the soil.

Commercialisation of agriculture in the modern period attracts the population towards cash crops which requires heavy irrigation and intensive care by fertilisers and pesticides. The insufficient rainfall forced the farmer to exploit the groundwater, which increases the intensity of drought and reduces the quality of products too. The modern industrial uses of agricultural land curtailed the size of agricultural land and increased water scarcity. This results in polluting land, water and air, which in turn affects human health and reduces the state of well-being of the people. The consequences of landuse change increase the tendencies of infectious diseases, especially because of the high presence of air pollutants in the atmosphere. Environmental degradation, to some extent, decides the levels of poverty in a region. It largely accounts for 9-10 percent of total deaths (WHO, 2002). The functions and services of a land-use pattern are the capacity of each land-use to provide, directly or indirectly, the goods and services that satisfy human needs. State policies (especially economic policies) have a greater influence on deciding the nature of land uses. Increasing agricultural practices after independence, along with urbanisation, has made a severe impact on the land quality in the country. It is noticed that nearly about 1. 2 lakh hectares of land in India are subjected to degraded and wasteland classes (Maji et al., 2010).

Forest cover in the country has reduced due to agriculture, industrial and urban expansions. The presence and absence of vegetation cover have a direct correlation with the state of well-being of the people. The presence of trees in the neighbourhood is an integral part of the subjective well-being of the people. According to Forest Survey Report 2021, forest cover in the country is limited to 24.62 percent of its geographical area (Fig 4b). Industrialised states like Gujrat, Maharashtra and Uttar Pradesh are losing their green spaces tremendously. Increasing urbanisation causes a disconnect between humans and nature, particularly in the countries like India where the urban share is above 30 percent according to the census 2011 (NCP, 2019). This has further reduced the density of forest land in India (Fig. 4b). It is identified that only 1.3 billion world population have clear access to green space. Availability of greenspace is associated with the livelihood of the farming

communities (Bhandari, 2013). The least concentration forest cover is a clear threat to the overall well-being of the populous states of Gangetic plains. The poor concentration of green space is well correlated with the HDI among Indian states (Fig. 4b and 4c).

3. Socio-Economic Systems

The post-liberalisation period had given birth to a new form of economic, social and intellectual layers in society by increasing investment in human capital. The structure and pattern of society influence the state of well-being of the individual as well as the community. Households are not isolated units but are connected to others in patterns that create the fabric of social life. Social capital has been defined as "networks of social relations which are characterised by norms of trust and reciprocity which lead to outcomes of mutual benefits". Social capital includes several dimensions of relationships that are interrelated: trust, reciprocity, size, density and diversity. These dimensions can be used to measure the extent and impact of social capital at individual, community and institutional levels.

The earlier concept of cultural environment is the amalgamation of people from different sects, creeds, castes, religions, and languages. In modern society, economic status plays a pivotal role in cultural integration and unity. A society with less inequality will enhance the state of subjective well-being of the people and accelerate productivity. The neighbourhood's physical and economic environment influences the subjective perception of the individuals. Studies have mentioned that the relationship between the amount of greenery in the neighbourhood and the coping behaviour of the individuals has a role in the overall subjective well-being of the individuals (Van Kamp et al., 2003). The poor socio-economic environment as powerful social co-factors, including severe poverty, social practices and social taboos and poor governance, pushes the individual and society into a poor state of subjective well-being. Sovereign governments support social networking and community-based programs for the well-being of the people. Economic and social inequalities are the prime reasons for the occurrence of crimes and victimisation (Sharma, 2015).

The indicators such as women workforce participation and HDI provide a better picture of socio-ecnomic systems in India. The states better in women workforce participation are also better in HDI. Women make up 48 percent of the Indian population but have not benefitted equally from India's rapid economic growth. Participation of Indian women belonging to the productive age group in economic activities outside the home was less than forty percent. On the contrary, the high HDI countries like Norway and Sweden had a share of 68.2 and 72.5 percent respectively in 2021 (World Bank, 2021). This is an indication that females are still lagging behind the freedom of economic production in the country. It further indicates the absence of a conducive environment for the growth of females within the houses and at the societal level.

The share of women's participation in the workforce in India is highest in the high HDI states, except North East states (Fig. 4a). The centralparts of India have the lowest

female labour force participation rates (less than 25 percent). The empowerment and autonomy of women and the improvement of their political, social, economic and health status is highly important for social well-being. A proper partnership of both women and men is required for better health and well- being. Mahatma Gandhi Rural Employment Guarantee Act (MGREGA) is a great relief to the females from the poor and middle classes. MNREGA is an important programme which successfully ensures social security in rural areas, particularly in the states like Kerala, Tamil Nadu and Odisha. Women Self-Help Groups (WSHGs) are the platform for rural women to have active social and political participation in the rural cultural landscape. Workforce participation of Indian women is poor and it is worst in the low HDI states (Fig. 4a and 4c). WSHGs are continuing as channels for social integration, empowerment and freedom of the people from economic dependencies and domestic violence and social disorders. But the rate of workforce participation has increased in the states of Kerala, Tamil Nadu, Arunachal Pradesh and Himachal Pradesh (Fig. 4c).

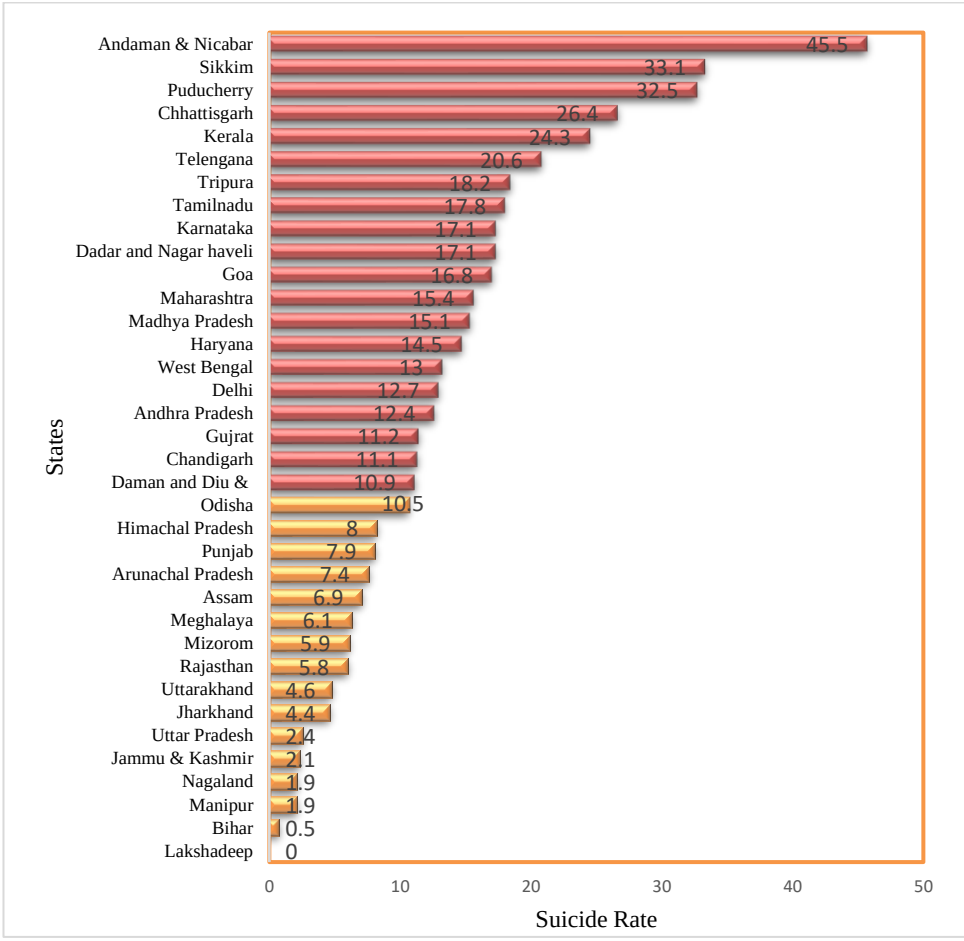

Figure 6. Suicides rates in India, 2019 (After NCRB, 2021)

Economic and social disorders disturb the subjective well-being of the individual as well as the households. Increasing educational status enhances the employability of the people and ensures economic security and individual identity in society (Conger et al., 2010). Data and reports of the National Crime Records Beuro (NCRB) 2021 (Chapter 2) show documented that the rate of suicides had increased from 9.9 to 12.0 per one lakh population from 2017 to 2021 (NCRB, 2021). States with better economic growth with high urbanisation are facing higher rates of suicide than other states with high rural population share (Fig. 6). Maharashtra, Tamil Nadu, Kerala, and Karnataka show alarming figures ever after high per-capita income. The rate of suicides is 12.3 in case of Sweden and 10.8 in Norway in 2019 (WHO, 2022). It is from the observations that the social fabric of rural India is largely responsible for healthy rural social cohesion, but there is an exemption with reference to farmers suicides. Isolation, economic distress, loss of hope and resultant poor levels of subjective well-being are considered the important reason for the increasing cases of suicides in India (NCRB, 2021).States having low HDI and poor living conditions are having the highest number of suicides (Fig. 6).

Conclusion

Natural resources are the renewable and non-renewable goods and services provided by the ecosystem. Moreover, it is the primary satisfier of subsistence by providing the necessities for human survival. From the above analysis, it is noticed that a sustainable environment is possible only with rational utilisation of natural resources. HDI values of the Indian states are well reflected in the various environmental indicators. The results show that poor performance in environmental well-being is observed all over India.

The plundering of the natural environment increases social distress and its accumulation leads to public outrage. The extensive environmental degradation is a major symptom of the government's failure to formulate an appropriate policy to ensure sustainable use of land and water resources. However, the cost of environmental degradation is always borne by the poor, which pushed them to further poverty. This has been well observed from the HDI of the states of India and the performance of Norway and Sweden. Low HDI states like Odisha, Jharkhand, Madhya Pradesh, Chhattisgarh and the Nort-Eastern states are performing badly in the environmental well-being. As Patnaik (2008) rightly observed that large-scale environmental degradation leads to poor agriculture production and shrinkage of per-capita food availability and food inflation. The absence of appropriate environmental well-being makes a negative impact on the basic foodstuff of the poor and the middle class because of the low purchasing power. Higher share of suicides in the high-income group of states are reflecting the low levels of well-being at the household and societal level raising many questions. In India, pressure of the population, beyond the thresholds of environmental limits causes the downfall of the levels of well-being. Productivity from individual and household levels to the economy as a whole will be possible only when environmental well-being is at its highest levels. Increasing expenditure for satisfying the necessities of human survival will push low-income households to the graves of poverty and a poor state of well-being.

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