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Importance of Sustainable Development for India

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Abstract – Poverty is intrinsically linked to sustainable development. Seventy percent of India lives in village, most of whom derive their total sustenance from agriculture or a related activity. Their security is synonymous with agriculture security, food security and farmer's security. Agrarian crisis since the 1990s has been one of the major problems India is facing, driving hordes of farmers to suicide. Seed, agrochemicals, water, power, soil health, agricultural practices, remunerative prices, erosion of agro-biodiversity, post-harvest technologies, augmentation of income through other sources, education, affordable healthcare, accessibility to loans, transportation, and infrastructure, are some of the factors that impact rural security. With all the resources In dia has, whether natural or man-made, it has the means to eradicate poverty, but do those who govern, have the will?

Keywords: India, Poverty, Sustainable Development, Agrarian Crisis, Farmer Suicide, Food Security, Rural Security, Plant-Based Drugs, Ayurveda, Traditional Knowledge.

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DEFINATION

INDCs, as the name suggests, are meant to be driven by national rather than global considerations. There is an ongoing debate about whether such a pledge-based system based on national interests can deliver sufficient global climate action. Under this approach, the prospects for an effective climate outcome lie in generating a virtuous cycle of over-compliance and accelerated mitigation action, rather than a race to the bottom resulting in the least possible effort The relationship between economic growth, human well-being, and the achievement of a sustainable future has a long and complex intellectual history. In his 1910 book *The Fight for Conservation,* for example, the American conservationist Gifford Pinchot emphasized: the right of the present generation to use what it needs and all it needs of the natural resources now available [recognizing] equally our obligation so to use what we need that our descendents shall not be deprived of what they need For the first time, the doctrine of "Sustainable Development" was discussed in the Stockholm Declaration of 1972. Thereafter, in 1987, the World Commission on Environment and Development submitted its report, which is also known as Bruntland Commission Report wherein an effort was made to link economic development and environment protection. In 1992, Rio Declaration on Environment and Development codified the principle of Sustainable Development. Simply put, the principle of Sustainable Development attempts to maintain a balance between development and the environment. It promotes inter-generational equity, i.e. better quality of life for present and future generations. The benefit from development ought to be equated with the impact on the environment for such development. While development is important or in fact necessary, the impact on the environment ought to be studied before undertaking such development. The basic concept of sustainable development aims to maintain a balance between economic advancement while protecting the environment in order to meet the needs of the present as well the future generations. The two pillars of the doctrine of Sustainable Development are Polluter Pays principle and Precautionary principle.

ENERGY NEEDS FOR SUSTAINABLE DEVELOPMENT

Climate policy should be embedded in an understanding of India's domestic energy context. India starts from a low base of development and faces a sizeable task of poverty eradication ahead. Table 1 indicates that in terms of poverty rates, GDP/capita, and the multi-dimensional poverty index, India is well below not only industrial-ized countries, but also other emerging economies. Moreover, energy, and particularly electricity, consumption levels in India, at 760 KWh/cap in 2012, are far below the world average of 3101 KWh/cap (World Bank 2015). Yet, considerable evidence indicates that increases in human development and meeting

basic needs are strongly correlated with energy (Lamb and Rao 2015; Rao et al. 2014). India's legitimate need for more energy is also supported by

the substantial body of work analyzing the share of a future global carbon budget to which India should have access (Jayaraman et al. 2011). In sum, to meet its development needs, India will require substantial increases in its energy production and consumption.

LITERATURE OVERVIEW:

India being a growing economy has seen rampant industrialization and development in recent past, which resulted in adverse impact on the environment. Witnessing such degradation, the Supreme Court of India in a bid to protect the environment, played a significant role in shaping and adopting the doctrine of Sustainable Development. This crusade for safeguarding the environment was led by Justice Kuldip Singh, who famously came to be known as the 'Green Judge'.

The doctrine of Sustainable Development was implemented by the Supreme Court in the case of Vellore Citizen Welfare Forum vs. Union of India. The Petitioners therein had filed a petition in public interest under Article 32 of the Constitution of India against the pollution caused by discharge of untreated effluent by the tanneries and other industries in the river Palar in the State of Tamil Nadu. In the instant case, the Supreme Court held that the precautionary principle and polluter pays principle are a part of the environmental law of India. The court also held that: "Remediation of the damaged environment is part of the process of 'Sustainable Development' and as such polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology."

Thereafter in a number of judgments, the Apex Court explained and implemented the doctrine of Sustainable Development. The Hon'ble Supreme Court of India in Narmada Bachao Andolan vs. Union of India observed that "Sustainable Development means what type or extent of development can take place, which can be sustained by nature or ecology with or without mitigation". In *T.N.* Godavaraman Thirumulpad vs. Union of India, the Hon'ble Supreme Court said "as a matter of preface, we may state that adherence to the principle of Sustainable Development is now a constitutional requirement. How much damage to the environment and ecology has got to be decided on the facts of each case"? In Indian Council of Enviro-Legal Action vs. Union of India , the Apex Court held: "while economic development should not be allowed to take place at the cost of ecology or by causing widespread environment destruction and violation; at the same time, the necessity to preserve ecology and environment should not hamper economic and other developments". Hence, importance has been given both to development and environment and the quest is to maintain a fine balance between environment and economic development.

The Supreme Court of India emphasised on the need to set up specialised environment courts for the effective and expeditious disposal of cases involving environmental issues, since the right to healthy environment has been construed as a part of right to life under Article 21 of the Constitution.

SCOPE FOR SUSTAINABLE DEVELOPMENT-LED CLIMATE POLICY

Explicit consideration of the synergies between energy and development suggest a way to address both India's objectives – preserving development space and contributing to global mitigation. These opportunities may be substantial. For example, expanding public transport would both provide liveable cities and reduce emissions. Enhanced energy efficiency would reduce dependence on imported fuels and socially disruptive fossil fuel extraction at home, and also reduce carbon emissions. Global modelling studies provide strong evidence for these synergies. Our review of South Asian results from global modelling studies shows that there are strong complementarities between energy security, local environmental gains and climate mitigation . This evidence strongly supports India's 'co-benefits' approach articulated in the National Action Plan on Climate Change. It also suggests a way forward for a positive Indian climate contribution based on emphasizing sustainable development.

Moreover, there are some indications from national energy studies (discussed above) that considering the multiple objectives associated with energy policy are a necessity rather than an option. For example, under some projections, and without mitigating actions, import dependence of coal and gas could more than double to as high as 52% and 70%,respectively, by 2030 (Dubash et al. 2015). From a local environmental perspective, the projected coal increases would also increase particulate pollution, doubling their already considerable health effects. These findings suggest that far from undermining India's development chances, there are approaches to energy policy that enhance development prospects, while also yielding climate gains. This result shifts the INDC discussion beyond trade-offs, to an exploration of synergies.

ESTABLISHMENT OF THE NATIONAL GREEN TRIBUNAL

Keeping in mind the risk to environment and human health due to unchecked and rampant industrialization and the decisions taken at the United Nations Conference on the Human Environment held at Stockholm in June, 1972, as well as United Nations Conference on Environment and Development held at Rio de Janeiro in June, 1992, to both of which Conferences India was a party, the legislature enacted the National Green Tribunal Act, 2010 (Act). Vide the Act, the National Green Tribunal (NGT) was established for effective and expeditious disposal of cases involving multi-disciplinary issues relating to environment.

GROWTH AND WELL-BEING

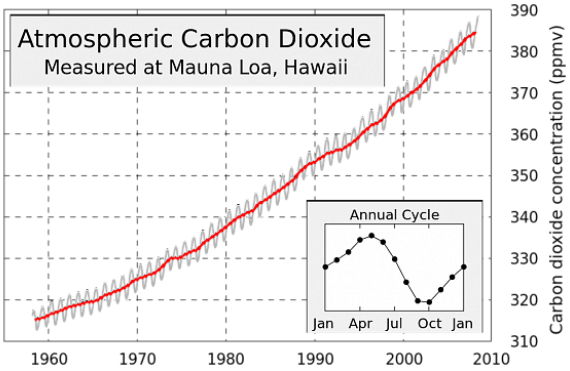
I have argued that climate stabilization could be achieved without large impacts on the rate of short-run economic growth and that, in the long run, the result would be a world of enhanced life opportunities for members of future generations. But suppose, for the sake of argument, that we rejected this claim in favor of the proposition that achieving ecological sustainability would require substantial reductions in future economic growth. What could we then say about the likely impacts on human well-being?

From the perspective of mainstream economics, the answer seems clear-cut: The consumption of material goods and services satisfies people's preferences and contributes to their happiness, and higher levels of consumption should—all else equal—contribute positively to social welfare. The "all else equal" caveat is quite important here. While non-economists sometimes assume that mainstream economics is concerned narrowly with the monetary value of market goods and services, in fact, economics textbooks very much stress the contributions that public goods and environmental quality make to human well-being. The question is, then, how the benefits of improved environmental quality compare with the costs of reduced private consumption.

On this front, authors such as Daly and John Cobb[27] have produced a very striking conclusion. Building on the earlier work of William Nordhaus and James Tobin,[28] Daly and Cobb's Index of Sustainable Economic Welfare (ISEW) presents a monetary measure of social welfare that accounts for:

- The consumption of private goods and services bought and sold on markets;
- The social costs of inequality;
- The value of non-market production (household work, family care, and volunteer work);
- Environmental degradation; "defensive expenditures" (i.e., the cost of protecting oneself from environmental harms); net capital investment; and natural resource depletion.

Focusing on U.S. data, Daly and Cobb found that trends in the ISEW closely paralleled changes in GDP per capita in the 1950s and 1960s. In later years, however, the relationship between income and welfare became de-coupled. While GDP per capita grew at a rate of 2.2 percent per year between 1970 and 2000, an updated version of the ISEW remained virtually unchanged.



Atmospheric carbon dioxide concentrations as measured at Mauna Lao. By Robert A. Rohde, Global Warming Art Project

POWERS OF NGT

Under Section 19 of the Act, NGT has been empowered to hear all the civil matters related to environment. Significantly, the NGT is not bound by the procedures of the Code of Civil Procedure, 1908 and is bound by the principles of natural justice.[6] While deciding a case, the NGT should apply the principles of Sustainable Development, the precautionary principle and polluter pays principle.[7] In furtherance of its duties, the NGT has furthered the crusade of environment protection basis the doctrine of Sustainable Development. The NGT in the case of Prafulla Samantray vs. Union of India[8] (POSCO Case), ordered suspension of the establishment of the POSCO steel plant in Odisha, as in the opinion of the NGT, though there is a need for industrial development, and employment opportunities created by projects such as Posco's steel plant, but at the very same time such development should be within the parameters of environmental concerns and should satisfy the principles of sustainable development. The Hon'ble Tribunal in the case of Sarang Yadhwakar and others vs. The Commissioner[9], held, "the principle of sustainable development takes within its ambit the application of the 'principle of proportionality' and the 'precautionary principle'. In other words, one must, while permitting development, not only ensure that no substantial damage is caused to the environment but also take such preventive measures, which would ensure no irretrievable damage to the environment even in future on the premise on intergenerational equity".

Even though the Tribunal has time and again stoutly applied the doctrine of Sustainable Development and valued the local population over economic benefits from a project, the NGT has also passed judgments in favour of industries when the economic development surpasses the environmental costs. The NGT in various cases has held in favour of project/ industries where an industry/project has taken adequate preventive steps, mitigatory measures and

are armed with detailed Environment Management Plan backed by scientific studies. In Sterlite Industries (India) Pvt. Ltd. vs. Tamil Nadu Pollution Control Board and ors., the NGT while giving certain directions held in favour of the industry and stated, "The environmental restrictions must operate with all their rigour but no action should be suspicion-based which itself is not well-founded. Precautionary principle should be invoked when the reasonable scientific data suggests that without taking appropriate preventive measures there is a plausible indication of some environmental injury or health hazard."

SUSTAINABLE DEVELOPMENT GOALS

The United Nations Conference on Sustainable Development in Rio de Janeiro in 2012 laid down seventeen Sustainable Development Goals (SDGs) to encounter the urgent environmental, economic and political challenges being faced by the world. Seventeen goals were set: to end poverty; zero hunger; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice and strong institutions and partnership for the goals.

One can see that these goals are achievable only when nations forget their boundaries and work together as global citizens. One of the major goal is to combat climate change, which would entail climate action, industry innovation and infrastructure, use of affordable and clean energy and building sustainable cities and communities.

COMBATING CLIMATE CHANGE

Climate change is a global phenomenon, which transcends national boundaries. Emissions anywhere affect people everywhere and hence it's a global issue, which requires global solution. International cooperation between all nations is required to help developing nations become green or low-carbon economies. The rich nations, such as USA (one of the most polluting nations, having the largest per capita carbon emission) must help developing nations such as India, in moving towards low-carbon economies. The rich countries have a larger role to play and must commit to lowering their carbon footprint and help the developing nations monetarily and by way of exporting technical know-how to developing nations. Commitment to Climate Change can be secured from all Nations basis principles of "climate justice" and principles of equity and common but differentiated responsibilities and respective capabilities.

PARIS AGREEMENT

In order to address climate change, countries adopted the Paris Agreement at Conference of the Parties (COP 21) held in Paris on 12.12.2015. In the agreement, all countries have agreed to work to limit the global rise in temperature rise to well below 2 degrees Celsius pre-industrial levels, and moreover, strive to lower it to 1.5 degrees Celsius. The Paris Agreement was adopted by 185 nations in December and will come into force when 55 countries, which contribute to at least 55% of total global emissions ratify the Agreement. This Agreement is open for signatures at the United Nations Headquarters in New York from 22.04.2016 until 21.04.2017 by States and the regional economic integration organizations that are Parties to the United Nations Framework Convention on Climate.

The implementation of the Paris Agreement in letter and spirit is essential for the achievement of the Sustainable Development Goals, as set by the United Nations. This Paris Agreement provides for climate actions to be implemented by ratifying nations, which will reduce emissions and build climate resilience. The Paris Agreement is based on voluntary action and commitment made by each country based on its respective national circumstances being Intended Nationally Determined Contribution (INDCs) and does not impose legally binding emission reduction targets like the Kyoto Protocol. Though the emission reduction targets are not legally binding, the process of regular review and submission of INDCs is binding.

SUSTAINABLE DEVELOPMENT

Is there a breaking point to Earth's ability to support life? Many scientists believe in the limits to growth hypothesis, which implicates that society is ignoring signs that Earth's carry capacity is reaching its maximum limit.

Carrying capacity, also known as the ecological footprint, is the amount of basic elements, such as water, a population requires to make the resources it uses and to eliminate its wastes. At some point, Earth may no longer be able to support the world's population. Businesses may actually have a solution to preserving our world's resources. Many global businesses have adopted sustainable development as part of their overall business strategy, which requires that natural resources are used at an amount that can be extended over an infinite period.

Let's examine the idea of sustainable development and the obstacles to developing the world's economy to meet the needs of the present without hurting future generations. After all, wouldn't you want your children to inherit a healthy Earth?

OBSTACLES AND IMPACT

Although the idea of sustainable development seems to be the perfect solution to save our Earth's resources, not all businesses support the idea. Ms. Sustainability has discovered that many companies do not want to support her ideas. A major obstacle to

sustainable development is that many businesses only care about profits and not about saving Earth's natural resources. Another obstacle is that companies wrongfully believe that there will always be a plentiful supply of Earth's resources. The impact from this type of corporate thought is devastating to the environment. Though water and forests can be replenished, if the rate of depletion is faster than growth, the resource will also disappear.

According to Ms. Sustainability, many corporations are polluting our resources, which impacts future generations that will not be able to use those resources as they cannot be fixed. For example, a top company in the U.S. is responsible for polluting the Hudson River. In addition, nonrenewable resources, such as fossil fuels like oil, are gone forever once the Earth's reserve is depleted. Ms. Sustainablity explains that there is no way for business to reproduce oil and gas. Currently, the rate of depletion and pollution is not at a sustainable rate for life to continue infinitely.

According to Ms. Sustainability, there are three critical factors that have resulted in hastening Earth's environmental catastrophe and making sustainable development extremely challenging to implement. She calls it her triple challenge. The first is the Earth's population explosion, which has put a huge strain on Earth's natural resources. The world's population has dramatically increased quickly in the last two hundred years with no end in sight. In addition, the world's income inequality has dramatically affected the living conditions of populations.

INDIA'S ROLE

India submitted its INDC on 01.10.2015 prior to the Conference of Parties in Paris and ratified the Paris Agreement on 02.10.2016 on the birth anniversary of Mahatma Gandhi. India's INDC is ambitious and shows strong commitment to combating climate change. India's % share of global Annual emission is 5.7%, whereas USA's share is 15.1% and China's 28.6%. Thus, even though on a global scale India is not a part of cause of problem, it has through its INDCs shown its commitment to be a part of the solution.[11]

India's INDC emphasizes that in order to reach its commitment it's most important that the means and funds for implementation be provided by developed nations, technology transfer and capacity building. It also estimates that at least $2.5 trillion (at 2014-15 prices) will be required for meeting India's climate change actions between now and 2030.

India in its INDC has committed primarily to reduce emission intensity of its GDP by 33-35% by 2030 from 2005 levels; achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources (mainly renewable like wind and solar power) by 2030; and to create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030.[12]

CONCLUSION

Given that a large population of India is dependent upon agrarian economy, and lives in vast coastal areas and Himalayan regions, India is highly vulnerable to adverse effects of Climate change. However, India also has 30% of its population under poverty; 20% living without proper housing; 25% living without electricity and is a growing economy, thus economic and infrastructural development is critical too. Thus, in this milieu it is most important that development projects be encouraged and while being conceptualized, the doctrine of Sustainable Development be kept in mind.

In order to maintain a balance between development and environment, the principle of Sustainable Development which encompasses the 'Precautionary Principle' must be followed while envisaging a project. This would prevent any anticipated environmental impact a project may have by following and incorporating mitigating measures. Right from the stage of selection of site, to adopting efficient and environmental friendly measures at each stage and facet of construction to avoid or minimize environment de-gradation, to providing migratory measures and monitoring the impact of a project on the environment/eco-system and thereafter providing for restorative action in case of any degradation is imperative in today's pro- environment climate and is also the need of the hour.

The developers today must be conscious of the environment and adopt a green, pro- environment, scientific and energy efficient mind-set for each stage of a project. These measures, may increase the over-all expenditure of the project, but in the longer run the benefits would surpass such costs. The Indian Government in furtherance of its INDCs and National Action Plan on Climate Change incentivises developers and promotes use of green and energy efficient measures and these incentives can be used by developers to off-set any additional green costs.

Undeniably, Sustainable Development is the need of the hour. With the advent of energy efficient technology, a harmonious marriage between development and environment is possible. It is time that each one of us adopt an 'energy-efficient and green' mind-set and use the natural resources available equitably, judiciously and save them for our future generations, as the best way to predict future is to create it.

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