"Capabilities Approach" and Sustainable Environment: The Case of Save the Narmada River Movement in India

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The concept of sustainable development is not new; the recent interest in sustainable development can be traced back to the 1972 United Nations Conference on Human Environment (UNCHE) held in Stockholm. This conference was one of the first to explore the links between ecological conservation and economic development. This was followed in 1974 by another conference in Bucharest that focused on the links among population growth, resource use and economic development. These conferences led to the introduction of the term, eco-development, which was adopted by the United Nations Environment Program (UNEP) as a planning concept (UNEP 1975). However, the eco-development planning tool emerged as a potential weapon to fight social injustice, economic exploitation and ecologically and technologically inappropriate development, was deemed as too radical by the mainstream political and leading business communities.

This in turn led to the development of the IUCN World Conservation Strategy which tended to bridge the divide between conservationists and development advocates. But focus was still on traditional development focusing on economic growth using neo-liberal economic policy paradigms. Moreover, the strategy did not involve grass roots movements and lacked the emphasis on poverty reduction and other social ills. Then, in 1987, the Brundtlant report, "Our Common Future", was published. The report was one of the first to provide a clear definition for sustainable development. The definition, then widely accepted within the development community defined sustainable development as, "meeting the needs of today without comprising the needs of future generations".This was in a way a radical move forward and was no doubt a monumental achievement. For the first time, issues relating to equity and environmental integrity were brought to the forefront in addition to the traditional objective of economic growth. But its main feat was the inclusion of intergenerational equity issues that have been largely ignored in the past. However, by adopting the term needs, the Brundlant report had inevitably reduced development to the fulfillment of needs. The term needs is quite broad and lends itself open to a variety of interpretations, depending on the objectives and goals of the user. Therefore, needs can range from the needs for values, rights and freedoms to the needs of education, shelter, food, and other materialistic goods.[1]

In the 1990s there were major global debates on sustainable development (United Nations Conference on Environment and Development in Rio, 1992) and for people-centered sustainable development (World Summit for Social Development in Copenhagen, 1995). These emphasized human development as the core of sustainable development. Sustainable human development placed people at the core and viewed human both as a means and an end of development. Therefore, sustainable human development aimed to eliminate poverty, promote equitable opportunities to all through good governance and thereby contribute to fulfillment and realization of all human rights—economic, social, cultural, civil and political. The Narmada River has been a target of development rhetoric since 1946. The river originates in a holy tank on the Plateau of Amarkantak in the Shahdol district of Madhya Pradesh and then winds its way through forests, agricultural fields and gorges, till it empties, 1,3000 km later, into the Arabian Sea. All along the route, 41 tributaries add to its waters.

A phenomenal 20 million people inhabit the basin, including tribals like the Bhils, the Gonds and the Baigas. A bewildering variety of agricultural systems and crops are encountered all along the long river's banks. Since the river passes through three states, any scheme proposed for harnessing its waters on a major scale automatically became an interstate river dispute. The Central Government finally set up the Narmada Water Dispute Tribunal in 1969, which sat for 10 years and through numerous delays before announcing its award. In a fundamental sense, the Tribunal and its deliberations themselves played a major role in the designing of the Narmada Valley Project. Engineers and bureaucrats, from both the states of Gujarat and Madhya Pradesh, kept inflating the number of dams and their sizes in order to be one up in the race to convince the Tribunal that they had the best, and the most extensive plans for using the river's waters in their states, and therefore should be given a greater share in the river's resources.

Eventually, the number of projects (major, medium and minor) would reach an astronomical figure of some 3,200 dams, the construction of which would take more than a hundred years. Most of these dams therefore would never be built: being designed only for the Tribunal's consumption. But two of the most important, and for which the World Bank was ready to sanction credit, were the Sardar Sarovar and the Narmada Sagar dams. It is principally these two dams that the Central Cabinet cleared in mid-April 1987.[2] Narmada situation effectively highlights significant contemporary issues concerning development policy and implementation and thus provides a rich and complex case study concerned with economic development, sustainable development, cultural traditions, and human rights. The Narmada case challenges our assumptions about the criteria by which a state balances the needs and interests of various populations within it, the means by which social and environmental costs are weighed against the projected economic advantages of large-scale development projects, the degree to which the interests of so-called "tribal" or indigenous people (Adivasis), women, and other marginalized groups should receive special consideration in development projects, and ultimately the definition or paradigm of development itself. The result of this is environmental degradation and constrained economic development.[3]

In this paper, first, I argue that development or poverty reduction must be seen as more than provisioning of needs. Second, I argue that the capability framework as presented by Nobel Laureate Amartya Sen and later followed up by Martha Nussbaum provides an ethical and an operational framework to guide countries trying to achieve sustainable development. Although Sen and Nussbaum do not articulate the role of the natural environment as a key component in all enabling circumstances, one can easily conceive of human well-being in the ecological context. Third, I will give a historical background of the case of Narmada River project in India and in the last part of the paper, argue how by following the capability framework, the Narmada Bacchao Andolan (Save the Narmada River Movement) have succeeded in slowing down the building of dams, though it has not been able to halt the building of dams on Narmada River completely.

The Brundtlant report emphasized the essential or basic needs of the poor. The Basic Needs perspective approached poverty as deprivation of material requirements for minimally acceptable fulfillment of human needs. This definition assumes that only material needs are critical for the reduction of poverty and all that is required for the poor to be given a minimally acceptable level that is defined by policymakers and experts. The Institute for Development Studies in 2003 Policy Brief argued that the Basic Needs approach as a derivative of utilitarian economics and seeks to achieve the greatest happiness for the greatest numbers. The positive point of Basic Needs approach is that it has moved away from the uni-dimensional perspective of wellbeing and poverty to a broader concept of multi-dimensionality encompassing health, food and shelter but it does not place much importance on the sustainibility dimension. The sustainable flow of material needs depend largely on the natural resource base and healthy ecosystems. The Basic Needs approach does not consider ecosystems and their services implicitly. Second, it focuses only in the ends and not in the process. The objective is to provide primary health care, basic education and shelter. No mention is made of inquiring from the people what are their priorities they value doing and being. Next, it is not concerned with choices and the ability to choose the processes they are most comfortable with and the end they value the highest.

The views expressed by many of the poor from all parts of the world coming from a variety of cultures and religion point towards the freedom to choose a life they have reason to value; the ability to achieve the doings and being they value. Voices of the poor, a study carried out by the World Bank to understand what poor people want came to the conclusion that income and materialistic pleasures were not the main goals wanted by the poor but more fundamental objectives of having choices in decision making, having the freedom or capability to voice their opinions and more importantly having those opinions heard and taken into consideration. Being able to have dignity was another critical element identified in the study as having high priority among the poor. It would be difficult to make a system sustainable if people are not directly involved in the process and are allowed to determine the type of life they value. This is the main failure of the many development paradigms, Basic Needs included. A paradigm or approach that does not involve people in an inclusive manner in determining the ends and means is one that cannot be sustainable.[4]

There have been many formulations and definitions of human well-being. Most commentators would agree that human well-being is multi-dimensional and includes a necessary material minimum for a good life, the experience of freedom, personal security, good social relations, and the conditions for physical, social, psychological, and spiritual fulfillment. Within this list, a distinction needs to be made between the determinants of or means to well-being and its constituents—that is, as an end.

Amartya Sen argues that although determinants of well-being—for example material wealth and income—are important, they should not become ends by themselves. He goes on to argue that what people value as a constitutive element of well-being is the ability to achieve doings and beings individuals value—the freedom to choose. An example Sen states would be the choice to fast versus starving. The end product is the same but, in the case of the former, the individual chooses to go hungry while in the latter, the individual has no choice. Sen calls these combinations of doings and beings from which people can choose to lead the kind of life they value capabilities. By adopting capabilities as the indicator of well-being, the emphasis is now, not only on what is actually achieved at the end but also the processes by which these ends are achieved. In this way, the agency dimension—the act of participating and doing it for oneself—of human well-being is also captured explicitly.

Well-being, in the traditional approach is often defined as physical needs deprivation due to private consumption shortfalls (largely with respect to food). By contrast the more participatory and qualitative approaches would focus on a much broader conception of ill-being/deprivation including, 'physical, social, economic, political and psychological/spiritual elements'. Thus, sources of both well-being and ill-being include income and non-income sources of entitlements, social relations of consumption and production and the more qualitative aspects of security, autonomy, self-respect and dignity. The latter more holistic concept of well-being is at the core of the work of authors such as Amartya Sen and Martha Nussbaum. For example, Sen argues that even though it is common to "use incomes and commodities as the material basis of our well-being… what use we can respectively make of a given level of income, depends crucially on a number of contingent circumstances, both personal and social."[5] Hence, well-being is firmly anchored in a particular social and personal context. This is why Sen advocates- for evaluative purposes in particular- the "capability approach" as a means to measure well- being. This approach focuses on "substantive freedoms- the capabilities- to choose a life one has reason to value." Thus at the heart of this approach one must look at the freedoms that an individual can enjoy. Thus development, according to Sen is a process of expanding the real freedoms that people enjoy.

In this broader sense, well-being should increasingly be understood as a multidimensional phenomenon ranging from income to the public provision of goods and services, access to common property resources and other intangible dimensions such as clean air, water, dignity, self-respect and autonomy. Unfortunately, conventional approaches viewing poverty/well-being/ill-being still focus on the consumption of traded goods or incomes. They ignore natural resources and the consumption of non-monetary goods and services, along with the socio-cultural values that are placed upon them by individuals. Due to the close links between infrastructure projects and dominant discourses of development, this trend of measuring well-being through tangible and material gains and losses, is also mirrored in many resettlement policies and programmes.

Water is viewed here as a life-giving resource having material, symbolic and cultural values used by different social actors for different social, political and economic purposes. Representations of the water/well-being nexus in the Narmada context is being used to argue that it is necessary to focus on the broader capabilities approach if well-being is to be measured in a fair manner. As traditional riverbed communities move from river basins to settlements in plains, they experience dramatic changes in water quality and quantity. These have both tangible and intangible implications for a resettler's livelihood options, health, socio-cultural identity, daily routine and social relations. Those who argue in favor of dam building in Narmada river do not give full consideration of well being other than in terms of cost-benefit analysis.

The *World Development Report* 2000/01 defined poverty as "the pronounced deprivation of well-being" (World Bank 2001). In this light, poverty can be defined as capability deprivation. By defining poverty as capability deprivation, it has embraced not only the multi-dimensional nature of poverty but also have shifted the attention away from a narrow focus on income and/or commodity deprivation to include choice and agency deprivation. Moreover, focusing on what people can do and be—people's capabilities—and allowing for plurality of the various links individuals and/or groups of individuals have with ecosystem services is not at all antagonistic with the need to be sensitive to the environment. As Sen puts it "Since many human freedoms and components of the quality of life are dependent on the integrity of the environment, development cannot but be sensitive to the quality of the environment. He goes on to say that the opportunity to live the kind of lives that people value- and have reason to value- depends inter alia on the nature and robustness of the environment."[6] But what does robustness of the environment really mean? Does it imply the conservation of nature in its pristine condition as conservationist have argued or does it mean something more inclusive that treats the relationship between people and ecosystem in a holistic manner?

The latter approach, which is called the ecosystem approach has been adopted by many of the international environmental conventions as he ideal way to address issues relating to the sustainable use and management of ecosystems. In this approach it is believed that ecosystem provide more than just goods for humans. They also provide critical life-supporting services like cultural and spiritual values for human societies. This service of the ecosystem is most overlooked by policy makers. To many people in developing countries, nature is a living entity and it provides livelihood and spiritual guidance to many poor people. It is difficult to quantify the spiritual and cultural values and therefore, their importance to human well-being is generally less understood and undervalued compared to provisioning services like human food, fiber, fuels, timber , pharmaceuticals, minerals and fresh water. There is a high degree of synergy among the different services. This feature of interdependency among ecosystem services is normally not taken into account in management and policy decisions.

The notion of using capability and poverty as capability deprivation is not an abstract idea. It has been increasingly adopted by many of the multi-lateral development agencies working in poverty reduction. For example, the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) used capabilities extensively in its guidelines for poverty reduction (OECD 2001) and the United Nations Environment Program (UNEP) in its poverty reduction and environment framework report (UNEP 2002).Martha Nussbaum has proposed the "capabilities approach" as a universal framework for the assessment of women's quality of life. Hers is an entry into two debates: between cultural relativists and moral essentialists, on the one hand, and between liberal theorists who wish to afford special rights to groups, including religious groups, and those concerned that group rights (particularly for illiberal groups) come at the expense of the rights of women and children, on the other. Nussbaum's proposal criticizes cultural practices many feel to be exploitative—providing the justification for a government's prohibition of these practices—without forcing members of a pluralistic state to abandon their own cultures and doctrines in favor of an alien, if putatively neutral, political philosophy.

The capabilities approach is meant to be a political-liberal project, structured to correct for the shortcomings of John Rawls's original political-liberal proposal. As such, it is meant to provide a framework for a stable and enduring political union for groups with diverse religious, moral and cultural allegiances. Sen's and Nussbaum's "capability approach" is Kantian as it stresses the value of respect and freedom of choice based on practical reasoning and critical reflections, and it is Aristotelian because it is based on a notion of human flourishing.

By focusing on people's capabilities, it seems to directly concentrate on the kinds of freedoms people have, and more specifically, on the opportunities and choices available to them in leading valuable human lives. It criticizes traditional approaches that focus on GNP per capita, the maximization of social welfare or distribution of basic resources. It claims to raise more pertinent questions: how well is the wealth of a society distributed among its different sections (class, race, caste, gender)? What are the social and economic opportunities available to citizens in leading a life of their choice? What are the personal and social conditions that facilitate or hinder individual's ability to transform resources into different functionings? Answering these questions re-orients the way we think about a wide range of issues which are broadly also the concerns of human rights: civil and political liberties, living standards, the quality of life, poverty, inequality, development and so on.

Sen's and Nussbaum's versions of the capabilities approach are similar but there are differences. Let us explore the differences. One of the important differences between Nussbaum's and Sen's version of capability approach is the list of capabilities. Nussbaum agrees with Sen that capabilities are the most appropriate criterion or space to evaluate people's quality of life. She also agrees that the capability approach as a theory of social justice should focus on people's capabilities rather than on functionings so that people are not compelled to act in particular ways but are given ample opportunities to choose the types of functionings they consider as valuable.Yet Nussbaum traverses a more radical path: 'Sen has focused on the role of capabilities in demarcating the space within which quality of life assessments are made: I use the idea in a more exigent way, as a foundation or basic political principles that should underwrite constitutional guarantees.'[7] It is not enough, she argues, that we only choose the space of capabilities to evaluate how well people's lives are going, but it is also important to democratically deliberate a definite but 'open' list of central capabilities that will serve as benchmarks for this evaluation. By using the Aristotelian conception of 'truly human functioning' and by focusing on the central notion of what it means to live a life with 'human dignity', Nussbaum enumerates a set of entitlements that every society should strive to guarantee to its members.

The list includes capabilities such as living a long life and avoiding premature death, having good health and adequate nourishment, freedom of movement, freedom from assault, freedom of choice regarding sexual matters, the ability and the opportunity to use one's senses, imagination, thinking and practical reason, and the ability to engage in various forms of familial, social and political relationships.

Sen is an economist, and as such is concerned with development in an economic sense. It is not within the scope of this paper to examine his analyses in depth, only to highlight Sen's basic assertion that human beings have rights to certain personal freedoms in order for any meaningful development to occur. He argues against the liberal view by urging us to look beyond mere wealth accumulation and economic growth and look to a fuller understanding of the development process. Development has to be more concerned with enhancing the lives we lead and expanding the freedoms that we enjoy. Expanding the freedoms that we have reason to value not only makes our lives richer and more unfettered, but allows us to be fuller social persons, exercising our own volitions and interacting with – and influencing – the world in which we live. This means expanding the range of things that a person can be and do – functionings and capabilities of function, such as to be healthy and well nourished, to be knowledgeable, to participate in the life of a community. From this point of view, development is about removing the obstacles to the things that a person can do in life, such as illiteracy, ill health, lack of access to resources, or lack of civil and political freedoms. The freedoms to be concentrated upon are precisely these freedoms rather than the freedom to consume and pursue material wealth.

By shifting this emphasis and reconstructing our notion of freedom, global society will be sustainable, will value human life and that which sustains it. It is often said that those in "poorer", or "developing", countries, do not have the luxury (or indeed freedom) to concern themselves with environmental issues – it is enough to survive. If all people enjoyed the freedoms propounded by Sen, survival would be a given and so the freedom would exist to think and act beyond mere subsistence. As I read it, Sen is talking of freedoms in the same (or similar) sense as Martha Nussbaum talks of capabilities, I draw upon both of these concepts when arguing that realization of such capabilities is essential to development; expansion of random and limitless personal freedoms is not. When Sen talks of "unfreedoms" I take him to be talking of injustices and barriers to the full functioning of capabilities. Unfreedoms include the denial of basic means to survive through famine, or little or no access to health care, the denial of political rights and civil liberty. Unfreedoms prevent people from doing what it is their right to do – their right being to lead full, functioning and flourishing lives. In common with Sen, Nussbaum submits that we ought to begin with the human being: with the capabilities and needs that join all humans, across barriers of gender and class and race and nation. The suggestion is that we focus on needs and basic functions, rather than power or status. What Nussbaum and Sen propose is universalist and "essentialist". That is, it asks us to focus on what is common to all, rather than on differences, and to see some capabilities and functions as more central, more at the core of human life, than others. As we have seen, its primary opponents will be "anti-essentialists" of various types, postmodern thinkers who urge us to begin not with sameness but with difference and to seek norms defined relatively to a local context and locally held beliefs.

In 1900, there were approximately 600 big dams in existence, many of the oldest of which were built in Asia and Africa. The figure grew to nearly 5,000 big dams by 1950, of which 10 were major dams. By the year 2000, approximately 45,000 big dams, including approximately 300 major dams, had been constructed around the world. Thus, over 90 percent of big dams were built over the last fifty years.[8] In the developing world where most people live, environmental movements fight for basic human survival. In the developed world, higher order concerns, such as wilderness values, have dominated the agenda of the environmental movement. It is important to note this dichotomy.

The Narmada River spans the states of Madhya Pradesh, Maharashtra and Gujarat, and provided water resources for thousands of communities. The Narmada River valley project envisages the construction of 30 major dams along the Narmada and its tributaries, as well as an additional 135 medium-sized and 3000 minor dams. When completed, the project is expected to flood 33,947 acres of forest land, and submerge an estimated 248 towns and villages. According to unofficial estimates up to 15 million people will be affected by the project when completed—either by displacement from their homes and lands, or though serious damage to their livelihoods. In representing a threat to the ecology of the area surrounding the Narmada River, the construction of the dams also threatens the economic survival of the adivasi (tribal) and peasant peoples who will be evicted from their homes and lands—from which they earn their livelihoods—when the land is submerged. Moreover, these inhabitants have a profound religious connection to the landscape around the Narmada River.

This spiritual connection to place—which eviction threatens to sever—intimately informs their customs and practices of everyday life. Hence opposition to the dam also articulates the inhabitants' desire for cultural survival. In addition, many of the villages that border the Narmada are demanding a level of regional autonomy, seeking 'our rule in our villages', thereby articulating political demands as well. Proponents of the Narmada Valley Development Plan (NVDP) speak of the benefits it will bring, primarily in terms of drinking water, irrigation, and hydroelectric power. Gujarat, as the main beneficiary of the planned dams, will potentially see the irrigation of over 1.8 million hectares of land, the provision of drinking water to 135 urban centers and 8,215 villages, the generation of over 200 megawatts (MW) of hydroelectric energy, and flood protection for 210 villages as well as the major city of Bharuch. The remaining energy production from the project will be divided between the states of Madhya Pradesh (800 MW) and Maharashtra (400 MW). Additionally, the perennially drought-stricken state of Rajasthan stands to potentially gain the irrigation of over 75,000 hectares of desert land.[9]

Critics of the project point on the other hand, to massive social and ecological (as well as financial) costs. These include the flooding of 245 villages in order to create the dam's reservoir, as well as the lands of another 140,000 farmers to make way for irrigation canals. Thousands more may be affected by the project, including farmers and fisher-folk downstream from the dam, whose livelihoods will be disrupted. It is also worth noting that a majority of those destined to be affected by the NVDP are from indigenous or "tribal" groups (known in India as *adivasis* – a term that has been both a political rallying point and a point of contention for such groups). Such groups are often displaced by large-scale development projects because their traditional homes and livelihoods are situated within resource-rich or previously under-developed areas.

In addition to these serious social costs, critics of the NVDP point to the heavy ecological and financial burdens that the planned projects will place on the region. The environmental impacts of the planned dams include the loss of dense forests, the extinction of rare and endangered wildlife, possible risk of tectonic instability and resulting earthquake activity, an increased danger of siltation and salinity, the loss of topsoil, and an increase in health risks from waterborne diseases such as malaria. The full cost of the terminal dam alone is estimated to reach 200 billion rupees (roughly $4.6 billion), and its completion date is anticipated as some time in 2040. This dam project currently consumes 80 per cent of the irrigation and water budget of Gujarat (which, as primary beneficiary also bears the brunt of the financial costs) and draws much needed resources away from other water conservation efforts.

The anti-dam movement spearheaded by the NBA (Narmada Bachhao Andolan) played a major role in drawing attention to the problems associated with large dams, and in giving a voice to the oustees. According to Sen, development requires the removal of major sources of 'unfreedom'; poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or overactivity of repressive states.[10] By giving a voice to the oustees, the NBA is removing the major sources of 'unfreedom.' Under the charismatic leadership of Medha Patkar, the NBA received widespread support from environmental and social movements in India and abroad. It organized a massive demonstration at Harsud in 1989, which was an announcement to the world of the determined opposition of the oustees of the Sardar Sarovar Project to the construction of the dam. The NBA had succeeded in uniting the oustees throughout the valley (from poor tribals to rich farmers and traders), overcoming the entrenched prejudices and divisions that had so far governed the polity and economy of the region. The Harsud rally was also a demonstration of the NBA's broad-based support, in the valley as well as among intellectuals and activists nation-wide.

NBA activists became the accepted spokespersons of the outstees and of the anti-dam movement. This was a serious challenge to the government, whose claims about the benefits of the project came under widespread questioning. The government of Gujarat responded with its own pro-dam campaign, rallying much popular support in the water-scarce regions of the state The action by Medha Patkar was consistent with the dominant thrust of the environmental movement in India, which powerfully foregrounds questions of production and distribution within human society. The concern here is with "the use of the environment and who should benefit from it; not with environmental protection for its own sake."[11] *Social Ecology* by Ramachandra Guha—"Human-Nature Interactions," by Agarwal . The principal focus of the opposition was the two giant reservoirs, the Sardar Sarovar in Gujarat and the Narmada Sagar in Madhya Pradesh, which between them would hold more water than any other dam on the Indian sub-continent. The environmental impact of the scheme had hardly been studied in a serious manner.

Even the Indian Government's Department of Environment and Forests (DOE & F) had put up a stiff note complaining about the lack o data and the appalling state of preparedness of the governments concerned in dealing with the human and environmental problems the dams were scheduled to cause. In response to these public protests, and its own concerns that state governments were failing to meet its criteria or funding, the World Bank commissioned an independent review of the Sardar Sarovar Project in 1991. This commission led by Bradford Morse, former head of the United Nations Development Programme, concluded that the government had failed to conduct adequate preliminary assessments of the social and environmental impact of the project, and had failed to meet its specifications to compensate the 200,000 people who would be relocated after submergence. The Morse Report ultimately argued that the Bank should withdraw its funding. Unsatisfied by the Indian government's efforts to fulfill new conditions required to qualify for a further $181.5 million loan, the World Bank ceased financial support for this project in 1993. Recently the Asian Development Bank has also declared that it will 'monitor very closely' its proposed $570 million loan to the Gujarat state government to ensure that none of this money is used for the Narmada project.

It is even more revealing to study how the Chairman of the Narmada Valley Development Agency (NVDA), S. C. Varma, justifies the mammoth suffering the project is bound to cause. He writes: 'No trauma could be more painful for a family than to get uprooted from a place where it has lived for generations and to move to a place where it may be a total stranger. And nothing could be more irksome than being asked to switch over to an avocation which the family has not practiced before. Yet the uprooting has to be done. Because the land occupied by the family is required for a development project which holds promise of progress and prosperity for the country and the people in general. The family getting displaced thus makes a sacrifice for the sake of the community. It undergoes hardship and distress and faces an uncertain future so that others may live in happiness and be economically better off.'[12] The NVDA has now even calculated the 'value' of this human suffering in economic terms in its cost-benefit ratio for the dam. The value has been computed by determining two years' annual income of the family, multiplied by a factor of 1.5. Thus the 'suffering' has been evaluated at Rs. 20 crore.

"Narmada" has captured the imagination of many actors on many stages: depending on the audience, the name may evoke the hopeful image of an exploitable and renewable resource, refer to a homeland in the river valley, stand for the river itself as a powerful religious symbol, or denote a historic religious pilgrimage site. In the national and international arenas, "Narmada" has also become a symbol for the struggle for local autonomy against forced displacement associated with state-directed and internationally funded development. The wide range of issues embedded in the Narmada conflict is reflected in the coalition supporting the Narmada Bachao Andolan that includes nongovernmental organizations (NGOs) working on the environment, human rights, development, religion, housing, agriculture, energy, and indigenous people's rights. The Sardar Sarovar Project has certainly made more headlines and been more widely debated in the public sphere than any World Bank-funded project. The struggle over "Narmada" provides a poignant example of how local people are caught between the threat of destruction of a way of life and the promises of development, while government agencies, nongovernmental organizations, and activists step forth to speak for them.

One of the key aspects of the local, national, and global debates over Narmada is the array of actors with different objectives who nevertheless defend their positions in the same terms, a phenomenon made possible when the terms—in this case, "sustainable development," "tribal," "indigenous people," and "participation"—are conceptually flexible and vague. While the range of actors and issues involved in Narmada is remarkably diverse, both those resisting and those defending the Sardar Sarovar Project use the same moral vocabulary of social justice and the same economic rhetoric of sustainable development. Further, resisters and defenders recognize the importance of defending their positions with both cost-benefit analyses and grassroots mobilization. Dam proponents and opponents seem sincere in their commitment to goals of sustainable development and social

The environmental movement in India has contributed to a profound rethinking of the very idea of development within the capability approach framework**.** As Sen and Nussbaum have argued that the capabilities to function rather than actual functionings should be the goal of environmental policy, the activists of the Save the Narmada river movement are drawing the attention of the government to the process, the primacy of a person's freedom to choose to lead a life one wants by designating capabilities as the appropriate measure of well-being rather than to the end result only. The government's focus is only on the end result of benefitting the greater number without focusing on the harm that is being done by displacing indigenous people of the region.

Though neither Sen nor Nussbaum consider their capabilites approach to include the environment yet one can argue that by ignoring the ecological context in which all organic life is situated, humans can threaten the conditions of organic life. Nussbaum's sixth capability, Practical Reason as "being able to form a conception of the good and to engage in critical reflection about planning of one's life"[13] depends on ecological processes that generate oxygen for human respiration and on the prevention of environmental disasters that make it impossible for a person to predict dramatic future occurrences. Just as human capabilities are obejectively good for the achievement of human functionings, certain environmental functionings are objectively good for human capabilities. Intellectuals sympathetic to the movement have fashioned a critique of the industrial and urban bias of the government policies, urging that it give way to a decentralized, socially aware, environmentally friendly and altogether more gentle form of development. Development as conventionally understood and practiced has been attacked on a philosophical plane, but critics have been forthcoming with sector-specific solutions as well. In the realm of water management they have offered to large dams the alternative of small dams and/or the revival of traditional methods of irrigation such as tanks and wells.

The global debate about large dams is at once overwhelmingly complex and fundamentally simple. It is complex because the issues are not confined to the design, construction, and operation of dams themselves but embrace the range of social, environmental, and political choices on which the human aspiration to development and improved well-being depend. Dams fundamentally alter rivers and the use of a natural resource, frequently entailing a reallocation of benefits from local riparian users to new groups of beneficiaries at a regional or national level. At the heart of the dams debate are issues of equity, governance, justice, and power-issues that underlie the many intractable problems faced by humanity. Two specific issues are central to the debate over Sardar Sarovar and sustainable development—the environment and the interests and participation of project-affected people. Sardar Sarovar has come under scrutiny during two decades marked by the rapid evolution of worldwide ecological awareness, in the course of which standards of acceptable environmental impact have changed and continue to evolve. Simultaneously there has been growing concern about the rights of indigenous people as large percentage of the displaced people belong to the category of indigenous or adivasi. The rising ecological and human rights awareness and the changing standards have led to increasing criticism of large-scale development projects. Large dams everywhere have become a target of those concerned with the ecological and social effects of large infrastructural projects, particularly those in relatively remote areas inhabited by indigenous people.

The type of development project that the Narmada Valley Project exemplifies is not unique to India. Sociologists have argued that in vastly inegalitarian societies like India's, the introduction of irrigation of the kind symbolized by the Narmada Valley Project not only perpetuates the poverty of the rural masses, particularly tribal, but also enables the top few landed elites to gain at the expense of the rest. Development becomes basically for elites, who enjoy so-called 'benefits' of 'progress' by casually dumping the costs of such projects on the under-privileged. Save the Narmada river movement is resisting this kind of attitude in a nonviolent way. The principal element in the Narmada controversy is whether the project would create more wealth than it would destroy. The debate is important particularly since the plethora of dams would, in addition to generating irreversible environmental changes, also uproot over a million people, including a large number of tribals, and submerge a total of about 350,000 hectares of forest lands and 200,000 hectares of cultivated land. No detailed rehabilitation plan was put in place by the government for all displaced people and in cases where displaced people were rehabilitated, they did not receive what they were entitled to, according to the policies and agreements.

From its inception, the Indian state was confronted by two different visions of reconstruction: the Gandhian project of reviving the village economy as the basis of development, and the Nehruvian plan for prosperity through rapid industrialization. …… The appeal of Mahatma lay in his programme of revitalizing village communities and craft production by employing simple technologies to provide jobs and a decent livelihood to a predominantly rural population. Gadgil and Guha remark on the apparent paradox that the 'Gandhian era of Indian politics saw the juxtaposition of a peasant-based politics with the increasing influence of Indian capitalists over the Congress organization.'[14] Most Indian nationalists believed that India's reconstruction could only come about through an emulation of the West, 'intellectually through the infusion of modern science, and materially through the adoption of large-scale industrialization.'[15] Through intensive industrialization and urbanization, fostered by a strong nation state, India could overcome the handicap of its colonial past to catch up with the West. It is frequently argued that the benefits of economic growth have been neutralized by the high rates of growth of the Indian population.

According to this view, poverty exists because of the pressure of ever-increasing numbers on a finite resource base. While population growth rates are a source of concern, they do not constitute a problem by themselves. Statistics of present food production and projections for the future show that India is more capable of feeding its citizens adequately.[16] Yet the fact that this food does not reach the hungry points to another problem—social inequality. It is not so much population pressure that causes hunger but the distribution of food and the social and material resources needed to obtain it.[17]

The social inequality has been intrinsic to the process of development as experienced so far. Through centralized planning and execution, the Indian state retains control of the 'commanding heights' of economy. Its projects and policies are largely devised by bureaucrats and engineers, usually in collaboration with big business and large farmers' lobbies, and with very little popular participation. So instead of following the 'capabilities approach' framework, the policies are using the traditional cost-benefit analysis. As Sen and Nussbaum are suggesting, ethics should begin with human capabilities and these capabilities are common to all, regardless of geopolitical considerations. Capability, in this view, is a kind of freedom: the substantive freedom to achieve alternative functioning combinations.[18] If one applies this to the environmental context, sustainability would be the rule. In order to enable the freedom that Sen advocates, sustainability is essential. With sustainability comes a respect for the environment enabling all, rich and poor, to live with and within it. Taking human freedom, functioning and flourishing as a starting point would lead the way to an environmental policy which would ensure respect for human and nonhuman life and result in the sustainability and preservation of the environment as a whole.

This is what the Save the Narmada River movement is trying to convey to the government. Government is not directed to push citizens into acting in certain valued ways. Instead, it is directed to make sure that all human beings have the necessary resources and conditions for acting in those ways. It should leave the choice to its citizens and one of the most central capabilities will be the capability of choice itself and this is precisely what has been denied to the poor and indigenous people who have been displaced by the building of dams in India. On the basis of information supplied by the ministry of agriculture, B. B.Vohra, who was the first to estimate the extent of degradation stated that more than three-fourths of the agricultural land is degraded due to serious soil erosion, waterlogging and salinization.[19] Other sources estimate that 20 million ha or almost 11 per cent of agricultural land is severely affected by salinization; another 7 million ha have had to be abandoned due to salt accumulation.[20] The productivity of land is diminishing and its use in the future is uncertain. According to one estimate, India loses 6 billion tons of topsoil every year.[21] While soil erosion is a result of deforestation, excessive grazing, and cultivation of hill slopes without terracing or bunding, waterlogging is usually caused by canal irrigation in poorly-drained soils. It takes one hundred years to form one inch of topsoil; it may take only one monsoon or one badly-designed canal system to lay it waste forever.

Deforestation, together with the emphasis on building embankments and dams, has led to a steady increase in the incidence of floods in the fertile plains of north India. Annual flood damages increased nearly forty times from an average of Rs. 60 crores per year in the 1950s to an incredible Rs. 2307 crores a year in the eighties.[22] Ironically, embankments and dams were constructed in order to control the damage caused by floods. Instead, they have prevented the nutrient-rich silt carried by rivers from being deposited in the soil, thereby depriving flood plains of a valuable source of fertilizer.

None of these losses figure in the national income accounts. When computing the Gross National Product or the rate of industrial growth, costs such as the loss of topsoil and wasted land are not included in the calculus of economic decision-making. Even though environmental 'depreciation' fundamentally affects the stream of value derived from nature in the future, even though the immediate effects of ecological destruction are real and crippling, these costs tend to remain invisible. In fact, paradoxically, environmental destruction appears on the credit side of the national ledger if it provides a one-time increase in production, even though that increase may destroy all possible future benefits, and may have disastrous 'side effects' in the present. For instance, deforestation will increase GNP through the sale of timber, but there is no enumeration of the losses incurred by cutting trees—the adverse ecological effects or the loss of other use values derived from a forest. As a result of this, the resilience of ecosystems is breaking down. The affluent (usually urban) elite are mostly unmoved by the irreparable loss of national resources. With their power to buy their way out of any crisis cornering resources for themselves, they have been able to insulate themselves from ecological shock and have even enhanced their lifestyle. This class, which has precipitated land degradation by its extraordinary powers of ownership, control and consumption, even today tends to dismiss the environmental crunch as the gloomy prognosis of pessimists.

But the ecological crisis is not some distant doomsday scenario, it is here today in the lives of the poor, experienced as worsening conditions of subsistence. As ecological destruction disproportionately affects the poor, the State of India's Environment Report began by clarifying the politics of the crisis by declaring that 'environmental degradation and social injustice are two sides of the same coin.'[23]

In conclusion, the capability approach, as I have argued, offers us the elements of an attractive theoretical model of freedom, rights, justice, and equality. But how does it help with our original worries about the conflict of indigenous rights and environmental justice? First, it gives full moral weight to the notion of indigenous rights. Such rights are recognized as intrinsically valuable, not just instrumentally valuable. However, respecting the capability rights of indigenous peoples is not only good in itself, but in many cases will also causally promote other goods (for example, when respecting the rights of indigenous forest-dwellers is both good in itself and helps to promote the goal of environmental respect).

Second, the emphasis on basic capabilities (such as being able to choose to be well-nourished and disease-free) means that indigenous peoples have positive as well as negative rights (e.g., a right to be provisioned so as to be able to choose to be well-nourished and disease-free). Moreover the recognition of these basic capability rights implies that all nations have a duty to develop a global environment conducive to the development of such capabilities.

Third, the capability approach to justice requires that we seek to maximize attainments, while also trying to minimize inequalities in shortfalls.

As stated before, there is a close relationship between people and ecosystems. For the rich, there are a variety of options. For example, as a result of the building of dams, when there are floods or villages submerge, rich have the option of finding a location away from where the submergence is taking place but the poor and the impoverished do not have that option. Therefore, the degree of dependency on well functioning ecosystems is high and critical for the poor if they are to achieve the capabilities they value doing and being.

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