
THE IMPERATIVES OF ECOLOGICAL SECURITY

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The visuals presented, reflect the success of the efforts of FES so far achieved through rural communities in initiating the restoration of forest cover. Apart from being the 'foster mother of agriculture', forests are the richest repositories of the biodiversity that sustains the biological foundations of all life on earth and form the only enduring basis for equitable and sustainable economic development.

"The civilization of ancient Greece was nurtured within the city walls.... In India, it was in the forests that our civilization had its birth, and it took a distinct character from this origin and environment. It was surrounded by the vast life of nature, was fed and clothed by her, and had the closest and most constant intercourse with her varying aspects...." – Rabindranath Tagore

Findings from a comprehensive study¹ released last year and based on 40 years of careful monitoring conducted by leading researchers in the United Kingdom on flora and fauna point out that in their assessment what we may be witnessing is a sixth mass extinction event. There have been five such events of mass extinction from the time that complex life forms evolved on our planet 600 million years ago. Evolution is a natural process and millions of species have come and gone, but what is different on this occasion is that it is the activities of one species – humans – that is largely responsible for the disappearance of thousands of species of plant, animal and insect life forms and unknown number of micro organisms at rates unprecedented at any point of time in the past.

The Millennium Ecosystem Assessment² that was recently released points out that the changes made to ecosystems worldwide while contributing to substantial net gains in human material well-being have also come at a growing cost in the

form of increasing degradation often shifting costs from one group of people to another or deferring these costs to future generations. The findings clearly state that the degradation of ecosystem services is causing more harm than good to many of the world's poorest communities and is at times the principal factor contributing to poverty. The report goes on to state that unless these problems are addressed immediately, benefits to future generations from ecosystems will substantially diminish with dire consequences.

It is increasingly and responsibly predicted that growing ecological problems, instead of resulting in the gradual deterioration, are likely, instead, to lead to a 'flip over effect', which is a sudden and drastic change, totally unforeseeable and irreversible. It is argued that the ozone hole is a sudden, not a gradual, phenomenon caused by the release of more than a million tons a year of chlorofluorocarbon. This was unpredictable, but now it exists, and grows every year. Similarly is the case of rain forests, by destroying just a part



Donakonda, Karnataka (before), 2002

of it, a sequence of events is precipitated which results in the total collapse of the system, perhaps irretrievably. The loss of any forest itself changes rainfall and temperature patterns. These climatic changes, in turn, can lead to the death of the remaining forests.

The importance of forestlands to the national, particularly the rural economy, can hardly be over-emphasized in our country where the bulk of the populace continues to depend on agriculture for its livelihood. It is incontrovertible that forests are 'the foster mother of agriculture', and unless forest ecosystems are maintained and progressively strengthened for their genetic diversity, hydrological and nutrient recycling functions, in a protected and productive state, the future of agriculture itself will be in jeopardy. It is in the forests, particularly upland forests, where lie the origins/headlands of all our river systems and thus the major source of all our freshwater. It is estimated that four hectares of well-protected climax forests can cater to the water requirement of one hectare of rainfed agricultural crop. This is crucial considering we are a country where rainfed agriculture caters to a majority of the rural populace and particularly to the rural poor and tribals.

Natural ecosystems of which forests form the most vital part perform all the crucial life support functions. If a value were to be assigned to the ecosystem functions of purifying our air and water, regulating the climate, regenerating soil fertility, maintaining biodiversity and even decomposing



Donakonda, Karnataka (after), 2004

waste, then the worth of services provided would be inestimable, certainly at least a few trillion dollars annually. The growth of the country's economy must reflect directly in the growth of the country's renewable natural capital. The GNP of a country should more appropriately be referred to as the Gross Natural Capital.

Tragically our economists have not thought it necessary to value the ecosystem services and account for these, even as we myopically measure our nation's wealth based on such parameters as the Foreign Direct Investments (FDI), etc., ignoring completely and at our own great peril the accelerating depletion of our natural capital. Today 'Shining India' is more a reflection of the shortsighted increasing imprudence with which we are exploiting our natural capital, and in the process undermining the ecological security of the country. Instead common sense and environmental economics demand that we should be conserving our natural capital and live only on the interest we can generate from it. And this should be progressively increasing to ensure India shines for a long time to come. Industrial growth, important as it may be for the well being of the nation, must, if it is to be sustainable, be accompanied by measures that sustain the natural life support systems of the country which have been, and are being undermined now at such a frightening pace. If this continues, it will inevitably undermine the ecological security of the country, which in turn will impact economic progress and destroy the social fabric of our society.

As a society, we must seek for ourselves a future that is ecologically sustainable, economically stable and socially just. A future that is founded on a holistic understanding of the principles that govern the interrelationships of various life forms and natural systems. A future where notions of human well-being are not reduced to purchasing power or mindless consumerism. A future where the latent potential of civil society is emancipated and not subordinated and subsumed by myopic economic visions and programs of the State that emerge from such shortsighted visions. Not only have these issues become systemic, but they have also both singularly and collectively, shaped the trajectory of ecological, social and economic change over the last couple of centuries. Tragically they have successfully co-opted the very mindset of mankind. While such processes have not gone unchallenged both politically and intellectually, there is a virtual bankruptcy of ideas and action that could either substantively halt or reverse the consequent trends on the ground.

Political and social reforms will evolve from mature stewardship or from various forms of resistance and even as some people choose to fight for radical shifts and align themselves ideologically, some spend their lifetimes caring for the ever increasing number of poor in an apolitical manner. Or some find meaning in their lives by designing alternative forms of livelihood or fight

to maintain that last stretch of forest. It is in these spaces that symbols of the human dignity, spirit and endeavour become manifest. It would be in these spaces that compartmentalization would diffuse to provide insights into interconnectedness or rather consilience. It is the groundswell of such spaces – a gestalt if you will – that hold out signs of hope for a future where a more egalitarian and humane society will shape its character with reverence to Nature.

The challenge then lies in identifying, nurturing and scaling up action leading upto such a world initiative. Governments have the strength to be the larger machinery required as they have the funds at their disposal for large-scale replication. However, they lack the flexibility to mould to suit variations or nurture national initiatives. On the other hand, civil society groups have the concern, passion, access and dynamism to adapt to these needs and are strong at synthesizing the lessons from their individual and collective experiences to articulate policy and action requirements. Civil society organizations have often stepped in with initiatives and designed mechanisms to support the most vulnerable that have fallen through the net.

It is also becoming increasingly apparent that the corporate sector must now compensate for the true value of the natural resources they use that have hitherto been grossly subsidized. Too often in the recent past, the business world has



Piparna, Udaipur (before), 2003



Piparna, Udaipur (after), 2004



Charangam, Anand (before), 1987

demanded concessions with a promise of delivering a booming economy which in turn would alleviate poverty from what they claim would be an inevitable trickle-down effect. In a world that is increasingly liberalized and globalized, the growing economies and power of the corporate world must rise to the needs of the time and pay due attention to bringing about a more equitable redistribution of wealth and to the critical importance of conserving natural systems. It is also becoming clear that industry must now realize that we live in a finite world with finite natural resources and that it must participate in a much larger effort to improve efficiency and administer self-regulatory mechanisms if it is to remain viable and sustain its activities. Corporate Social Responsibility or rather Corporate Ecological Responsibility must grow beyond a mere altruistic role and play an active part in enabling and ensuring the ecological integrity for the very subsistence of its own interests.

What is called for is a responsible engagement of the corporate sector with civil society initiatives by setting up endowments that are sensitive to the needs and culture of people at grassroot levels and the supporting groups.

At a polity level, a fundamental shift is necessary – such that Nature is valued for itself, for the life support functions it provides and, not merely for how it can be converted into ‘resources’ ie the ‘raw materials’ and commodities it provides to feed the engine of economic growth. This



Charangam, Anand (after), 2004

paradigm does not call for a new technological quick fix, or a search for avenues of profitable new financial investment. The respect for Nature’s diversity, and the responsibility to conserve that diversity and ecological integrity, should become the basis of our country’s polity to ensure sustainable development. And out of such ethics of respect for Nature must flow a respect for all cultures. If Nature is to be conserved in all its diversity, such respect for cultures must necessarily include the culture of the non-human species that preserve themselves through an evolutionary process that maintains that diversity. Respect for the role of Nature and the cultures it has created must become the basis not just of sustainability, but also of justice and equity, because it conserves the diversity of livelihoods and the means of sustaining these livelihoods.

The infrastructure needed to nurture our land, water and biodiversity is far more important than any other human conceived form of infrastructure which we have come to believe are critical to the economic progress of our country. Economic progress, particularly sustainable economic development in any and every aspect of human socio-economic endeavour, can only be ensured if it rests on secure ecological foundations.

¹ ‘Comparative Losses of British Butterflies, Birds, and Plants and the Global Extinction Crisis’, *Science*, March 2004.

² Final draft approved by the Millennium Assessment Board.