

“Guardians of Biodiversity”
Organised by
Environment Support Group
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To commemorate
International Day for Biodiversity
Workshop Report
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Rampant ecological degradation and species extinction have made “biodiversity” a common rallying cause for people around the world. The terminology biodiversity suggests encompasses all life forms and genetic variations in an ecosystem. At base is the acknowledgement that biological diversity is fundamental for the stability of ecosystems, to support the functioning of evolutionary processes and to conserve species with an intergenerational perspective of life on this planet.

Today biodiversity is being extensively compromised due to increased exploitation of resources, lifestyle demands, and short term policies that are based on mercantile needs that has little concern for the survival and evolution of various life forms on this planet. The crisis is so looming that the call now is to preserve what remains with all our efforts lest we lose the vibrant species variation and with it the capacity to support life as we know it on this planet.



To highlight the crisis we are now encountering, the United Nations proclaimed 22nd of May as the International Day of Biodiversity. The basic purpose is to increase understanding and awareness of biodiversity issues and promote progressive public, corporate and government responses to contain loss of biological diversity. The significance of this day is heightened in 2010 which is declared as the International Year for Biodiversity. Clearly the intent is to celebrate life on earth and of the value of biodiversity in our lives and ensure this task remains primary so future generations are not denied the richness of the amazing diversity life on earth.

In this background Environment Support Group held the workshop “Guardians of Biodiversity” on 22nd of May, 2010, at the Regional Institute of Cooperative Training in Bangalore which began with a welcome by Sruthi Subbanna, Research Associate at ESG. This was followed by a moment of silence in memory of all those who had lost their lives in the tragic air crash in Mangalore earlier in the day. Bhargavi Rao, Co-ordinator (Education) at ESG explained that ESG had worked for over a decade to stop the dangerous expansion of Mangalore airport as it was fraught with risks of such accidents. Yet, ignoring these appeals and petitions, the runway was completed and the air crash has been an unfortunate result of callousness at the highest levels.



Biodiversity Loss and its implications

Bhargavi set the tone for the workshop by introducing the importance of biological diversity and describing international efforts underway to conserve the interdependency of the web of life on our planet. She highlighted that the 1992 Convention of Biological Diversity (CBD) was a benchmark in this progress and has since inspired growing commitment to sustainable development by communities across the world. Yet the challenge remains because species are becoming extinct rather rapidly and largely due to destruction of natural habitats. This has dire consequences for present and future generations.



Bhargavi cautioned against mistaking a large patch of greenery, such as a pristinely manicured park or a plantation, for biodiversity. Such veneers must not be confused for functional ecosystems, for they are not. The distinction between greenery and biodiversity rich areas can be perceived only when we compare the fact that a park or plantation needs constant maintenance, while forests are self sustaining and regenerative ecological systems. It is important therefore that we do everything within our power to ensure that conservation and wise use of biological diversity remains a primary goal of every human activity, and all the time.

Native Trees of Bangalore and Biological Heritage Sites

The discussion then flowed into a deliberation of what types of biodiversity one can enjoy in a large metropolitan area like Bangalore. This involved an engaging presentation by Sheshadri, a naturalist, who presented a range of slides on the still extensive accessibility to native trees in Bangalore. He went into acute details of the need for the conservation of such trees in urban areas. Sheshadri explained the qualitative difference in impact on urban biodiversity when exotic trees are propagated, rather than endemic ones. For instance a cultural tradition requires newly weds in South Karnataka to plant a branch of Ficus (fig) tree and nurture it to old age as it symbolises the care and commitment the couple must give to the



marriage. This cultural practice also propagates the rich tradition of conserving our endemic trees, particularly *Ficus* sp. which are a major determinant of the quality of our biodiversity. Tens of species of birds depend on this genus for their survival, and Sheshadri lamented that it was truly unfortunate that we were decimating this biodiversity giants from our midst in urban areas.

Sheshadri shared that such heritage trees are found all over the city. Sacred groves such as Gunduthopu and Devarakadu hold many of such trees. Devanahalli has a thousand year old tamarind tree whose branches dive in and out of the earth. Other heritage trees line our very streets that we commute on daily. Such trees must be protected from the indiscriminate tree-cutting going on all over the city.



Sheshadri added that it is essential to understand the endemic trees of a region as these trees can best survive the climatic conditions of the region and contribute to the overall biological diversity. He gave the example of *Tabebuia*, an exotic species which will grow tall in short period of time – say one and a half to two years. However the bark of the tree is soft, so when we have rains like in Bangalore with heavy gusts of wind, the tree would break and fall causing damage to life and property. Trees share symbiotic relationships with fungi and birds, and planting endemic trees would also increase in the population of such biological diversity– an aspect that is completely lost with exotic trees. Often times, in the quest for creating urban greenery, the complexity of an urban ecosystem is not considered, and trees which are inappropriate to the environment are unnecessarily introduced and cultivated.

Importance of Traditional Knowledge to conserve Biodiversity

Leo Saldanha, Co-ordinator, ESG, then introduced the topic of how local ownership is essential to conserve biodiversity. He cited different examples to bring home the point that current patterns of development were insensitive to the critical requirement of conserving biodiversity. With little or no thought for the environment or natural resources dependent people, driven by



the zeal to extract exorbitant profits from exploiting of natural resources, corporates and governments were plundering our biodiversity rich forests, wetlands and seas.

An example of this plunder was evident by the manner in which Bellary's rich forest resources has been lost in less than a decade. Collusion between miners, politicians and bureaucrats to exploit iron ore and manganese deposits in this district has reduced the region to appalling levels of deforestation, pollution and acute poverty of the masses. Those who benefit from this plunder, meanwhile, have made unimaginable volumes of money. This is evident in the striking reality that mining pay a measly Rs. 27/tonne in royalty to the State exchequer, while they trade with the ore for over Rs. 6000/ton. The royalty fixed when ore was a mere Rs. 600/ton a little over a decade ago, has remained unchanged because of pressure from mining lobbies. This extortion reveals how little our miners and industrialists care for conservation of our biodiversity and

natural resources – an alarming aspect being that many of the miners are today Cabinet Ministers in Karnataka. While mining companies are enjoying such vulgar profits, neither the government exchequer or more importantly the local communities are enjoying the benefits. This when local people and their environment are suffering from the worst impacts of such reckless mining.

The problem comes largely from the fact that decision-making power over the use of local natural resources does not lie with the local community. Currently, all decisions on the environment are taken by the Central and State Governments, and hardly ever by local bodies. The families who have lived on the land for generations and understand the complexity of their environment are unable to be involved in decisions directly related to their land and livelihoods. While this is the case in mining, similar is the problem in the use of biodiversity in genetic engineering. For instance, when M/s Mahyco (a subsidiary of US MNC Monsanto) propagated the research for Bt brinjal by inserting a bacterial gene in 6 local varieties of brinjal, with the objective of developing a commercial product, it fundamentally violated the provisions of the Biological Diversity Act of India (BD Act). Local farmers who have cultivated these varieties of brinjal for thousands of years had no say whatsoever in what happened to their genetic wealth, and were thus denied their rightful share under the Access and Benefit Sharing regime per the CBD and BD Act.



Through various other similar examples, Leo made the point that it is the local communities who best understand and know the environment they live in, and it is they who should be made custodians of the environment they reside in. The legal provisions to empower local communities to make such decisions are already enshrined in the 73rd and 74th Constitutional Amendments. Were these laudable Amendments fully implemented, it would fundamentally alter the manner in which our biological diversity is used and conserved for the better of all involved.

Laws to protect Biodiversity

Sunil Dutt Yadav, Advocate, continued the thread of the conversation developed by Leo and introduced the substance of various laws relating to biological diversity use and conservation in India. He also introduced the different Public Interest Litigations (PILs) promoted by ESG that he has been associated with and the merits of the legal concerns advocated in such.



Sunil shared that the legal regime governing exploitation of local biological resources makes a distinction in terms of the nature of the rights involved for Indian nationals and foreigners. Non citizens, or companies having any foreign participation, for instance must secure appropriate permissions from the National Biodiversity Authority, in consultation with the state and local biodiversity boards, prior to accessing any biological resource of India. In the case of Bt Brinjal, it was an alarming situation that Monsanto and its subsidiary Mahyco accessed 6 local varieties of brinjal without conforming to statutory requirements per the Biological Diversity Act. Joining in these violations were University of Agricultural Sciences, Dharwad and Tamil Nadu Agricultural University who collaborated on the project. Such glaring

violations were completely ignored by all authorities, and even by Indian Environment Minister Mr. Jairam Ramesh when he conducted nation-wide consultations on whether to allow Bt Brinjal or not.

Bhargavi who joined this discussion highlighted that such sidestepping of core concerns relating to ownership of biological resources during the Bt Brinjal debates was deeply disturbing. While it is essential to enquire substantively into the scientific, economic, ecological and moral implications of genetic engineering, an equally important question is to ask if Monsanto/Mahyco initiated research in Bt Brinjal was at all legal, as it amounted to theft of local brinjal varieties for commercial gain? Mahyco is a foreign company per the definition of BD Act particularly considering that it is 26% owned US-based Monsanto. Bhargavi shared that ESG's complaint over this issue is now a matter of investigation and consideration by the Karnataka Biodiversity Board, and notices have been issued on Mahyco and UAS Dharwad enquiring into potential violations of the BD Act.



Considering such threats to the conservation of our biodiversity, Sunil argued that there is now an acute need for Local Biodiversity Committees and State and Central Governments to actively identify biodiversity hotspots and initiate steps to declare these as Biological Diversity Heritage spots. The innate culture of conservation of biological diversity must now seep into the consciousness of our decision making procedures. Only then would we have the possibility of securing our natural heritage from the pressures of commodification, theft of genetic wealth and consequent degradation.

Sui Generis



On the basis of the foundation laid by Sunil of the nature of law in India protecting biological diversity, Prachi, a law student and intern with ESG, explained the importance of *sui generis* system to the wise use and conservation of our biological diversity. Prachi explained that the literal meaning of *sui generis* in Latin is “unique” or “special”. In the legal context this refers to the need to adapt laws and policies to fit local conditions, while still conforming with broader frameworks of international laws and agreements. While international treaties are designed to protect the environment across the globe, the environmental diversity within a nation necessitates unique laws in order to suit local conditions. Even though India may be a signatory to many international treaties, under the *sui generis* system, it is still allowed to pass its own laws to protect its local interests and unique complexities latent to the country.

190 plants list: Exempting threatened plants from BD Act purview

Even as the nation was gearing up for a series of debates on Bt Brinjal last October, the Ministry of Environment and Forests issued a Gazette Notification stating that 190 species of plants would be exempt from the need to conform with the provisions of BD Act provided they were traded as commodities. Bhargavi shared that when perusing this list, she discovered at least 15

species were threatened or critically endangered and yet included in the exemption list. When this was brought to notice of Jairam Ramesh at the public consultation on Bt Brinjal in Bangalore, he shockingly admitted that he had no idea of the existence of such a notification. He eventually brushed off this concern stating that the provision was to facilitate exports and in no way constituted a threat to biodiversity loss.

The question remained unanswered though if facilitating trade and export of threatened plant species is not a contributing factor to causing extinction of species? Another concern that emerges is how this decision was formulated? Evidence has it now that the Ministry exclusively decided on formulating the list and without in any manner consulting any State Forest Department or Horticulture Department or any Local Biodiversity Committee. Raising the question, therefore, if the Ministry could exclusively decide on exempting certain species from BD Act to facilitate trade, when the Act clearly demanded due consultation with all concerned.

That unfettered trade is a major causative factor for biodiversity extinction is established beyond doubt by the case of “Miss Kerala” (*Puntius denisonii*) which only a decade ago was a largely



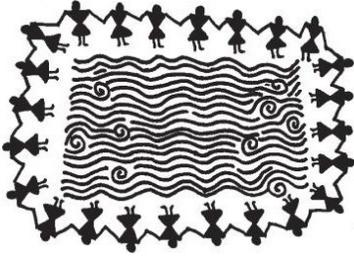
unknown fish in the backwaters of Kerala. During the late 1990s it was promoted as an ornamental in an international aquarium conference. Less than a decade later, this fish is on the Red List of International Union of Conservation of Nature and Natural Resources (IUCN) and efforts are underway to save this species. If similarly our plants were allowed for commercial exploitation by the very Ministry that is meant to act as a conservation watchdog, the matter assumes serious implications, and requires heightened awareness amongst people and their active engagement to ensure

Government agencies don't bend to pressure from trading lobbies and export species to be extinction, argued Bhargavi.

Bhargavi also shared with participants another threat to biodiversity conservation in India, in the form of a legislation to establish the National Biotechnology Regulatory Authority Act (NBRA Act). This Bill promotes draconian methods to promote biotechnology at any and all costs, including suppression of dissent under the threat of arrest. Sec. 63 of this Act provides unfettered powers to parastatal regulatory agencies to jail and/or fine anyone who in the exclusive and uncontested opinion of the agency discusses concerns about biotechnology. Of course there is widespread protest against such legislative methods, and it is likely this section may be dropped. For Bhargavi, the problem emerges with the fact that such methods were even thought into law, especially when it fundamentally attacks the Right to Express – a Fundamental Right. Other provisions in this law are equally egregious, as it promotes biotechnology as a panacea for all our ills, including food security. That the safeguards built into the potential genetic contamination by genetically modified organisms of wild varieties is not comprehensively addressed in this legislative proposal is a very worrying aspect, and merely one of many such, that this Bill presents.

In the discussion that followed various issues covered at the workshop were deeply introspected by the participants. The workshop ended with Bhargavi thanking participants, Punjab National Bank for co-sponsoring the event, Regional Institute for Cooperative Training for extending its facilities and the ESG Team and its interns for organising the programme.

Workshop Report prepared by Sruthi Subbanna with inputs from Jake Carlson and Bhargavi S. Rao



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