# TOWARDS A PARADIGM SHIFT FROM GLOBALIZED FOOD DEPENDENCY TO BIO-REGIONAL FOOD SOVEREIGNTY

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"Humanity today is in the midst of a profound civilization change. Perhaps the most important contribution of the Earth summit at Rio was to bring human actions to the center of the environment and development debate that respects the responsibility of human being to protect nature and natural resources. Our environment is undergoing rapid change. While gradual change is a natural process, accelerated recent changes resulting from human activities are matters of serious concern without any responsibility for the protection of future generation. These changes carry the potential to jeopardize human wellbeing, particularly in the developing countries, whose people are more directly dependent on natural resources for their economic well-being than are those in the industrial nations. It is now widely acknowledge that the path of development so far followed is deepening the economic divisions within and between countries and leading to a deterioration of basic life support systems.

### FOOD FOR ALL

The right to sustainable food is a fundamental right with and inherent responsibility to protect these rights. First and foremost, a source of health and well being and only secondarily, an item of trade. Agriculture, in the final analysis must be able to provide sustained food security for its people. Also food is central to human survival, cultural identity and sustainable livelihood, and not sees it as the object of profit driven by market forces and human greed. Therefore the issue of food security or insecurity is basically an issue of basic human rights, equity and social justice and that everyone has a fundamental right to food, and that community control over production and distribution of resources is crucial to food sovereignty. Similarly, the use and protection of indigenous knowledge and bio-diversity is essential to sustainable food sovereignty.

#### THE SOURCE OF FOOD CRISIS

The globalization of agriculture is violating all components of food-related human rights. Biodiversity, land water is the vital resources that the majority of people depend on for their livelihood and survivals are under threat.

This shameful pillage of humanity's collective natural resources is being plundered under the spell of the neo-liberal economic model, even those areas of life-forms once considered sacred, like the genetic codes, flora, fauna, seeds and even natural resources like water once considered common heritage of humanity are now converted into commodities and tradable items to be exploited for profit. The exploitation and expropriation of natural resources, bolstered by an anthropocentric cosmology and world view, and the ignorance of the laws and balance of nature have resulted in the large scale destruction of the ecosystem. This has put a severe strain on the subsistence, sustenance and survival mechanisms that communities have evolved over centuries. The tradition community world view of nature and natural resources is based one of responsibilities to protect nature than the anthropocentric world view was rights over responsibility.

Intellectual Property Rights are emerging as an important mechanism for taking away the living resources and biodiversity from the people and converting them into corporate monopolies. Seeds, medicinal plants and bio pesticides which have been the basis of people's livelihood in agriculture and health-care are being appropriated through new patent regimes enforced through GATT.

Food Security in the country has been undermined by the structure of dominance and dependence which have been strengthened in recent years through liberalization of trade, introduction of green revolution ideology, and strategy 'privatization and commercialization of agriculture. The predominant cause of food insecurity for majority of people in the region is lack of access and control over food production productive resources and also over production, unjust distribution and over consumption by the few. The trend of cooperate agriculture; a reverse from of land reform has led to major changes in cropping patterns.

Irresponsible and massive tampering with the word's interdependent web of life-coupled with the environmental damage inflicted by deforestation, species loss, and climate change are triggering widespread adverse effects, including unpredictable collapses of critical biological systems whose interactions and dynamics we only imperfectly understand. Uncertainty over the extent of these effects cannot excuse complacency or delay in facing the threats.

This process has the some of the serious, consequences such as global warming; impending water shortages; declining area and declining yields of productive land; pollution of land, fresh water, sea water and air; and biodiversity loss.

The endangerment of our eco-system calls for paradigm shift from globalizes food productions to bioregional food security.

#### **BIO-REGIONAL FOOD SOVEREIGNTY**

The concept of bio-regional food sovereignty is based on the understanding that each climate zone has its specific characteristics and produces staple and nutritious food for its people. India's National commission on Agriculture initiated a programme to delineate agro-climate regions at the national level and agro climatic zones at the regional level. They identified 15 agro-climatic regions in the country.

The ecological classifications combines set of land attributes, topography, geology, climate, soil, vegetation, ground water, existing land use, human activities connected to land use, and the degree of human interference in the natural system. Each of these attributes is classified according to its spatial characteristics. India is a large country with diverse agro-climatic zones, with diverse seasons, crops and farming systems. Agro climatic zones is the source of food diversity as some regions produce raise wheat and other regions produced variety of millets vegetables, fruits etc. But today due to monocropping and standardize food habits by the food market led to the obliteration food diversity.

Each eco systems created its own cultural systems and practices like poetry, folksongs, literature, music, seasonal agricultural festivals related to harvesting and sowing seasons. The traditional agricultural practices were community based on the principles of mutual collaboration based on sharing, caring and participating in each other's work. These practices have created an ethos of responsibility and co responsibility.

The food sovereignty is the sovereignty of the production. This right encompasses the right to define, decide and implement their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances.

The bio regional systems exhibit different characteristics. It is reported that about two-thirds of the sown area in the country is drought-prone and around 40 million hectors is flood-prone. The poorest people are likely to be hardest hit by the impacts of climate variability and change because they rely heavily on climate-sensitive sectors such as rain fed agriculture and fisheries. They also tend to be located geographically in more exposed or marginal areas, such as flood plains or nutrient-poor soils. The poor also are less able to respond due to limited human, institutional and financial capacity and have very limited ability to cope with climate impacts and to adapt to a changing hazard burden.

Biological diversity is also determent by agro-climatic zones. It is the total number of genes, species, and ecosystems in a region and the variability between them. Biodiversity makes life itself possible. Not only do plants and animals provide actual and potential sources for human medicines and food, but also biodiversity has additional benefits that reach far beyond straightforward economic evaluations of utility. Scientists have shown that rich and diverse ecosystems improve water quality, reduce flooding, and absorb and clean wastes. They are also more resistant to environmental shocks and quicker to recover than regions depleted of genetic and species diversity. Classifying the countries resources into zones improves our understanding of the production potential and further links the basic geographical features to the issue of decentralization. The ecological zones result from physical and biological factors that give rise to combinations of land water and biomass patterns. These patterns in turn produce the production possibilities to sustain human life.

We believe that a transition to a bioregional sustainable agriculture is an imperative for food sovereignty, both at the local and national level. The perspective and method that governs sustainable agriculture should include the strategy to integrate the maximum productive potential of landless people and enhance maximum productivity by using eco-friendly appropriate technology to provide food for the urban sector. The diversity which is the basis of sustainable agriculture and that which is being destroyed by monocultures is the key to food security at domestic and community level. Organic farming and low external input agriculture are being rediscovered everywhere as necessary for environmental protection, health protection and the protection of food sovereignty.

Creating sustainable development requires a strategic, cohesive, and multidimensional approach. Translating this approach to regional sustainable development requires looking into the reality of the region in enough detail to appreciate local site differences and taking note of the policies that would suit the local environment.

The interactive synergies of ecological, economic and social processes are scale dependent and therefore change from the local to the regional, the national and global level.

Ecologically, sustainable development recognizes that there are limits to natural resources extraction, which cannot exceed the regenerative and assimilative capacities of the bio-system. In short, it is a system of energy and resources flow that does not take out more than what can be regenerated or replenished. For ecological sustainability it is imperative to evolve principles of responsible consumption and life styles.

In other words, sustainable development is a process in which development can be sustained for the intergeneration. Such development takes responsibility for future generation the same if not more capacity to prosper then the present generation has. Thus, sustainable development focuses on intergenerational fairness in the exploitation of development opportunities.

Sustainable Development is mainly perceived through the challenges/threats today's societies have to cope with, such as: Global issues emerging from problems of the global dimension of problems; environment limits for human activities; equity issues; allocation issues related to resources. In-depth participatory debates leading to implementation of pro people food and agricultural policies at the national and international level are the need of the hour in India and all developing countries as well.

Some of the major recommendations that being highlighted for serious consideration are: Protect biodiversity, water, forests, fisheries and other natural resources from which the majority of the people derive their livelihood; protect indigenous community wisdom; recovery and validation of bio regional agricultural practices; guarantee the sovereign rights and responsibilities of people to develop policies related to bio regional food security; placing a priority on food production for domestic and local markets first, thereby recognizing and promoting women's role in production and thus ensuring equitable access and control over the same; ban use of genetically modified seeds and organisms; urgent action is needed to prevent the genetic contamination of the vast biodiversity of the region; support and promote sustainable ecological agriculture without the use of harmful pesticides; ensure genuine peasants participation in any decision affecting farming communities and in food and agriculture policies programs; promote local resource based, regenerative, sustainable models in agriculture; research, document, and share experiences in sustainable ecological agriculture across the region; establish research centers to work on sustainable ecological agriculture.

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