Chapter 1
Development, Ecology and Livelihood Security: A Theoretical Perspective

Introduction

In the modern world, defining development has been a grid lock, which requires familiarity with the ambiguities and paradoxes attached to the said notion. The concept of ‘welfare state’ has been progressively destabilized and discredited in the war of wits between the state and the market and the shifts in economic policy entailed by globalization. Secularism has increasingly been under risk as communal ideology and political forces have come to benefit from consumerism in society and the polity. Of late, the concept of development has also come under severe attack from the supporters of sustainable development strategies and movements against projects that cause large scale displacement of marginalized people threatening their livelihood security. They have even gone to the extent of launching a frontal assault on the citadels of the very models of development adopted by the Indian state after independence and have described it as economically inequitable, environmentally unsustainable and politically undemocratic in its denial of the rights of equality to citizens. No wonder why Amartya Sen described development as a process of expanding the real freedom that people enjoy.

Development as a theory and an approach has numerous connotations in the Indian context. In fact, a more precise understanding is necessary to analyze contemporary indigenous realities and their concomitant struggle vis-à-vis the conventional notion of development imposed on them. The impact of modern colonization and acculturation has to be assessed in detail. While the researcher is in general agreement with the conceptualization of the modern capitalistic form of development, a sceptic doubt arises as to whether a sustainable model of society provides the right type to discuss “how human beings should live on Mother Earth”. A capitalistic view considers wealth accumulation essentially progressive. But indigenous groups around the world pooh pooh it, as it destructs indigenous resources that are necessary both for their material and for their cultural survival. In relation to these realities, it is therefore pertinent to consider the present development concept and how it affects the environment wherein indigenous people survive. The spirit of this chapter is to consider these concepts and approaches to be taken up to evaluate the basic issues of livelihood of these people.
It is important to understand local economic development not only in terms of the country’s politico economic and social transformation, but also within the context of global changes touching the country and contemporary debates on the meaning and nature of “development” as a whole. These concepts are of crucial importance to all concerned with the protection of biosphere and the livelihood of people depending upon it. From the researcher’s point of view, development could be examined from natural science as well as social science perspectives. It tackles the issues surrounding the theme of development from a political ecology and sustainable development perspective. It is argued that along with human perceptions of the environment, a wider political analysis of the use of natural resources and the environment also has to be considered. A subsequent section of this chapter disentangles the composite, and rather baffling, perception of sustainability - a concept that is at times criticized for being everything to all persons.

**Rethinking development**

The most fundamental issue in development studies and policy-oriented arenas of development planning and management has been the heated debate over what “development” has achieved. The word “Development” is used in many circles as an out dated model and as a largely failed “project” born out of the massive post-World War II program for European reconstruction and Marshall Plan applied to poorer countries. The 1950s and 1960s were the zenith of modernization theory. The newly independent countries were in the missionary task of “Development” through technical modernization. In this framework, economic growth and social development were all taken as virtually equal. To a hefty degree, this entailed conceptualization of the means and ends of economic development.

In keeping with the economic interests of a small minority, new production forms were implemented more rapidly with no prior assessment of their ecological consequences. These minority interests also necessitated maintaining production techniques that are recognized as destructive for nature. The production went on and at the same time technological progress upset the ecological balance. Since the 1970s, this has become more spectacular following the breakdown of bureaucratically planned economies. The economic crisis and free-for-all industrialization in the Third World added fuel to fire.

**Development and the colonial campaign**

The word ‘development’ has often been associated with the colonial era. The nineteenth century Europeans described it as something specifically European. But over a period of time it came to be viewed as a universal necessity. In this development, non-European societies were fundamentally transformed through the loss of resources and craft traditions. Colonial subjects were forced to labour in mines, fields, and plantations to turn out products that were eventually exported sustaining distant European
factories. This was a global process, connecting slaves, peasants, and labourers in the colonies with Europeans, providing them with cheap colonial products ranging from sugar, tea and tropical oils to cotton clothing. Globally, development was realized through a racialized process of colonial “underdevelopment” (Mc Michaels, 2004).

This international division of labour led to a restructuring of national economies in the South according to the interests of the European colonial powers, transforming them into suppliers of raw materials and cheap labour and thus creating dependency and underdevelopment for the South. According to World-systems theory, this historical process mainly determined the unequal distribution of economic power in today’s world system (Stefan, Giljum & Nina, Eisenmenger (2003) & Frank, 1978). The most crucial ethos of these new paradigms is that there is no single best way of the developmental truth. The vast literature of Neo-imperialism and Dependencia argued that integration in the world economy was the problem rather than the solution. Development and underdevelopment were opposite sides of the same coin, wealth and poverty were created simultaneously. Underdevelopment was seen as a result of the dependence - economic, technological and cultural - of the Third World upon the First (Stephen J. Kobrin, 1999).

The neo-Marxist perspective focused on the global scope of the capitalist system and the role of transnational corporations in it. As a result of the dominance – dependence relations and unequal exchange, the global periphery (South) was dependent upon and exploited by the global core (the North) (David, Simon, 2005, p.20.). World-systems theorists point out that today’s structure of trade relations between different world regions is to a large extent a consequence of the international division of labour, which has developed since the beginning of colonization in the 16th century.

Development and role of state

The state is a crucial actor in the development process of any nation. In the development discourse it is attributed a role as performer and channel of development, i.e., the executive organization of development strategy. The real problem with development thinking of the state is the hiatus between development economics and development sociology. In the market-oriented situation, the nation-state is caught in dialectic of subnationalism and supranationalism. One of the paradoxes of the late twentieth century is that the tendency of the state to intervene in economic affairs has increased-political rhetoric notwithstanding – at a time when the effectiveness of its interventions has declined. However there is no question as to the central and enduring importance of the state.

Market-oriented approaches marginalize the state. Unfettered markets increase inequality, and in the age of information economies, which puts a premium on human resources development, inequality
is an economic liability. Here the role of the nation-state in creating an ‘innovative’ society is absolutely crucial to the well-being of its citizens. But the policy options before the state remain narrow: internationalization or globalization meaning liberalization; state-led internationalization with restrictions and regional co-operation; and alternative or ‘another’ development (Jan, Nederveen Pieterse, 2010).

The Western model of development relies exclusively on technological and military supremacy, engendered to overpower the subjects of the state. This self-legitimizing domain of authority seeks to replace the traditional social life with new forms considered normatively better and empirically more productive. Development had in fact already replaced in Europe all ancient regimes of community management of resources with private ownership. Developmentality endorsed that private or corporate ownership would allow incentives for growth, while taxes on such property would allow the state to redistribute benefits to the populace. This system of development left no space for community control over common property resources. Communities themselves were disintegrated in response to the emerging market economy.

The independent nation-states that arose following the Second World War showed little interest in revitalizing local-level systems of authority. This meant that natural resources had become the “property” of the national governments in acts of outright expropriation when viewed form the perspective of the residents of millions of villages. These new governments are struggling with the problems of governance, economic development, self-sufficiency, and political stability. In this setting, we see natural resource destruction continuing, and even accelerating (Daniel W. Bromley, 1991, p.127). The era of liberalization, privatization and globalization sounded the death knell of what ever little community control that managed to persist over CPRs against all odds. Enclosure of the commons had become a state policy in Europe, as a result of which peasants were ‘first forcibly expropriated from the soil, driven from their homes, turned into vagabonds and then whipped, branded, tortured by laws grotesquely terrible into the discipline necessary for the wage system. The enclosure of the commons not only decimated the natural wealth of biodiversity, but also brought about unprecedented hunger, oppression and strife for the indigenous people in the colonies’ (Debal, Deb, 2009).

Development and globalization

The meaning of the word “globalization” is a hotly contested one. Whether it has been a catalyst for development or not has been highly debated. The conventional economists in the realist school tend to interpret globalization as representing increased international trade. This McDonaldization gave prominent role for transnational corporations (TNCs) and sovereign nation-states remained as the key building blocks. The vast majority of employees in McDonald’s are part time workers. The average
workweek in the fast-food industry is 29.5 hours. Minorities are over represented in these jobs-almost two-thirds of employees are women and nearly a quarter are non-white. These are low-paid occupations, with many earning the minimum wage or slightly more. In these McJobs, many inhuman technologies are employed to control workers and reduce them to robot-like actions. These rationalized McJobs lead to a variety of irrationalities especially the dehumanization of work (George Ritzer, 2002).

Corporations employ millions of poorly paid workers in all parts of the world and are frequently in receipt of massive government subsidies. Only shareholders are legally entitled to benefit directly from the surpluses and profits that the corporations produce. In order to ensure that the interests of shareholders are met, the needs of individual workers and whole communities are sometimes sacrificed. The fundamental tenet of these corporations is that capital needs to be mobile—‘footloose’ to secure the lowest possible production and labour costs (John, Blewitt, 2008, p.133.).

Globalization has indeed created opportunities for some people and some countries that were not even dreamt of three decades ago. But it has also introduced new risks, if not threats, for many others. It has been associated with a deepening of poverty and an accentuation of inequalities. Markets exclude people as consumers or buyers if they do not have any incomes, or sufficient incomes which can be translated into purchasing power. Such people are excluded from the consumption of goods and services which are sold in the market (Deepak Nayar, 2003). This conceptualization describes the point of view that poverty is effectively a social phenomenon and only secondarily a material or physical occurrence. This eventually will lead to the total erosion of the very welfare concept of the state. In this manner globalization is not only eroding the state but is also internationalising ‘domestic politics’, financial system and society. Thus inevitably, perceptions of whether the impacts of these globalization processes are essentially positive or negative vary according to the beliefs and position of the protagonists. From one outlook, one might argue that they are positive to the extent that they promote improved quality of life for the world population. On the other side it is argued that the majority populace are deprived of ‘quality of life’.

**Development and quality of life**

During humanity’s earliest recorded subsistence, development was synonymous with survival. Simple equipments provided the means by which a community defended itself and rescued its members from enemies. During that period, livelihood was brutish and uncultured. These hunters and gatherers coalesced first into city-states and later into nations. Henceforth development became the responsibility of those who governed. The colonisers’ criteria of development were dictated by the pursuit of power. Among nations that seek to dominate others, development objectives came to be defined in terms of
economic and military power. After World War II, political ideologies derived from Marx and Lenin dominated Eastern Europe.

In the 1950s and 60s, development was viewed as a process by which a ‘traditional’ Third World society could be transformed into a ‘modern’ western society. In the 70s, it became increasingly apparent that Western theoretical models did not successfully predict development in the Third World countries like Asia, Africa and Latin America. Optimism about development turned into pessimism, and a questioning stance about development characterised the 1970s. The main view point about development in the 1980s was pluralism, a willingness to recognise any pathway to development. Instead of stressing per capita GNP as a measure of development, present day development approaches emphasise greater equality, self-reliance and people-participation (Arvind, Singhal, p.848-49.).

Historically, development has been achieved through environmental compromises. Notwithstanding this historical reality, an important question is whether development must necessarily be detrimental to the environment. It depends on how development is defined. In practice, as glanced from development policies of the Third World, development is narrowly defined as growth in income and industrialization as we have discussed earlier. However, development can also be defined to include improvements in the quality of life and welfare. Such a redefinition would elevate environmental protection to a worthy developmental objective alongside material improvements, especially as environmental degradation can be correlated with diseases and a general deterioration in the quality of life indicators (S.Javed Maswood,2008, p.169). Development in the 1980s was seen to be a multidimensional concept encapsulating widespread improvements in the social as well as the material well-being of all in society. In addition it was also recognised that there is no single model for achieving development and that investment in all sectors whether it be industry, forestry or agriculture was required. Above all if development is to be sustainable; it must encompass not only economic and social activities, but also those related to population, the use of natural resources and their resulting impacts on environment (Jennifer, A. Elliott,1994, p.6.). Taking into consideration all these aspects, we will now be concentrating on an environmental approach to our understanding of rural livelihood in the next section of our discussion.

Ecology

The researcher predicts renewal of the ecosystem concept because it seems to be in harmony with the common man’s understanding of the world. Today, humanity is inundated by multiplying and interrelated environmental disorders, most of which can be attributed to mankind itself. We support the revitalization and rejuvenation of the ecosystem with suitable modifications, because the ecosystem concept itself is an imperative element in the construction, preservation and renovation of the webs of
life upon which we are absolutely dependent. The concept of ecosystem integrates the “discovered” with the “symbolic” in ways that are not inevitable, for it grasps the naturally lawful through particular human meanings. In a world in which the lawful and the meaningful, the discovered and the constructed, are inseparable the concept of the ecosystem is not simply a theoretical framework within which the world can be analyzed. It is itself an element of that world, one that is crucial in maintaining that world’s integrity in the face of mounting insults to it. To put this a little differently, the concept of the ecosystem is not simply descriptive, it is also “performative” (Roy A. Rappaport, Emilio F. Moran (ed.), 1990).

The expression ‘ecology’ is infused with many meanings. For Arne Naess and David Rothenberg (1989) it will mean the interdisciplinary scientific study of the living conditions of organisms in interaction with each other and with the surroundings, organic as well as inorganic. General ecology deals with the structure and function of living systems and provides insight into the mechanisms of micro evolutionary changes, particularly that of selection (Michael, Jochim, Emilio F. Moran (ed.), 1990).

For Denis Goulet, (1995) ecology is holistic. It looks to the whole picture, the totality of relations. As a new pluridisciplinary field of study, ecology embraces four interrelated subjects: environment, demography, resource systems and technology. Its special contribution to human knowledge is to draw a coherent portrait of how these four realms interact in patterns of vital interdependence. Thus ecology as a general concept of an environment related to a phenomenon has come to mean a wide range of theoretical, methodological and practical things, both physical as well as social. The variety runs from precise concerns with the quality of the air, to a population, to their ecosystem to a well defined field of applied mathematics.

**Ecology and development**

The ecological paradigm can only express changes of ‘systems of growth’, i.e. in territorial-social units at a low level of development in which adaptation to the environment is the major source of recursive change in social life. However, developmental processes must be treated as non-recursive and cannot be reduced to adaptive processes. Some ecological factors can, however, either increase or decrease developmental changes in specific social contexts. In these contexts they can be used to explain changes, but they cannot be used as concepts in a general theory of developmental change (Zdravko Mlinar (1978), ‘A Theoretical Transformation of Social Ecology’ Zdravko Mlinar & Henry Teune (eds.), pp.20-21.

The concept of ecological structure contains distributions of populations, groups and organisms and their properties in physical space to distributions by social classes, categories, and political organisations, especially local, territorial ones. Such a concept of ecology suggests relationships among
social structure, political organizations and physical space, and how these relationships vary (Zdravko Mlinar & Henry Teune(1978), ‘Theory, Methodology, Research and Applications: Assessment and Future Directions’, Zdravko Mlinar & Henry Teune (eds.). p.34.). If the meaning of ecosystem is a dynamic balance between resource and sustenance, this requires a restructuring of human purpose and culture, political and moral problems (John W. Bennett (1990), ‘Ecosystems, Environmentalism, Resource Conservation and Anthropological Research’, Emilio F. Moran (ed.), p.437.).

Hence we can say that the ecological structure influences the rate of development, but is dominated by the process of developmental change. Political intervention can be directly and indirectly applied to the ecological structure, including the process of planning, in order to either offset undesirable consequences of developmental change, such as pollution and congestion, or to accelerate the rate of developmental change (See the figure below). The fundamental theoretical dynamic indicated by the relationship designated ‘primary’ is that developmental processes are stronger than ecological structural factors at some particular level of development (theoretically indicated but empirically unspecified). The developmental dynamic, in other words, dominates the ecological structure in the feedback loop.

**Fig 1.1**
The developmental dynamics

![Diagram showing the relationship between developmental processes, ecological structure, and political intervention.]


**Global Ecological distribution and development conflicts**

The development of primitive societies into class societies and eventually into capitalist societies has produced a transformation in man’s relation to nature. Under capitalism this relation is determined primarily by the ruling class of capitalists. Marx and Engels undertook a thorough examination of this new relation. Like the relation that they bear to workers, the relation of capitalists to nature is marked by exploitation, pollution and ruination. Marx and Engels observed that the capitalists appropriate the resources of the earth without any cost to themselves, that they transform the earth into an “object of huckstering”, and that under capitalism the original unity of man and nature is breached. The capitalists’ wastage and
exhaustion of the soil, deforestation, disruption of nature’s cycle of matter, greedy policy towards nature, and neglect of man’s welfare are ruinous to both nature and man (Howard L. Parsons, 1994, ‘Marx and Engels on Ecology’, Carolyn Merchant (ed.), p.37.).

In the market economy, the organizing principle for natural resource use is the maximization of profits and capital accumulation. Nature and human needs are managed through market mechanisms. The ideology of development is in large part based on a vision of bringing all natural resources into the market economy for commodity production (Vandana Shiva, 1994). But these are the very resources already being used by the indigenous people for sustenance and livelihood. Their diversion to the market economy generates a paucity of these resources and creates new forms of scarcity.

**Colonialism and Ecology**

There are many ways in which one performer may exert control over the environment of another actor. First, an actor can attempt to control the access of other actors to diverse environmental resources such as land, forests, water, marine or terrestrial wildlife, and minerals. The objective here may simply be to monopolise a valued environmental resource so as to control the ensuing economic benefits that may be derived from its exploitation. A classic example is the effort by colonial states in the nineteenth and early twentieth century India and Indonesia to control selected forests containing commercial timbers such as teak or deodar. This effort involved a large scale campaign to exclude local grassroots actors from these commercial forests which had a knock-on effect in terms of disrupted livelihoods and denial of subsistence needs. To the extent that they succeeded, these states demonstrated their power over other actors in that they determined who used the forests, and for what purposes (Raymond L. Bryant, 1997, p.11).

The European settlers’ incarceration of the ‘savages’ and the appropriation of their ‘wild’ lands were also economically justified because they lacked the intelligence to ‘develop’ their wild lands for agriculture and industry, or were cruel or wasteful in their use of natural wealth. The British felt justified in robbing land from the savages who decidedly had no title to it, and then create a legislation to legalize the robbery. The conquest and subsequent conversion of the wild lands- ‘the haunt of wolves, bears and more savage men’- into farms and ‘habitations of rational and civilized people’ marked the march of civilization and progress. The civilizing mission justified the stealing of lands, massacre of the savage races and elimination of ‘primitive’ original cultures. Seen from this progressivism ideology, all non-European societies were atavistic, and the world outside Europe languishing in the dark, awaiting enlightenment by Europe, whose duty it was to colonize and introduce civilized governance in these savage countries (Debal, Deb, 2009).
Global process and its pressure on nature

In the international economy, the process of globalization of capital will be the central starting point. The global economic system impacts upon states through universalization and export of neo-liberal economic doctrines, and through the active penetration on the ground of commercial agriculture. In the international trade system, industrialized countries are in general physical net importers of natural resources from other world regions. For some material categories (like fossil fuels and basic metal products) a clear tendency towards an increasing physical trade surplus can be observed. The rising net-importers of the North are only possible, if the South more and more serves as a supplier of biophysical resources. In contrast to the situation in industrialized countries, resource extraction is growing faster than GDP in countries such as Brazil, Venezuela and Chile. This seems to support the hypothesis of world systems theory that economics of the capitalist core ensures access to natural resources from regions in the global periphery through international trade (Stefan Giljum & Nine Eisenmenger, 2003).

The displaced poor

The international economic environment directly influences the well-being of the poor. Falling commodity prices and protectionist policies in developed countries affect the employment and incomes of plantation workers and smallholders producing for export, particularly in countries relying heavily on a few agricultural commodities. Global inequality is both a necessary condition for and a result of the wealthy world’s exploitation of developing country resources. Both exports to and imports from the rich world have long been a cause of ecological decline in the less developed countries. They leave a trail of clear-felled forests, poisoned soils, eroded landscapes and over fished waters, and ultimately further exacerbate poverty (H.D. Kumar, 2001, pp.268-271.).

The natural habitat of the poor is again and again targeted by the international resource economy. The search for raw materials has been penetrating the remotest areas of continents and oceans, as more accessible sources have been tapped or exhausted. The age-old territories of indigenous people are also incorporated into the worldwide flow of resources, and their landscapes are degraded and desecrated. The history of colonization down to the global age is at the same time a history of land grabbing. From tea and sugarcane through cotton and eucalyptus trees to kiwi fruit and king prawns, farming systems are put in place to cover the tables of distant consumers. The resource conflict between subsistence and market economies is at the root of today’s struggles over the conversion of nature for plantations, aquaculture and water reservoirs. Even seeds or certain plants and animals varieties may have a price tag attached to them, now that patents protect property rights over genetically modified forms of life (Wolfgang, Sachs & Tilman Santerins, 2007, p.132.).
The South’s transitions towards free markets have eventually led to the process of ‘commodification of social life’, in which everything becomes nothing but a commodity. Under intense pressure from the international financial community, governments in the South are rapidly abandoning their role as service providers. By implementing stabilization programmes, southern regimes and countries are witnessing a general breakdown from social services. They shifted their priority from fulfilling popular demands to the removal of market barriers, which results in a significant loss of states distributive capability (Timothy M. Shaw & Fahimul Quadir, p.38-40.). With growing inability to meet public expectations, state-society relations became more antagonistic, thus changing the nature of development in south and marginalized people becoming more marginalized.

Rural poverty is created and perpetuated by several interlinked socio-economic aspects that are common to most developing countries. These are briefly as follows:

(1) Policies and institutional arrangements biased against the poor exclude them from the benefits of development, frustrate their productive potential, and accentuate the impact of other poverty processes.

(2) Persistence, in most of the developing world, of dualistic agrarian structures originating in colonial times.

Side by side with modern agriculture, millions of marginal farmers and herdsmen subsist far below the poverty line. This dualism severely limits their capacity to grow food and accumulate capital. They lack marketable surpluses, and incentives and opportunities to save and invest.

(3) Rapid population growth increases pressure on limited productive resources, social services, and employment as well as paradoxically creates labour shortages through migration to urban areas. The most obvious consequences of rapid population growth are that, even with relatively high rates of economic growth, improvements in living conditions are limited.

(4) Rural poverty, malnutrition, and undernutrition are closely linked to environmental degradation. Throughout the developing world, poor people in marginal areas are destroying natural resources in their struggle to keep their production systems sustainable (H.D. Kumar, 2001, pp.268-269.).

Ecological poverty and development

The livelihood struggles of grassroots actors who are caught in the clutches of ‘development’ figure prominently in literature. Ecologists describe the ‘tragedy of enclosure’ whereby poor farmers, pastoralists, shifting cultivators, fishers and hunter-gatherers were displaced by state-sponsored commercial
resource exploitation. Poor people and ethnic minorities are often victimised as a result of modern ‘development’. It is frequently believed that development is a unilinear phenomenon. There is only a single, clearly distinct trace of transformation that will change poor into rich. Fundamental to this is the accumulation of capital, so that attention gets focused on incomes and savings right at the outset of any attempt to analyse a country’s economic position. This focus on income and on economic poverty has very definite limitations. A fundamental flaw of these ‘development approaches’ is that they do not take into account the ecosystems in which economies are embedded. No doubt these approaches will not succeed in attaining sustainable growth in the long run.

The modest thinking that economic growth will create wealth and this will in turn ‘trickle down’ does not take account of the wealth that had already existed through long periods of history and that is now being destroyed in the process of creating new wealth (agricultural land, forests and common property resources as against goods that are manufactured at large) (Rajni, Kothari, 1993, pp.80-81). It is in this respect that Daniel W. Bromley (1991, p.130.) says that accumulation of economic surplus occurred as natural resources (or free raw materials) were extracted at minimum cost (minimum wages) and manufactured goods were sold at market value. The export structure of the developing countries is absolutely dominated by the natural resource sector either directly through minerals, timber, petroleum, or fish, or indirectly through the extraction of land and water resources. The global system is based on the fundamental division of labour between industrialized or centre economies of the First World and the underdeveloped or peripheral economies of the Third World. (Mohamed A. Mohamed, ‘Global ecologism and its Critics, Caroline M. Thomas & Peter Wilkin(eds.), p.135.). This will erode the existence of the institution of the state itself.

Most of the Third World’s poorest people live in rural areas, where biomass fuels are the main source of energy. They are used by both the poor and the rich alike. But the poor are hit hardest by the shortage of biomass. The biomass availability reflects the resources and socio-economic characteristics of particular localities and cannot be divorced from other aspects of resource managing and people’s lives. As an economic space, the natural habitat provides essential resources for both subsistence and market production. As a cultural space, it often provides the link between the local community and its ancestors and the transcendent world of its Gods. Major incursions into the natural space are therefore not only of ecological and economic significance but also have social consequences. They threaten the foundations of life for local communities. Then stresses and strains turn into injustice, as the people in question are threatened in their fundamental rights. Resource injustice throws up human rights issues and the basic question of democracy (Wolfgang, Sachs & Tilman Santerins, 2007, pp.132-33.).
Political ecologists start from the premise that environmental change is not a neutral process amenable to technical management. Rather, it has political sources, conditions and ramifications that impinge on existing socio-economic inequalities and political processes (Raymond L. Bryant & Sinead Bailey, 1997, p,28.). Capitalist mode of development leads to a generalization of commodity production. i.e., it makes production for sales, rather than production for self-consumption. In such a process the local community is reduced to a position of merely being workers in these enterprises. They learn neither management nor entrepreneurship. Such process of exclusion if continued, will lead to the local communities being confined to only some of the newly emerging classes, basically only to the lower levels of the working class, since even skilled workers could be brought in from outside(Dev, Nathan & N.S. Jodha, 2004, pp.274-81).

The basic problem that communities in a region face is ecological poverty rather than income or economic poverty. This ecological poverty is defined as ‘the lack of a healthy natural resource base that is needed for a human society’s survival and development’. The solution to it lies in recognising that ‘healthy lands and ecosystems’ when used sustainable, as they were for millennia, can provide all the wealth that is needed for healthy and dignified lives (Ratna, M. Sudarshan, 2000, p.193-94.).

Ecology, social development and decentralism

For human ecologists, politics, social change, greed, profit, self-actualization, ethics and philosophy are all aspects of the human engagement with the physical environment, and these factors must be incorporated into our understanding if we are to achieve a more sustainable use of the world. The quality of life must be synthesized with- and perhaps politically subordinated to- the quality of the environment (John W. Bennett (1990), ‘Ecosystems, Environmentalism, Resource Conservation and Anthropological Research’, Emilio F. Moran (ed.), p.437.). Thus ecology stresses the site specificity of the interchange between human material activity and nature. It opposes both the abstract valuation of nature made by capital and also the idea of central planning of production, and centralist approaches to global issues generally. The concepts of site specificity of ecology, local subsistence economy, communal self-help principles, and direct forms of democracy all seem to be highly congruent (Carolyn Merchant, 1994).

For James O’Connor ecology is associated with “localism”, which has always been opposed to the centralizing powers of capitalism. Ecology and localism in all their rich varieties have combined to oppose both capitalism and socialism. Localism uses the medium or vehicle of ecology and vice versa. They are both the content and context of one another. Decentralism is an expression of a certain type of relationship between human beings and nature- a relationship which stresses the integrity of local and regional ecosystems. Together ecology and localism constitute the most visible political and economic critique of capitalism (and state socialism) today (Carolyn Merchant, 1994). Hence we can say that the
heart of ecology is the interdependence of specific locations. In other words there is a need to situate local responses in regional, national and international contexts, that is, to sublet the “local” and the “central” into new political forms.

Research in political ecology promises a broadening of the scope of theoretical explanation of the political and economic issues that underlie the Third World’s environmental problems and livelihood issues, going beyond descriptive analysis. It considers how questions of power influence human-environmental interaction. Political-ecology research in the Third World has developed rapidly since the mid-1980s, in response to the perceived apolitical nature of the mainstream literature. Since this field helps in understanding the power relations as a central factor in the development of the Third World’s environmental problems, we use this as a suitable basis for our analysis. But this does not mean that this exclusively will be taken into consideration. Our further discussion regarding the livelihood of the poor grass roots actors will consider a sustainable livelihood approach which will be a later section of this chapter.

Political ecology versus political economy

In the political economy cluster, rural poverty is seen as an outcome of processes which concentrate capital and authority, although within this cluster there are many schools of thought and assertion. But in general, they agree that the processes which concentrate wealth and power operate at three levels: internally the richer countries have made and keep the poorer countries relatively poor through colonial exploitation and post-colonial unequal exchange, and at the same time benefit from the investment of capital and the expatriation of profits; internally, within the poorer countries, urban and especially urban middle class interests gain at the cost of rural interests, through shifts in the rural-urban terms of trade and through investment in urban industries and services; and within the rural areas themselves, the local elites-landowners, merchants, moneylenders and bureaucrats-consolidate their power and wealth. For their part, the rural poor stand to lose relatively and often absolutely through all these processes. Low prices internationally, low prices internally for rural produce, and the ability of the local elite to concentrate wealth in their hands, especially by buying land and appropriating common resources, combine with low wages to keep the poor deprived or to make them poorer (Robert, Chambers, 1983, p.37).

Political ecology brings together cultural ecology and political economy. It holds that radical changes in human social habits and practices are required in order to counter environmental degradation and achieve sustainable development. (Robbins, P., 2004, p.173). The field of Third World political ecology\textsuperscript{ii} traces its origins to the early 1970s, but it was not until the mid-1980s that the field took off. The theoretical influences on political ecology have shifted from neo-Marxism in the late 1970s and early
1980s to a post-Marxist mixture of social movements’ theory, new-Weberianism and household or feminist studies in the late 1980s and 1990s. Political ecologists thus explore the implications of scientific ‘forest policy’ in various settings, soil erosion and conservation discourses, the social construction of natural hazards, disasters and vulnerability etc. It is this work on sustainable or green development which perhaps best represents adopting this approach (Raymond L. Bryant & Sinead Bailey, 1997, p.21.). Broadly speaking the phrase ‘political ecology’ encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself (Raymond L. Bryant, 1997, p.9).

But it needs to be emphasized that there is no such thing as a solitary ‘best approach’; each position has distinctive demands. However, for most challenges it should be possible to accomplish goals in a sustainable way without resorting to draconian process. Environmental management can be centralized or decentralized, technocratic or appropriate/human based; sensitive to local needs (of people and environment) or insensitive. The level of activity is also diverse; environmental management may operate at:

- Local or even micro-level (involving individual stakeholders-farmers)
- Sectoral level (groups of villagers, farmers, or bodies)
- Regional level (watershed, river basin, island)
- State or national level
- Global level
- Special interest approach, which includes powerful groups, NGOs (Barow, C.J., 2006, p.174.).

**Sustainable livelihood**

Ongoing crises in both the ecological basis for survival and in the social and economic order may be recognized as the initiating factors that demand change in the world and in our ideas about it. But there has been a forced conjoining of these two starting points of analysis into what might be called a unified theory of sustainable development, because, by the mid-1980s, it had become amply clear that these things are related in the physical world. Poverty and injustice are causes of stress to ecosystems and impoverished environments undercut health and socioeconomic development. In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. It seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future (H.D. Kumar,
Michael Redclift (1987) considers that sustainable development is a concept which draws on two frequently opposed intellectual traditions: one concerned with the limits which nature presents to human beings, the other with the potential for human material development which is locked up in nature. Sustainable development was defined in the Brundtland Report as:

*Humanity has the ability to make development sustainable-to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.*

Jan-Erik, Lane (2006) considers that there are three pillars for sustainable development (viz) economic, social and environmental. Sustainable development will depend on how the conditions of the natural environment interact with the economic and social systems of the globe. Protecting the ecosystems of the Earth may involve relying less upon national governments and more upon local communities. For instance, indigenous people who live around the World’s tropical forests are often more effective than their national governments at conserving forests. Often poor countries are making the same levels of investments in conserving these areas as developing country governments. Even today some 370 million indigenous and local community people own and manage about one fifth of the World’s tropical forests.

Thus by giving importance to the participatory action of the local communities, Diane Warburton (1998) feels that sustainable development requires participatory action which has an identification with the democratic community because it depends on ‘the legitimacy and trust with which governments are perceived and the sense of citizenship which enables individuals to participate in civic society. For this reason, sustainable development almost certainly implies a renewal and rejuvenation of the democratic process.

It is through an understanding not only of the patterns of development and environment but also of the processes underlying these that the challenges and opportunities for sustainable development become clear. The definitions in table 1.1 will illustrate this:

For a large number of people resident in the rural areas, their basic needs in terms of both survival and quality of life is their immediate concern. Providing sustainable rural livelihoods is therefore an endeavour that needs immediate attention. For this to be attained these populations will have to be supported on what is often very fragile and hard surroundings.

**Livelihood security**

A combination of efforts aimed at tackling the triple issues of mounting poverty, deteriorating environment and the loss of local control over the basic natural resources is required for the rural poor to have a sustainable livelihood. For Jennifer A. Elliott (1994), livelihood is defined as adequate stocks and flows of food and cash to meet basic needs. The fig 1.2 illustrates a number of sources of food or
Table 1.1

Sustainable development: development that is likely to achieve lasting satisfaction of human needs and improvements of the quality of human life (Robert Allen, 1980).

In broad terms the concept of sustainable development encompasses;

- Help for the poor because they are left with no option other than to destroy their environment.
- The idea of self-reliant development, within natural resource constraints;
- The idea of cost-effective development using different economic criteria vis-à-vis the traditional approach; that is to say development should not degrade environment quality, nor should it reduce productivity in the long run.
- The great issues of health, appropriate technologies, food self-reliance, clean water and shelter for all;
- The notion that people-centred initiatives are needed; human beings, in other words, are the resources in the concept (Mustafa Tolba, 1987).

The sustainable society is one that lives within the self-perpetuating limits of its environment. That society….is not a “no-growth’ society…It is, rather, a society that recognises the limits of growth… and looks for alternative ways of growing (Coomer, J., 1979).

The term “sustainable development’ suggests that the lessons of ecology can, and should be applied to economic processes (Michael, Redclift, 1987).

In principle, such an optimal (sustainable growth) policy would seek to maintain an ‘acceptable’ rate of growth in per-capita real incomes without depleting the national capital asset stock or the natural environmental asset stock (T.K. Turner, 1988).


Household livelihood security is defined as adequate and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing and time for community participation and social integration). The risk of livelihood failure determines the level of vulnerability of a household to variations in income, food availability and health access. Livelihoods are secure when households have secure ownership to, or access to, resources.
Households combine their livelihood resources within the limits of their context and utilize their institutional connections to pursue a number of different livelihood strategies. To determine whether households are successful in pursuing their livelihood strategies, it is important to look at a number of outcome measures that capture their well-being. Nutritional status is often considered one of the best indicators for overall livelihood security. It captures multiple dimensions such as access to food, healthcare
and education. Other livelihood outcomes that should be measured include sustained access to basic resources and services (Timothy R. Frankenberger, Michael Drinkwater & Daniel Maxwell, 2000).

In the present study, livelihood profiles are derived for Wayanad through a composite analysis of:

- Livelihood resources- economic, natural, physical, human, social and political capital
- Livelihood outcomes- nutritional security, educational security, health security, environmental security, income security and social network security

Livelihood profile in this study is focussing on describing the conditions and status of the poorest and most vulnerable Paniya households in Wayanad. The study in a nutshell is as follows:

![Livelihood Profile Diagram]

The indigenous people

Indigenous people constitute about five percent of the world’s population and account for about 15 percent of the world’s poor. They form about 300 to 370 million people. They speak some 4000 languages. There are more than 5,000 different groups of indigenous people living in more than 70 countries. They make up about one third of the world’s 900 million extremely poor rural people. Even though they live in every region of the world, 70 percent of them live in Asia. These people suffer higher rates of poverty, landlessness, malnutrition and internal displacement than other members of society, and
they have lower levels of literacy and less access to health services. According to the IFAD report the Adivasis or the tribal people of India constitute only 8 percent of the total population of the country, but 40 percent of them are internally displaced. The Amazon river Basin is home to about 400 different indigenous groups. Two centuries ago indigenous people lived in most of the earth’s ecosystems. Today they have the legal right to use only 6 percent of the planet’s land and in many cases their rights are partial or unrecognized (Rural Poverty Portal).

**Legal context**

The right of the indigenous people to pursue their culture and have it protected by the government is acknowledged by international law. Since the 1980s, there has also been growing international recognition of the traditional knowledge of indigenous people and their crucial role as resource managers, when they are involved in the environmental decision-making process. There are also international instruments that establish that indigenous people have the right to be consulted in decisions affecting them. Their right to self-determination, self-government and land rights are also universally recognised (Johanna, Lindqvist, 2009, p.85.).

UNESCO in 2001 promulgated ‘Declaration on Cultural Diversity’ and in 2003 ‘Convention for the safeguarding of the Intangible Cultural Heritage’ of the indigenous people. Article 8(j) of the Convention on Biological Diversity affirmed indigenous peoples’ rights to their traditional knowledge and has led to continued protective efforts in this forum. The World Intellectual Property Organization also deliberated in detail on the protection of traditional knowledge and cultural expressions. Focussing on their requirements and aspirations, in 1989, the International Labour Organization (ILO) promulgated the Convention concerning indigenous people in independent countries, (ILO Convention No. 169). This treaty has played an important role in identifying and codifying the rights of indigenous people. On 16th July, 2009 it has been ratified by only 20 countries. But this number includes virtually all of the Latin American countries with significant indigenous populations.

For a global comprehensive, inclusive and integrated perspective to address all concerns of indigenous populace, United Nations formulated the United Nation’s Declaration on the ‘Rights of Indigenous Peoples’. Article 25 of the Declaration emphasizes their “distinctive spiritual relationship” with their lands, and Article 26 affirms their “rights to the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired” (Section 2). There are also rights to the improvements of their social and economic conditions (Articles 17, 21, 22 and 24); rights to development (Article 23) and international cooperation (Articles 36, 39, 41 and 42); treaty rights (Article 37) as well as certain rights of redressal (Articles 8(2), 28) (Siegfried, Wiessner, 2009).
Conclusion

Based on the above discussion, the researcher has come up with the broad position on the relationship between development, ecology and livelihood issues of the third world poor. The relations that emerged are mainly three fold; between ecology and development, between development and livelihood and between ecology and livelihood. There is no doubt that the present dominant model of development has resulted in the existing state of poverty and increased erosion of the environment through the proliferation of market economy, increase in deforestation, erosion of soil, pollution and shortage of water. This has resulted only in the accumulation of wealth for some people and poverty for the others. Finally, in a very general sense we can say that environment is no doubt being destroyed and that it will result in the wiping out of life forms from the face of this planet.

In summary, the researcher wishes to state that having analyzed different theoretical perspectives, the study is borrowing various elements from various perspectives and combining them in a way that fits into the framework of this study on the tribal livelihood in Wayanad. Defined in disagreement with centralism, localism calls for a greater voice of ordinary rural poor in decisions that affect their lives. Environmentalism calls for greater attention to the rights of nature as well as for sustainable livelihoods. These connections between environmentalism on one hand and sustainability on the other are made overt in the study.

References

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Quality of life of the poor in the Third World countries usually means mere survival.

Political ecology has its origins in the 1950s in the writings of Wallerstein and Gundir Frank. It has been defined as the study of the relationship between society and nature, and as the application of ecology to politics and study of political competition for control of natural resources. It is an interdisciplinary area of research, which connects politics and economy to problems of environmental control and ecological change. See also Robbins, P., (2004), *Political Ecology: A Critical Introduction*, Blackwell, Oxford, p.173.

In Malawi, the deregulation of agricultural markets required under structural adjustment programmes in the early 1980s has led to decreased subsistence security for the estimated 35 per cent of the rural population who are smallholders currently operating less than 0.7 hectares. In particular, for those in remote areas, private trading (their only option with the closure of marketing boards and depots) is unprofitable due to operating costs and the distance from storage facilities. Many people have been forced to sell their labour for food at the cost of not being able to work on their own smallholdings at critical points in the agricultural calendar.

In Zimbabwe, retrenchments from industry are causing people to return to their traditional ‘homes’ in the Communal Areas in an attempt to making a living in agriculture. The resultant population pressure in these already degraded areas is leading to further subdivision of lands and problems for young people in accessing land for livelihood.

In China, the current construction of the Three Gorges dam threatens the displacement of more than a million rural people from their lands and homes.

In Sudan, salination within the Gezira irrigation scheme has led to water supply problems and the loss of lands for cultivation, particularly amongst small holders.

In Thailand, the very rapid expansion of golf course construction has led to substantial loss of agricultural area and water shortages. In 1994, small-scale farmers were prevented from growing a second rice crop, through government restriction on water supplies and consumption. Despite this, golf courses were able to continue to pump water from reservoirs.

In India, outside the fast-growing regions of the north, unemployment in rural areas has risen with the adoption of the green revolution, owing mainly to the cessation of a million petty tenancies. Per capita food output has been falling in most of the country and one third of the total agricultural area is now declared to be drought-prone.

In Kenya, on the banks of Lake Victoria, the livelihoods of fishing communities are becoming increasingly compromised by the growth of water hyacinths which inundate the shoreline and prevent the launch of fishing boats. Fertilizer and pesticide use on neighboring agricultural lands is a major factor in the eutrophication of the lake and the rise of algal blooms. Further loss of control over the resources essential to the livelihoods of local fishing communities is also occurring with the increased costs of boats, nets and labour, in part prompted by the rise of absentee boat owners, many of whom are Nairobi based business people and politicians.

In south-western districts of Uganda, premature deaths from Aids have led to a shortage of agricultural labour. There is evidence of households no longer growing the traditional labour-intensive crop of matoke (plantain bananas), but switching to cassava and potatoes which had only been grown as safety stocks in case of famine. The social necessity of spending several days at each funeral further limits the availability of farm labour. Nutritional standards are falling and people now sell food to pay for medicines for Aids.

In Guyana, economic liberalism has led to 80 per cent of the country’s state forests being leased out to logging concerns, largely foreign-owned. In many cases, logging concessions have been given with scant regard for the pre-existing claims and titles in access to traditional foods, shelter and other forest resources of local communities. Even crops have been bulldozed. See also Jennifer A. Elliott, *An Introduction to Sustainable Development*, Routledge, London, pp.158-59.