The Semi-Arid Tropics (SAT) are amongst the world’s poorest and most ‘fragile’ ecosystems (Singh and Joshi 1979; Jodha 1995; ICRISAT 1997), with ‘Complex Diverse and Risk-prone (CDR) agriculture’ (Toulmin and Chambers 1990; Pretty 1995; Mearns 1995). The human ecology perspective (Rambo 1981; Cuc et al 1990; 1985; 1987; AME 1989; Alteiri 1987; Gadgil and Thaper 1990; Haverkort et al 1991; Reijnities et al 1992; Wim Hiemstra et al 1992; Alexandratos 1993) and an eco-regional focus (NBSSLUP 1992; 1995; ICRISAT 1997), is prioritised for micro level studies (Singh and Joshi 1979) in such regions. There exists an array of uncertainties, fluxes and transience, within the farming communities, in the Deccan plateau SAT region (Put and Von Dijk 1989), and also in the peri-urban fringe-areas (Peemans 1978; Reemers 1986; Tacoli 1998a) summed up as ‘lacedu’ (Chambers 1997).

Given the linguistic diversity and the confluence of the north and south cultures, in the regions of the study area, inbalances set in, which alienate the locals from the influx of the newer settlers. The socio-political complexity and conditions of uncertainty—‘the daily survival crisis’, of the marginalized is yet another remainder of the norm, rather than the exception. This is aptly summed up in the context of ‘the contemporary Indian society’ as “Rampant corruption, political interference, caste-based reservations, growing poverty, bureaucracy, unemployment, collapse of the educational system, delayed justice, rising prices, poor public health, public apathy, unconcern, vanishing forest cover, debt trap and a lot more....” (Nandy 1990)

Non equilibrium ecology (May 1986; Clarke et al 1995; Capra 1996; Leach et al 1997; 1997d; Seth 1998) with diverse, dynamic, differentiated ramifications is a realistic perception in contemporary ecology of developing countries.

The human ecology perspective emphasizes the focus on interactive relationships, in the realms of socio-ecology; of energy, material and information flows in an ecosetting; it has goals towards identifying, understanding and characterizing interactions, between systems and recognizing dialectical relationships (Rambo et al 1982; Anil Gupta 1984; Marten 1986; Reckers 1997).

The human ecology provides the ‘holism’ needed to comprehend complexities, intricate co-adjustments, flexibility, adaptations to uncertainties, fluctuations, options towards newer opportunities, needed to explore in terms of ecological and social realities of contemporary agricultural development, in South East Asia (Rambo 1981; Marten and Saltman 1986).
The ‘systems approach’ (Ikerd 1993; Clark et al 1995) is implicated towards analysing, relating, integrating links, *(which are often viewed as not interrelated)* but allows for flexibility in situations, for the search of pathways, interventions, perturbations, and participations, in time, space, flow and decision-making (Rambo 1982).

The rural livelihoods, in Indian villages are strongly dependent, on the human and animal or draught power energy-use (Makhijani 1975; Revelle 1976; Mitchel 1979). The links between energy, agriculture and ecosystems are essentially a local phenomenon (Leach 1987). The economics of livelihood, under varied conditions, are dependent on food-fuelwood-fodder and off-farm activities, indicative of the coping strategies of the farmers, in the SAT region (Anil Gupta 1984; Jodha 1995; Chen 1991).

Tracking change and perspectives, in the social reality of SAT peri-urban interface, indicates that risk and uncertainty are all pervasive in dry land farming systems and CDR agriculture (Put and van Dijk 1989). To make a living, in the semiarid environments, farmers respond to a wide range of spatial and temporal variability or conditions, as they emerge and cannot plan with any certainty in advance (Mombeshora et al 1995). Coping with drought, implies that research expand their focus to learn about complex adaptations, structural adjustments, deagriculturisation (Cacerus and Woodhouse 1995), the historical ecology (Gadgil and Guha 1995) and the participatory approaches to track changes (Dubbeling and Reijntjes 1996; Abbott and Guijt 1998).

The *Farming system* in an unique farming enterprise and focuses on interdependencies and interactions between house holds, gender and livelihoods; recognizes linkages of the subsystems, integrates farmers preference, capabilities and attitudes (Shaner et al 1992). It is suggested in the ‘*Farmer First*’ (Chambers et al 1989) and ‘*Beyond Farmer First*’ (Scoones and Thompson 1994) approaches.

*‘Farmers live in a diverse, unpredictable environment, where components (energy use, food use) are influenced by multiple factors, most of which are not known or understood by researchers, thus the answer to a problem, may not be simple’* (ICRISAT 1994).

The *Food-Energy Nexus* (FEN) is premised on the ‘entitlement’ approach, articulated by Amartya Sen, and the concepts of ecodevelopment (Sachs and Silk 1988). FEN is a convenient entry point into human ecology studies of communities (Wisner 1986). FEN seeks towards better understanding of the complex interactions between food and energy, in all of its social, economic, ecological and cultural settings (Wade 1987). It is predicted on the idea, that positive synergies can be developed, by addressing simultaneously to the
issues of production and access of food, fuel and building around these twin objectives towards self-reliant developmental strategies. Collaborative links with Non-Government Organisations (NGOs) and community based development are envisaged (Sachs and Silk 1988). The social implications of FEN, in a potential chosen urban-rural territory (locale-specific, microperspective) and complementarities between communities, organised associations are prepositions, towards the search for integrated, holistic developmental strategies, centered around FEN (Peemans 1987).

The Rio Declaration, Agenda 21 of 1992, has the preamble: Principle 1 that 'Human beings are at the centre of concerns in sustainable development'. Human development and environment and not economic development perse, are at the centre of the picture of agriculture. The core building blocks are a deep understanding of the human condition at farm/household level, the innovations that capture agroecological opportunities and accommodate constraints (UNDP 1994).

The consensus in the wake of the United Nations Conference on Environment and Development (UNCED) suggests that 'Sustainable Development' should be based on local level solutions, derived from community initiatives (Ghai and Vivian 1992; Barrini-Feyerabend 1997).

Communities are heterogenous, and in vogue in the Indian context (Ahluwalai 1997). They have multivariants livelihood strategies, under CDR environments and their livelihoods and in the context of environmental change can be addressed in terms of 'entitlements' (Mearns 1995). Under non-equilibrium ecology, 'institutions' emphasizing the meaning regularized patterns of human attitudes and behavior (Leach et al 1997d) are central to approaches to CBSD (Environmental Entitlements Research Team 1997).

Community-based food self-reliance in Third world cities, as case-studies, premised on FEN, offers as 'initiatives' into newer pathways of ecodevelopment (Wade 1987). Indigenous solutions, to micro-realities, are often forthcoming when the diverse and adaptive food-energy strategies of ordinary people and participatory research methods, as well as newer forms of grass-root organizations can tap and mobilises the knowledge and local skills. Participatory research is implicated to yield appropriate technical packages that reflect local realities needs of poor farmers and their potential (of local knowledge and skills) in the context of microenvironment (Wisner 1988). Participatory approaches are complex interventions, with flexible methodologies and are increasingly seen as a way forward for agricultural development with the focus on human relationships than technical and formal issues- 'propelling change from bottom-up' (Hagmann et al 1997).