

In Asia
High Summit
(May 2000) ①

POLICIES FOR SUSTAINABLE MOUNTAIN DEVELOPMENT: AN INDICATIVE FRAMEWORK AND EVIDENCE

N.S. Jodha^a

ABSTRACT

This paper presents an indicative framework for sustainable mountain development understanding the latter as a process of positive change, enhancing flows of products and services to the society without depleting the resource base generating the said flows. The paper looks at the policy-programme interventions in HK-H countries directed to such change-process in mountain areas. The central focus of the paper is on, (i) mountain specific conditions such as high degree of inaccessibility, fragility, diversity etc. and the way they help or hinder the application of the above mentioned conditions associated with sustainable development as a process indicated above; (ii) and how development interventions in HK-H recognize and respond to the mountain conditions obstructing or facilitating sustainable development process. A quick and broad look at the development interventions shows a mixed picture. In general mountain development is attempted without mountain perspective i.e. disregard of imperatives of mountain conditions. Though in several contexts new and more positive trends are emerging, which may reorient the development processes in mountain areas of HK-H region. They should be promoted and mainstreamed.

PREVIEWING THE ISSUES

Borrowing from the on-going discourse on the subject (but without getting into the finer definitions and their elaborations), the concept of sustainable development could be understood as a process of positive change ensuring, undiminished and (if required) enhanced flow of usable goods and services to meet the society's present and future needs, without depleting the natural and social foundations or sources that generate the above flows. The sustainable development (or sustainability as a process) is not only a dynamic phenomenon but it is a systemic attribute i.e. a feature of an economy or a country, or a region, or a sector, etc. viewed as a system, with links with other systems, such as mountain economy connected with plain economies.

Historically, the countries or communities, without using the term sustainable development, have tried to enhance or maintain the aforesaid flows (often with changes in their composition and quality), on their own or through external links. The basic functional attributes of the approaches to enhance or maintain flows of goods and services, constitute an important context for assessing the sustainability of the above flows. These historically emphasized attributes included: resource use intensification and increased input absorption by their productive resource base; creation or availability of required infrastructure to facilitate flows; enhanced level and extent of involved activities to secure benefit of scale; ability to generate surplus for trade and reinvestment; have effective external links for trading surpluses as well as learning and replicating relevant external experiences and if needed inducing external participation in promoting local flows.

However, these (flow-promoting) conditions are necessary but not sufficient to ensure sustainability of flows, unless they are accompanied by undiminished potential and health of the resources generating the above flows. Accordingly, unless managed carefully, the conditions promoting flows may cease to exist (e.g. where resource use intensification exceeds the usage capacity of resources or where external links, due to various reasons, become unequal and exploitative). Thus the existence of flow promoting conditions and their continuity through health and stability of underlying resources are key to sustainable development process.

^a Policy Analyst, ICIMOD, Kathmandu, Nepal

We use this simple but operationally useful formulation to look at the issues of sustainable development and related policies in mountain areas. Accordingly, first we look at the key bio-physical features of mountain areas (we call them mountain specificities) such as inaccessibility (or limited accessibility), fragility, marginality, diversity etc. as summarized under Table 1. These features or their interlinked imperatives shape the pace and pattern of change as well as influence the relevance and effectiveness of any intervention (e.g. for sustainable development) in mountain areas. The implications of mountain specificities (and their imperatives and implications) vis-à-vis the historical conditions associated with enhanced production flows in most parts of the world are summarized under Table 2. The key message of Table 2 is that the imperatives of mountain specificities, obstruct the outright application of the generalized model of economic performance enhancement, described above. Hence, the development interventions in mountain areas to promote sustainable development have to be in keeping with the mountain specificities. How far this approach has been followed is examined in this paper. This has been attempted by relating different development interventions in different HK-H countries to the imperatives of specific mountain conditions.

Role of Mountain Conditions

The above mentioned mountain specificities (e.g. fragility, marginality, inaccessibility, diversity, niche etc.), their causes, implications and imperatives for interventions etc. are summarised under Table 1. The table is quite detailed, hence not elaborated further. The indicative role of these mountain specificities in helping or hindering mountain development with or without chances of resource depletion is summarized under Table 2; which is quite self explanatory.

For example, resource use intensification including increased use of productivity raising inputs is very crucial for enhanced product flows. But fragility and marginality (implying low pay off to input use) do not encourage such possibilities in mountain areas. The socio-economic marginality (manifested through poverty) also restricts the people's ability to acquire external inputs, generate and invest surplus, and take risks associated with costly resource-intensive productive measures. Limited accessibility and high cost of mobility further restrict any efforts for resource use intensification through import of external inputs and technologies. Fragility also constrains the building of access-improving infrastructure. The consequent inaccessibility-imposed isolation or semi-closedness not only deprive the mountain areas from gains of trade but makes the infrastructure and development logistics extremely difficult and costly.

However, in contrast to the above development-constraining features, the other mountain specificities namely, diversity (if properly used) and niche as well as human adaptation mechanisms (including indigenous knowledge systems), do have potential through which mountain areas can satisfy some of the conditions historically associated with higher economic performance as discussed above. If properly understood and harnessed they can help in resource use intensification (without degrading the resources); can help to generate surplus of tradeable products/services and can help in gainfully linking mountain economy with external systems. However, the development promoting potential of these conditions largely remain untapped due to overshadowing-impact of the constraint - generating mountain specificities. They make most of the opportunities and potentialities (as well as problems) invisible to the mainstream policy makers. This "invisibility" is not only responsible for the policy makers' insensitivity and indifference towards mountain areas but also permits a number of activities which go

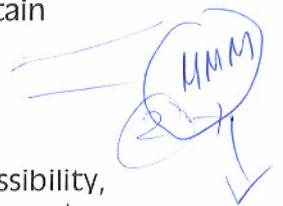


Table 1: Mountain specificities and their imperatives

Inaccessibility (Limited accessibility)	
a) Product of:	Slope, altitude, terrain conditions, seasonal hazards, etc. (and lack of prior investment to overcome them)
b) Manifestations and Implications (i.e. circumstances limiting/obstructing flows of goods/services)	Isolation, semi-closedness, poor mobility, high cost of mobility, infrastructural logistics, support systems, and production/exchange activities Limited access to, and dependability of, external support (products, inputs, resources, experiences) Detrimental to harnessing niche and gains from trade Invisibility of problems/potentials to outsiders
c) Imperatives (i.e. appropriate responses, approaches to sustain/enhance flows of goods/services)	Local resource centred, diversified production/consumption activities fitting to spatial and temporal opportunities Local resource regeneration, protection, regulated use; recycling Focus on low-weight/volume and high value products for trade Nature and scale of operations as permitted by the degree of mobility and local resource availability Development interventions with a focus on: Decentralisation and local participation : inaccessibility reduction with sensitivity to other mountain conditions (e.g., fragility), and changed development norms and investment yardsticks
Fragility and Marginality	
a) Product of:	Combined operations of slope/altitude, and geologic, edaphic and biotic factors; biophysical constraints create socio-economic marginality
b) Manifestations and Implications (i.e. circumstances limiting/obstructing flows of goods/services)	Resources highly vulnerable to rapid degradation, unsuited to high intensity/costly input uses; low carrying capacity Limited, low productivity, high risk production options; little surplus generation or reinvestment, subsistence orientation, preventing high cost, high productivity options; disregard by 'mainstream' societies High overhead cost of resource use, infrastructural development; under-investment People's low resource capacity preventing use of high cost, high productivity options; disregard by 'mainstream' societies
c) Imperatives (i.e. appropriate responses, approaches to sustain/enhance flows of goods/services))	Resource upgrading and usage regulation (e.g., by terracing) Focus on low intensity, high stability land uses Diversification involving a mix of high and low intensity land uses, a mix of production and conservation measures with, low cost Local resource regeneration, recycling, regulated use, dependence on nature's regenerative processes, and collective measures Different norms for investment to take care of high overhead costs Focus on vulnerable areas, and people, and their demarginalisation
Diversity & Niche	
a) Product of:	Interactions between different factors ranging from elevation and altitude to soils and climatic conditions, as well as biological and human adaptations to them, uniqueness of environment, resources and human responses
b) Manifestations and Implications (i.e. potential for activities enhancing flows of good/services)	A basis for spatially and temporally diversified and interlinked activities, strong location specificity of production and consumption activities often limited scope for large scale operation Potential for products, services, activities with comparative advantages
c) Imperatives (i.e. appropriate responses, approaches to harness opportunities enhancing flows of good/services)	Small scale, interlinked diversified production/consumption activities differentiated temporally and spatially for fuller use of environment Need diversified and decentralised interventions to match diversity

Source: Table adapted from Jodha (1997), and is based on evidence and inferences from over 60 studies referred by Jodha and Shrestha (1994).

50

Table 2: Mountain specificities and the conditions associated with high economic performance of activities/sectors/regions

Mountain specificities-generated constraints/opportunities	Conditions associated with high performance agriculture						
	Production enhancing factors				Abilities to link with wider systems		
	Resource-use intensity	Input absorption capacity	Infrastructure	Scale economies	Surplus generation/trade	Replicating external experiences (tech)	Attracting external attention
Limited Accessibility: Distance, semi-closedness, high cost of mobility and operational logistics, low dependability of external support, or supplies	(-) ^a	(-)	(-)	(-)	(-)	(-)	(-)
Fragility: Vulnerable to degradation with intensity of use, limited low productivity/pay-off options	(-)	(-)	(-)		(-)	(-)	(-)
Marginality: Limited, low pay-off options; resource scarcities and uncertainties, cut off from the 'mainstream'		(-)	(-)	(-)	(-)	(-)	(-)
Diversity: High location specificity, potential for temporally and spatially inter-linked diversified products/activities	(+) ^b	(+)		(-)	(+)	(-)	(-)
Niche: Potential for numerous, unique products/ activities requiring capacities to harness them	(+)	(+)		(+)	(+)	(-)	(+)
Human adaptation mechanisms: traditional resource management practices-folk agronomy, diversification, recycling, demand rationing, etc.	(+)	(+)		(-)		(+)	(-)

Source: Table adapted from Jodha (1997).

Note: 'a' and 'b' respectively indicate very low and higher chances of high performance conditions satisfied due to mountain specificities.

beyond the usage capacities of resources causing their degradation. Thus in mountain areas the chances of sustainable development implying enhanced flows of goods and services without depleting the resources are quite limited, unless development efforts are evolved in keeping with the imperatives of mountain specificities.

In the light of the above, it would not be wrong to say that the essence of policies and programme (manifested by different development interventions) for sustainable mountain development would amount to the former's sensitivity and consideration of mountain specificities and their imperatives while designing and implementing different development interventions, ranging from norms for priority fixation and resource allocation to on-ground programmes dealing with various sectors and areas (Ives et.al. 1997). To be relevant and effective, these policy-programmes will have to promote development processes based on two-way adaptation strategies i.e. adapting interventions (their designs and implementation) to specific and diverse mountain conditions on the one hand carefully modifying and adapting mountain conditions to development needs and goals.

However, before we comment on the development interventions and approaches vis-à-vis mountain specificities in the Hindu Kush-Himalayan (HK-H) countries, it will be helpful to elaborate on the rationale of above mentioned two-way adaptation strategies for sustainable development. For this we allude to traditional community-evolved approaches and processes to use mountain resources with out depleting them. This may help in searching appropriate indicative approaches and supportive policies, for sustainable development of mountain areas.

Two-way Adaptation Approach to Address Mountain Specificities

Neither the production constraining conditions of mountain areas nor their implications for resource use were unknown to mountain communities in the past. The only major difference between the past and the present day situations relates approaches to the resource use systems. In the past due to the factors such as relative isolation, almost total dependence of communities on local resources (with all the above mentioned limitations, summarized by Table 1), and the first hand experience of the potential consequences of ignoring these limitations, the communities, through trials and errors, had evolved a two way adaptation approaches i.e. (i) adapting demands to what natural resources could safely offer and (ii) wherever possible amending and adapting resources (e.g. by terracing the slopes, water harvesting for irrigation or evolving conservation oriented production practices etc.) to meet the society's needs. Due to informally controlled low demand on resources and limited capacities and means to extract the resources, the production systems, (in subsistence oriented, low population contexts), were broadly sustainable, though without any formal concepts and policies to guide the process. However, in the present day context, with the increased physical, administrative and economic integration of (hitherto isolated, semi-closed) mountain areas, the situation gradually changed. The resource use systems became demand-driven (rather than governed by supply limitations), internal and external demands as well as increased resource-extraction capacities and means, exerted unprecedented pressure on mountain resources. The local communities' reduced crucial dependence on local resource led to disintegration of their collective stake in resource upkeep; the replacement of their informal resource related arrangements as well as autonomy by the formal, external interventions further accentuated the decline of traditional informal approaches to sustainable resource use systems (Jodha 1998, Bjonness 1983, Guillet 1983, Jochim 1981).

An important part of this integration has been the initiation and growth of formal arrangements including policy-programme interventions in mountain areas. These arrangements in terms of their orientation and design have not only been externally rooted but have marginalized or displaced the traditional arrangements which were more directly focused on imperatives of mountain conditions. In other words, the new interventions rarely have had sufficient operational understanding and sensitivity to specific situation of mountain areas (Jodha et.al. 1992).

The purpose of the above comments is neither to romanticize the traditional arrangements nor to minimize the importance and benefits of the above mentioned "integration". The traditional arrangements evolved in the low population-subsistence context have lost part of their efficacy in the changed situation but their rationale is still usable. Similarly the increased integration of mountain areas with external world has brought several gains to mountain areas, but it has largely failed to orient external links and interventions towards imperatives of mountain specificities. There are several historical and institutional reasons for the same, and many of them are products of the mountain specificities themselves (e.g. marginality and inaccessibility reducing voice of mountain communities in policy processes). Nevertheless, a major consequence of the above phenomenon has been the efforts towards mountain development without mountain perspective. This has resulted in to coexistence of increased development interventions specially during the recent decades, and the persistent state of under development (forget sustainable development) in most parts of HKH region. In fact even a glance through the changes during last 50 years or so suggests the emergence of several indicators of unsustainability in different areas of HKH region. Table 3, summarises some of them, which hardly need elaboration.

An Indicative Framework to Identify and Assess Policies

The above discussion sets the scene for examining the policy-programme issues and processes in mountain areas in HK-H countries. Accordingly, one can look at the orientation, design and implementation of various interventions in mountain areas vis-à-vis the imperatives of mountain specificities and to understand their consequences in terms of sustainability issues. A simple way to do this could be to juxtapose the key attributes of development intervention and the details (imperatives of mountain specificities) summarized under Table 1. However, such exercise is constrained by a lack of usable details on development interventions to facilitate one to one comparison of the situations. Hence we plan to have a broad look at the selective policy-programme interventions in HK-H countries to assess the extent and the way in which they address or ignore the imperatives of mountain conditions. However, while attempting this too, one should be cautioned about some limitations of such an exercise.

For want of readily usable relevant information at required scales; and high degree of intra – mountain diversities, what we discuss is a broad description of indicative situations rather than detailed and critically examined information. Thus the focus of this discussion is on reflecting the broad orientations, processes and consequences of policy-programme interventions with possible situation specific exceptions. The broad details are summarised under Table 4 with six parts covering the contexts of six mountain specificities. They are based on observations and information from scattered literature and studies on mountain areas though not directly and specifically focused on the approach and concerns of this paper.

Table 3: Negative changes as indicators of emerging unsustainability of agriculture/current resource-use systems in mountain areas

Visibility Aspects of Change	Change related to ^a		
	Resource base	Production flows	Resource-use management practices/options
Directly visible changes	Increased landslides and other forms of land degradation; abandoned terraces; per capita reduced availability and fragmentation of land; changed botanical composition of forest/pasture, reduced bio-diversity, reduced water flows for irrigation, domestic uses, and grinding mills	Prolonged negative trend in crop/livestock yields, etc.; increased input need per unit of production; increased time and distance involved in food, fodder, fuel gathering; reduced capacity and period of grinding/saw mills operated on water flow; lower per capita availability of biomass, and range of agricultural products	Reduced extent of following, crop rotation, intercropping, diversified resource-management practices; extension of cropping to steep slopes replacement of social sanctions for resource use by legal measures; unbalanced and high intensity of input use, dependence on subsidies and external inputs
Changes concealed by responses to change	Substitution : of cattle by sheep/goat; deep-rooted crops by shallow-rooted crops; shift to non-local inputs; choice for inferior options; substitution of water flow by fossil fuel in grinding mills; or manure by chemical fertilisers	Increased seasonal migration; introduction of externally supported public distribution systems (food, inputs); intensive cash cropping on limited areas; additional production by using marginal areas	Shifts in cropping pattern and composition of livestock; reduced diversity, increased specialisation in mono-cropping; promotion of policies/programmes with successful record outside, without required adaptation
Development interventions, i.e., processes with potentially negative consequences ^b	New systems without linkages to other diversified activities and regenerative processes; generating excessive dependence on external resource (fertiliser/ pesticide-based technologies, subsidies); ignoring traditional adaptation experiences (new irrigation structure); programmes focussed mainly on resource extraction	Agricultural measures directed to short-term quick results; primarily product-centred as against resource-centred approaches to development, service-centred activities (e.g., tourism) with negative side effects; focus on food self-sufficiency ignoring environmental stability/carrying capacity	Indifference of programme and policies to mountain specificities; focus on short-term gains; top-down centralised focus; excessive and crucial dependence on external resources and advice ignoring self-help and traditional knowledge; generating permanent dependence on subsidies and charity

a Most of the changes are interrelated and could fit in to more than one column

b. changes under this category differ from the previous two categories, in the sense that they are yet to take place, and their potential emergence could be understood by examining the involved resource-use processes, in relation to specific mountain characteristics. Thus they represent the 'process' dimension rather than the 'consequence' dimension of unsustainability.

Source: Table adapted from Jodha and Shrestha (1994), is based on data or description from over 50 studies.

The structure of our presentation or assessment approach communicated mainly through Table 4, is as follows: (A) focus on individual mountain specificity (and wherever relevant its different dimensions (e.g. marginality as a physical as well as a social phenomenon); (B) its recognition or disregard by different interventions in HK-H countries, reflected by, (i) general pattern of orientation and attributes of interventions in the past and present, (ii) emerging new trends; (C) the sustainability related implications or consequences of (B) in terms of the components of a sustainable development process elaborated earlier, namely, (i) enhanced flows of good/services or range and quality of options, and (ii) impacts on resource base e.g. its depletion or regeneration with enhanced flows. Finally, for want of readily available information (and its relevance in specific country context) our focus would be selective and not covering all HK-H countries in every respect.

The Indicative Evidence and Inferences

The details under Table 4 (A-F) are quite general but fairly self explanatory to need elaborations. Hence we do not comments on individual parts of Table 4. However, based on their synthesis, we can present major highlights and inferences relating to development interventions in mountain areas of the HK-H countries.

The bulk of the development issues, aspects and interventions are (including their sustainability related consequences) could be associated with three broad, interlinked contexts namely: (1) recognition and responses to primacy of bio-physical conditions (and human responses to them) in mountain areas; (2) the place and importance accorded to mountain areas/concerns in the mainstream national policies; and (3) attention to the nature and functioning of mountain areas' external links. In fact all the positive or negative aspects of interventions and their consequences can be put under one or the other contexts mentioned above. We briefly comment on the same to reflect on development policy-programmes interventions in HK-H countries.

1. Recognition and Responses to the Primacy of Bio-physical Conditions

As alluded to earlier, the first and foremost factor affecting the relevance and effectiveness of policies for sustainable mountain development is their recognition and responses to the context specific mountain specificities, which in the final analysis determine the pace and pattern of changes intended through development interventions (Rieder and Wyder 1997). The said recognition and response to imperatives on mountain specificities can be reflected through various features of development programmes ranging from their specific priorities, designs, implementation strategies, performance assessment norms etc. as affected by specific needs, constraints, and potentialities of mountain areas, and through the manner in which they differ from the interventions in plains. To illustrate the point a few concrete situations/features can be listed. Their presence can serve as indicators of sensitivity of policies toward mountain specific conditions and thereby their concern for sustainable development.

- (i) In keeping with the complex of constraints (due to problems of access, fragility, marginality, diversity etc.), to development efforts, the guiding considerations such as investment norms, feasibility and performance yard sticks etc. employed in mountain context will have to be different from those in the plains (e.g. different norm for per km. cost of road construction; criteria of population and number of villages per service-centre; rate of premium for crop insurance; basis for subsidies, components of poverty index etc.).

Table 4-A: Indicative Details of Development Interventions in HK-H Countries with Reference to Inaccessibility

(A) Inaccessibility as a Policy-Programme Context	(B) Broad Attributes and Orientation of Interventions vis-à-vis (A)	(C) Sustainability Related Consequences/Implications of (B)
<p>(Dimensions)</p> <p>(a) External links</p> <p>(b) Internal Isolation/distances</p> <p>(c) Means of communication, movement</p> <p>(d) Issues of social-access</p>	<p>Dominant Pattern</p> <ol style="list-style-type: none"> 1. Road construction (in all HK-H countries) with primary focus on harnessing niche resources (e.g. hydro-power, irrigation, minerals, timber, tourism). 2. Border security roads (in China, India, and Pakistan). 3. Major national highways – as national needs. 4. General disregard of areas not satisfying (1 to 3) and with difficult terrain and scattered small populations. 5. Limited attention to alternatives (ropeways, improved donkey tracks, etc.), 6. Little concern for side-effect on fragile slopes; technologies for mountain roads. <p>Emerging Trends</p> <ol style="list-style-type: none"> 7. Rising concern for 'green roads'; slope stabilization and technologies suited for mountain terrains (in Nepal, China). 8. Community pressures and emerging market needs (due to globalisation) for better communication and link roads (with donor support in smaller countries). 9. Initiatives promoting internet-connectivity in various parts of all countries. <p>Key Constraints</p> <ol style="list-style-type: none"> 10. Lack of appropriate technologies; high costs and lack of resources, and environmental concerns. 	<p>Enhanced Flows, Range/ Quality of Options</p> <ol style="list-style-type: none"> (i) Positive side effects (of 1-3) only where ancillary investments/ facilities available (e.g. Himachal Pradesh, India; Karakoram area in Pakistan; Hunnan Province China; major valley areas in other countries). (ii) Persistent loss of potential opportunities/options due to (4). (iii) High expectation from (7-9) in enhancing environmentally safe options and opportunities. (iv) Rising economic inequalities between accessible and poorly accessible areas. (v) Persistent unequal highland-lowland economic links due to (4 & 1). <p>B. Resource Depletion</p> <ol style="list-style-type: none"> (vi) Frequent and increased landslides, disruptions etc. in most cases due to (6). (vii) Over-extraction of niche resources due to (1).

Note: Table 4 (A to F) based on observations and information culled out from various studies carried out by ICIMOD and other agencies as well as governments' planning documents and project reports.

Table 4-B: Indicative Details of Development Interventions in HK-H Countries with Reference to Fragility

(A) Fragility as a Policy-programme Context	(B) Broad Attributes and Orientation of Interventions vis-à-vis (A)	(C) Sustainability Related Consequences/Implications of (B)
<p>(Dimensions)</p> <p>(a) Bio-physical fragility (steep slopes, delicate eco-system features)</p> <p>(b) Social fragility (delicate, institutional arrangements against vulnerabilities)</p>	<p>Dominant Pattern</p> <ol style="list-style-type: none"> 1. Frequent references in policy-planning documents; disregard in actual interventions, (e.g. resource intensification/disturbance promoted or permitted in agriculture, infrastructural development mining etc.). 2. Extension of cropping to fragile slopes under local food self sufficiency/grow more food programmes etc. (in all countries). 3. Extension of (intensive agricultural technologies; (disregarding diversification-led resource conservation/regeneration); promotion of intensive cash cropping on better lands pushing staple crops to steeper slopes. 4. Over grazing, over extraction of NTFPs other products of fragile areas. 5. Disregard of traditional institutional arrangements and conservation practices by formal administrative, technological, institutional interventions. <p>Emerging Trends</p> <ol style="list-style-type: none"> 6. Mainly alarmed by negative impacts on downstream (e.g. silting of dams), and pressures and incentives built at national/ international level, gradual emergence of new initiatives such as bio-sphere reserves, protected areas, rehabilitation of upland slopes, afforestation etc. 7. Recognition and pleading for community empowerment; decentralization, recognition and use of indigenous knowledge and systems. 8. Recent restrictions on deforestation in most of the countries; (preventing cropping beyond certain degree of slope in China). 9. Following globalisation enhanced pressure on high value products/resources (e.g. herbs). 	<p>Enhanced Flows, Range/ Quality of Options</p> <ol style="list-style-type: none"> (i) Temporary/short term increased flows with reduced extent of resource protective options due to (1-4). (ii) Erosion of time tested adaptation options, against risks/vulnerabilities (due to 5). <p>Resource Depletion</p> <ol style="list-style-type: none"> (iii) Rapid, often irreversible erosion of resource base; reduced potential productivity due to (1-5). (iv) Decline of practices/ processes to conserve/ regenerate resources while using them due to (5). (v) Promising new initiatives setting a process to yield positive results in terms of resource conservation/ regeneration (6-8). (vi) Herbal extraction rising at alarming rate.

Table 4-C: Indicative Details of Development Interventions in HK-H Countries with Reference to Marginality

(A) Marginality as a Policy-Programme Context	(B) Broad Attributes and Orientation of Interventions vis-à-vis (A)	(C) Sustainability Related Consequences/Implications of (B)
<p>(Dimensions)</p> <p>(a) Bio-physical marginality (linked to fragility, inaccessibility) offering risky limited production options</p> <p>(b) Socio-economic marginalities resulting from (a) vis-à-vis main stream society/economy reflected by:</p> <p>(i) Place of mountain areas in dominant national context; invisibility/disregard of mountain concerns;</p> <p>(ii) Voicelessness/low capacity and contesting(-) capacity of mountain communities.</p> <p>(iii) Status of indigenous practices/systems in relation to formal arrangements.</p>	<p>Dominant Patterns</p> <ol style="list-style-type: none"> 1. Reduced physical marginality in limited areas through provision of irrigation, access, new production possibilities (all countries). 2. Recognition of special situation of mountains for liberal funding, subsidies (e.g. to hill states as "special category states" (India); mountain counties as key focal areas under "national poverty alleviation strategies", "developed county-mountain county partnership programme"; (China); mountains at the center of national policies of Nepal; mainly indirect approach through "support-freedom" to NGOs in Pakistan; renewed development focus on CHT following peace accord in Bangladesh, any national development policy is mountain policy, Bhutan. 3. Inequity of highland – lowland economic links, not addressed. 4. Despite untied resources and relative freedom/autonomy to hills, development interventions follow patterns of interventions in non-mountain areas (e.g. project components, implementation, delivery system (all countries). <p>Emerging Trends</p> <ol style="list-style-type: none"> 5. Increased attention to mountain areas (e.g. resource conservation) following downstream concerns (floods, silting of dams, bio-diversity based industries, potential gains from globalisation etc.) (in India, China, Pakistan, Nepal). 6. Social-sector services to enhance local capacities, decentralization programmes (using mainstream perspectives) to de-marginalise mountain communities, important NGO initiatives. 7. Post-Rio global focus on mountain crisis and contributions. 	<p>Enhanced Flows, Range Quality of Options</p> <ol style="list-style-type: none"> (i) Increased options/supplies and reduced risks/vulnerabilities due to (1) and partly due to (2). (ii) Reduced extent of flows and options and related gains due to (3-4). (iii) Local capacity building and other initiatives as yet more formal and limited to be able to initiate socially sustainable processes (6). (iv) Economic globalisation likely to accentuate (3), (4) and promote "exclusion" of marginal groups. <p>Resource base Depletion</p> <ol style="list-style-type: none"> (v) Resource-depleting potential of (3-4). (vi) Possibility of improved resource management due to (5 and 7). (vii) Focus on large scale environmentally insensitive projects (i) continue despite protests.

Table 4-D: Indicative Details of Development Interventions in HK-H Countries with Reference to Diversity

(A) Diversity as a Policy-Programme Context	(B) Broad Attributes and Orientation of Interventions vis-à-vis (A)	(C) Sustainability Related Consequences/Implications of (B)
<p>(Dimensions)</p> <p>(a) Diversity as most central feature reflecting variations in each mountain specificity.</p> <p>(b) Heterogeneity at macro scale (i.e. different ecological/bio-physical zones).</p> <p>(c) Variabilities at sectoral, micro-operational levels in terms of suitability and limitations of specific activities.</p> <p>(d) Differing degrees of interlinks between different mountain specificities.</p> <p>(e) Socio-cultural diversities (i.e. ethnic groups; spatial locations/habitations), differing local perspectives/practices.</p>	<p>Dominant Patterns</p> <ol style="list-style-type: none"> 1. Broad recognition of ecological or climate and alleviation or dominant activities-based zones, used for identifying intervention areas (e.g. high land pastures, horticulture belt etc. in most countries). 2. Diversities at micro-operational levels, even if recognized, rarely incorporated development activities, i.e. "plurality" of situations ignored while introducing standard type of approaches (in keeping with the dominant plain-perspectives of decision makers). 3. The 2 applies to agricultural programmes/technologies, social services, capacity building etc. 4. The interlinks between diverse mountain conditions generally disregarded; mountain communities' diversification strategies ignored; government departments' fragmented structure further reduce the chances of integrated approach to address diversities. 5. Ethnic/cultural entities recognized but development approaches/interventions often by pass them and their knowledge systems. <p>Emerging Trends</p> <ol style="list-style-type: none"> 6. Slowly rising awareness about (both physical and social) diversities and its application in mostly donor supported projects in some countries. 7. Pressures and initiatives directed to decentralization, participatory approaches and community empowerment, conducive to recognition and responses to diversities. 8. Likely increased disregard of the imperatives of diversities under globalisation. 	<p>Enhanced Flows, Range/Quality of Options</p> <ol style="list-style-type: none"> (i) Disregard of diversities and diversification at operational levels reduce the range and quality of options, enhance risks and vulnerabilities due to (2-4). (ii) Limited relevance and effectiveness of generalized/uniform interventions and associated loss of traditionally evolved options due to (2-4). (iii) Positive changes expected from (7) <p>Resource Depletion</p> <ol style="list-style-type: none"> (iv) Reduced resource conservation, regeneration opportunities promoting unsustainability prospects through (2-4). (v) Loss of traditionally evolved knowledge/experiences to harness diversities through diversification approaches (due to 5, 6). (vi) Driving forces/mechanisms of globalisation likely to promote intensification, resource depletion.

Table 4-E: Indicative Details of Development Interventions in HK-H Countries with Reference to Mountain Niche

(A) Mountain Niche as a Policy-Programme Context	(B) Broad Attributes and Orientation of Interventions vis-à-vis (A)	(C) Sustainability Related Consequences/Implications of (B)
<p>(Dimensions)</p> <p>(a) Major natural resource endowments: fresh water, hydro-power potential, minerals, timber, unique bio-diversity etc.</p> <p>(b) Small niche products (herbs, other NTFPs etc.).</p> <p>(c) Traditional knowledge systems (adaptations to mountain specificities, with rationale usable in modern development policies/ technologies).</p>	<p>General Patterns</p> <ol style="list-style-type: none"> 1. Strong focus on harnessing major mountain niche largely for meeting mainstream/downstream needs, with limited local gains (in most countries). 2. Unrealistic pricing of niche resources, limited compensation to mountains for their resources, environmental services, social displacements and environmental damages. 3. Unequal highland – lowland links unfavourable to mountains. 4. Primary focus on extracting natural endowment with limited man made efforts/investments to strengthen niche. 5. Limited attention to micro-niche products (gathered often by community/poor), huge market-margin in trade; little regulation/restriction on over extraction. 6. Due to promotion/imposition of formal science/management/administration - based interventions, marginalisation and disregard of indigenous knowledge systems evolved with direct contact with mountain problem and opportunities. <p>Emerging Trends</p> <ol style="list-style-type: none"> 7. Unless guarded against the above (1-6) tendencies likely to accentuate with economic globalisation. 8. Rising NGO and community voices against: over extraction of niche, non-pricing and non-compensation for environmental services and disregard of indigenous knowledge systems. 9. Environmental concerns getting higher place in global agenda (e.g. case of large dams). 10. Local pressures for higher compensation for mountain resources used by the mainstream economy. 	<p>Flows and Range/Quality of Options</p> <ol style="list-style-type: none"> (i) Limited benefits and compensation for mountain communities/ states for extraction of the niche due to (1-2) (ii) Low gains due to poor compensation, high marketing margin and unfavourable terms of trade due to (3,4,5,7). <p>Resource Depletion</p> <ol style="list-style-type: none"> (iii) Over extraction of resources, with little regulation due to (1,2,3,4,5). (iv) Loss of valuable indigenous knowledge systems due to (6, 7). (v) Globalisation- may accentuate (iii) and (iv) above. (vi) Rising expectation about change in (iii) and (iv) due to (8 and 9).

Table 4-F: Indicative Details of Development Interventions in HK-H Countries with Reference to Human Adaptations

(A) Human Adaptations to Mountain Conditions As a Policy-Programme Context	Broad Attributes and Orientation of (B) Intervention vis-à-vis (A)	Sustainability Related Consequences/Implications of (C), (B)
<p>(Dimensions)</p> <p>(a) Traditional institutional and technological practices (e.g. collective risk sharing, common property resources, folk agronomy etc.) evolved for sustenance under generally harsh and high risk, low productivity environment.</p> <p>(b) Focus on diversification, resource regenerative practices/ measures.</p> <p>(c) Two way adaptations adapting demand to local resource capacities and amending resources where possible.</p> <p>(d) Demand rationing, (through population control migration etc.), supply-limitation-driven approach to resource use.</p>	<p>General Patterns</p> <ol style="list-style-type: none"> 1. No known mainstream policies (except some donor and NGO-driven projects) on this subject. 2. Close integration (physical, administrative, economic) with the mainstream, causing erosion of traditional arrangements/systems. 3. Promotion/extension of modern, formal arrangements for their high performance. 4. Market and state promoted demand driven resource use system replacing the one determined by supply-limitations. 5. Generalised approaches ignoring ethnic, cultural and other specific differences/arrangements. <p>Emerging Trends</p> <ol style="list-style-type: none"> 6. With market-driven globalisation process likely further marginalisation of traditional systems. 7. Emerging evidence, advocacy and revival of traditional arrangements by NGO, etc. 8. Identification of elements of traditional systems for upgrading and incorporation in to modern systems, specially technologies and resource management, increasing interest of researchers. 	<p>Enhanced Flows, Range/ Quality of Options</p> <ol style="list-style-type: none"> (i) Reduced efficacy/ feasibility of traditional measures suited more to low population, subsistence contexts (3-5). (ii) Decline of traditionally evolved institutional defences against risks/vulnerabilities (1-5). (iii) Reduced self controlled locally evolved options. <p>Resource Depletion</p> <ol style="list-style-type: none"> (iv) Disregard/marginalisation of resource regenerative/ protective practices (3-4). (v) Loss of links between locally relevant measures against diverse mountain specificities (3-4). (vi) Disintegration of organically interlinked/ diversified land based activities (1-5).

- (ii) Interlinkages and interactions between imperatives of different mountain specificities have to be recognized and used as a key concern, while designing and implementing interventions (e.g. fragility obstructing infrastructure-development to reduce inaccessibility, intensive and narrow cropping specialization causing erosion of fragile lands and loss of gains associated with diversification etc.). This suggests the centrality of "integrated" approach to development interventions. This applies to both sectoral and general programmes.
- (iii) In the light of diversity and limited accessibility (as well as social diversity and marginality of mountain communities), decentralization and local capacity building have to be an integral part of development policies, even when the policies and provisions are initiated at central level, (e.g. mobility and decentralization as key features of structure of credit, extension and health services).
- (iv) Responding to the concerns raised about the usage patterns of mountain niche, the policies should address the issues of resource protection and conservation as well as over extraction and degradation (e.g. by formal regulations and involvement of local communities) and assurance of economic gains to the mountain communities (e.g. by provision of compensation for environmental services offered by mountain areas).
- (v) The mountain related interventions should also have special orientation and differences in terms of choice of technologies for agriculture and infrastructure etc., measures directed against risks and vulnerabilities, extent and type of social transfers and social services, approaches to trade and market promotion etc. to be able to address the specific constraints and opportunities in mountain areas.

Above list could be further extended easily. However, while searching for the information summarized under Table 4, it became quite clear that despite increased awareness and advocacy of the above issues, in most parts of HK-H region these aspects are not sufficiently addressed. Though, there are some exceptions as well. The key inference from the above discussion is the already stated fact that the most development intervention in HK-H countries lack mountain perspective. This is largely because of the persistent dominance of mainstream (non-mountain) perceptions and perspectives guiding the development strategies and the lack of efforts to promote (mainstream) and operationalise) mountain perspective framework. The latter should get high priority in the future.

2. Place of Mountain Areas/Concerns in National Policies

The place and priority to mountain areas/concerns in national policies can be assessed in two ways, namely, (a) priorities and programmes focused on mountain areas in the overall national policies and programmes (e.g.) as revealed by resource allocations to mountain areas; and (b) attention and responses to specific situation of mountains (as revealed by recognition and responses to mountain specificities). The former is an extremely important issue in the countries having large, and dominant non-mountain areas and populations, where the approach or priority to mountain areas is determined largely by the mainstream society's (or decision makers') preferences and their perception of mountain problems and potentialities. The latter i.e. (b) is important for countries which are largely or totally mountainous, and have no domination of non-mountain areas. As seen in HK-H, even in such countries their policy makers, often have orientation and background shaped in non-mountain contexts. Having been exposed to

and influenced by the non-mountain perspectives including through external advisors, they may often think and act in the ways similar to those in non-mountain areas. This also applies to already mentioned large countries with proportionately smaller mountain areas.

About the second i.e. (b) way of assessing national policy concerns for mountain areas, we have already commented in the preceding section, while discussing the missing mountain perspective of mountain development policies in the HK-H countries. In this section we focus on the approach to assess the place of mountain concerns in national policies. In this context the important indicators of concern or space for mountain areas in national policy/programmes could be listed as follows. The list could include many more aspects.

- (i) Special provisions and priorities in resource allocation as required by difficult mountain conditions (e.g. concessional funding, subsidies etc. for various development and welfare activities).
- (ii) Attention to mountain situation by evolving specific programmes and activities addressing unique problems/aspects of mountain areas (e.g. rehabilitation of upland slopes, highland pastures development and transhumance, mountain road; hill farming systems etc.).
- (iii) Generalised national programmes/policies also extended to mountain area with necessary modifications to suit mountain situation.
- (iv) Mainstream's sectoral programmes extended to mountain areas due to importance of the concerned sector in mountain areas (e.g. community forestry, watershed development etc.).
- (v) Specific programmes and policies significantly influencing the mountain areas, but their decisions are made/controlled by the mainstream. Largely governed by the mainstream needs and perceptions, such programmes (positively/negatively), affect mountain areas in the process (e.g. globalisation related policies, policies about harnessing mountain niche).

While searching for and making sense out of several development policies/provisions to illustrate the aspects indicated above, we found a mixed and highly variable situation in HK-H countries. Elaboration on them is not possible here. However, one of the key indicators of place and priority to mountains in national policies namely, provisions guiding resource allocation to mountain areas is commented upon. Being a major decisive factor influencing the nature and extent of development interventions (with or without mountain perspective) in mountain areas, the comment on this aspect is all the more important. Country wise relevant details on this aspect are briefly mentioned below.

China: Mountain concerns enter Chinese development policies through an indirect channel. Being poorest of the areas in the country, the mountain counties dominate the pockets of poverty in China. Hence, eradication of poverty is treated as synonymous with development of mountain areas. The development is focussed on harnessing local resources, enhancing local capabilities and promoting social well being. It involves partnership between poor mountain counties and developed counties, where, the latter are made responsible to develop the former. In the context of economic liberalisation, poor mountain areas have become quite attractive, as high potential virgin areas for other counties. The past approach emphasising food self-sufficiency for each county (and commune) prohibiting so called "side line activities" i.e. diversified locally appropriate activities (e.g. horticulture, dairying, floriculture etc.), in mountain area, is now replaced by choice for best suited activities. In the context of globalisation several mountain

counties are specifically developed as sources of high value export products such as herbs, tea, flower, etc. Similarly the policy of "go to west" offers incentives for rich areas/firms to invest in western mountain areas.

India: Based on their biophysical constraints, the mountain areas (states) are put in a special category states, and have been covered by special provisions of financial resource allocation by the central government. Due to backwardness, high cost of development and special needs of mountain areas, since 4th Five Year Plan, provisions were initiated for enhanced fiscal support with liberal terms for hill states. The latter get around 90 per cent of central government support in terms of grants and only 10 per cent in the form of repayable loans. The opposite is the case of plain area states. The liberal financial aid is accompanied by freedom and flexibility to hill states in planning and implementation of development interventions. However, most of the hill states (except some like Himachal Pradesh), have not been able to provide mountain specific orientation to development strategies. They more or less follow the patterns and practices common to plain areas.

Nepal: In a country where over 2/3 of its areas is under mountain/hills the national policies have always been concerned about mountain areas, though underlying perspectives and priorities have frequently changed. Examples: (i) Regional Development Policies prior to Fourth Five Year Plan, focussing more on western parts indicating intra-mountain differences as a key concern; (ii) Growth Corridors and Growth Centres (4th and 5th Plans) focussing on integrating development process of mountains/hills/Terai region; (iii) Regional Agricultural Specialisation focussing on sectors or areas with ecological comparative advantage of mountains (in livestock, hills horticulture); (iv) Decentralisation Policies, responding to imperatives of inaccessibility and locational specificities of mountain/hills. Mountain areas and approaches to develop them figure strongly in sectoral master plans usually developed by donor agencies with input from Nepalese and outside experts. However, on the implementation front, the situation is characterised by a focus on selective components and frequent changes in priorities, due to financial constraints and changes in perceptions of donors, whose support has been very crucial in development effort of Nepal. Furthermore, as in many other mountain regions, projects lead the policies rather than other way round in Nepal. Upscaling or spread of successful project experiences to other areas has not taken place in a visible manner.

Pakistan: The problems and concerns of mountain areas, despite their significant contributions to downstream economy, have not received sufficient attention of national policy makers in Pakistan. Hence, the dominant focus of national policies vis-a-vis mountain areas has been on harnessing of mountain niche (water, hydropower, forest resources etc.) to meet the downstream needs. However, of late, again initially promoted by the concerns of downstream economy, some visibility and attention to mountain areas have increased. There is an increasing emphasis on changing the development paradigm, to make national policies sensitive to mountain areas and their people. In this scenario dominated by limited policy concern for mountains, a major highlight of situation in Pakistan is the active and effective role of NGOs (such as AKRSP) in enhancing the visibility of mountain problems and designing and implementing measures to address them. The activities of NGOs in mountain areas present a unique approach focussed on minimising constraints and harnessing opportunities in these areas.

Bangladesh: Area wise and as a source of irrigation, hydro-power and space for settling people from mainstream society, the mountain region i.e. Chittagong Hill Tracts (CHT) is important for the country. However, largely due to social marginality of the region and national approach to it in the past, the region underwent a phase of unrest and

instability for last two decades. The hopes for development and closer attention have been renewed following the Peace Accord a few years ago. At present, largely donor funded limited development interventions characterize the situation.

Bhutan: In this totally mountaineous country all national development efforts and interventions etc. imply coverage of mountain areas. Only gaps could be identified between urban/valley areas and the upland areas/communities. Due to relatively closed situation and cultural setting Bhutan is relatively free from some of development problems of other HK-H countries (e.g. natural resource degradation) requiring special programmes and priorities for mountain areas. Donor funding has important place in development resource allocation.

Extension of Generalised Programmes to Mountains: Apart from above discussed special allocations and focus on mountain areas, the national mainstream policies/programme also address the mountain areas and their problems in the following ways.

In the first place as a part of national coverage, several sectoral programmes e.g. on forest management, agriculture, tourism, etc. are extended to mountain areas with specifically earmarked funding. But the norms, mechanisms, procedures etc. in such programmes are generally not differentiated according specific conditions of mountain area. The community forest management, watershed development programmes, rural credit schemes in countries of South Asia can illustrate this.

There is yet another category of national initiatives addressing the high priority problems. The programmes and support in this case are not intended specifically for mountain areas, but since mountains also share the above focused problems, they also get the attention and support of national programmes. The programmes on environmental protection, biodiversity conservation, poverty and livelihood security etc. are some examples.

Finally, to address some mainstream needs, various projects and activities are undertaken, such as hydro-power generation, tourism, irrigation dams, border area roads etc., which due to the physical location of the activities have direct or indirect gains to mountain areas as a bonus. The role of border roads in Himachal Pradesh, Karakoram Highway in Pakistan are two examples of such impacts. However, the extent of such benefits to mountain areas is conditioned by local capacities and ancillary activities to make use of new opportunities.

To sum up, mountain areas are getting increased attention of national policy-programmes, but most of the intervention involve extension or replication of approaches and activities similar to the ones evolved for non-mountain areas.

3. Policy-programmes Related to External Links

As stated earlier, external links by promoting profitable exchange and use of successful external experiences can play important role in facilitating sustainable development of a region. However, in the case of HK-H countries, external economic links described as highland – lowland economic links are highly extractive and unequal (i.e. unfavourable to mountains) in their impact (Jodha 2000). The primary reasons behind the unequal links include limited accessibility, marginality of mountain communities, and the domination of mainstream society (decision makers) in deciding the priorities and ways in which the natural resources of the mountains should be used. To this one may add the role of

market forces which play effective role in harnessing the niche through providing investment, technologies and destinations for products.

These economic links, (rooted in the differences between highlands and low lands in terms of the natural endowments and their products as well as their demands), are generally dominated by higher net flows of crucial resources/products from mountains to plains, often poorly compensated or exchanged at unfavourable terms of trade for mountains. In fact as mentioned earlier, gains through these links and ability to extract rich mountain resources (water, power, timber, minerals) is a major factor attracting mainstream attention to mountain areas.

The indicative areas for policy/programmes interventions in the context of prevailing nature and functioning of high land – low land link could include the following:

- (i) Policies, approaches and provisions to change the historically established patterns of niche extraction, primarily for mainstream economies with limited compensation to mountain areas/ communities.
- (ii) Policies, programmes focussed on realistic pricing of mountain resources and compensation for environmental services provided by mountain areas.
- (iii) Promotion of equitable terms of trade under highland lowland exchange.
- (iv) Identification and promotion of new mountain niche besides enhancing the existing ones, in the context of globalisation.
- (v) Equip mountain areas/ communities to wisely adapt to globalisation led change process, and benefit from the new opportunities.

However, despite importance of economic links and their prevailing inequities, in the HK-H countries except for creation and maintenance of government bureaucracy and poorly enforced regulatory arrangements, there are no structured policies and programmes to guide the above links. The limited activities or measures implemented or debated and advocated in this context, can be mentioned.

- (i) In some of the cases the focus is on royalties or compensation in cash or kind for supply of mountain resources to the mainstream economy. Besides, cash royalty on hydro-power generation, mineral extraction, etc. supplied to mainstream (lowland economy), some support in kind is provided e.g. free or concessional supply of power to the areas where from resources are harnessed (as in the case of hill states in India). Similarly, some compensation or substitute lands for oustees of projects is provided. However, as several protests and agitations against big dams (by NGOs and local communities) show, the compensations especially in terms of rehabilitation and environmental protection are not considered satisfactory.
- (ii) One of the potential responses to address the inequity of terms of trade between highlands and lowlands is to focus on the decentralised approaches with smaller facilities (e.g. micro-hydro power production with involvement of local communities and supply of power from them to national grids at proper pricing arrangements). Other related approach is to focus on local processing (at least preliminary processing) and supply of products/resources to plains with some value additions. However, such possibilities at present are at the stage of debate and advocacy, with very little concrete action (except in the case of micro-hydro power production and some herbal products exported internationally).
- (iii) Yet, another step in making high land – low land links more equitable is debated in terms of introducing appropriate pricing of mountain resources and products. Quite related issue currently debated by NGOs and researchers is to evolve and

implement, mechanisms for compensation for environmental services provided by mountain areas or communities as their custodians. The debate on the above subject is gradually moving to global fora, due to increased visibility of mountain problems and their contributions specially after Rio Earth Summit (Sene and McGuire 1997). The IYM 2002 may further advance the advocacy of these issues, though, there is a long way to go before discourse converts in to policies and their implementation. However, economic globalisation offers a new provocation to attend to these aspects at policy level.

- (iv) In the context of highland – lowland economic links, the policies and provisions induced or imposed by economic globalisation is a major change affecting mountain areas. It represents a paradigm shift where unprecedented primacy is accorded to market, and the state's role in economic matters is gradually marginalised. Under their obligations to WTO or World Bank etc., HK-H countries also undertake structural reforms, deregulation measures etc. As a consequence, in several areas of HK-H countries, over extraction of niche products (e.g. medicinal herbs), disregard of customary rights/regulation and acquisition of local resources by external business firms (as in India, China, Nepal, Pakistan), and exposure of mountain products (e.g. apple, pashmina etc.) to global competition due to new trade policies etc. have taken place. The agreements decided at national level have impacts at micro-level with little preparation and capacity to adjust to them. At this stage, at least with reference to mountain areas and problems, there are no separate policies and provisions in this context. The state has (by default) left the job to market forces which have strong tendencies to ignore the negative externalities of their success.

Key General Inferences: The above discussion leads to the following broad inferences on mountain development policies of selected HK-H countries.

- (i) All the countries accord visible space to mountain areas in their national policies. However, their approach may be broadly described as "reactive" rather than "proactive", in the sense that, they respond to mountain areas either because of adverse impact of neglect of mountain problems on the mainstream economies (e.g. silting of downstream dams) or they are governed by a sort of "charity instinct", leading to dispensing of financial resource, in response to visible backwardness and other difficulties faced by mountain people (because of permanent underinvestment in these areas by the mainstream decision makers in the past). The missing proactive approach would involve concrete activities/programmes (using above funds) in keeping with the imperatives of mountain specificities.
- (ii) To be fair to the policy makers and planners in mountain areas, their inability to incorporate mountain perspective in their development interventions, could be partly attributed to the lack of conscious knowledge about the imperatives of mountain specificities and the difficulties associated with operationalisation of mountain perspective in macro contexts. This calls for a greater emphasis on action reach (with concurrent dissemination) on the subject.
- (iii) Of all the mountain specificities, "mountain niche" has got greater attention of policy-programme planners. This has demonstrated the directly visible economic significance of mountain areas. This has significant implications for mountains' external links and their equitable place in the larger external/global economy. This (like mountain perspective) is one of the lead lines for future policy direction and action. The discourse and work during and after IYM – 2002, may further add to the evidence and need for promoting research and action on these aspects.

References

- Bjonness, I.M. (1983) External Economic Dependency and Changing Human Adjustments in High Himalaya, Nepal. *Mountain Research and Development*, Vol. 3(3).
- Guillet, D.G. (1983) 'Towards the Cultural Ecology of Mountains: The Central Andes and the Himalayan Compared'. *In Current Anthropology*, 24 (p.561-574).
- Ives, J.D.; Messerli, B.; and Rhoades, R.E. (1997) 'Agenda for Sustainable Mountain Development'. *In Messerli, B. and Ives, J.D. (eds). Mountains of the World: A Global Priority*. New York: The Parthenon Publishing Group.
- Jochim, M.A. (1981) *Strategies for Survival: Cultural Behaviour in an Ecological Context*. New York: Academic Press.
- Jodha, N.S., and Shrestha, S. (1994) 'Sustainable and More Productive Mountain Agriculture: Problems and Prospects'. *In Proceedings of International Symposium on Mountain Environment and Development: Constraints and Opportunities*. Kathmandu: ICIMOD.
- Jodha, N.S. (1998) 'Reviving the Social System Ecosystem Links in Himalayas'. *In Berkes, F., and Folke, C. (eds). Linking and Ecological Systems: management Practices and Social Mechanisms for Building Resilience*. Cambridge: Cambridge University Press.
- Rieder, P. and Wyder, J. (1997) Economic and Political Framework for Sustainability of Mountain Areas. *In Messerli, B. and Ives, J.D. (eds). Mountains of the World: A Global Priority*. New York: The Parthenon Publishing Group.
- Sene, El Hadji and McGuire, D. (1997) Sustainable Mountain Development – Chapter 13 in Action. *In Messerli, B. and Ives, J.D. (eds). Mountains of the World: A Global Priority*. New York: The Parthenon Publishing Group.