NEERAJ VEDWAN
Subsistence Agriculture to Commercial Horticulture: Development and State-Society Interaction in Himachal Pradesh, India
(Under the direction of ROBERT E. RHOADES)

Mountains present unique challenges for conventional development efforts due to their topography and associated socio-economic complexity. Himachal Pradesh in India has defied the odds by making a relatively successful transition to commercial horticulture from an erstwhile subsistence economy based on cultivation of cereal crops. I critically assess the emergence of Himachal as a "model" and its applicability to other South Asian mountainous areas by analyzing in a historical perspective the social and political factors that made the transition possible. Data from a number of sources including interviews, survey, newspapers and government reports involving multiple social actors and sites are used to provide a more comprehensive description of development policy formulation and implementation. In analyzing development, I focus on the ideas, institutions and practices that have together produced a historically specific experience meaningful to the people and policy-makers alike. Furthermore, I emphasize the inability of development policies, owing to underlying ontological and epistemological premises, to effectively deal with contingency and uncertainty that characterize the situation on ground. Thus generalizations from the case of Himachal cannot proceed from an assumed unity of theory and practice but have to take into account myriad ramifications and unintended consequences that follow from attempts to transfer concepts and practices across a terrain marked by asymmetrical social and political relations.

INDEX WORDS: Agriculture, Horticulture, Development, India, Himalayas, Himachal Pradesh, Climate, Political-Economy, Anthropology of Development

SUBSISTENCE AGRICULTURE TO COMMERCIAL HORTICULTURE: DEVELOPMENT AND STATE-SOCIETY INTERACTION IN HIMACHAL PRADESH, INDIA

by

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DEDICATION

This dissertation is dedicated to my family.

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CHAPTER 1: INTRODUCTION

The present dissertation focuses on the anomalous development experience of the Indian state of Himachal Pradesh in the context of mountainous areas of South Asia. In a region characterized by subsistence agriculture, low levels of literacy and poor physical infrastructure, including roads and electrification, Himachal has consistently out-performed others in virtually every respect. The unique experience especially in terms of rapid horticultural development that the region has seen has prompted declaration of Himachal as a model state. In other words, the experience is sought to be consciously replicated in other parts of Himalayas as a key to speeding up the process of development.

The goals of this dissertation are manifold and yet linked closely. Development policy, generally, aims to diagnose the problems or hurdles in the path of attaining a higher economic growth. Although the recent times have seen considerable broadening of focus to include non-economic/social issues, development thinking still accords primacy to economic or structural considerations. Even where political economy is the putative framework:

> one hears a lot about wages, the market, the cash nexus, economic exploitation, underdevelopment, and so forth, but not enough about the relations of power, domination, manipulation, control and the like which these economic relations play into, and which for actors constitute much of the experienced pain of economic injustice. Political economy, in other words, is not political enough (Ortner 1994: 394-395).

A key step in the examination of sedimentation of power in the social relations that are not only differentially impacted by development but in turn influence the very conceptualization of the same through the formation of categories, discourses and other imaginaries. The diffuse nature of the development discourse leads to prognosis of problems not through the rational exercise of detached scientific knowledge but through complex and often unpredictable negotiations between historical actors in myriad, historically specific sites. The issues of development— conceptualization, implementation and outcomes— are all connected and subject to the asymmetrical social and political relations which render generalization from this specific case highly problematic. Thus, the research emphasizes the "open" nature of development— social and political susceptibility of its policy formulations as well as outcomes that are at variance even odds with the expectations owing to essential "refractoriness of the real world…" (Ortner 1994: 399).

Overview

This chapter addresses the theoretical framework and the main research questions, which have guided the present research on Himachal Pradesh's unusual development trajectory. Starting with a brief background of the Himalayan Indian state, which emphasizes the atypical character of its development experience and the related aspects of social structure, I will lay out the important elements of the theoretical framework. I start with a brief discussion of the hills not as receptacle for static traits but as a territorialized site produced as function of the difference— political and cultural— from the "plains". The differences that have existed and their memory inform the conceptions

of the place of the hills *vis-à-vis* the plains. More importantly, for the task at hand, it is the refraction of differences into the different spheres that together comprise the sites of development that promises to reveal the diffuse, even inchoate, working of what has been termed the development discourse.

Then, I discuss "development" as an outcome of the state-society interaction, employing middle level theorization, which attempts to circumvent the perspectives privileging either the state or the grassroots as the driving force for change. State and society are taken as emergent entities and not as unproblematic pre-givens, the static interaction of which can predict success or failure of development policies. Rather, the boundary between the two is taken to be a shifting one and manifests itself through the paradigms of governance that undergo alterations, modifications and mutations as a consequence of the transformative effect of the multiple domains that comprise a locale. Thus society rather than offering an unresisting template for the imprinting of concepts, strategies and plans constitutes and re-constitutes the same resulting often in outcomes that are at variance, if not total odds, with official goals. These struggles, divisions, agreements and dissent that characterize numerous interfaces are themselves the products of incommensurability— of power, knowledge, cognition and resources. The second part of this chapter emphasizes the relationship of development with knowledge of its object— the society, people and their environment— which apart from legitimizing the interventions form the basis and rationale for action. Epistemological and ontological perspectives are used to highlight the dysjunctures between the institutionalized, formal practices, on one hand, and the constitution of the subject, on the other, providing for numerous distortions in the theory and application of development policy. Thus, the

shortcomings of conceptualizations inherent in development arise from not merely lack of information and suitable analytical tools but at a more fundamental level from the oppositional nature of much of the scientific-technical knowledge to the common ways of understanding and knowing the world and one's place in it. The emphasis is on the understanding of development policy deriving from a consideration of expert knowledge as not automatically privileged but subject to the vicissitudes resulting from the encounter with "the local" that is historical, contingent and fragmented. The penetration of such knowledge proceeds through mutual transformation of subjects and their purported objects in encounter with the irreducible and often contradictory specificities characterizing the experience. The historically specific institutions, actors and "targets" thus co-produce each other through numerous processes that simultaneously spatialize both. The perceptions of climate change are discussed for their challenge to the conventional model of development, which is predicated on the efficacy of one-way transfer of knowledge based on the superiority of the scientific approach. Finally, some ramifications are discussed in light of the multiple deficiencies and biases from which the process of development is liable to suffer in view of the linear, unidirectional and macro level perspectives that dominates thinking on the subject. The implications are elaborated upon and summarized in greater detail in the final chapter.

Background

Himachal Pradesh is a predominantly mountainous state in Northwestern India. In terms of size, it occupies fifteenth place out of twenty-eight states in the Indian Union.

With a population of 5.1[1] million, of which 4.7 million are rural and 0.45 million urban, the proportion of population in rural areas is over 92 percent (compared to 75 percent for the country). Himachal Pradesh has one of the lowest population densities in the country. At 93 persons per square kilometer, it is less than one-third of the countrywide population density of 332 persons per sq. kilometer. India has one of the most adverse sex ratios in the world biased heavily against females.[2] Against an average of 927 females per thousand males for the country, Himachal Pradesh has 975 females. Demographically, the state is relatively homogeneous with over 95 percent of the population being Hindu.

The caste composition of the state is typical of hills with broad distinction between Upper and Lower Castes (Berreman 1993). In general, the elaborate structure of avoidance, including fine gradations in hierarchy, based on the notion of ritual purity and pollution that permeates the orthodox Hinduism of plains is absent in Himachal Pradesh.

Himachal in its present form came into existence in 1966 after integration with areas that formed part of the erstwhile Punjab hill states. Soon after it embarked on an ambitious plan to promote horticulture, particularly apple cultivation. The state was and continues to be reliant on agriculture with, mainly, subsistence orientation. The topography of the state limits the total area available and suitable for cultivation. In the absence of sources of irrigation and use of purchased inputs like inorganic fertilizers and

[1] All the figures are from 1991 Census and taken from the Department of Economics and Statistics Publication (1998), Shimla.

[2] The most well known cause is the preference for the male child for cultural and economic reasons, which leads to selective female infanticide, foeticide and neglect, together accounting for much higher rate of female infant mortality; thus the skewed sex ratio.

chemical pest control agents, the yields have remained low. The state is, thus, characterized by net food deficit and has to rely on food grains produced in other states.[3]

Himalayas and Plains: Partners in an Asymmetrical Relationship

Of the place of hills in relation to the dominant plains, Ramachandra Guha has noted that:

> Through most of recorded history of Indo-Gangetic plain, a vast unbroken territory extending Westwards to the Arabian Sea and eastwards to the Bay of Bengal, has been the political 'core' of India, the epicentre of the great kingdoms that have risen and fallen with the centuries. Rising sharply from this plain the Himalaya, the source of the holy rivers of Hinduism, has loomed large in the spiritual and religious life of the subcontinent. (2000: 9)

The imbalance in the importance ascribed to hills in the temporal and "other-worldly" aspects of life in plains could hardly have been sharper. Exalted as the home of the holiest shrines of Hinduism[4], the mountains have always invoked feelings of reverence and a certain awe reserved for the places unknown and unconquered in the popular imagination. But the inhabitants of these mountains were, ironically, regarded with quite the opposite feelings— contempt and opprobrium— for being unorthodox and lax in their ritual and religious observances.

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[3] Historically, the situation seemed to have been much different. The region, especially, the "low lying valleys of Siwaliks produced more food grain than was necessary to feed the population… Of the Shimla hill states, Baghat and Baghal produced more grain than could be locally consumed and some of this was sold in… Punjab" (Singh 1998: 183). The existence of "surplus", however, does not automatically imply that domestic needs were met for it is not uncommon for marginal and small peasants to dispose of part of their produce to meet their cash requirements (Dandekar 1998), even if they have to buy later for their own needs. Another important question is of "entitlements" (Dreze and Sen 1995), whether the hill population, especially the portion of it that was food-deficient had the means to pay for the same. The out flow of grains from the hills is more likely an indicator of lack of entitlements. Yet another possibility, indeed a contributory factor to the worsened situation could be the increase in population pressure.

[4] "There is a pan-Hindu notion that the basic teachings of Hinduism were first propounded by sages who lived in the Himalayas, and the quintessence of Hinduism diffused from that region into the most distant corners of the sub-continent" (Bharati 1988: 84).

Agehananda Bharati's description of the encounter of plains' people and hills' people (*pahari*) in a monastery throws light on the nature of the relationship:

> The attitude of visitors towards the pahari personnel was unequivocal: they ignored them completely…The stark realities of pahari village life would frustrate them…when the more inquisitive guests…[came to know] about the ways of the paharis, their religious ideas and practices, their comparative laxity in sexual mores, their medical "superstitions," the guests put a distance between themselves and these de-idealized, actual people. (1988: 90-91)

The unequal relationship and the perceptions arising from it have played a powerful role in the consideration of the hills as backward and the consequent need and demand for development.

Development and Anthropology: Between Disillusionment and Enchantment

The origins of development as conscious, (state) directed change are usually traced to the Enlightenment period change in views of life and the role of providence therein (Gardner and Lewis 1996; Cowen and Shenton 1996). Science and technology and their role in mitigating human suffering became inalienable motifs in an enduring narrative that has since then captured the imagination of individuals and states alike. The human condition has thus come to be seen as result of our own doings— past and present— therefore amenable to directed efforts, especially, when backed by commitment of resources from the state. Cowen and Shenton hold a slightly different view of the historical trajectory of the idea of development. According to them, development was considered necessary to deal with the negative side-effects of societal "progress"— taken to be same as the immanent process of unfolding of capitalism. Thus:

> We [have to] take the modern idea of development back to where it was invented, amidst the throes of early industrialism in Europe. The idea of development is necessarily Eurocentric because it was in Europe that it was hoped to provide the

> constructivist means to compensate for the results of the development of capitalism. It was here that development was meant to construct order out the social disorders of rapid urban migration, poverty and unemployment (Cowen and Shenton 1996: 6).

The development theory and ideology underwent several *avatars* over the last century and half. There were shifts emphasizing the role of the state and market to the exclusion of other factors for achieving rapid economic growth. Broadly speaking, the two major paradigms emphasized either "modernization" or "dependency" frameworks for pushing the less-developed countries on to the take-off stage (Gardner and Lewis 1996). Different explanations offered for the lingering backwardness of Third-World countries began to lose their force by the mid-eighties in view of the mounting evidence of their inefficacy. Thus, it could be said that "during the 1980s the age of the "grand narrative" was largely over. By the 1990s, neither modernization nor dependency theory have survived intact as a viable paradigm for understanding change and transformation, or processes of poverty and inequality" (Gardner and Lewis 1996: 20).

The debate over development in Anthropology has in recent years taken the post-modern turn. Development in this view does not follow from the objective need or conditions that exist but rather it is a specific manifestation of subordination that characterizes the relations between the first and the third world. The mechanisms for domination, not just at the physical but more insidiously at the mental level, are a number of connected, ever-proliferating discourses related to such "foundational" concepts as poverty, empowerment and so forth. It is argued that the hegemony of the particular ways of looking at the world inherent in discourses excludes certain other competing versions of reality. The point of departure for the discourse-centered analyses is their

autonomy from their own material conditions of production. It is the implied lack of agency and the deterministic nature of the discourse-formulations that have caused Marshall Sahlins to remark:

> Indeed, a good many anthropologists have traded in their old models of "culture" for Foucauldian "discourse"— all the while disclaiming the "reified", "essentialized" and "totalized" character of the obsolete culture concept… "Discourse" is the new cultural superorganic- made even more draconian as the expression of a "power" that is everywhere, in all quotidian institutions and relations… (2000: 12)

As has been described earlier, one of the central problematics of the study is the constitution of state and its assumption of agency on the behalf of people through abstraction of their intent to develop. The extant concerns, aspirations and grievances are mobilized for the purpose of imparting social salience to the historically specific development imperatives. Development in this sense has become a symbol, "a blaze or a landmark, something that connects the unknown with the known" (Turner 1967: 48). The process of crafting of the social consensus is examined from a state-in-society perspective (Migdal et.al. 1994) without *a-priori* privileging of the power and reach of state. Of course, the consensus is never perfect and the dissenting perspectives, however marginal, provide insights into the array of contending ideologies that characterize a particular historical moment.

The mechanism through which consensus, however tenuous and partial, is fostered is ideology. Otherwise, we are left with pure coercion and/or false consciousness—neither of which is feasible on the empirical-historical grounds. It seems commonplace to suggest that attitudes, views and thinking co-evolve with the material conditions of their production. In fact, it would be absurd to consider otherwise. The

implications of this mutual, co-production are, however, far from simple. People have the capacity to change their conceptions of reality through acquisition of knowledge. The world-views that are derived are not purely a function of knowledge, arrived at through the application of extra-social, scientific process but through cognition that is culturally constituted and is deeply, if not overtly, political. Or as Cole (1999: 265) has described: "In the understanding of human activity, there are always coherent, alternative explanations, which fundamentally reflect different beliefs in human nature".

In eschewing the grand theories (e.g. Marxism) that sought to explain social and political change in terms of the (cataclysmic) effects unleashed by the "motor" of history, later theoretical developments have focused on the manifold contradictions and paradoxes that characterize social life at any historical moment. The question of change, thus, sheds the epochal overtones associated with totalizing theories and is de-scaled to a widely dispersed sets of "cause-effects" that are non-linear and non-additive in their ramifications. While much of the current anthropological thinking on development seeks to explain people's acquiescence (withering of the revolutionary spirit) or at least the lack of resistance as purely discourse-effect, substantive agreement or overlap between popular "interests"— or perhaps more accurately "needs"— and "official" goals cannot be summarily discounted. To postulate so would amount to rendering the "objects" of development totally passive— without even residual agency. The term "interest" is not intended in the methodologically individualist sense implied in neo-classical economic theories but as the effect produced by the inter-play of symbolic schemes of valuation that are historically specific. Aggarwal provides a concise statement of how the actor-based strategies need to be linked to institutional imperatives associated with the

extension of state's power into a specific domain to understand the evolving nature of "interests":

> ...the changing nature of control depends on changing strategies of power and relationships between state and community actors. In the process, the interests of the state and of community, and even what we understand as state and community come to be redefined as well. At the same time, an understanding of the reciprocal constructions of state authority in new domains and the willingness of rural subjects to redefine their identities in relation to state projects can fruitfully be elaborated by looking at something that is often seen as rather mundane: how problems of local implementation and enforcement are solved. (Aggarwal 2001: 13)

To focus only on the ideational factors fueling development would be to tell only half the story, and worse, a lopsided one. The economic framework including the constraints imposed by the availability, or lack thereof, of resources cannot totally be subsumed under the panoply of ideas that may be associated with the same. To the contrary, the elucidation of specifics of development at the micro-level will require nesting in the macro-dynamics.

The mutual determination of state and social and indeed the permeable boundary that demarcates these entities should not be taken as a sign of an attenuated state. As Migdal et al. point out:

> The idea of the transformative [developmental] state has been, to be sure, a defining characteristic of the modern world. Indeed, what has distinguished the modern state from most other large-scale political organizations in history, such as empires, has been its insinuation into the core identities of its subjects…(1994: 13)

But by the same token, one has to take into consideration the reciprocal impacts of the "insinuation [of the state] into core identities" on the structure and agency of the state itself. Again there is no unidirectional movement of "the state" away from, say, its

"original" condition of autonomy but a series of inter-related changes that have had variable impact on its various orientations.

Aims and Goals of the Present Research

The main purpose of the present research is to examine the case of Himachal Pradesh as an exception in "development" in the Himalayan areas. In other words, how did Himachal Pradesh achieve relatively high levels of social and economic indicators including literacy and per-capita income. The importance of the experience of Himachal Pradesh has come to be recognized among policy-makers and academics alike and an example can be found in the numerous studies by the International Centre for Integrated Mountain Development (ICIMOD) which proclaims Himachal as a "transformed" area and worthy of replication elsewhere. Jodha et al. describe the state as an exception in the Hindukush-Himalaya region:

> In India, the experiences of Himachal are the most interesting. Before its establishment as a separate and full hill-state, various agricultural development programs were undertaken. These however had limited impact…Although apple cultivation was introduced much earlier in the state by the big land-owners, the state made a major effort to expand its cultivation following the expansion in roads and hydroelectricity services. Horticulture proved to be a leading sector in the economic transformation of Himachal…(1992: 16)

Numerous questions suggest themselves as soon as the example of Himachal Pradesh as a model is accorded somewhat closer scrutiny than what the unalloyed promoters have so far. To begin with, the issue of horticultural development in Himachal Pradesh and the achievement of what are considered good socio-economic indicators and

infrastructure development constitute independent questions, which have little in common if we exclude the pivotal role that the state has played in their emergence.

Most anthropological studies of development take either of the two approaches: evaluating the success/failures in terms of meeting a definite set of (usually technical and economic) criteria or questioning the very idea of development by demonstrating its connectedness to independent/autonomous/hidden/real institutional, discursive and/or policy imperatives. The separation between the two approaches manifests itself in the anthropological "Division of Labor" in dealing with development, as Gardner and Lewis have noted:

> …Anthropology's relationship to development is riven with contradiction. While on the one hand anthropologists have for many generations worked within governmental and non-governmental organizations, demonstrating how much the discipline has to offer in terms of improving the work of developers, other anthropologists are engaged in a radical critique of the very notion of development, arguing that as a concept it is morally, politically and philosophically corrupt (1996: 153).

I have tried to accord importance to both sets of issues that are legitimate at different stages of understanding and evaluating development. The study of the conditions of production and reception of development policies and experience, however intimate their connection to the "actual" content of development may be, cannot substitute for the analysis of the substantive measures and their social and political impacts. The study approaches the case of Himachal Pradesh from the perspective of providing an account of the historicity of the ideas of development and their change over time but also attempts a more synchronic analysis. It is submitted that the dynamics underlying the two sets of (temporal, but not solely so) processes have distinct and complementary momentum. The changes that are conventionally described under the

rubric of “development” are far from insignificant in their ideological and consciousness-altering ramifications. The present, however, quotidian and removed it may appear from the more influential currents that manifest themselves over the long-term, is history-in-making. The “restricted” domains of development be it agriculture or literacy impact the subjects of development in all aspects related to their beliefs and material condition. The discursive fields of development cannot simply be considered *a-priori* and independent of their day-to-day effects.

The central question that has guided the present research is: How has the double and linked dynamic of Himachal Pradesh as a development exemplar and an exception to development emerged? The present research analyses development policy and practice as complex and fragmented negotiations between a series of inter-linked presences and absences, simultaneously seeking to affirm and negate through the conception of “decentering of subject [not as] the first step on the road to a more adequate philosophy of post-Cartesian subject [but] as any philosophy of subject [that] in the end [must be] indeterminate between the subject as structured and the subject as agent” (Boyne 1991: 68). In other words, the main project of the dissertation is to explore series of related tensions and dysjunctures between the received models and knowledges and the heterogeneity and incommensurability of experience through an awareness of mutability via the mediating processes of reproduction, refraction and trans-mutation. This research, thus, entails examination of a number of inter-related issues aimed at the explication of difference and continuities at multiple, historically specific, sites, scales, subjects and subjectivities:

1. How do the historicized structures, discourses and practices associated with development circumscribe and yet, simultaneously, create and legitimize new forms of agency?
2. How are an array of changes in the political, social and economic domains, diffuse and often disjointed and contradictory, experienced and lumped under the rubric of development? How are these new modalities of "seeing" and "knowing" influenced by the numerous contestations and negotiations that shape and in turn are shaped by the shifting boundary between the state and the society?
3. How applicable are the insights derived from this particular case to other areas in the Hindukush-Himalayas? Is the experience of Himachal replicable in other mountain areas of South Asia?

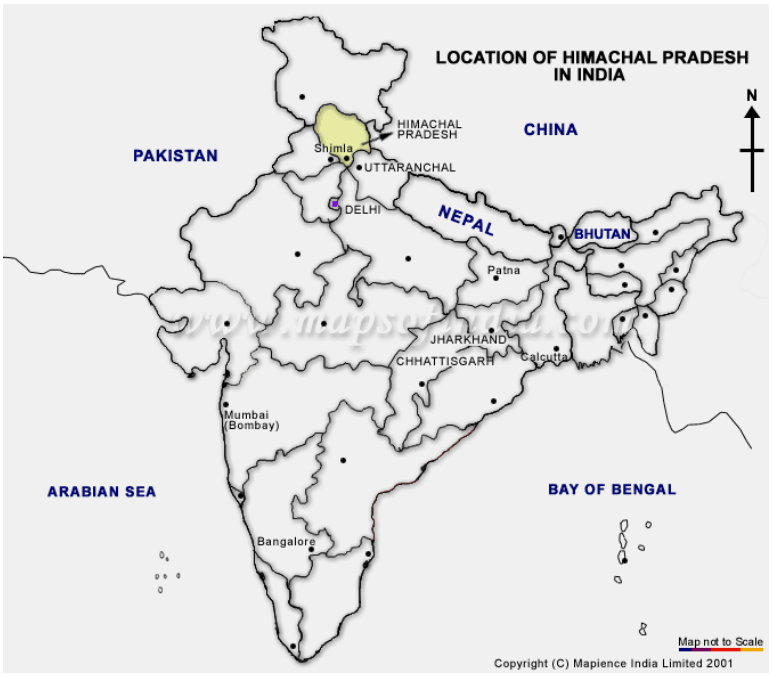

Figure1: Location of Himachal Pradesh

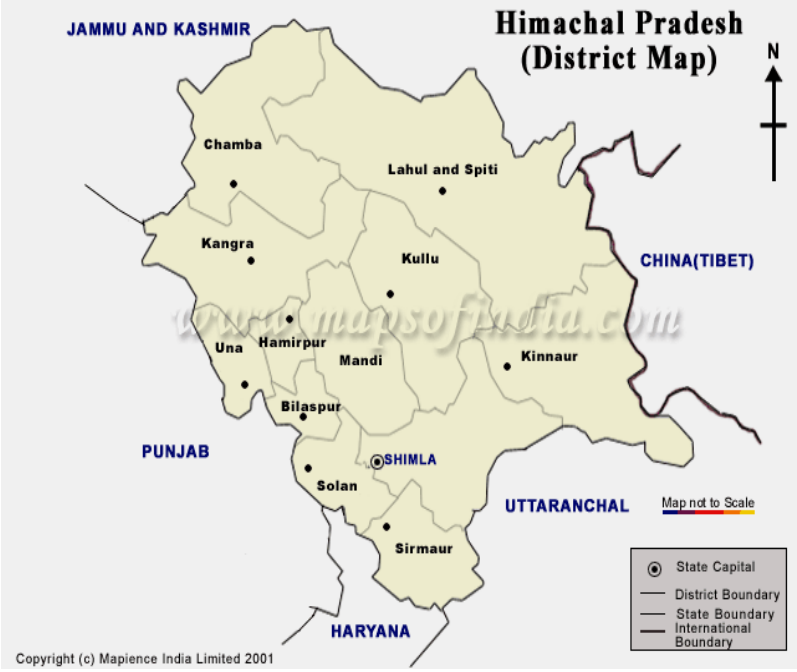

Figure 2: Districts in Himachal Pradesh

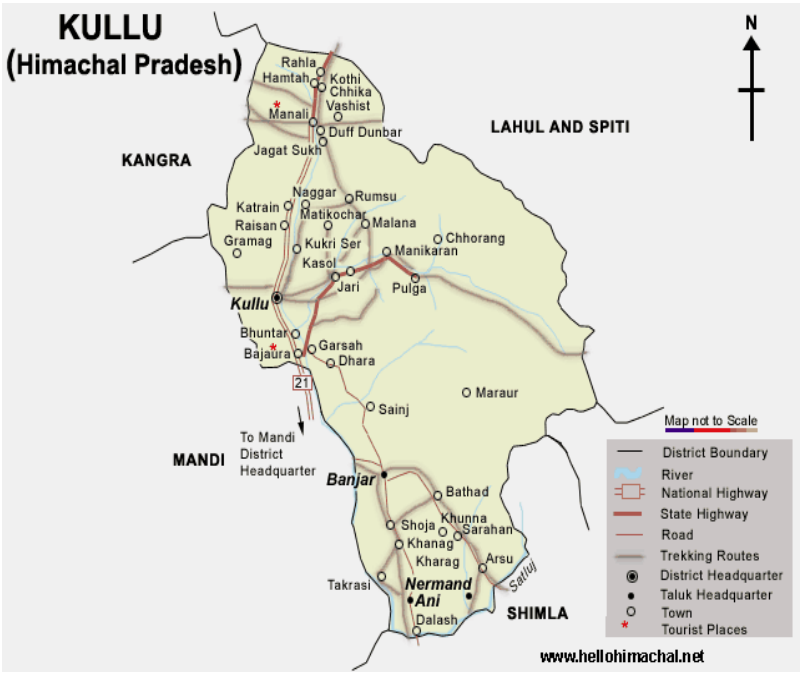

Figure 3: Kullu in Himachal Pradesh

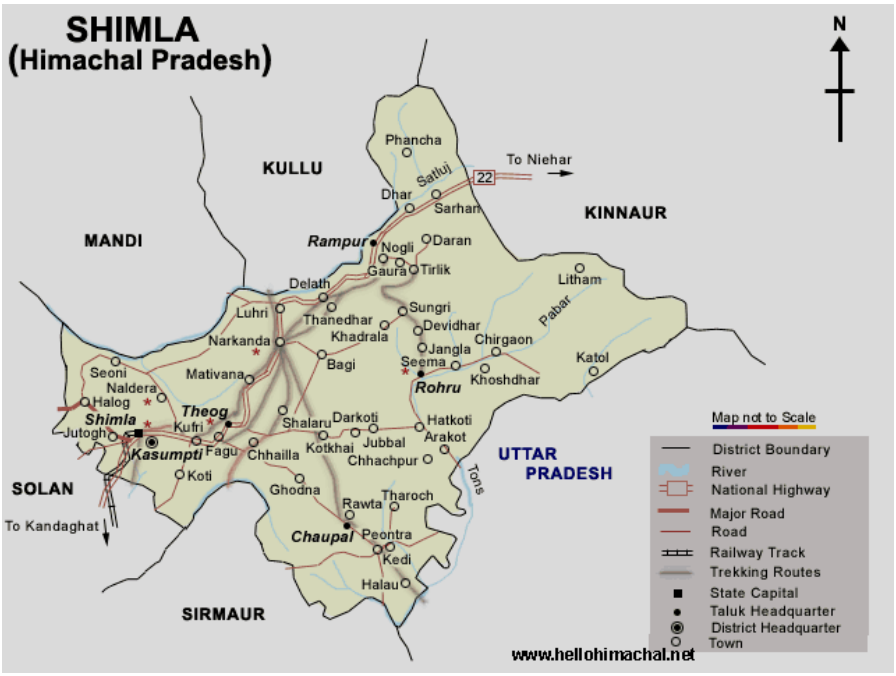

Figure 4: Shimla, in Himachal Pradesh

Some considerations on the choice of methodology

The question of development policy and its evolution is a complex and composite one. The choice of type and sources of data has to be made keeping in view the research question (s). The questions at hand are highly amenable to the Ethnographic approach, which as Johnson (1998: 150) notes is unique in "its ability to incorporate a wide range of methods, strategies and designs within a single enterprise, all combining in ways to improve the chances for credible results." The first major task is to situate Himachal Pradesh in terms of broad social and political-economic currents that have been a decisive consequence of being part of the larger Indian and even global system. In focusing at the intermediate level, which is to say the interstices and spaces that define the contingent boundaries of state and society at a given point in time, the macro

characterization is made in dynamic tension with the grassroots forces and factors. Again, the theoretical and methodological thrust is to arrive at an explanation and description that emphasizes the interaction, even mutual constitution of these seemingly autonomous entities.[5] The intermediate level theoretical position also helps me to eschew dichotomizing whereby the village/city, government/people and state/society are taken for granted as convenient binarisms. In avoiding the attribution of agency to a particular stratum (e.g. farmers), I have attempted a more diffuse (or perhaps, decentered) understanding of agency and its contingency owing to historical and social-political factors so that accounts of change do not veer towards either purely structural manifestations or "sleight of hand" voluntarisms. In doing so, I utilize the guidelines that have been spelled out by Nazarea in her vision of a different Ethnoecology:

> Ethnoecology needs to come to terms with the situated nature of knowledge, the constraining as well as liberating effect of this locatedness, and the importance of history, power and stake in shaping environmental perception, management and negotiation… In short, it is time to turn our attention to the interface between cognition and action… and the lenses and latitudes that shape and structure these interconnections (1999: 7, 19)

The methodological pluralism that I have adopted is in consonance with the recent trends in Anthropology towards questioning the hitherto unproblematized ideas such as that of the "field" and the correctives that have been suggested:

> Reconstruction of fieldwork tradition is well under way in anthropological practice. Participant Observation continues to be a major part of positioned anthropological methodologies, but it is ceasing to be fetishized; talking to and living with the members of a community are increasingly taking their place alongside reading newspapers, analyzing government documents, observing the activities of the government elites, and tracking the internal logic of transnational

[5] The ontology inherent in this research approach has found wide support across a range of diverse studies dealing with the role, interaction and interpenetration of state, society and market. For instance, recent studies by Sklair have challenged the theory that the success of East Asian "Tigers" was due to their unalloyed free-market policies; it is instead described as the result of a truly protectionist state that selectively patronized business families in their single minded attempt to facilitate national accumulation.

> agencies and corporations. Instead of a royal road to a holistic knowledge of 'another society', ethnography is becoming recognizable as a flexible and opportunistic strategy for diversifying and making more complex our understanding of various places, peoples and predicaments through an attentiveness to differing forms of knowledge available from different political and social locations. (Gupta and Ferguson 1997: 37)

The dissertation research was conducted in the seven-month period of December-June in 1999-2000. The time-period mentioned was, thus, spent in "the field", which for the purposes of the research question driving my research was not limited to a particular location or village. About four and half months were spent in two village sites and the rest of the period was devoted to the study of the legislative archives, newspapers and interviewing of policy makers, editors and scientists in Y.S. Parmar University. The field was conceptualized in a way as to capture the key relationships, which together determined the key characteristics of the research object— both relatively basic and situational. Thus, generally speaking, the idea of a bounded field containing the players and actors neglects the very real system of unequal relations and asymmetrical power that produces the field with its usual "trademarks". In describing the various meanings and associations with which the term "field" is pregnant with, Gupta and Ferguson note that:

> "The field" is a clearing whose deceptive transparency obscures the complex processes that go into constructing it. In fact, it is a highly overdetermined setting for discovery of difference… With this in mind, it seems most useful to us to attempt to redefine the fieldwork "trademark" not with a time honored commitment to the local but with an attentiveness to social, cultural and political location and a willingness work self-consciously at shifting or realigning our own location while building epistemological and political links with other locations. (1997: 5)

The issue of development cannot be approached through exclusive emphasis on the "community", "grassroots", "state" or bureaucracy as given. Rather, it has to be seen

as an arena that is structured by the interaction of the aforementioned categories. Of course, the categories themselves remain to be unpacked in particular settings where they have been indelibly imprinted upon by history. As Nazarea notes in not too different a context:

> We can weave into our analysis the history of asymmetrical relations with reference to class, gender and ethnicity, a history that is all too easy to forget if we confine our analysis to perceptual givens, but a history that cannot be finessed because it continues to shape the present. (1999:8)

The study of the impact of development cannot be separated from the specific manifestation and evolution of the idea itself. The response of people to development and the impact on them are tied and, moreover, not singular to be determined through exhaustive localized/micro examination alone. The attempt is to focus on the "region"—space between the macro and the micro aspects of the phenomena comprising development. In other words, the research endeavors to study development as a cluster of regional phenomena. The region as the unit of analysis is prompted by considerations similar to those outlined by Sivaramakrishnan:

> Region…signifies both distinct geographies and social organization, varied ways of producing a social and political identity that marks out a place. I prefer the term region because it allows me to range over the different spatial and social scales of analysis. In that sense it encompasses the reference to distinctive social and formations suggested by the terms like locality and the delimitation of self-contained ecological relationships implied by the terms ecosystem or watershed. But my discussion of regionality tries not to forget that unity within a certain arbitrarily nominated scale of analysis should not be presumed… Finding the impress of non-unitary, yet particular places on more general things is the challenge (1999:15).

On the other hand, a pluralistic approach to encompass multiplicity of agents, ideologies and rationalities is needed and used for the present research. Given below are

the main components of the constellation of factors that are critical to our understanding of development as an idea and practice.

Sources of data

The single most important distinguishing feature of modern developmental efforts is perhaps its reliance and indeed inseparability from the aims and methods of science. Again, the applications, utilization and indeed invocation of science in the service of development cannot be deduced from its putative universal and abstract contents and claims. Rather, it has to be pieced together through careful examination of theory and practice in different, particular contexts. Science as it is practiced and institutionalized, especially in Himachal Pradesh, is associated most closely with universities. For this reason alone, any inquiry into the field of development in the present area has to take the academic viewpoint as an important ingredient of the whole exercise. My association with Y.S. Parmar University of Horticulture and Forestry at Solan provided me the opportunity to interact with scientists from a broad cross-section of disciplines and enabled a sharper focus on the research problem. Equally important, it also helped me in dealing with the considerable logistics of carrying out the actual research. The problems faced in the course of developing a certain societal domain (e.g. horticulture), in addition to the solutions are often defined, at least rhetorically, from the scientific perspective. In a complex society with an array of contending (political) interests, there is usually no other way than to rely on the "objectivity" of science for advancing and privileging certain perspectives and claims. But more often than not, the authority of science is

invoked for thinly disguised partisan ends and even when this is not the case, the political fallout of scientific approach cannot be altogether discounted.

In-depth interviews were conducted with seventy families of apple farmers in two areas of the "apple belt" in Himachal Pradesh. The areas selected were Katrain in Kullu and Thanedhar in Shimla (See Figs 3 and 4). The farming families were selected using a combination of random and purposive sampling techniques. The main aim of sampling was to include farmers from all economic strata. For this purpose, they were divided, on the basis of size of land-holdings, into three categories of "small", "medium" and "large" farmers. In addition to interviews, a structured questionnaire was used to elicit basic demographic information as well as information pertaining to distribution of assets and sources of income. Two places within the so-called apple belt were selected to compare and contrast the differential trajectories of horticulture and related impacts arising from particular histories of the places.

The second major source of data is the archives containing proceedings of the legislative assembly where most of the debate concerning development policies happened and also shaped the public views and the larger social debate. In choosing this source, my main aim was to get a picture of the parameters, registers and voices that characterized the policy world as animated by a diverse set of historically situated policy-makers. The conflicting narratives of the aims and goals of development, on one hand, and the ways and means, on the other, characterizing a specific historical moment have to be traced back to the important period lasting until after the struggle for separate statehood. In commenting on the value of the archive, Des Chene notes that:

> …There are several ways in which it is legitimate to say that one can (re) construct, in a process as painstaking as fieldwork in more traditional fields,

> knowledge about social worlds now past by treating both documents and their authors as interlocutors…it is useful for us to be cognizant of the sometimes different epistemological challenges that archival research and field research present. But it becomes clear as we cast an ethnographic eye toward the past that to continue to valorize the face-to-face encounter will impoverish our accounts. (1997: 78-79)

The opinions expressed and positions taken were usually representative of long-held views that were ideological and polemical. These "prototypes" of perspectives also helped in tracing the genealogies of public discourse of and around development in contrast to a purely synchronic analysis which otherwise would appear to be hopelessly riven with conflicting and contradictory tendencies. The long period preceding the separation of the hill areas of Punjab, their integration with Himachal Pradesh and the granting of autonomy allowed time to the arguments to be honed and finessed in support of the case to be made on grounds of development.

The third major source of data has been the newspaper reports and coverage of development and political issues. I have focused on "Himalaya Times", which has been in circulation for more than forty years. During this period, the newspaper has emerged as the spokesperson for market-oriented horticulture geared towards improving the living standard of the masses. It is noteworthy that the founder-editor of the newspaper despite hailing from the *Garhwal* region in the Central Himalayas, which shot into limelight with the *Chipko* movement, stoutly opposes the alternate/Gandhian development paradigm that the movement's leader Sunderlal Bahuguna has espoused. The newspaper comes closest to championing a no-holds barred populist position, which emphasizes market-driven solutions for agriculture and poverty alleviation. In addition, I have included horticulture related coverage from such regional and national newspapers as "The

Tribune", "Times of India", "The Hindu" and "The Hindustan Times". The perspective even though lacking the depth and detail offered by "Himalaya Times" is informed by similar attitudes on horticultural development and provides insights into the nesting of the regional discourses in the larger national and international discourses.

Lastly, a number of government, semi-government and other sources were used for information relating to the various aspects of development experience of Himachal Pradesh. At Y.S. Parmar University, I spoke to Drs Y.S. Negi, A.L. Nadda, L.R. Sharma, R.P. Parashar and a number of other scientists in different divisions. In Kullu, I was in constant contact with scientists of the Indian Agricultural Research Institute (IARI) and forestry officials who helped me gain valuable insights into the working of the government at the local level. In Shimla, I interacted regularly with the editors and staff of "Himalaya Times" and Thakur Lakshman Singh, a prominent grower of Kotkhai area. I also interviewed a number of officials in the Directorates of Economics and Statistics, Land Records, and Horticulture. A number of publications analyzing the economic performance, statistics and horticulture were utilized. In addition, the memorandums submitted by the apple grower associations, particularly that of upper Kullu have also been used to provide understanding of the demands of the group and as expressions of their relationship with the government.

Himachal Pradesh: from subsistence agriculture to commercial horticulture

Over the last three decades, the area under horticulture[6], particularly apple, has undergone a manifold increase and Himachal Pradesh has come to be termed the "apple state" of India.[7] Livelihoods in the state, indeed the whole region, have historically been subsistence oriented. A mix of practices, intricately inter-linked, designed to tap into the diverse resource base had evolved in the region over time. Agriculture, for instance, was heavily dependent on inputs from forests and pastoralists with the latter supplying the much-needed manure for maintaining the fertility of soils that were often shallow and poor.

Until quite recently, it could be said that for the region:

> agriculture and animal husbandry…were dominantly subsistence-oriented. Rain-fed rice, wheat and various millets were the main food-crops. Animal fodder and fuel were derived from a variety of sources near the village, and demand for these resources was dispersed via a seasonal migration cycle which provided access to resources outside the village area. (Moench 1989 cited in Berkes et al. 1998: 29-30)

Despite the much- trumpeted success in increasing the area under apple, presently it accounts for only four percent of the total area under cultivation. The worth of the apple "industry" has been estimated at Rs. 300 crore (10 million= 1 crore).

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[6] In my research, I have focused primarily on apple for economic and symbolic reasons. Apple represents ninety percent of the total fruit production and accounts for half the area under horticultural crops. Even when other fruit crops are cultivated, they perform a supporting role, as apple gives the highest per-hectare returns. Symbolically, apple has come to be identified with prosperity and higher status.

[7] One of the indicators of the identification of Himachal with apple is the attention it receives in the mainstream media compared to other crops. Adverse weather conditions, budgetary statements and the relaxation in import tariffs are all, often, discussed with respect to their impact on production and apple growers. For instance, Shastri (1999) declares: "Poor crops in Himachal Pradesh to keep apple prices high this season". In another case, the shortage of and reliance on "foreign" labor for harvest is commented upon: "*Nepalis* rescue apple harvest in HP (Anonymous 2000). Elsewhere, people's reaction to the government decision to lower tariffs is noted: "Apple growers plan rally against Center decision on imports" (Anonymous 1999).

Over time, the area under apple cultivation has been expanding at the annual compounded growth rate of approximately four percent (Verma 2000). Productivity of apple, on the other hand, has been steadily declining. The frequency of "bad" years has increased mainly due to adverse weather conditions, changed disease ecology and expansion of apple on to marginal lands.

Therefore, to arrive at an understanding of the importance and popularity of apple, consideration of economic factors alone as in conventional development accounts will not suffice. Zurick and Karan in their survey of the status of horticulture in the Northwestern Himalaya state point to the far-reaching changes that have been catalyzed by horticulture:

> [that] it is already a big business. About 500,000 hectares of land are devoted there to commercial fruit and nut cultivation. Forty percent of the orchards grow apples, which account for over 80 percent of the total fruit crop grown in the mountains. Apple production has increased tenfold over the past decade alone, with major impacts on the regional economy, village society and the economy…The Kotgarh orchardists pride themselves on being known throughout the region as progressive farmers…The large orchardists are influential leaders in the state. Power is one result of their newfound wealth. (1999: 232-233)

The reasons underlying the iconic status of apple, so much so that it has been described as the identity of Himachal Pradesh, have to be sought in the contemporary conceptualization of "development" itself. Development has come to be seen as the panacea for the numerous problems confronting Himachal Pradesh which is linked to "the ability of the development discourse to comprehend any situation requiring "improvement" or "development" through a non-local technical expertise that can offer modular and generalized solutions" (Sivaramakrishnan 1999: 271). Himachal Pradesh, as with most mountainous areas in South Asia, is generally characterized as backward or underdeveloped on account of its "specificities" (Jodha 1994) like "inaccessibility",

"marginality", etc., which make them unsuitable for the technologically and capitally driven intensification that is possible in the plains. Agriculture, the occupation of the majority of people in mountainous areas is even more difficult to modernize because of structural and institutional reasons. For instance, successful green-revolution technologies have increased productivity in plains due to the specific impacts associated with increase in use of inputs like water, fertilizers and pesticides. These inputs are not available either due to environmental and topographical factors or inadequate size of land-holdings that renders use of inputs uneconomical.

Development: modernization modified?

The brief (conventional) account of the lack of development in hills provided above, of course, obfuscates the exact nature of what in practice is accomplished under the rubric of the term development. Again, the development policies as conceptualized and implemented by an array of state actors do not unproblematically and automatically translate into desired consequences. To begin with, there are several versions of development in the public sphere, complementing and sometimes contradicting each other. The official version is derived, or so it claims, from one of the several variants of modernization theories. As Cole describes, the movement from traditional to modern involves transition from:

> A society characterized by little economic specialization, a limited division of labor, marginal market activity and essentially subsistence production and where the capitalistic organization of production is unusual, with a very small wage-labor force; from a culture steeped in tradition, hierarchy and obstacles to change; from a high birth rate reflecting poor health facilities and the need for support in old age; from a rural-urban flow of goods to

> A society with a highly specialized division of labor, where market exchange is widespread and people on the whole do not produce what they consume; where entrepreneurs are pivotal in organizing production, and most people earn wages; where there is a low birth rate as individuals adopt attitudes of individual responsibility consequent upon market competition, and as a basic welfare net is provided by the state; where there is rural-urban exchange of goods... (1999: 169)

Despite the limited penetration of apple in the countryside reflected both in the area and number of families involved in its cultivation, why is apple considered a success story on a scale such as to become the identity of the state? Partly the answer has to come from what apple has transformed economically, socially and culturally.

Economically, as we have seen, the picture is not totally convincing but even more importantly it leaves unexamined the issue of the constitutive socio-political dynamic and cultural logic. The key to decoding the salience of apple can only proximately, if at all, be provided by its fulfillment of economic criteria associated with development. A more substantive explanation must elucidate the social and political conditions underlying the ascendance of the economic calculus.

The success story, thus, needs to be evaluated against the backdrop of Indian, especially post-Independence, experience with development. The agrarian problem in India has been officially diagnosed as one of low productivity (of labor and capital) leading to high incidence of rural poverty. Mountain areas are seen as "traditionally" agriculturally backward for being subsistence oriented, according to the criteria of development spelled out earlier. The poverty of hills due to "backward" and "stagnant" agriculture— determinant of the low status of Himachal (*pahari*)— was the *raison d'être* for the demand of statehood. It was felt that until the region was accorded political

autonomy, it will continue to be controlled by Punjab in the manner of a colony thus thwarting the process of genuine development.

Intent to Develop: Conception and Origins

Poverty, of course, stood for more than material deprivation. The term was used to describe the asymmetrical power relationship with the plains, especially Punjab, (of which it was then a part) that the people of the region found themselves in. The Hindi/Urdu equivalent of poverty, *gharibi*, which the term in English seeks to approximate, denotes, primarily, a condition of helplessness. Such was the perceived powerlessness of the hill people with regard to the ability to control and mould their destiny. The effects of this lack of control over their own lives were most easily visible and understood in terms of the absence or unequal distribution of goods, commodities and "resources". Political control was seen as critical for changing the situation of profound inequality that had led to the virtual enslavement of one people by another. The formation of state in the region was deemed the only solution and even a historical necessity. The state, thus, came into existence in the region with the explicit mandate for development. One of the main goals of the present research is to examine the state as a site where the "intent to develop" is reconfigured into a programmatic understanding through the mediation of the socio-political and economic forces. The instrumentality of state is not taken for granted by placing it above and outside the society but considered as

a historical outcome associated with the interaction and balance of the multiple dynamics at work.[8]

Chapter 2 provides a more grounded view of the socio-economic changes that are occurring in Himachal Pradesh. With the use of the data on labor, diversification and the social-structural changes at the micro/household level, a more balanced and comprehensive picture emerges of the impact of development on people. The focus at the local and household level is used to compensate for the neglect of the same by the conventional political-economic approaches that assume and abstract the effects on local level by de-scaling the larger phenomenon. For instance, the impact of import-substitution policy in sphere of food production cannot be anticipated by scaling down the putative changes, that is, increase in food production or availability. To do so, would be akin to taking a totally deterministic approach with regard to the household and local level. The fact, on the other hand, is that these local level structures have their characteristic processes that in the course of translating the larger-scale forces alter and transform them profoundly. Thus, the impact of horticulture and related economic and social changes on lives is not just passively received but actively re-configured through the changing interests and identities. These changes can only be understood by empirical examination and cannot be deduced from other, presumably, more potent forces and structures.

Chapter 3 deals with the political-economic framework that has crucially affected not only the concrete policy outcomes but also more importantly the conceptualization of

[8] In general, Modernization theories have considered, even championed, the emergence of strong state as a precursor for development. The formulation was, of course, premised on fundamental antagonism between the state and society. Gunnar Myrdal (1968: 895-900) blamed the poor development on the inability of "soft" states to transform themselves into "hard" states.

the "problems" confronting the hills people. The approach is rooted in identifying the common concerns, targets and strategies that have been common to tackling the so-called "agrarian question" in India. The approach also provides a way of situating the on-going changes at the regional and sub-regional economy within the global system by tracing important linkages between them. Simultaneously, the history of development in Himachal Pradesh encompasses more than just the progressive changes in structural conditions and the capacity for dealing with it. The structural problems become visible only in light of certain ways and means of comprehension and conceptualization. These strategies or approaches are heavily influenced by the permeability of knowledge generation and transfer systems that are global in scope and scale. Thus, the history of ideas cannot be reduced to being an effect of changes in structures but has to be studied in its own right.

Chapter 4 is devoted to the study of the growth and functioning of the apple grower associations. In Himachal Pradesh, the apple grower associations have played an important role in the expansion of horticulture. Amidst a preponderance of theories championing either technical, top-down models or uncritical emphasis on the salience of the "grassroots", the process of collective action offers an opportunity to avoid the either-or dichotomy. The logic underlying collective action is examined from the resource-mobilization and identity-formation perspectives.[9] Thus, the associations are considered

[9] Apple grower associations (now also known as fruit and vegetable grower associations) as social movements provide not only conceptual but also epistemological bridge between the state and civil society. In analyzing the movement, I attempt a combination of paradigms, which are usually considered mutually exclusive. In doing so, it adds to my overall quest for the "middle road". Cohen and Arato (1992: 494-495) summarize it succinctly:

> The hermeneutic approach to the self-understanding of contemporary collective actors *vis-à-vis* their identity goals, targets, and strategies…must be complemented by an approach that involves taking the point of view of observer rather than that of the participants. This will enable us to

as responding to structural exigencies in addition to "making sense" of the same because of the durable subject-positions that have evolved in light of the shifting nature of overall state-society dynamic. Thus, "rather than seeing institutions as separate from social networks, however, I treat them as part of, and closely tied to, existing networks of social relations" (Aggarwal 2001: 13). Eschewing approaches that either slot popular movements in an oppositional mode *vis-à-vis* the state or consider them to be mere extensions, the analysis focuses on the precipitation of subjectivities from the long-term, state-society interactions and their harnessing for instrumental ends. In this task, the social structural specificities of Himachal Pradesh are accorded special attention. However, the place occupied by these associations in the state is both structural as well as symbolic. As Jordan and Weeden have pointed out:

> Culture in this sense, is not a sphere, but a dimension of all institutions-economic, social and political. Culture is a set of *material* practices which constitutes meanings, values and subjectivities. (Cited in Alvarez et. al. 1998: 3)

Finally, the emergence of the associations is "taken as a landmark in the changing rationalities of rule and…strategies that different state and local community actors count as significant" (Aggarwal 2001: 13).

Chapter 5 deals with the perception of climate change that is starting to result in the shift away from apple cultivation and towards diversification. In its reliance on both the (scientific) knowledge of apple-weather interaction and the (pre-) existing frameworks furnished by the traditional understanding of weather, the local knowledge of weather reveals itself to be dynamic, hybrid, pragmatic and "intentional".

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assess the ways in which the context and transformations of civil society are related to the appearance and logic of collective action.

The other dimension of climate change in the state relates to the relationship of the perception with the larger quest for legitimacy on part of apple growers. In a field characterized with increasing competition for scarce resources, it takes considerable effort to keep the scales from tilting away in the other direction. Perceptions of climate change in this sense add to and amplify the claims that are made on the state and the resources it commands.

Development policies seek to act on a social and ecological world that can be putatively reduced to the working of some key variables and factors. Framed in advance, the policies and their bureaucratic purveyors are resistant to change. Even under the best of conditions, the response is slow and late in coming. But more importantly, the blueprints for development can never encompass the contingency that is characteristic of social and ecological systems much less their interaction.

Apple cultivation is dependent on the existence of suitable weather conditions. Different stages of apple growth require a succession of specific weather conditions in order to materialize. The promotion of apple in Himachal was done disregarding the numerous variations that exist along several interrelated dimensions such as slope, aspect and vegetation. Of these, micro-climatic variations are most critical for apple productivity. The actual response of apple (including its different varieties) to the variable climatic conditions was known in very general and generic terms— the standard conditions could be fulfilled in only a very small part of the area that, later, came to be characterized as the apple belt. The actual variability is so high that different parcels of land belonging to the same farmer differ widely in their suitability for apple cultivation. Apple performance under actual field conditions could not be fathomed in theory but had

to be determined from actual outcome by individual farmer. The implications of this uncertainty for the farmer are far from insignificant as apple cultivation involves considerable investment of time and capital. The gestation period of about eight years makes the opportunity cost particularly prohibitive with the result that even when the lack of suitability of apple for a site becomes known (because of the high risk of crop failure), farmers choose to continue with the orchard.

Climatic factors are notoriously resistant to human manipulation and control. In describing the vulnerability of the Wola of Papua New Guinea and others to the vagaries of weather Paul Sillitoe comments that:

> Regardless of our advanced technological capabilities, we are more or less in the same position as these New Guinean highlanders, the weather remaining largely beyond our control. We may attempt engineering and agricultural innovations to palliate the effects of drought in Ethiopia or cyclone in Bangladesh, but the weather responsible exceeds our prediction and management…(1999: 99-100)

In view of the fact that apple in the region was introduced only recently, it is indeed interesting how people have arrived at an understanding of the limits of its cultivation in different areas for not only is apple sensitive to the lack of requisite number of "chilling hours" but it also becomes increasingly vulnerable to spring frost damage as cultivation expands into higher reaches. What is truly interesting is the understanding of the weather that is rooted in a framework involving conceptualization of apple-climate interactions.

In as much as the "vagaries" of weather have and continue to threaten not only the profitability but the very existence of apple in Himachal, an understanding of the factors that have lead to its exclusion from development planning becomes indispensable. I have used a framework that emphasizes the differential and divergent practices, institutions

and discourses that play a critical role in production, deployment and impact of knowledge "systems". Weather and climate in the long run thus typically do not figure in the homogenizing development calculus for a complex of reasons that have to do with the incompatibilities arising out of structural, practical and cognitive factors. Here it is interesting to note that this "edifice of dissonance" that separates "modern" from "traditional" and "advanced" from "primitive" has a long history— especially as a mechanism for producing *difference*— social, political and cultural. Jankovich in an historical account of emergence of "modern" meteorology from meteoric reportage in England has described these differentiating processes in fascinating detail:

> What reasons did the new meteorologists of the early nineteenth century propose against meteoric reportage? The most frequently quoted argument against the chronicles of unusual weather had to do with methodological inadequacy…. Was there a methodological tool available to connect singular data into a coherent body of knowledge? When by the end of eighteenth century, such questioning became more insistent, especially among new groups of experimentally trained naturalists, provincial reports on individual weather events began to appear out of touch with the practices of natural science... the emphasis on knowable cycles of benevolent weather represented a tendency to diminish the significance of individual meteorological events on both theological and epistemological grounds… the result of these processes was that the chorographic impulse lost its cultural rationale in sustaining local natural history. With the enquiry into local weather becoming a methodological prerequisite for a globally evolving atmospheric systems, the meaning of locality changed from its status as an exclusive end of investigation to a specimen in a larger entity, a point on a grid. Scrutiny of local weather…mattered only to the extent that atmospheric unity manifested itself in a locale…in this conversion of emphases, the weather was about to lose its human relevance, and its investigation its appeal in terms of the topophilic culture of the Georgian countryside. The culture of "country airs" lost out to the physics of planetary circulation. (2000: 10-11)

While the account presented above reiterates the history of the conflict and contestation in the realm of meteoric knowledge especially in terms of the rapidly

evolving cultural and political conditions of production, it should be not be taken to imply inevitability of the clash, much less its outcome.

Development: Knowledge, Uncertainty and Lessons

This section deals with the conceptualization, implementation and reception of development policies and goals from the perspective of the clash, cooption and accommodation that occurs between the ways and means of the state and those of the communities that it seeks to govern. The divergent capacities and modalities of thought and therefore action are not solely hegemonic but are juxtaposed and superimposed synthetically by creative social and political actors, creating conditions for outcomes to deviate from "the plan". Needless to say, for development to be successful it has to know its object and this precondition is more often assumed rather than actually met. Part of the problem is the complex nature of the object of development— the human society. The mode of knowledge that is hegemonic and has come to accept broad legitimacy can be termed as roughly scientific, which in its role of informing public and policy debates takes on a cruder and simplistic positivist turn. Again, the results of encounter between systems of knowledge cannot be totally anticipated. As Sivaramakrishnan has pointed out:

> …knowledge and power are not always in a predefined and predictable relationship. The grooved routines of management, where knowledge and power flow into each other, are produced through a process of experimentation, of reading existing arrangements, of culling knowledge and shaping the basis of power. This turns out to be a tortuous and uncertain process where the perfect coincidence of knowledge and power cannot be presupposed. (1999: 280)

Non-availability of appropriate methods

Epistemologically, the principal concepts, which organize the structure of scientific inquiry used to generate knowledge like "atomism", "universalism", "monism", "objectivism" and "mechanism" (Norgaard 1994: 70-74) are not sufficient to analyze the complexity, contingency (even stochasticity) inherent in social and natural systems, not to speak of their interaction. Thus, in this view the crisis in development arose from the inadequacy of the methodological tools that are ill-suited to the task at hand—understanding the human society. The principles listed above have, no doubt, helped technical and scientific achievements of an unprecedented kind but there is an epistemological mismatch with the purpose and goals of human development.[10]

In Himachal Pradesh and Himalayas in general, the problem of the "fit" of methods with the conceptualization of solutions and even problems is further complicated by the uncertainty that characterizes all aspects of life. This uncertainty, in turn, is the result of tremendous diversity in the physiography and even more importantly the human responses to the same.[11] The diversity is evident in the patchwork of communities, languages and practices that can be found even over relatively small areas. The usual tools of a "cis-science" (Thompson et. al. 1986: 13) geared towards generalization cannot

[10] The five principles mentioned above have been credited with the fact that (Norgaard 1994: 75) "while science has progressed little at an integrated level of understanding, and for such understanding, we still rely on *other* ways of knowing" (Emphasis mine).

[11] Saberwal makes a similar point regarding Himalayas:

> A key argument in this analysis is that that uncertainty in our understanding of ecological processes, particularly in the context of multiple causality that is so commonly encountered, makes the field particularly susceptible to being shaped by cultural or political processes. Since there can be different causal explanations for a given phenomenon, the explanation that comes to be accepted ultimately is often influenced by factors other than the thinking of the purely objective ecologist, particularly when policy considerations are at stake. (1999:207)

cope with a situation where it is not that "problem contains some uncertainties…[but] it is the uncertainty that contains the problem".[12]

Conflicting characterization of the object

Shweder (1994) contends that the issue is "deeper" and more fundamental than the use of wrong methods. In other words, the conflict is over the premises of what constitutes our understanding of the human condition: it is seen as a contention over the very nature and ontology, of what is construed as the object. The local, historic and contingent, characteristics of folk knowledge are thus seen by the conventional development yardsticks as mere:

> *Qualia* (feelings, beliefs, goals, desires, meanings and values) [and] are not only illusory (or "epiphenomenal"; perhaps "epinoumenal" would be the more accurate term for something that is supposed to be unreal) but can play no part in an objective account. (Shweder 1994: 185)

Politics of Knowledge

The incommensurability between the local ways of seeing, knowing and doing and the institutionalized procedures and practices can, thus, be likened to a difference in worldviews. In view of the hierarchy that exists between these two kinds of knowledge, the prospect for appropriation and domination are relatively stronger than for accommodation and genuine synthesis. Scott (1998: 340) after an extensive comparison

[12] It can be safely said that uncertainty is going to increase in the coming time. One of the sources is the Indian entry to WTO under which import duties have already been lowered on a number of agricultural commodities leading to flooding of the market with imported produce, which is threatening local producers. The issue has received wide coverage in the media. For instance, the Fruit and Vegetable Grower Association expressed "Concern over import of apple" (Anonymous 1999). In another instance, Vidya Stokes, a leading grower and chief of Congress party said that "Himachal apples face Chinese onslaught…[and] demanded that government increase the import duty to make it difficult for foreign countries to export apples" (Anonymous 1999)

of the two systems of knowledge concludes: “there seems to be no door in this epistemic edifice through which *metis*[13] or practical knowledge can enter on its own terms”.

The claims of inappropriateness of the knowledge in which development approaches and interventions are rooted are buttressed by the nexus between particular kinds of knowledge and the institutional imperatives. Often, these institutions as organs of modern nation-state are arrayed in an adversarial position with respect to the communities and their ways of life. In other words, state power is exercised through specific kinds of knowledge, or more accurately, the presence of certain kinds of knowledge, incorporating specific ways of looking at the world is essential for the emergence of the modern nation-state with its bureaucratic apparatus.

Furthermore, as mentioned earlier, the penchant for abstract and general characteristics of knowledge that forms the basis of policy-making has significant political consequences. Participation in development is rendered mostly symbolic as people with their local, specific and highly contingent understanding are not seen as capable of contributing to the projects, which require formal, technical and specialized knowledge. In the order of things, thus conceptualized, people on account of their “resistance” are seen as harboring antiquated, even superstitious beliefs. Or conversely, the new beliefs and understandings are assumed as registering themselves readily on the *tabula rasa* that minds of people are assumed to be in absence of modern knowledge.

Of a more recent vintage are the attacks on development that are influenced and prompted by the application of discourse theory along with application of deconstructive

[13] “Broadly understood, *metis* represents a wide array of practical skills and acquired intelligence in responding to a constantly changing human and natural environment” (Scott 1998: 313).

methods.[14] Among the leading critics is Arturo Escobar, who has described the idea of development as deeply hegemonic and complicit with the global system of domination and inequality.[15] The idea of development in the post-structuralist critiques is situated in a trajectory of thought that is irredeemably contaminated with concepts such as "progress" and dichotomous opposition between tradition and modernity.[16] The simplicity and indeed violence that belief in the concept of progress has engendered is ultimately traced back to enlightenment and its Eurocentric bias. By attacking the universality of the enlightenment and its historical and ideological offspring— modernity— not only are values so radically relativized as to be rendered incomparable but even the concept of rationality comes under attack as a specific western construct.

Ferguson (1990) in a well-known study of the discourse of development agencies in the South African country of Lesotho has demonstrated the presence of certain abiding narratives and constructions, which are used to justify and legitimize (bureaucratic) intervention in the name of development. Often, the patently inaccurate information on which these highly stylized representations of reality are based is not just a product of oversights but is at root politically inspired. The implications are, thus, profound, for not

[14] There has been a proliferation of such critiques recently and, here, by no means, do I attempt to present an exhaustive review of the relevant literature but instead focus on those ideas that form the core of what has been termed the "post-modern challenge" (Gardner and Lewis 1996) to development.

[15] Escobar (1995: 8-9) describes the existence of development as a "sign of power over the Third World than a truth about it". Again:

> Development as a historically produced discourse entails an examination of why so many countries started to see themselves as under-developed in the early post-World War II period, how "to develop" became a fundamental problem for them, and how, finally, they embarked upon the task of "un-underdeveloping" themselves by subjecting their societies to increasingly systematic, detailed, and comprehensive interventions. (Escobar 1995: 6)

[16] According to Escobar:

> …the primary lesson of the Anthropology of Modernity of Western societies since the end of the eighteenth century…accumulation of capital…required the accumulation of normalized individuals and the accumulation of knowledge about the processes of capital and populations (1996:55).

only is knowledge bound up inextricably with hegemonic discourses but in absence of an external, (discourse-) independent reality, power-saturated concepts are the means for understanding and action, reducing the room for exercise of agency.

The distinctive feature of the post-structuralist critiques of development is their emphasis on the pervasiveness and ubiquity of power relations. Social and indeed all life is understood, contested and lived within the confines of language, including concepts, terms and labels, that are fundamentally political. Therefore, in this view politics is inherent in the very act of cognition. The result, not difficult to see, is often the negation of the possibility of emancipation and even resistance in the system-shattering sense of say Marxism. The idea of noisy revolution has thus been replaced by myriad, non-remarkable acts that neither pre-suppose the existence of revolutionary agent nor transformative consciousness. In this diffuse account of action and agency, there are only subject positions, awareness is always partial and ramifications outnumber and outreach the impacts and implications. There is no central logic or core causes— in this un-heroic account of social and political action neither meaning nor intentionality can ultimately be grounded.

Sivaramakrishnan makes the case for the both the ability and limitation of the state in foisting its power:

> Bureaucratic governance is about the reification and management of taxonomies, we must attend to the liability of these classifications and their recasting in familiar terms of local experience through which people use and reshape them. (1999: 9)

Implications

The last chapter of the dissertation contains a detailed discussion of the implications of the present research. In what follows, I have presented a brief sketch of my understanding of the shortcomings of development approaches that in trying to implement and institute abstract schemes *in toto* attempt to control and change on a scale that is epistemologically and politically not possible. Thompson et. al. (1986: 150) prescribe a modest, self-reflexive, "tinkering approach rather than a grand design. Grand design is feasible only when there is complete (or near-complete) knowledge". This will entail the acceptance, ontologically:

> that the unity of human beings is not to be found in that which makes us common and all the same, but rather in a universal, original multiplicity, which makes each of us so variegated that others become accessible and imaginable to us through some aspect of our own complex self. (Jessor et.al. 1996: 24)

Most effective policy, thus, may consist of doing *less* rather than *more*. States and in particular the Indian state has tended towards a policy of excessive control that has in curtailing entrepreneurial and creative activity been counterproductive. On the contrary, it had led to widespread corruption and promoted rent-seeking[17] behavior. Herring makes the point that:

> India's attempts to create and operate a developmental state were not entirely counterproductive but miss… [the] point that states have strong thumbs but clumsy fingers. The implication is a staging theory of the developmental state across historical time: strong thumbs mobilize capital and structural transformation, but once these historic tasks are completed, interventionist

[17] In the present context, the term "rent-seeking" behavior is used mainly to contrast with profit-seeking activities. While profit-seeking involves productive investment under conditions of market competition, which in the long-term helps in proper allocation of scarce resources, the emphasis in rent-seeking is on manipulation and avoidance of competition to earn monopoly rents.

states tend to slow economic growth by trying to fine-tune that which is too complicated to micro-manage. (1999: 330)

CHAPTER 2: MOUNTAIN AGRICULTURE: OPPORTUNITIES, CONSTRAINTS AND THE EXPERIENCE OF HIMACHAL PRADESH

Introduction

In this chapter, I will examine the processes that characterize the local level from the perspective of the changes brought about by development. By the use of the term "local", I imply a spatial scale smaller than the region and perhaps more importantly, "space", which connects people with the macro world characterized in terms of large-scale political-economic processes through experience— the ultimate target and test of development approaches and policies. The use of space is meant to convey the multidimensionality of embodied experience— as crystallized through the workings of economic, social and cultural forces. The use of different categories, economic, cultural and social, is, of course, for analytical purposes alone as the lived experience does not resolve along axes conforming to the division spelled out. The division also helps in situating the present study between the generalizing and particularizing polarities as it concedes the simultaneous singularity and multiplicity of consciousness.

I disaggregate the economic experience at the farm and local level through the use of examples of impact on the labor utilization and innovation. The former demonstrates the existence of households with variable resources through which "development" is refracted into lives and rendered as a meaningful and real experience. The local is, of course, one place in the arrangement and equations in which lives, events, structures and processes co-exist, interact and jostle to produce the effects that are subjectively realized.

"Innovation" is analyzed for its links to resource distribution and control— both material as well as those that pertain to information.

In the debate over development, especially, in the relatively non-industrialized countries, different routes that could increase the pace of economic growth have been discussed. In view of the fact that the great majority of people in these countries resides in rural areas, the question of rural transformation assumes prime importance. It is in this connection that the role of non-agricultural activities comes in for scrutiny as the agricultural sectors have traditionally been characterized by poor performance from the perspective of growth in output. Dairying is discussed as an example of non-farm rural activity that has considerable potential for enhancing household incomes, especially, those of the poorest ones. The experience is related to the institutional-economic context.

Modernization is generally used to describe the panoply of changes that in the economic realm include greater play of market forces and removal of non-economic fetters that hinder the unrestricted operation of the market mechanism.[18] In the social sphere, the changes are considered no less radical in their implications for the basis of inter-personal relationships including forms of association. For instance, the Durkheimian notion of the passage from mechanical to organic solidarity and the associated demise of ascriptive ties and relationships are seen as *sine-qua-non* of modernization. The Indian state though formally committed to abolishing caste has actually strengthened it in some unexpected ways. Since caste remains a strong predictor of class by determining access to resources, the changes and links to development processes are examined through examination of interplay of diverse influences including

[18] See the concluding chapter for a discussion of the reification of the market mechanism that often obfuscates the social-institutional basis of the processes that are seen as typical of market.

electoral politics. Caste, though important, is not unchanging in the way it influences lives of people. Berreman (1993: 257), one of the most astute observers of caste in hills has remarked that: “Caste is not a static phenomenon. Not only are relative caste status and the attendant caste rules in constant flux, but the caste system itself assumes new and varying significance under varying circumstances.”

Again the abstract characterization of change such as that included under the rubric of modernization, no doubt, contains grain of truth but remains under-specified. In this chapter, I consider the changes that the traditional institution of *deota* (village God) has undergone. Far from being the result of the triumph of a more rationalist and objective mindset (in accordance with the teleology of modernization), the “erosion” in the authority is the result of the shifting political and economic realities. Thus, far from being a manifestation of the uni-directional (upward) march of reason, the changes could conceivably be reversed and the institutions can emerge far stronger than they currently are.

Finally, the developmental experience of Himachal is compared with the rest of the Himalayan region and other Indian states to a lesser extent. The measures deployed for framing the discussion are conventional and provide an understanding of the standards and goals that implicitly or explicitly characterize and unify diverse developmental approaches.

The overall aim of the chapter is to examine the malleability of the plans and schemes when confronted with the multiple uncertainties encapsulated in the local and the household— the “object” of development. Special attention is paid to the differences

in rule and practice, principal and outcome as a consequence of the application of linear means and methods to a realm prone to non-linearity and even stochasticity.

Mountain Agriculture: a sketch

Any discussion of agriculture in mountains and its marginality, which forms the object for development interventions, has to take into account the specific conditions, including physical and cultural, that characterize these environments. The last two decades have seen increasing focus on the issue of definition and classification of mountain regions of the world (Ives and Messerli 1984, Ives 1987). The overriding concern of most research has been the issue of development of a worldwide classification system that could encompass all the diversity that was encountered. The limited scope of such an enterprise was soon realized when it became apparent that no proposed system could encompass the complexity[19] that was encountered in the physical realm, much less, the far more perplexing questions of human diversity that nestled amidst them.[20]

Despite the inability of the researchers to come up with an overarching scheme for mountains, some important and distinct mountain attributes were successfully delineated. Verticality was the most important among these and comprised of both slope and altitude characteristics. Mountains were characterized as high-energy environments vulnerable to the destructive impacts of natural processes and in turn spurring a local and highly specific pattern of adaptations (Eckholm 1975, 1976).

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[19] Carl Troll, for instance, referred to mountain areas in the humid equatorial zone of Indonesia as "high mountains without a high mountain landscape" (cited in Messerli and Ives 1997: 4).

[20] The dominant focus (or lack thereof) on mountains is to some extent balanced by a long history of mountain, particularly Himalayan, studies by Anthropologists and others. Among these, See Macfarlane (1976), Netting (1976; 1981), Allan et al. (1988), Fisher (1978), Fricke (1986, 1993), Haimendorf (1964; 1979), Pant (1935), Guha (2000).

The issue of neglect of mountain areas and communities is not limited to the political arena alone. Academic research, be it in natural or social sciences, is driven by concerns that are primarily those of the dominant section— the "flatlanders" (Rhoades 1997: 56). The importance of mountains and their inhabitants was initially derived from their putative negative impact on the more important lowland areas and was of piece with the growing awareness of an ecological crisis. Mountain agriculture has been seen as marginal, especially, in accordance with the standard measures such as yield per unit of land. The characterization of mountain agriculture in such uni-dimensional and negative terms does little to advance our understanding of the constraints and complexity that are its integral parts. One of the ways in which a more balanced appraisal of the performance of mountain agriculture could be attempted was through the consideration of mountain *specificities* (Jodha 1992). According to this perspective, the mountain environments offer certain inherent opportunities and constraints related, predominantly, to their physiography. According to Jodha:

> In relation to mountain areas, the basic features of the resource base and production environment are referred to as mountain specificities. The important ones are inaccessibility, fragility, marginality, diversity, 'niche', and human adaptation mechanisms. These attributes have several operational implications in terms of objective circumstances, which in turn shape the pattern of activities and their linkages. When any development intervention or resource-use practice violates the imperatives of the mountain specificities, it tends to initiate the process of resource degradation and long-term unsustainability. (1992: 25)

The question of "sustainability" rakes up issues about the multiple, often contradicting, perspectives that inform the notion. According to Rhoades:

> While the scientists need an operationalized definition of sustainability, such definitions should not be confused with what local mountain farmers actually see as problems, potentialities, or long-term goals… The varied 'points of view' between folk and scientific understandings are sometimes difficult to reconcile.

> Yet, understanding that there are differences teaches us that indicators of unsustainability are relevant only if related to whom they have meaning and the social context within time and space. (1997: 45)

Subsequently, in light of additional research, some of the premises that had led to an overwhelmingly negative assessment of the mountain people and their subsistence practices were challenged (Ives and Messerli 1989). The record was set straight or at least corrected by the insights informed by the adaptationist perspective (Rhoades and Thompson 1975; Brush 1976, Guillet 1983). Briefly, this view emphasized the system of ideas, rituals, kinship and practices in mediating the human-environment relationship. It was pointed out that the long period of relatively autonomous human existence in the mountains had helped evolve and perfect socio-cultural mechanisms. Research on mountain agriculture has also emphasized the ability of the mountain farmers to innovate. Rhoades notes that:

> Another strategy adopted by mountain peoples is that of intensifying their production systems when population stress creates tensions for the community… They [farmers] have indigenously designed irrigation and terracing systems, which allow further intensification. The very fact that mountain farmers in the Andes, Zagros-Taurus Arc, and Eurasian mountains (including the Hindukush-Himalayas) domesticated most of the crops, which provide 80 percent of the calorific intake of humanity is a striking example of mountain farmers' creativity. (1997: 91-92)

The developmental record of mountain areas, thus, has to be analyzed in light of the constraints and opportunities offered by the long-term pattern of multi-faceted human-environment interactions. The criteria for what constitutes success in mountainous realms will have to be revised to take into account not only the, relatively clear, mountain specificities but the overwhelming role played by uncertainty and contingency in shaping the lives and destinies of mountain people.

The approach that combines the "genius" of local institutions, practices and knowledge with the exogenous inputs in the form of modern science and technology can work best in areas that are difficult for conventional development interventions. Ives et al. provide policy prescriptions:

> A mountain perspective approach would appreciate local knowledge, social capital, and biological resources, which need to be complemented by outside resources and knowledge… to design action programs buttressed by policy instruments and tools (credit, technologies, infrastructure, and so on). These should be provided to complement the indigenous resources (human and biological) since all are required for sustainable development. (1997: 461)

Some Observations about the areas under consideration

The districts of Kullu and Shimla are part of what is popularly termed as the "apple belt" of Himachal Pradesh. Despite having a considerable proportion of their arable area under perennial tree crops and a shift away from field crops, the areas differ in important respects. Firstly, Shimla has a history of apple cultivation going back to the time of the pioneer Satyanand Stokes, who incidentally planted the first orchards with American varieties in 1918 in Thanedhar/ Kotgarh (Sharma 1999). Kullu, on the other hand, had a rather late conversion to Apple with the bulk of the planting having been undertaken in the 1970s and 1980s. Secondly, following from the first difference, Shimla has much less area under field crops whereas Kullu still continues to have field crops, especially on the irrigated portion of land-holdings. These variations also translate into important differences in terms of pattern of labor utilization, adoption of better horticultural practices and, in general, the factors related to crop productivity, use of inputs and diversification.

Sampled Households: some basic facts

The following table based on my field survey presents the distribution of sampled households according to the size of land-holding. Households have been divided into three sizes: "small" with holdings of less than one hectare. "Medium" and "Large" households have between one and two Ha and more than two Ha respectively. Also given is the information about the number of members per household.

Table 1: Sampled Households: Size of Family and Land-Holding

Family Size	Kullu N= 40			Shimla N= 30		
	Small	Medium	Large	Small	Medium	Large
5	5	3	0	5	0	2
6	9	5	0	7	0	3
7	4	2	1	6	4	5
8	3	0	7	2	0	0
9	1	0	0	0	0	0

(Source: Field Survey)

Inter/Intra Households Division of Labor

For the forty-two small households interviewed, agricultural wage labor and off-farm employment are important sources of income. The nature of wage-work in horticulture differs between the two areas surveyed. In Shimla, the unskilled wage labor related to horticulture like harvesting, transporting to the road-head, spraying and digging was mostly done by the migrant *Nepali* labor. In contrast, unskilled labor in Kullu orchards was provided mainly by local labor drawn from small households. Skilled horticultural labor including work such as pruning was rarely done by the migrant labor.

Off-farm work involved tourism related activities (such as working in restaurants), infrastructure building including government works and government salaried positions. Of these options, the first one is available primarily in Kullu. Two men from the "small" households worked in shops supplying meat to the roadside restaurants that cater to the tourists. Three households, one each from the three categories, had members with government jobs. Government jobs are prized for the security along with numerous perks and benefits that they provide. The son of a "medium" farmer who taught in a private school was actively looking for a government teaching position. Most wage-work, especially off-farm, is done by men whereas women contribute by collecting firewood and fodder. Due to the enclosure of commons by powerful rural interests, women have to increasingly traverse longer distances[21] to meet their basic household requirements. For instance, women in Katrain in Kullu had to sometimes walk for four hours to get firewood.[22] In addition, with the spawning of tourism related activities, there has also emerged a market for firewood in Kullu. Women from poorer households complained that "rich people keep forcing us farther into the jungle to our fuel needs". Another predictable but interesting pattern existed among the different classes of households relating to their ownership and use of Liquefied Petroleum Gas (LPG) canisters and stoves commonly used for cooking purposes. 20 households in Kullu owned cooking sets including two household from the "small" class whereas ownership was more equitable

[21] Davidson-Hunt (1997) notes the firewood collection by women, thus:

> It is no small task to trek straight up a mountain, and bring a basket (*kilta*) full of firewood back to village, and women are concerned by the increasing time they spend gathering from the forest. The degradation of the forest is a process that has been gradually affecting women's activities, as women spend much more time now than ever collecting from the forest. Women estimated that a trip to the forest five years ago took only two hours as compared to five hours in 1994.

[22] 20 out of 40 households in Kullu had Liquefied Petroleum Gas (LPG) connections compared to 26 out of 30 households sampled in Shimla.

in Shimla with 27 households owning the sets including seventeen from the class of small households. The average duration of use of canisters across different households revealed that use increased with the increase in size of household. The small and medium households often had the cooking sets as "status" items, which were usually received as wedding gifts. Firewood collection from forests which, not long ago, was done by women from all households has now taken a decidedly negative color. As an old woman from a relatively rich household said in response to a question about firewood needs: "Nobody goes to jungle these days. Everybody has gas cylinders and wood from their orchards, if they need". She was, of course, not considering people with little or no land. People recognize the role of "gas" in reducing the dependence on forests. Chet Ram, an orchardist in Thanedhar, Shimla said:

> Gas has saved the forests. Earlier people used to depend on forests. Illegal cutting from forests does not occur even though people may cut an additional tree if needed for domestic use. When everyone in the country is corrupt from the Prime Minister downwards why should we be prevented from cutting forests? There was a reserve forests here, which was to be contracted for green felling by the government but people forced the government to give them the rights.

The family size shows no clear correlation with the size of the farm even though the big households have a slightly larger family size. In general, there has been tendency towards emergence of nuclear families and fissioning of joint families. In the Green Revolution belt of Haryana, Punjab and Western Uttar Pradesh, the proliferation of small and marginal land-holdings is ascribed to increase in population and the Hindu inheritance laws, which stipulate equal division of assets including land. As Singh (2000) has pointed out, despite the increasing number of nuclear families, the normative preference for joint families persists. This is tied to the role of a larger family in accruing

power and prestige in rural context. Thus, despite "structural nucleation", (Singh 2000: 99) the families prefer to retain functional jointness. The importance of larger households arises from the fact that they have a larger probability of including members with diverse expertise, including those with education and urban jobs. In a setting such as rural Himachal Pradesh (and throughout India, as studies have indicated) such (formal) education-based skills have become critical even for agriculture in light of the growing linkages with administrative and development machinery that is typically urban-based.

The pattern of day-to-day interaction between households is clearly segmented along class and caste lines. The biggest orchardists in Shimla site are all linked through conjugal and kinship ties. On the other hand, in Kullu, the richest families are divided by caste since most of them are settlers from outside.

Emergence of rural labor market

One of the major research questions of interest to agrarian studies has traditionally been the extent of penetration of capitalist social relations of production in agriculture. Different analysts have debated the dominant mode of production in agriculture with most arguing for the presence of multiple modes. In this view, the pre-capitalist form has not only proven remarkably durable but has also colored the nascent, capitalist forces in the Indian countryside. In the debate surrounding the impact of Green Revolution in India, the initial reports and assessments were overwhelmingly negative with the conclusion being that access to land, water and capital had seriously skewed the benefits that had accrued from the new technologies. The studies that were conducted in the 1980s painted a different picture. It was argued that the improvement in the agricultural

income of the middle and upper peasantry had led to a thriving off-farm sector, which in turn had provided unprecedented employment opportunities to the non-agricultural castes and marginal farmers in general.[23]

In the present case, commercial horticulture has helped the emergence of a rural market in labor. However, persistent efforts are being made by the larger and more affluent farmers to use, introduce and strengthen what are usually glossed over by the economists as "extra-economic" considerations. These efforts are more successful with the migrant labor force from Nepal because of their vulnerable social and economic position. In Thanedhar/Kotgarh, it is common to see families of migrant labor settled on estates of big farmers. This consideration of families as chattel paves the way for undervaluation of labor contribution of women and children. In also reversing the monetization of labor by introducing payment in kind, the landlords further obfuscate the issue of returns to labor. In guise of benign patriarchy, the landed interests ensure steady and reliable supply of pliant labor. As one of the old patriarchs in Shimla remarked, "I treat my labor as my children, help them in their times of need and they in turn respect me." Of course, these sentiments go together rather nicely with the lamentations about loss of tradition and encroachment of money in all aspects of human relationships!

Another important aspect of reviving "traditional" relationship between labor and employer relates to the substitution of daily wage with annual as well as piece-rate contracts. Daily wages usually pay the maximum whereas contractual arrangements are

[23] Leaf (1984) in his study of the impact of Green Revolution on a Panjab village has vividly described the changes, indeed overall material improvement, in the condition of villagers. Similar observations, somewhat less sanguine have been made by Harriss (1982) in his study of a village in North Arcot in Tamil Nadu.

least remunerative. The absence of political clout of the migrant labor also renders them more vulnerable to exploitation and coercion.[24]

Of the twenty small households in Shimla that were interviewed, twelve worked as skilled farm laborers, usually for pruning. Ten households also participate in the Public Works Department (PWD) projects for daily wages. These projects usually involve road construction, repair, snow removal and building embankments etc. In Kullu, sixteen out of twenty-two households that were interviewed are engaged in unskilled and skilled operations on farms. Most households also derived income from off-farm work, related mostly to tourism.

The predominance of the practice of hiring-out of labor among the "small" households in Kullu is in turn related to low levels of labor productivity associated with marginal horticulture in Kullu. Due to prevalence of better, more scientific and capital-intensive practices in Shimla, most small households have viable/ profitable orchards. In Kullu, most plots on small farms present a disheveled look. Frequently, the farmers failed to identify the varieties of apple trees (28 out of 40 in Kullu and three out of 30 in Shimla). There were, of course, no pollinizers (in Kullu), with no attempts made at pruning or management, in general. The most "profitable" arrangement I found involved contracting out the orchard for a sum of Rs. 6000. Three other households (total number 6) had contracted out[25] their orchards for amounts ranging from Rs. 2000-5000.

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[24] Coercion, at least of the physical type, is not a major problem in Himachal Pradesh compared with say Uttar Pradesh where farm labor is routinely subjected to worst kinds of violence and oppression See Srivastava 1999)

[25] The term "contracting out" is used to refer to the practice of giving the right to collect the produce of an orchard to contractors *in-lieu* of cash payment. The arrangement is usually made before the harvest.

Innovation and diversification: the case of vegetables and cherry

Over the last eighty years, apple in Himachal has come a long way from being an exclusively elite crop. The cultivation of apple was initiated by British colonialists as part of what was essentially a nostalgic attempt to recreate the aesthetics of their native and remote countryside. A little later, the American varieties, from which the present commercial cultivars are derived, were introduced by missionary-turned Hindu *pahari* orchardist in Kotgarh/Thanedhar. Satyanand Stokes, as he came to be called became the biggest landlord of the area. Even today, some of the most prominent families of the area are the ones that are linked through kinship ties with the Stokes family. Satyanand Stokes's son Lal Chand Stokes in time emerged as spokesperson for the apple orchardists of the area and became a minister in the state government. After his death, his wife Vidya Stokes became active Congress politician and was later elected the speaker of the state assembly. The apple belt of Shimla, particularly the areas of Kotgarh/Thanedhar, thus not only had some of the most affluent farmers in the state but also vocal representatives who occupied important seats in the government of the day.

The status of apple as a key to success is best understood in context of the cultural politics surrounding the issue. Even though the pervasive presence of agricultural extension service ought to have rendered the knowledge and technology of orchard management including pest control ubiquitous and widely available long ago, this is not really the case. Successful farmers are often considered to have "special" knowledge—be it their capacity to coax the orchards into producing extraordinary yields or to ward off dangerous pestilence. Top-notch performers of course do their bit in perpetuating these beliefs by being secretive and possessive about their "special" knowledge. One of the big

farmers that I talked to believed that “one has to vary the recommendations [issued by the Department of Horticulture annually] according to the specific conditions. The crop over last 2-3 years has been poor because of excessive recommendations from the university”. Elaborating he pointed out how it is the deficiency of micro-nutrients which could be causing the widespread decline in production. Other successful growers displayed similar patterns of understanding especially in terms of their individualistic diagnosis of the problem that often pointed out some additional factor as being responsible for the downturn. Smaller growers on their part accused these successful growers to be aloof and reluctant in sharing their expertise. As one of the successful growers said “I have found people rummaging through the debris of the burnt pesticide and fertilizer containers to find out what I use in my orchard”. The continual mystification of orchard management knowledge occurs despite the free availability of all scientific knowledge related to the same in public domain. The politics of knowledge and control has even lead to alterations in the historical memory of the introduction and diffusion of apple. Despite the presence of fairly strong historical evidence regarding the positive role played by Satyanand Stokes in disseminating knowledge and material for apple cultivation, a dissident narrative exists that counters the aforementioned dominant version. According to this counter-narrative, Stokes was very protective of the rootstocks and other materials needed for planting apples and zealously guarded the same from others. He would even beat people who would try to get hold of the same. But it was the local *mali* (gardener) working on his orchard as opposed to the outsider Stokes who smuggled out the rootstock to his own field from where it gradually spread to other people and places. This immediately brings to mind Oscar Lewis’s characterization of peasant societies as based

on the notion of “limited good”. More importantly, it is important not to lose sight of the ecological and social context that imparts uncertainty to the production and performance of apple. People finding the threadbare, scientific knowledge dished out by government agencies as insufficient for a situation over which they have tenuous control resort to novel hybridization of scientific and “local” understandings.

The most well known innovator in the Thanedhar area of Shimla is Lakshmi Singh Sirkek, son-in-law of Satyanand Stokes. His case is presented here as an example of how the state plans and schemes are re-worked on ground not only producing results that ultimately influence the existence and conduct of those policies but also create numerous avenues that are exploited by strategizing actors with social and political implications. Very proud of the fame and reputation that the family has earned, he narrated how the striving for excellence is a family trait. His father Manohar Das Sirkek was the first farmer in the state to win the prestigious *Udyan Pandit* award for excellence in orchard management. He also won the same award later. Describing the great influence that Satyanand Stokes has had on him, he calls him the “father of apple”. Furthermore, the diffusion and spread of apple took longer as people did not have “confidence” in apple. By 1970s they had developed enough confidence to take up planting of apple on a larger scale. Reminiscing about the reversal of fortunes he laughed while relating that “people were wary of marrying their daughters to farmers in the higher reaches”. Referring to the decline in apple he remarked that “the belt is again making a comeback on the basis of cultivation of almonds”. Lakshmi Singh Sirkek is widely regarded as an intelligent man. He accurately anticipated the future success of apple and bought land at several places at throwaway prices for his family’s future requirements. In

the earlier stages of expansion of apple, there was a government plan to encourage the "progressive" orchardists to establish sample orchards for demonstration purposes. Later the 10 bigha (two acres) parcel of land would be granted to the orchardist. Sirkek described how he tried to get involved in the scheme for the purpose of expanding upon his land-holding. Laughing, he adds how easy it was then to buy land as "people did not know the value of land". While on a tour of one of his orchards he narrated several incidents pertaining to the visits of scientists and political dignitaries to the orchard. Being more than 90 years old, with vast repertoire of experience and memory, he could effortlessly link almost every tree and patch with some incident or observation that brought out its uniqueness. Of special interest to him were the oldest trees in orchard that were nearly a hundred years old (British varieties before the introduction of American varieties to the state). Talking about the close relationship he had enjoyed with several well-known scientists, he remarked how they had mutually beneficial exchange of information and views:

> Once I had gone to Saharanpur to visit Dr L.B. Singh [a prominent horticultural scientist]. Upon reaching there, I found him busy directing a group of laborers leveling a piece of land on which, subsequently, fruit trees were to be planted. I told him that he was making a mistake as apple trees require well-drained soil for good growth. He was struck by my observation.

The experimental and innovative work done by Sirkek family even though widely appreciated is not considered by some as the mark "real" success. As one of the orchardists in response to Lakshmi Singh's reputation for pioneering work and technical knowledge of horticulture said, "I don't understand what is so great about it? There are several people who make more money off of their orchards than him. What use is this knowledge really?"

In Kullu, apple followed a different trajectory. Most big farmers in the Kullu valley, for instance in Raisan, a town halfway between Kullu and Manali, are from outside the area. These, mostly Punjabi settlers, date back to the time when the area was part of Punjab hill states. These orchardists also have had substantial business interests in addition to their horticultural enterprises. The biggest orchardist of the area remarked how he is expanding his transport business and "trying to shift his operations to a town near Delhi where the future really is". Horticulture and apple cultivation here is more of a successful business activity rather than something that has been in the family for generations and thus linked to the identity of the family and the grower.

The differences in the horticultural practices in the two areas are quite stark. One of the major requirements for good yield is adequate number of pollinizers in orchard.[26] Out of the forty households in Kullu, only eighteen had the recommended twenty-five percent pollinizers in their orchards. When asked about the pollinizers (males) in his garden a small farmer said "I cut them down a few years ago. Look there is hardly any fruit, I should cut down these trees as well". On the other hand, in Thanedhar, twenty-four out of thirty households had adequate pollinizers. In addition, in Thanedhar, there was greater incidence of use of newer "male" varieties like crab apple and use techniques like "top-working" to increase the efficacy of cross-pollination. The difference was most clear in the category of small farmers. In Thanedhar, out of twenty small farmers, only five had less than the required number of pollinizers whereas fifteen out of twenty-two in Kullu failed to meet the standard. Several big orchardists in Thanedhar were also

[26]Apple is not a self-pollinizing species. Some varieties like the "Golden", "Starking", "Crab apple" serve as the "males" for commercially important "females" like Royal and Red Delicious.

experimenting with clonal rootstock to increase the yield as well as disease resistance of apple.[27]

Traditionally, farmers in hills have had dispersed land holdings (Rhoades 1975: Singh 1998), in different locations, suitable for growing different crops. Agriculture in hills has been and continues to be largely rainfed (Singh 1998). Due to the paucity of irrigated fields, which lay mostly in the valley bottoms, farmers used them for producing precious food-crops in a classic subsistence economy. In Thanedhar, only two farmers of thirty still cultivated field-crops whereas in Katrain, twenty-two out of forty produced part of their requirement of food-grains. Highlighting the difference in (inter-generational) logic underlying the choice of cultivating cereals over horticulture, Prakash Thakur, a prominent/large farmer of Thanedhar said: "I grew rice in my *kiar* [irrigated field] until last year out of deference to my parents. Once my mother and father died, I planted apple trees in that area too." Another orchardist, Ram Singh of Thanedhar recalled how his "neighbor's father uprooted the trees thrice to plant [field] crops". Justifying the shift to apple as a natural solution to the problems of hills, Chet Ram, another orchardist said:

> What else can you do in hills? My grandfather used the same land to support five people, now we can support 60 people, that too at a much better level. If you grow wheat you get one-tenth the production of Haryana/Punjab [the Green Revolution states] and even that is not certain. We cannot use tractors and other machines and that makes cultivation very cumbersome.

[27]Over ninety five percent of apple orchards in Himachal Pradesh use seedling rootstocks which use the wild growing fruit trees as the source. The disadvantages associated with this practice are many: the fruit is of uneven size, the tree grows huge and is difficult to manage and the gestation period before bearing is relatively longer, about 7-8 years. The clonal rootstocks of semi-dwarf type can be used to produce trees of small size, which are easier to manage. Also, a higher number of trees can be planted per unit land leading to manifold increase in yield. The drawback is the absence of vigorous root system characteristic of seedling rootstock that is highly suited for drawing nutrients from shallow, poor mountain soils.

The case of diversification into vegetables demonstrates the interaction of multiple factors that drives innovation. Vegetables on a commercial basis first made appearance in the lower part of Kullu valley, which had been planted with apples and other stone fruits like pear, peach and apricots (Sharma 1989). The area was marginal for apple production-its elevation of 1000 m was hardly optimum for meeting the chilling hour requirement but the proximity to snow-line made cultivation possible. With the general warming trend that has been experienced in the valley coupled with the declining apple yields, a number of farmers started experimenting with vegetables in the early eighties. In 1985, a vegetable market was established in the town of Bhuntar at the entrance to the valley. This resulted in a massive increase in popularity of vegetables reflected in the increase in area under vegetables. The number of vegetable growers in the upper part of the valley, where the sampled village of Katrain lies, is still small, partly because of the continuing profitability of apple. Only ten out of forty households grew vegetables commercially. In Thanedhar, however, only three of thirty households produced vegetables. In the lower part of Kullu valley, vegetables have become an attractive option for small growers, who can lease land from large farmers. Leasing-out is mainly driven by high labor requirements for vegetables due to which it is sometimes unprofitable to cultivate a large land holding. In the upper part of Kullu valley, leasing land has become a near impossibility due to apple orchards. The low labor requirement for apple and other fruit crops leaves ample time for people to cultivate field-crops on their irrigated lands. Tomato is the most important vegetable grown in the area although peas, and green bell pepper are also represented. Tomato is grown under both rain-fed and irrigated conditions. Tomato from the irrigated fields is planted towards the end of

winter and is harvested during June-August. The crop during this period fetches maximum return in the plains' market. The prices of tomato undergo a decline with the arrival of the rain-fed crop starting August and lasting through October.[28] Tomato is the most lucrative vegetable crop in the area as it has a bulk, broad-based[29] market in plains with moderate price sensitivity of demand. Moreover, the timing of the tomato crop from mid-hills does not overlap with the harvest from plains. This creates conditions of virtual monopoly for tomato in the market and, thus, enables higher returns. Muneeshwar Suri, an orchardist, remarked that shift to tomato in the lower part of the valley has indeed been very good: "These people [tomato growers] made more money than we [apple growers] ever did".

The case of cherry cultivation in Thanedhar provides another example of innovation and its links with risk and diversification.[30] Cherry has emerged as an important option for apple growers in Thanedhar area but not in Katrain in Kullu. The ecological conditions in the former are clearly more suited to cherry cultivation. It is noteworthy that the plants for cherry and other technical know-how were supplied entirely by a private nursery in Thanedhar area with almost no contribution by the state

[28] Rain-fed tomato has the advantage of monsoons during the ripening period, which reduces its vulnerability to desiccation on account of depletion of soil moisture.

[29] Examples of crops that do not have mass base and have not succeeded for the same reason include Kiwi and Flowers. Kiwi and Floriculture, both targeted consumers at the upper end. As long as the supply was limited, farmers received extremely lucrative prices. But even a mild increase in production of Kiwi over last couple years has less to a precipitous (five-fold) decline in prices. Another problem has been lack of established market and marketing channels, which leads to oligopsonistic conditions paving the way for exploitation of producers. Floriculture has been plagued by these concerns, which together with very high level of skill requirements in production and marketing have effectively curbed its expansion.

[30] The case of Suresh Black, a prominent farmer of the area provides a good example. He has a big cherry orchard, one of the best in the area. He planted cherry when apple failed because of drought in 1983. He has also planted almonds, the planting material for which he procured from a private nursery nearby. The delicious apple varieties were received from Stokes. When asked about decreasing productivity, he replies, "Actually, we welcome adverse conditions, as it helps distinguish good from bad orchardists".

agencies. In this context, it is important to note that there has been a decreasing reliance on the government nurseries for planting material even in case of apple and other fruit crops. With the establishment of private nurseries that have assiduously built a reputation for quality and reliability, people prefer to buy from them. In addition, the state-run nurseries in their supplies of planting material have always lagged behind the demand. Chet Ram, an orchardist, remarked:

> Mostly big farmers are the ones who adopt new technology first. Other adopt it depending upon success/failure. I planted spur types [apple trees] about five-six years ago. They were supplied by the grower association. MM 106 series rootstock was supplied by a local farmer.

Recently, this was evident by the case of kiwi. Even though the government agencies were busy promoting kiwi, there was no arrangement made to meet the anticipated demand. During the first year, farmers could get only a fraction of their demand from the state-nurseries, leaving unfulfilled a sizable demand. Sensing the opportunity, a number of private nurseries-owned by large farmers- entered the fray and have continued to meet the bulk of the demand.[31]

The state agricultural department and Y.S. Parmar University of Horticulture and Forestry continue to provide important technical information through a well-established network of extension services (Negi et al. 2000). The research and extension departments have played an important role in control and management of pests and diseases. In 1981, when the state had the first incidence of scab that destroyed about half the crop, the state horticultural university promptly came up with a control protocol. The

[31] Lakshmi Singh Sirkek, the son-in-law of Satyanand Stokes maintains a nursery of clonal MM106 series but has not started selling it openly as he is still wary of the actual performance and therefore does not want to risk his reputation.

outbreak of premature leaf-fall in 1995-1996 was determined to be due to fungus *Marsonina spp*. and has since been controlled to a large extent. Despite these successes, the research and extension departments have come under increasing criticism for not being able to respond effectively to the challenges arising out of diminishing apple productivity and the failure to tackle the problems at the marketing end. The former relates to the increased variability in yields on account of weather fluctuations, which has led to demand for varieties that are more suited to the changed conditions. In Thanedhar, a big farmer contacted a nursery in Oregon for virus-free, clonal rootstock, which he managed to procure after navigating through numerous bureaucratic labyrinths. At present, he is replicating the stock on his farm as well as supplying it on a limited scale to other orchardists within his group. Also interesting is the attitude of other orchardists, who are waiting to see how the rootstock works but at the same time expressing a mix of skepticism and acceptance towards the well-known progressive farmer of the area. The increasing complexity of horticulture in Himachal Pradesh reflected in the changing disease ecology, proliferation of middlemen[32] and the fluctuation between crop failures and gluts have placed different kind of demands on the state research and extension machinery. The research and extension effort is still based on the direct, one-way, transfer of knowledge made even less efficacious by the existence of rigid disciplinary boundaries, which militate against the solution of problems that are inter-linked and require cross-disciplinary insights.

[32] The producer's share in consumer's spending (per rupee) has consistently been shown by research to be between forty and fifty percent (Singh 1997).

Rural non-agricultural activities

Rural non-agricultural activities in countries with agriculture characterized by low productivity, low urban-pull, play an important role in absorbing surplus labor. According to Harriss (1982), two type of situation obtain under these conditions: Firstly, such activities are mainly driven by supply-side considerations and are characterized by low labor productivity (lower returns than agricultural wages), simple technology and seasonality. Secondly, the main function of the activities is to generate surplus with use of hired labor, relatively sophisticated technology and higher labor-productivity.

Mellor (1976) has used the term "virtuous spiral" to describe a scenario where rising rural incomes increase the purchasing power of the medium and big farmers of goods manufactured in relatively labor-intensive way. The stimulus to industrial (labor-intensive) production also exerts a powerful pull factor on the rural labor force who, with increase in incomes, spend a greater proportion of it on food. As Harriss (1982) has pointed out, this is not always true. His study of North Arcot reveals that due to the absence of benefits to the small and marginal farmers from Green Revolution technologies, the demand for industrial goods was limited, mainly, to the big farmers. Moreover, the demand pattern reflected the urban preference for goods that were all produced in capital-intensive industries. Thus, it seems that for rural non-agricultural activities to contribute evenly to rural welfare, income increase has to be across all classes, which will in turn increase the probability of a more diversified pattern of demand.

The study areas in Himachal Pradesh have more or less the same pattern of development. The results are clearer in Shimla owing to the use of improved practices

resulting in better per unit outputs. In Kullu, the development pattern for the small farmers has followed the typical "proletarianization without depeasantization" pattern where there is increasing reliance on wage-labor for subsistence (as a source of income diversification) but there is no increase in landlessness. Overall, inequitable development may be more owing to the skewed land ownership and land fragmentation. What lends credence to the argument is the fact that even the big farmers have relatively modest holdings, perhaps, fittingly termed middle farmers elsewhere.

A considerable amount of Indian rural development planning was focused on helping the emergence of local growth centers. But as is clear from the present case, the experience has not proven very successful, especially, in terms of giving rise to towns with industries that have backward linkages[33] with agriculture.

The large urban centers tend to draw surplus from agriculture for other more profitable activities. Such activities include investment in real-estate, money-lending and other rent-seeking/speculative activities. Two points are worth considering in this case: 1) that the horticultural activities are not able to match the profitability of mercantile activities and 2) even among the affluent farmers, there is little attempt to invest back in horticulture with a view to improving the technology. The foregoing is truer of Katrain in Kullu, which, due to its proximity to the district capital and being the hub of tourism, offers more opportunities for profitable investment.[34] In Thanedhar/Kotgarh, the opportunities for similar investment are limited as there is no town or sizable tourist

[33] Industries, which rely on raw materials from agriculture, are usually referred to as having backward linkages. The underlying idea is to facilitate "value addition" to the primary agricultural goods that are typically high volume, low value, in or around villages, to ensure more equitable and dispersed growth.

[34]Even in instances of investment in hotels, the attempt is not so much to make as profitable an entity of it as possible as to have investment in real estate for speculative purposes.

activity nearby. This has been one of the main factors behind the existence of relatively higher levels of technology and better horticultural practices in Thanedhar. Needless to say, it has been difficult to establish forward linkages with agri-processing industry, which remain centralized and relatively capital-intensive.

Jodha (2000) has linked the difficulty of increasing agricultural productivity in the mountains through intensification and other plains-derived strategies. In his view, the mountain specificities or the constraints associated with the topography and environment in general limit the application of strategies aimed at achieving high growth rates. The constraints namely, "marginality", "inaccessibility" and "fragility" prevent the transfer and adoption of technologies on one hand and the availability of ready opportunities for investment of surplus, on the other, which were envisaged as boosting agricultural production, providing upward pull to agricultural wages and increasing agricultural productivity. The present research shows mixed evidence regarding this. In Katrain in Kullu, due to the proximity to the district capital, the consequent urbanization has provided an avenue for the big farmers to divert their agricultural surplus towards investment in real-estate, money-lending and other speculative activities.

Dairying: an example of diversification and non-farm activity

Small-scale dairying has emerged as a viable income-enhancing alternative for small scale farmers in not only the mountainous areas but rural areas across South Asia (Tulachan 2001). In the Green Revolution belt of Western Uttar Pradesh, for example, the biggest beneficiaries of the "White Revolution" have been the landless and small farmers belonging usually to lower castes (Sharma 1993). The main reason for this has

been a history of *khoa* (condensed, almost dried milk) and *ghee* making in the region, favorable location with respect to Delhi, the major consumption centre and ample availability of by-products like sugarcane tops that are used as fodder. Himachal, in contrast, like other mountainous areas was hardly ever known for milk production. The local cattle, though well-adapted and hardy, are poor milk producers. Moreover, the lack of a nearby market and perishability of milk have combined to limit the quantity of milk that was sold.[35] The situation has changed with the cross-hybridization program that was launched by the state government in collaboration with foreign donors in early 1980s.[36]

The first Artificial Insemination (AI) centre in the state was established in Thanedhar, Shimla. Recalling how that resulted in "improvement", Ram Singh of Thanedhar said:

> Animals [cows] earlier yielded only 1-1.5 liters. We used to import cows from Haryana to improve the local breed. Then exotic cattle came in Kotgarh. We used to take our cows to get them inseminated with the two bulls they had there. We were required to take an egg in which they used to mix semen. Now it is AI which is available with the government pharmacist. Grazing has been replaced with stall feeding. Nobody keeps sheep and goats either. What's the use? What sense would it make to keep bullocks now? [which were used for ploughing earlier] Things have changed a lot.

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[35] Chetan Singh has described *Ghee* (clarified butter) as, historically, one of the main regional exports of the region. It seems that Ghee definitely made a contribution to the household incomes, regardless of size, but this can not, necessarily, be used to infer the presence of a comparative advantage. On the other hand, it seems likely that traders flocked to buy ghee from peasants and pastoralists alike because of the price advantage. What lends support to the proposition is the existence of a near-total restriction on domestic consumption illustrating the need for scarce cash that must have driven the sales.

[36] One of the earliest artificial-insemination centers in the state was established in Thanedhar, attesting to its stellar socio-political position. Compared to the study area in Kullu, the region has a much higher proportion of hybrid cattle. Of the forty households in Kullu, twenty-three had hybrid cattle whereas out of thirty households that were interviewed in Thanedhar, twenty-six had hybrid cattle. Average number of cattle in Shimla and Kullu were 1.5 and 2.2 respectively with the smaller households having a higher average cattle holding.

The increased productivity of the hybrid cattle combined with tourism-driven demand has created a thriving market for milk.[37] Milk is purchased by roadside restaurants, tea-shops and other tourism related establishments directly from the producers. One such sweet shop[38] in Patli Kuhl— a busy place for in-transit tourists- purchases an amount ranging from Rs 80-100 daily from the producers of the nearby sampled village in Katrain. Every morning, one can see women coming in with an assortment of containers to sell milk. Payment is done immediately as well as on monthly basis for regular customers. Sometimes, money is also advanced and milk supply secured in lieu.

The producers are paid Rs. 6[39] per liter for milk (during summer, the time of peak demand and scarce milk supply), which is then sold at Rs. 12-15 per liter. The only value-addition involved is boiling. The prices in winter, relatively tourist-free, months are even lower. Sometimes it is not even possible to dispose of milk because of lack of demand. Two points in this are worth considering:

1. Despite the avowed government goal to promote dairying, there is no government procurement of milk in the area. This has led to monopoly of traders on the milk supply and the producers operate in what is effectively a buyers' market. Competition from government procurement would give people more options as well as exert an upward push on the milk prices.

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[37] The dairy development programs have almost exclusively emphasized cross-hybridization without giving due consideration to the shortage of fodder in upland areas. Similar absences characterize marketing and processing that altogether serve to restrict the usefulness of hybridization programs. Of course, the emphasis on latter is not accidental as it is relatively easier for the government agencies to undertake technical interventions that do not call for complex, interlinked measures.

[38] Older people recall how the sweets and other products, made of milk, which are sold now were virtually unknown to them. Now it is not uncommon to see people from remote villages, visiting for some official work, enjoying these "exotic" sweets at the tea-shop.

[39] In Sept, 2001, 1 USD was worth 47 Rupees approximately.

2. Secondly, the seasonal nature of demand prevents any investment and indeed improvement in dairying practices. The activity, thus, remains limited to incrementing household income usually at the expense of self-consumption.

One of the distinguishing characteristics of these ancillary activities in marginal sections of peasant economies is that they are driven by supply considerations[40]. Therefore, they would typically involve low labor productivity and limited technological sophistication.[41]

It is clear from the above discussion that if the non-agricultural activities are to be successful in increasing the surplus available or be genuinely profit generating then they have to be (forward) linked to diversified sources of demand, preferably those arising from processing. Otherwise, the activities will be erratic and fail to provide a regular source of income.

Caste and Development: Change and Continuity

The Himalayas are known for their adherence to a Hinduism that does not conform closely to the Sanskrit scriptures based Brahmanical religion found in the plains. The hills people are widely perceived to be lax in their caste-related avoidances. Of course, the foregoing should not be taken to imply absence of caste-system or its associated discrimination but the presence of an attenuated or perhaps, more accurately, a different social reality modified by the rigors of the environment.

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[40] Another activity that falls in the same category is weaving. Kullu is known for its blankets, caps and other woolen products. Three households out of forty in the Kullu sample did some weaving on a very small scale, usually in the winter months when employment opportunities are scarce.

[41] The conditions of labor surplus brought about by increasing population combined with limited scope that exists for technological improvement leads to decreasing labor-productivity and increasing drudgery. These conditions have often been described by the term “Agricultural Involution”.

The reality of the caste-based discrimination and its intersection with class was rather forcefully driven home to me in the early part of my research, while conducting the survey. I was in a small neighborhood in the village that was solely composed of households belonging to lower castes now termed Scheduled Castes (SC). It was a hot day and having walked some distance, I felt thirsty, and asked for a drink of water. As soon as I made the request, I realized my "mistake". Being a (relatively well-off) outsider, people presumed that I was from the Upper caste and drinking water from "unclean" castes would clearly "pollute" me. The fear of causing this "offense" was what had caused the people around me to exchange uneasy and questioning glances and made me aware of having committed some transgression. Nobody had of course mentioned that they were from lower castes and that being the case neither could it be presumed that I knew the fact. Some uneasy moments passed before a person was sent to what was clearly the most well-off house. He came back with a metal container with water, which, considering the delay, I suspected was probably cleaned before it was presented to me.

The foregoing incident relates both the persistence as well as the change in caste system. Not long ago, it would have been unthinkable for the low caste people to engage in what was clearly a "polluting" activity. They would have preferred to declare their low caste rather than risk censure subsequently. The system has clearly come to the point of being relatively ambiguous, at least at certain places, with certain people. These moments of public negotiation also serve to lead people to question the validity of the system in other more rigid contexts.

In Himachal Pradesh, historically, caste has had the same salience as in the other parts of Himalayas, particularly, the central Himalayas areas of Garhwal and Kumaon. Broadly speaking, the population was divided into two segments: Upper and Lower Castes. Within these segments, there was comparatively greater mobility, of occupation and otherwise, than in the more rigid society of the plains. Singh has pointed out the use of several interchangeable terms to refer to the low castes[42], particularly in the Kullu valley, in the late nineteenth century. A number of these low castes were also referred to by their occupations.

Despite the government attempts to end caste-based discrimination, the caste system continues to survive and rather thrive in some unforeseen ways. In this regard, the impact of democratic, electoral politics on caste system has been quite paradoxical. On one hand, due to the significant number of low castes in the population, political parties have been compelled to take notice and offer programs to alleviate the condition of this section even leading to competitive populism. The clout of the low castes can be gauged from the fact that the provision of "affirmative action" in jobs and for admissions to educational institutions, which was made after independence for a limited time-period, has continued into the present with no signs of discontinuation in the foreseeable future. On the other hand, the caste-based mobilization has led to increased awareness of caste and can be said to have heightened the polarization between castes. In recent times, reservations for low castes or "Scheduled" castes (SC)— as they are referred to— have

[42] Some of these terms are *Koli, Dagi, Chanal*- all of which have at present come to acquire derogatory connotation.

been extended to electoral constituencies including the *panchayat*[43] and district level offices. The *pradhan* (chairperson) of the sampled village in Katrain was a member of low caste, who was elected to the office after its designation as "reserved". Even his immediate superior at the district level was a member of low caste. The reservations have made a significant contribution in decreasing the social and political exclusion encountered by the low castes. At the same time, the contribution should not be over-emphasized. Here, it is useful to recall the words of an old farmer from the low caste when asked if the election of pradhan from the same community would improve their well-being: "What can he do? Can he force people to vacate the commons that they have enclosed (*kabza*)?" Some members of the upper caste, on their part, consider the changes (in the caste equations) to be result of their personal virtues— tolerance and kindness— rather than being part of the larger structural changes. As one such member, who is an ex-pradhan commented:

> He [the new pradhan] is a nice boy. He is also educated and very respectful, though I am sorry for him. He is a fit and strong young man and used to make good money being a porter but now he does not have a good source of income because he is busy with his duties. This is the problem, he will end up ruining himself.

The assumption inherent in the preceding statement is that "leadership" and public positions are best suited for people from "good" (rich) families who do not have to

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[43] Panchayat refers to the elected village assembly. There is no historical record of the existence of village Panchayat in the hills. Baker (2000: 51-52) has noted:

> …[that] the absence in the hills of coparcenary village communities was described by the early British officers. For Baden-Powell notes that "in the hills…villages, in the proper sense of the term, hardly exist; we have merely aggregates of a few separate holdings…

The system was introduced as part of the move toward self-government after independence in keeping with Mahatma Gandhi's wishes

withdraw from work. Despite the doubts about radical change that can be wrought by steps such as reservations in government, their impact through incremental change cannot be discounted. For instance, even thirty years ago, it would have been difficult to imagine a low caste village pradhan in the area. In their official capacity the pradhan and other elected members at the district level have opportunities to influence selection of recipients of development plans. Unofficially, it helps them build networks with businessmen and provides access to bureaucrats— factors that are the prerequisites to successful entrepreneurship. As described earlier, the pradhan of the panchayat under consideration— a young, educated man— was a daily wage laborer before being elected. Now he is a partner in a travel agency and a telephone booth. In addition, he has invested in a fishery project, again in partnership.

Among the myriad government schemes for rural development, none has received a better appraisal than the Integrated Rural Development Program[44] (IRDP)[45]. Targeted at the poorest of the poor, the scheme aims at building assets in the weakest sections to tackle the economic root of poverty Katrain panchayat. In all 30 households were selected, of which 24 were from low castes. Four households were selected from sections termed as scheduled tribes. The recipients were entitled to receive a loan/grant for house

[44] IRDP is a massive rural development program launched by the government of India, which covers a wide range of activities like minor irrigation, dairying, animal husbandry, carts etc. IRDP is purportedly focused on the poorest of the poor households- *antyodaya* (upliftment of the poorest) but a number of studies have shown that extent of mis-identification can be as high as forty-two percent (Saith 1991). In addition, the problem of leakage has been estimated to be at least to the extent of twenty percent.

[45] One review of IRDP program in the state notes that (Directorate of Economics 2000: 44):

> During the year 1999, 6,684 families were assisted and Rs. 412.29 lakh were given as subsidy to those families… Against the target mobilization of Rs. 19.70 crore for the year, Rs. 18.56 crore was disbursed as credit to these families.

construction (one person got Rs 16, 000), death insurance and health-care. Two persons received loans of Rs 35, 000 and Rs 20,000 respectively including a grant of Rs 10,000.

Another government scheme meant to increase the opportunities for employment called Jawahar Rozgar Yojana (JRY)[46] provided Rs 46,000 to the Panchayat for repair of roads in the village. Two more grants of Rs 15,000 and 40,000 were made to the Panchayat to build a tourist hut and shop respectively.

Institution of *Deota*: Barometer of Social Change[47]

In Himachal, Kullu is referred to as *devbhumi*— the land of gods. God here implies the village deity that used to be at the centre of the religious and even social life of people. The famously irate deotas had to be propitiated on the occasion of all important life-cycle events and ceremonies. The institution of deota, usually, also controlled land that was an important link between the people and the ruler of Kullu as the grants were made by the latter. On the festival of *Dussehra*, all deotas of Kullu valley congregate in Sultanpur, the ancient capital, where they join the procession of Lord Raghunath, the patron of the royal family. In doing so, they accept the political suzerainty of the king and the religious hierarchy with Lord Raghunath at its apex. The actual parade of the deotas is the highlight of the Dussehra fair.[48] According to Singh:

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[46] According to Directorate of Economics (2000: 44), "The objective of JRY is to bring the assisted families above the poverty line in three years by providing them income generating assets. The scheme is credit-cum-subsidy program".

[47] This section draws from Das (1985)

[48] It is believed that Lord Raghunath, an incarnation of Lord Vishnu, was installed in the valley in 1651 AD by the then king Raja Jagat Singh. By declaring Lord Raghunath as the supreme deity, all village deotas were rendered subservient, an action that is also considered as having caused the subsumption of the folk religion under the more standard, pan-Indian aspects of Hinduism. It is also important to note that the edict was not bereft of political implications. The king placed the image of the Lord on his *Gaddi* (throne) and ruled as the "vice regent" of Raghunathjee.

> On the first day of the fair, the idol of Lord Raghunath enthroned on a gaily attired chariot and attended by numerous village gods, mounted on colorful palanquins, is fixed from its fixed place to Dhalpur Maidan. The tugging of the chariot is regarded as a sacred act by the local people. Everyone gives a hand to it. This forms a huge procession. All the gods of the valley are obliged to visit Kullu on Dussehra in order to pay their homage to Lord Raghunath. (1997: 186-187)

Functionaries of deota (village God)

The following are the functionaries of deota associated with the management and supervision of the institution at the village level: *Kardar* (Manager), *Pujari* (Priest), *Gur* (Mouthpiece of the deota), *Purohit* (Brahmin Priest), *kathiala* (Helper of the kardar), *Bhandari* (Storekeeper), *Jathali* (Messenger).

Kardar manages the accounts related to income and expenditure and occupies a hereditary office. Usually, he is from a big, land-owning family in the village. *Pujari* is appointed by deota/gur. The *gur* of the vishnu (the village deity) died in 1967 and no successor has been appointed since. Gur is a powerful figure in society because of his monopoly over the *deota*. *Deota* has his purohit, who is selected from the same lineage. *Kathiala* is appointed by the kardar and manages the accounts. Sometimes, there is no kathiala and the kardar assumes direct control. *Bhandari* lives in bhandar where the masks, utensils and clothes are kept. *Jathali* is a messenger and is from low caste. He cleans dishes during the feasts and gets the leftover. The deota system with its division of labor was and is inimical to the low castes. Not only are they entrusted with the menial jobs such as cleaning, which affirm their “polluting” status, but they are at the receiving end of lot of mundane exploitation. For instance, in lieu of the rent-free land

that the drummer got from deota for performance of his duties, he was also did *begar*[49] for the kardar.

The importance of the institution of deota is no longer the same. The annual festival of Dussehra does not have the same attendance and many village gods are absent. One of the important causes for the attenuation in the power of the institution has been the Land Reforms of 1972. The reforms abolished the land grants to the village deota, which were an important source of power and patronage for the people at the helm of the affairs. The impact of the act can be seen from the example of the former estate of deota in the sampled village in Kullu. The deota had a total rent-free holding of 43 bighas (I acre= 5 bighas), of which 19 bighas were with rent paying tenants. About 14 bighas of land were with rent-free tenants, given to them in lieu of the service to the deota. These included the drummer, purohit and gur. At present, deota holds only 10 bighas with the rest having been claimed by the cultivating tenants under the provisions of the act mentioned above. The effect of land-reforms on providing ownership rights to the functionaries of deota are considered by people as outright usurpation. As one of the villagers lamented about the erosion in the prestige of deota:

> What can you expect when even the functionaries of deota not only keep the land for themselves but also refuse to provide the services required of them in return? Other people, of course, do not feel like contributing labor because it is these people's responsibility primarily. The infighting and bitterness has affected the authority of deota.

The social and economic changes have, thus, deprived the institution of its power and prestige. The increasing politicization of the institution evident from the failure to evolve consensus on selecting the kardar has and frequent allegations of financial

[49] Begar refers to the practice, now outlawed, of forced labor that was also often unpaid.

misdemeanor against the kardar have infused a degree of cynicism in people's view of the institution. No longer content with playing, what are seen as humiliating and demeaning roles, the scheduled castes are exercising their option to say "no".

Himachal and other areas in Indian Himalayas: a comparison

Himachal Pradesh as part of the Himalayan region— a vast area extending from Jammu and Kashmir in the West to Meghalaya in the East covering 594, 437 sq. km shares many of the socio-economic features arising from similar environmental-structural conditions. Overall, the Himalayan region is relatively thinly populated with an average population density of 72 persons per sq. km. Population growth rates through the Himalayan region, excluding the effect of in-migration, are less than the national average. In the period 1981-91, Himachal Pradesh, for instance, experienced a growth rate of 16.5 percent in population compared to the all-India figure of 19.5%. The region is characterized by low urbanization rates. In 1991, the proportion of population living in the urban areas ranged from 47 percent for Mizoram to approximately nine percent for Himachal Pradesh. In some areas of the North-east Himalayas, explosive urban growth has been witnessed that is limited to a handful of urban areas leading to acute problems like congestion and inability of the basic sanitation and municipal facilities to cope with increased numbers. In Himachal Pradesh, the problems of urban overcrowding along with paucity of drinking water and sanitation facilities have led to deterioration in towns like Shimla and Manali.[50]

[50]Unregulated, mass tourism has been one of the main drivers for the mushrooming of dilapidated, poorly designed, inadequately provisioned and dangerous— usually flouting all safety concerns— construction. Coupled with the poor or non-existent urban planning, it has led to proliferation of environmental

Himachal Pradesh in the Himalayas

Economic Indicators[51]

The Himalayan region is predominantly agrarian with very little industrialization even in more developed states like Himachal Pradesh. As has been discussed earlier, the lack of industrialization is primarily due to poor physical infrastructure, distance from consumption centers, low domestic demand and lack of capital. Per capita Net State Domestic Product in the Himalayan Region is uniformly less than the all-India average. The economic performance has showed a marked deterioration after 1991-92 coinciding with the period of economic reforms and liberalization that were initiated by the central 0government. It seems plausible that the dampening effect on economic growth is a direct outcome of the reduced state spending including on welfare and infrastructure.[52] The importance of government spending in the Himalayan region cannot be exaggerated, as private investment is not forthcoming due to uncertain economic returns.

The Himalayan states vary in their reliance on agriculture. Uttar Pradesh hills and Sikkim are the two areas where agriculture still contributes more than fifty percent of the Net State Domestic Product. At the other end is Nagaland, where only eighteen percent of the state Net Domestic Product is contributed by agriculture. Himachal lies in between two extremes with agriculture contributing about twenty-eight percent.

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nightmares like discharge of raw sewage in rivers and streams, choking of waterways with plastics and skyrocketing urban air, water and noise pollution.

[51] These data are taken, among others, from two main sources. These are Chand (2000) and Joshi (2000).

[52]In the Indian context, there exist a number of empirical studies that demonstrate the salient impact of state spending, including that on famine and drought relief and food-for-work programs, on rural asset formation and consumption levels.

Use of fertilizers in the Himalayan states is well below the national average with Himachal averaging at fifty-two kg. per hectare compared to the national average of eighty seven kg. per hectare. Agriculture also continues to be largely rainfed with the proportion of net sown area under irrigation in Himalayan areas well under the national average. The pattern of public investment in agriculture in the Himalayan states highlights the "special" status of these areas. Public investment is much higher than the national average for most of these states. In fact, the extent of investment seems to be directly proportional to the strategic importance of the state. It is no surprise then that Kashmir and the states in the Northeast have the highest levels of public investment in agriculture-as high as six times the national average.

In terms of agricultural diversification, the region still presents a picture of overwhelming reliance on field crops. In 1992-1993, even in "transformed" states like Himachal Pradesh, area under fruit and vegetable cultivation amount to 4.6 and 2.4 percent respectively.

Credit supply and use in Himachal Pradesh has increased with the expansion in area under commercial crops. In 1990, the loans from commercial banks amounted to over Rs 1000 per hectare in the districts of Shimla and Kullu[53], comprising the apple belt in the state (Chand 2000). In contrast, the non-horticultural districts had a relatively low number of loans per hectare ranging from Rs 300-700. The reason for increasing indebtedness, by some counts considered positive because it is an indicator of higher input utilization, is a direct measure of the penetration of capital and input intensive,

[53] Shimla has nearly twice the level of credit advance per hectare of operated area, indicating higher extent of Capitalization of agriculture (Chand 2000).

commercial horticulture. In the areas with conventional agriculture, the need for purchased inputs is very low.

Social Indicators

Development indices use a number of indicators linked to the performance of social sector. These indicators usually pertain to levels of education, infant mortality, sex-ratio, health and welfare in general. Literacy levels in the Himalayas are generally better than other parts of India. In 1997, most states in the region had achieved literacy levels above seventy percent with Mizoram leading the list. In comparison, literacy at the national level is around sixty-two percent. Furthermore, the states have a much stronger elementary-level education system than the rest of the country, which is partly responsible for the high enrolment and low dropout rates. In Himachal Pradesh, for instance, ninety-three percent of children in the age group 6-14 are enrolled in school compared to eighty-three percent in the Northeast and only seventy-one percent nationally. Drop out rates in Himachal is only three percent compared to the national figure of six percent. Infant mortality rate in Himachal Pradesh is 78 per 1000 live births compared to eighty-seven for the country as whole.

Infrastructure

The Himlayan areas have a low level of physical infrastructure. Himachal Pradesh is unique among the Himalayan states in India and even in the whole Himalayas in having a relatively well-developed infrastructure. Despite its difficult terrain, the state has achieved complete rural electrification. All the villages have a drinking water supply as well as telephone connections.

Road building in these areas was never a priority for the national governments. Most roads in the region were built for security and strategic purposes. India, for instance, constructed thousands of kilometers of roads in the aftermath of border skirmishes with China (Kreutzmann 2000). These strategic roads have often served as catalyst for local socio-economic change. On the other hand, the roads have not been built in accordance with the regional development imperatives- this has resulted in aggravation of extant problems of equity. Even in terms of road coverage Himachal Pradesh has the most favorable position in the Himalayas. But there are wide variations within the state, depending on the topography and the political importance of the area as is clear from the table given below:

Table2: Districtwise distribution of roads according to population and area (1998)

District	Road Density Per Thousand Kilometers	Road Density Per Thousand People
Bilaspur	85.51	3.37
Chamba	33.80	3.21
Bharmour	4.74	2.44
Hamirpur	99.37	3.00
Kangra	64.70	3.16
Kullu	16.26	2.76
Mandi	71.14	3.49
Shimla	55.40	4.60
Sirmour	62.76	4.67
Solan	84.71	4.39
Una	84.54	3.44

(Source: Himachal Public Works Department 1998)

Despite the remarkable progress made in the construction of roads, the predominantly hilly districts (Shimla, Kullu, Sirmour, Bharmour, Chamba) have a lower road density than the predominantly sub-montane districts (Una, Hamirpur, Kangra, Hamirpur, Bilaspur, Mandi). The road density when measured against population is more equitable as the mountainous districts have lower population densities, thus, resulting in higher road density per thousand people. The density decreases for the mountainous areas and is especially low for Kullu district, part of which contains some of the roughest terrains in the state. The only other area, which has a lower density is the tribal-dominated Bharmour which has, thus, seen little horticultural development.

According to Jodha and Banskota (1992), there should be greater emphasis on intra-mountain roads and other, more economical transport options should be explored. These include ropeways, waterways and mule tracks, which can contribute more equitably towards development.

Conclusion

Himachal Pradesh has undergone considerable socio-economic change after coming under colonial influence and control. Overall, at the political level, there has been consolidation, homogenization in terms of laws governing people's lives and control by an administrative machinery that was from outside the area. The age-old subsistence orientation of life in hills started is today replaced by a more cash-oriented mindset although not simply as a function of greater rationalization of environment and life in general (as the modernization and some post-structuralist theories would have us believe). The shift to relatively more emphasis on profit-maximizing has to be seen in the context of the larger social and economic changes and as a strategy to deal with the

same. Again the "calculation" is not disembodied but is constituted through numerous, historically sedimented and fragmented practices and symbols in multiple domains. The intricate web of exchange involving economic, social and cultural interactions with traders and pastoralists had traditionally led to the fulfillment of needs associated with life in the mountains. Gradually, the dual forces of commodification and monetization have penetrated almost all aspects of life, secular and religious, rendering social reproduction without money impossible for all households, regardless of class.

One of the main mechanisms through which all-round transformation in life has been affected has been the technical-bureaucratic process. The "rationalization" of life-ways has not only become pervasive but also has come to be accepted as a legitimate form of state intervention. Thus, it is not only logical— but natural— as well, to think of and plan for Himachal to be the "fruit bowl" of the country. At the same time, it is important not to consider even processes like rationalization and technicization as unitary, all-powerful phenomena. These effects are embedded in polyvalent and contradictory exchanges that mark the contingent state-society boundaries. Thus, "we have to integrate the description of regimes of cultural representation and political organization with an analysis of how laws, rules, practices, and everyday forms of power are constantly reformulated in the light of experience" (Sivaramakrishnan 1999: 6).

The underlying trade-offs involving greater participation in the market are taken for granted by the policy makers and planners and almost never made explicit— such is supposed to be the inexorable character of laws governing "progress" of society. The losers in these changes— and there are many— are explained away on the basis of the presumed lack of fitness for the new and changing times based on presence or absence of

certain personality traits (e.g. risk aversion, conservative). On other occasions, the state has been blamed, appealed to and threatened to reduce the discomfort arising out of the process of "adjustment". Of course, this personalization of state, achieved mainly through venality and unaccountability of its functionaries, acts as check on the reification— if not almost divinization— of the workings of the state. Thus, it is through such sentimentality and other trappings of a "pre-rational" origin that people manage to keep the state and its handmaiden— the bureaucracy— and their relationship to them in the realm of the mundane.

The state including its planning and administrative organs, thus, works in concrete socio-cultural settings. In a democratic setting like in India, no matter how hard they try to project their workings as in accordance with the diktats of superior knowledge, inaccessible to people, they are still embedded and imbricated in numerous ways in manifold relationships arising out of cultural norms and expectations. However, remote the quotidian practices of the state and its bureaucracy may appear from being intentional acts, they are rendered legible through the cultural lens.

Ultimately, the politics of practices, interventions and knowledge— through which the state seeks to legitimize itself are uncovered and made sense of through the means of cultural resources. The organization of public sphere along with its lobbies, interest groups and other "actors" are mobilized not in accordance with the objective, ahistorical and "given" interests— but as a result of the subjective, multi-layered and often contradictory processes of meaning formation. It is these processes that hold the potential and promise for action, resistance and change.

CHAPTER 3: STATE, SOCIETY AND POLITICAL ECONOMY OF HORTICULTURE

Origin of state

The modern nation-state in India emerged from the preceding colonial state that was established in the middle of 19th century. In considering the emergence of state in India traditional concepts of "society", "state" and "nation" need to be radically reevaluated and modified in view of the Indian historical experience that is very different from the context in which this terminology has been used in Europe. Kaviraj (1997) in describing divergences of the pre-modern states in India from the Weberian concept of "state" emphasizes the religious ordering of social life and its insulation from the state apparatuses. The idea of state as an active agent of social transformation was conspicuous by its total absence in comparison to the European case.

Thus, the Indian state, as it existed, prior to the European colonial experience, was largely a political arrangement that passively oversaw the working of the myriad communities that occurred within its territories mainly with the aim of resource and rent appropriation. In a telling comment on the perceived efficacy of the state among the masses, Kaviraj (1997) points out that most acts of rebellion in medieval India were targeted against the social order and more specifically against Brahmins who were considered as upholding and benefiting from it.

The colonial state, on the other hand, introduced major changes in the body

politic of Indian society. One of the most powerful influences was exerted by the colonial bureaucracy, which was motivated by the primary purpose of rent and revenue expansion and extraction.[54]

Kumar (1997) in comparing the state as it emerged in India with its European counterpart considers the relative lack of autonomy of the political from the social and the economic as its distinct characteristic. Further, he describes the lack of suitable "exteriorized vantage" (1997: 399) points that affected the pace and logic of social transformation.[55]

The Weberian notion of bureaucracy as the pivot of the modernist state and an instrument of social engineering was exemplified by the role that it played in colonial India.[56] Of course, it would be fatuous to imbue the bureaucracy with a monolithic rationality, engaged in the colonial enterprise of increasing revenue maximization.[57]

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[54] For instance, the Punjab Land Alienation act of 1900 was implemented by concerns of the exploitation of farmer at the hand of usurious sections of society. Furthermore, the exploitative relationship was expressed in a distinctive cultural idiom and not through an economistic vocabulary as might be expected of a colonial administration (e.g.Thorburn 1886). In attributing inherent characteristics to different communities (e.g. Jats as "sturdy" and Rajputs as "indolent"), the administrators were relying on the prescriptions offered in Maine's (1879) landmark juridical study of the "East" that advocated knowing the natural attributes of castes and communities for ensuring freedom, progress etc. The various "binaries" thus introduced, as, for example, in "urban" and "rural" castes became powerful elements in the agrarian discourse that emerged in the aftermath of the Green Revolution.

[55] Kaviraj (1997) also posits an inverse relationship between the scale mid stability of socio-political organization with the village level society most resistant to change and the empires on the other end of the scale being truly ephemeral.

[56] Baker (2000) has described the process of change in property rights triggered by the Colonial rule in Kangra through use of notions of "community" and "village" that were derived from experience with rural life in the plains. He notes:

> Historical accounts indicate that precolonial property rights in hill areas significantly differed from those on the plains, especially in terms of the absence of a coparcenary village 'community' and locally controlled and managed common lands (*shamilat*) (Baden-Powell 1892; Barnes 1855; Douie [1899] 1985). Notwithstanding these differences, Revenue Department officials during the first settlement applied models of land tenure and the "village community" from the plains to the hill areas.

[57] The bureaucracy, of course, played an important role in the quest for the original tenurial systems on which to peg the right to property- the protection and nurturance of which the colonial state saw as its main

In the Himalayas, the bureaucratic influence was most apparent in the management of forests with which the colonial state came to be pre-occupied in light of the increasing demand for forest products, especially timber, in the post World War I period (Guha 2000). Even so, the bureaucracy engaged in its own debates, often polarized along utilitarian and romantic lines to environmental management. As Saberwal (2000) has pointed out in the case of Himachal Pradesh, the colonial policy was an outcome both of the internecine struggle for power between the revenue and forest departments as well as the disparate ideological tendencies that often lay at the heart of the differences in forestry policies.[58]

In any case, the emergence of the modern Indian state and its powerful bureaucracy was seen as conducive to dispassionate and scientific analyses of problems, including social ones, which had bedeviled India since times immemorial. With regard to agriculture, the colonial policies had very specific and often adverse consequences. Blyn (1968) has documented the downturn in food production per capita over the period 1857-1947 as a result of the systematic policy of promotion of cash crops that was followed by the colonial state at the expense of food grains. Bharadwaj (1994) has analyzed the regional differences in the investment in agricultural infrastructure by the colonial government that led to serious regional inequalities. Punjab, for instance, accounted for nearly one-third of the total public investment in irrigation in the period 1960-1 to 1946-

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prerogative. The profound changes affected by the conferral of the right to alienate land that was hitherto held communally in Punjab have been documented by Thorburn (1886) and Darling (1978).

[58] Saberwal (1997) has pointed out the "use" of desiccationist discourse that was of highly alarmist kind besides being based on uncertain science in attempts to influence specific policy outcomes. The existence of similar scientistic discourse in the context of colonial forestry policies has been reported for the Central Provinces by Rangrajan (1998).

7[59]. Another characteristic of the agricultural policy of the colonial state was its emphasis on production often with utter disregard to the distributive aspects. The investment in irrigation, for example, and its impact on the inter-regional equity as well as on the poorer sections was neglected.

The post-independence agricultural policies of the state continued the emphasis on the production at the expense of the distributive aspects. The Congress party that had played a major part in the struggle for freedom had advocated, in the run up to freedom, a concrete program of rural renewal based on ending the powers of the intermediary, rentier class of *Zamindars* who were brought into existence as the revenue agents of the state.[60] The consensus on the need for confiscation of surplus ("excess"*)* land, redistribution to landless farmers and security of tenure was the cornerstone of the Congress approach to solving the rural poverty problem.

The policies of radical land reforms were quickly jettisoned in the first few post - independence years. The reasons for this are many. First, the land reforms were a state issue in which the central government had little say. Secondly, the landlord class figured prominently in the ruling coalitions that came to power in most of the states. The land-reform measures that were undertaken finally in most states (with the notable exception of West Bengal and to lesser extent Kerala) were a half-hearted affair with their impact limited to the elimination of the intermediaries— the parasitic, rentier class of *Zamindars*.

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[59] The reasons for this favorable treatment were mainly strategic and commercial. Punjab was crucial for the stability of the Northwestern frontier. In addition, the existence of tenurial systems characterized by relatively less reliance on the intermediaries [Zamindars] led to relatively direct connection between the farmers (*ryots*) and the state providing for better opportunities for revenue maximization.

[60] Jawaharlal Nehru in his autobiography wrote that "as a class they (Zamindars and Taluqdars) are physically and intellectually degenerate and have outlived their day; they will continue only so long as an external power like the British props them up" (Quoted in Bandhopadhyay 1994; 320).

The main class of beneficiaries was the well-off tenants who consolidated their position *vis-à-vis* the landlords while vast numbers of landless laborers and sub-tenants were left out and to some extent even harmed as the land reforms were followed by a wave of evacuations engineered by the landlords.[61] Such limitations (weakness of the state?) came to define the accommodationist official approach to rural development. According to Frankel:

> Nehru maintained Gandhi's "friendly and constructive" approach toward the propertied classes…he preferred an incremental approach of whittling away at social support of these groups…[by] weakening the social pillars of the economic and political dominance by the landed castes… (1978:108-109)

The bureaucratization of the Indian state had the effect of enshrinement of a highly technicist and ultimately reductionist outlook on the problem of rural poverty. As Chaudhuri (1994) has pointed out, there was an asymmetry in the government approach towards industrialization and agricultural development. Whereas for industrialization that was paradoxically more amenable to technicist agenda devoted to capital accumulation, the need for institutional reform was explicitly recognized, in case of agriculture, it was left to the community initiatives and like to somehow circumvent the entrenched structures that had historically prevented growth in rural areas. The issue of institutional revamping in light of the constraints due to "landlordism" that had historically trapped agriculture at low productivity levels did not merit the same attention it did for industrial growth. As Thorner (1964) has pointed out, the choice of Indian policy makers of increasing productivity through cooperatives and such poverty

[61] Bandopadhyay summarizes land reforms in India as follows:

> In no sphere of governance in India is the divergence between rhetoric and reality so large and so palpably obvious as in the case of land reform. A cynic may even propound a new law of inverse proportion between promise and performance in respect to land reforms. (1994:320)

alleviating measures as the Integrated Rural Development Project (IRDP) was made under the influence of major donor countries like the US on which India was dependent for food aid until at least the mid-sixties. It was this thrust to bring about technological improvement in agriculture that the agricultural universities patterned on the lines of land-grant institutions and established with the US support were aimed to achieve.[62]

In the case of Himachal Pradesh, the struggle for statehood was even more closely tied to the lack of development or under-development that had characterized the hills, especially, in comparison to the Punjab plains. In other words underdevelopment or backwardness came to constitute the *raison-d'être* of the cry for political autonomy. Of course, the discourse of backwardness of hill areas and more particularly people and its causal connection to their isolation had been the staple of mass consciousness. As Bharati (1988) has pointed out, the conception of hill areas in the plains, traditionally, was characterized by a profound duality. On one hand, the hills/mountains as spaces were sacred to Hindus mainly on account of their association with numerous myths and folk tales and even more importantly due to the location of most places of pilgrimage in the mountains. At the same time, the dominant Brahmanical view saw the hills people as low status Hindus who followed corrupt practices such as bride-price and *reet*[63] that were

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[62] Breman has described the thrust of rural development policies thus:

> In setting up of the community development organization use was made of a great diversity of experiences gained [from] rural reconstruction…The then manifestly technocratic approach was operationalized in the considerable attention given to improved agricultural methods, the granting of credits, irrigation projects and other types of intervention that were intended primarily to increase production through modernization. Of similar nature, namely the emphasis on agricultural extension services (even if more attention was given to forms of social engineering deriving from the American Mid-West experience), were the experimental projects set up on the initiative and backing of US sponsors. (1997: 33)

[63] According to Mian Goverdhan Singh (2000: 169-170):

anathema to their orthodox plains brethren. This view of the hills and the hillfolk was acquiesced with, not the least, by the socially and economically mobile influential (mostly upper caste) section of the hills. In 1925 a *gurukul* wing of the *Arya Samaj*[64] under the impetus of the *shuddhi* movement established the Himalaya *Arya Up-pratinidhi sabha* to "work towards amelioration of the conditions of *Kanets*[65] of the Shimla hill states, untouchability, polyandry, polygamy, *reet* and belief in *deotas*". With the general ascent of economism in social affairs, the status of the hill people suffered a further decline. They were now seen as poor people largely because of their superstitions and other sundry social evils deduced predominantly from their subordinate condition.

The example of literacy is used to elucidate the framework whereby the policy formulation as well as outcomes can be understood in light of the embeddedness of the state in society.

> *Reet* is the term applied to the value of clothes and ornaments given to the bride by husband at the time of her marriage. It also includes other expenses incurred by him on the marriage. When the relations between a wife and her husband become uncomfortable the married girl returns to her parental home…No formal divorce is affected but this constitutes a separation freeing her to marry another man if her father is prepared to reimburse to the first husband the amount of *reet*…

[64] Arya Samaj was a Hindu revivalist movement of the mid-nineteenth century that called for a return to the basic precepts of the Vedas the ancient Indian scriptures. The impetus for the movement lay in the socio-cultural insecurities generated by the massive change brought about as a result of the spread and consolidation of the British rule. Also the British government followed a relatively interventionist policy with regard to what were hitherto regarded as the internal matters of communities and— which were largely left to the customary laws and traditions by the preceding authorities such as the Mughal state. The Arya Samaj became highly influential in Punjab and parts of Uttar Pradesh and led to a resurgent Hinduism in antagonistic relationship with both the British/European and the Muslims elements that were perceived as eroding the Hindu faith. With *Shuddhi- p*urification-meant for reconverting Hindus who had converted to Islam back to Hinduism— it entered the highly charged and contentious realm of communal politics. See Bose and Jalal (2000) for their trenchant analysis of the preponderance of urban, mercantile communities in the spread of the Arya Samaj ideology and influence, especially the relationship with the social and economic cleavages brought to fore by the British policies.

[65] Kanet is a term that was used, predominantly, to refer to peasants of Shimla and Kullu.

Changing face of Literacy in Himachal: Illustration of the State-Society Dynamics

Of Himachal's unusual development trajectory in the Indian context, there is perhaps no better example than that of its success in imparting basic education. Education is considered one of the main goals of social development both as an end in itself as well as means to economic growth. As Amartya Sen has pointed out:

> Education and the development of human ability and skill must not be valued *only* as instruments to other ends, their instrumental importance *must* also be acknowledged. In the analysis of 'growth-mediated' social progress, public education can be both *favorable* to economic growth (through expanding the opportunities for economic expansion) and *favored* by economic growth (through generating more resources for such support). (1997: 19)

In 1951, literacy rates in Himachal were lower (21 percent for males and nine percent for females) than for the rest of India (Anonymous 1999). But the situation had improved dramatically by 1999 when literacy for the10-14 age-group was 94 percent for males and 86 percent for females (Anonymous 2000). The reasons for this turnaround are several. On the one hand, the state policies and priorities have played an important role in increasing literacy rates. Here are some relevant facts and figures: The per-capita spending on education is twice that of all-India average (Anonymous 1997). The teacher to student ratio is twice that of the country average. For one teacher there are 25 pupils in Himachal Pradesh, whereas in the group comprising Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan, the figure is 54 (Anonymous 1997). Another major aspect of the literacy revolution is the small difference between male and female literacy rates as compared the country, which ranks fifth from the bottom in terms of gender disparity in literacy (Dreze 2000).

In addition to the favorable state policies, the social dimension of the success story has been exceedingly important. In describing the dismal Indian record in elementary education, Sen has blamed the traditional social structure with its deep-rooted elitist bias for the neglect of primary education:

> The traditional elitist tendencies of the ruling cultural and religious traditions have added to the political problem [lack of political will] here. Both Hinduism and Islam have, in different ways, had considerable inclination towards religious elitism, with reliance respectively on Brahmin priests and on powerful Mullahs…[which] contrasts with the more egalitarian and populist traditions, of say, Buddhism…There is even some evidence that when Western imperialists conquered countries in Asia and Africa, they tended to expand— rather than to counteract— the biases that had already existed in the local cultures. For example, the British in India took little interest in elementary education, but were quite keen on creating institutions of higher learning in the good, old Brahminical mode, whereas the same British in Burma gave much encouragement to the expansion of elementary teaching, even though they tended to do little for higher education. (1997: 14-15)

In Himachal Pradesh, some of the rigidities associated with the relatively orthodox Hinduism of the plains are generally absent. The resulting social structure is more flexible and egalitarian, especially, with regard to gender relations.[66] This is indicated by greater participation of women in the labor force in Himachal— a factor that is a sign of and promotes acceptability of women in public (Anonymous 1999). For instance, the proportion of women school teachers in Himachal is 40 percent as compared to 20 percent in North India (Anonymous 1999). Women also play a greater role in family decisions and actively look for job opportunities arising out of their educational

[66] Rarely, of course, are satisfactory answers to such complex questions as those pertaining to social stratification provided by mono-causal explanations. Chetan Singh has provided a different perspective on the same:

> …To a considerable extent the physical environment of the region prevented the emergence of a highly hierarchical society. A wide range of economic activities had to be pursued in order to put together the essentials required for even simple living. Under the circumstances not very many *non-productive* social sections could be sustained. Successful human interaction with the mountain environment was perhaps made possible only by the relative absence of social equality. (1998: 217 emphasis mine)

attainments in contrast to educated women elsewhere, who are mainly expected to perform the traditional roles. (Kishor 1993). Overall, people have a much more positive attitude towards education of children, regardless of gender.

The foregoing example of education illustrates the futility of state versus society type characterizations that rely on radical separation between the state and society. State including its policies cannot simply be analyzed in an ahistorical, instrumental fashion. The composition of state and the formation of goals and targets are all subject to the historically specific social and political conditions. The dialectical relationship between the state and society may not be very evident at the micro level in space-time continuum but reveals itself in certain underlying trends and most importantly the *longue durée*. In analyzing the case of Himachal Pradesh, some of the factors that operate over the long-term include the ties with the political and cultural center— the plains— and the relationship of people with political authority, especially the state.

Horticulture in Himachal Pradesh

The program to promote horticulture, especially apple, in the erstwhile Punjab hill states was initiated by the then Chief Minister (CM) of Punjab, the charismatic Pratap Singh Kairon. One of the prominent growers in the small town of *Raisan* in the heart of the apple-belt in the Kullu valley said, "Kairon in public meetings exhorted us to give up cereal/traditional cultivation and instead take up apple cultivation. He assured us not to worry about wheat (*Gandam*), which he said Punjab would supply". The far-sightedness of the CM in dealing with the problems of hill areas is also recollected by one of the ex-chairpersons of Lower Kullu Fruit and Vegetable Growers' association. He described

how he was one of the odd college students from Kullu who had to go to Chandigarh to get their education in absence of a college in Kullu. Frustrated by the distance that they had to travel and other difficulties that they encountered, they decided to petition the CM for opening a college in Kullu. The meeting with the CM is recalled with great nostalgia. The CM received them warmly and with great affection in his usual boisterous manner. On hearing their plea, he remained unmoved much to the chagrin of the petitioners. He explained that the prerequisite to progress of the hill areas was end of its isolation, which could be achieved by education and moving out and opening up.

He was thus opposed to opening up a college in Kullu as it would deprive them of chance to see the outside world. Finally, to reassure them that his decision was not motivated by pecuniary considerations, he doubled up their monthly stipends.[67] Regarding the stimulus for spread of apple, one of the orchardists explained:

> We had no cash and we could meet only our basic needs. Educated people wanted cash income, which only apple could provide. The campaign [for planting apple] targeted children each of whom was given a tree on which his name was put.

Agricultural Policy: Profit or Risk Alleviation?

In the newly independent Himachal Pradesh, the debate continued for some time between elements for and opposed to a policy of self-sufficiency in food production. The legislative debates of the 1950s and 1960s exhibit varying levels of concerns for enactment of policies geared to attaining these goals. One of the important and proximate motivations for such an "autarchic" stance lay in the danger of domination,

[67] Amin (1988) in his study of the image of Mahatma Gandhi in the Gorakhpur district of Uttar Pradesh during one of the watershed events in the free Gandhi Maharaj the great king. Such perceptions of the political leaders and ultimately politics constitute a powerful lens through which popular understanding of the state and its role is refracted.

both real and perceived, by Punjab, which was the main source of food grains. In this respect, the resulting government position of somewhat less than total support for commercial horticulture arose mainly out of the need to project self-reliance and autonomy, especially, to ward off the threat of re-absorption in Punjab[68], which was an ever-present threat especially in the first decade after the grant of statehood.[69]

The Congress Party played a major role in the struggle for statehood for Himachal Pradesh. Moreover, the leader of the party, Yashwant Singh Parmar, was clearly the most towering political figure in the state having personally played a prominent role in making the case for autonomy and full statehood. Parmar as a vice-chairperson of the All India State People's Conference had earlier been active in the nascent people's movement against the princely states in the region. He had attained the status of a folk hero after having successfully led the popular agitation or the Suket Satyagraha, as it came to be known, against the ruler of the said state.[70] For the reasons mentioned and in the absence of any other rival figures, Dr Parmar came to be the sole representative/spokesperson of the *pahari* aspirations of cultural, political and economic autonomy and, ultimately, he was remarkably successful in his endeavor.

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[68] Bishan Dutt Lakhanpal (1973), member of legislative assembly, described the issue thus: "The sword of *Maha*-Punjab (greater Punjab) still hangs over Himachal".

[69] While arguing for the need for a separate, autonomous hill state, the protagonists such as first chief minister Dr Y. S. Parmar had to consistently demonstrate the financial solvency of the proposed state. This was done using data relating to the proportion of grant to total aid that was received by different states and by demonstrating the ability of the would-be state to meet other financial requirements (Parmar 1970)

[70] Jawaharlal Nehru, the first prime minister and a freedom struggle stalwart had established the All India State People's Conference to provide a forum for the people of the areas that were not under the British rule and continued to be administered by the Indian rulers to air their grievances.

The situation of enormous clout enjoyed by political "heavyweights" like Parmar was by no means atypical related as it was to the overall fortunes of the Congress party. According to Rudolph and Rudolph:

> In its early post-independence years, Congress retained some of that strong normative dimension that inspired it as a nationalist movement, a dimension that was capable of enlisting not only the interests but also the ideals of its members and those who identified with it…Congress as the legatee and bearer of the nationalist era brought many valuable institutional assets to the early years of the independent nation. They reached well beyond the party itself and the party system that it dominated to the political community, government and the state that encompassed them. During the Nehru era the political capital that Congress brought to independent India was replenished, perhaps enhanced…(1987: 131-132)

From the moment of its very inception and through the logic of its creation, the new state of Himachal Pradesh was firmly implicated in the discourse of statist development. The period 1951-1967 is usually described by the historians of Indian economy as the high noon of planning (Bagchi 1994; Bharadwaj 1994). In making the argument for the statehood, the protagonists often relied on the combination of the necessity for decentralization with the moral/ethical imperatives of economic development, the means for which could be nothing else but "planning". In their (votaries of independent state) attempts to placate the fears and misgivings pertaining to the feasibility of the proposed state, frequent recourses were taken to point out the enormous natural wealth at the state's disposal and the potential contained for revenue therein.[71] The resource extraction model for development was firmly in place and little if any discussion of the need for mountain-specific models is found in the period. Thus, the

[71] Tapindra Singh in moving tile "resolution for statehood" in the state assembly (*Vidhan Sabha*) commented that "even the government of India took loans and … Himachal has rich economic potential, if forest-based industries were encouraged, we could increase our incomes to Rs. 30 crore by 1970"(cited in Parmar 1970).

demand for statehood or political autonomy from Punjab though premised on the general belief in the administrative superiority of small states and justified on the grounds of the rights of the hillmen to "mould their own destiny according to their own genius" (Parmar 1970) showed no signs of either departure in goals or the means to achieve those goals.

The leadership of the new state including the chief minister firmly believed in bringing Himachal to the Indian mainstream. By this they meant an end to the isolation of the hills from the nerve centers of the country— both extant and emerging. At once conscious of their special position, for instance strategic and their subordination economically and politically, the leaders pressed for statehood based mainly on the separate linguistic and cultural identity, especially with respect to Punjab.

The ideological affinity of the hill leaders with the Punjab model that was based on the market orientation of agriculture and wherein lay the roots of the perception of hill farmers as benighted, poor and backward precisely because they lacked agriculture with cash/market orientation. The bureaucracy was another major site for the articulation and dissemination of the same set of concerns.[72] With the establishment of the state agricultural and horticultural universities, the green revolution approach to increasing agricultural productivity received a major thrust.[73]

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[72] It is no accident that the directors of the horticulture department, especially the ones who are remembered as architects were Punjabis and agricultural professionals from other agriculturally advanced parts of the country such as the Western Uttar Pradesh.

[73] In his analysis/reminiscences of the Green Revolution years starting mid-sixties, Lewis (1995) has provided an insider's account of the pressures working on the agricultural policy-in-making from the principal donor, the United States. Even though, it is often difficult to sort out the origin of stimulus for specific policy measures, especially in as much as their endo/exogenous roots are concerned, it is probably safe to conclude that external US pressure exercised an important if not decisive influence on the official decision to adopt the distinctive strategies that led to the "Green Revolution". These included giving the price incentive or getting the prices right, steps to enhance synthetic fertilizer consumption and a switch away from risk minimizing famine-proofing approach to focusing on the areas that showed promise. Thus, some of the consequences of Green Revolution, for example, adverse impact on equity were not only

As mentioned earlier, the debate in the newly independent Himachal centered predominantly on the poverty alleviation program. The agricultural strategy gradually came to center almost wholly on the promotion of cash-crops/horticulture and apple and other temperate fruits, in particular. In the formative years of this policy which would soon give rise to a remarkable consensus, the self-sufficiency argument was made sporadically by the opposition. Among them two positions can be clearly discerned—the first was occupied by politicians of socialist persuasion who had reservations about the adverse impact on inter-regional equity and more generally the dilution in the state's commitment to meeting the basic subsistence needs of people.[74] The other source of opposition to the government's policies came from the representatives of the tribal populations of the state, especially, Kinnaur.[75] A characteristic statement in this connection made on the floor of the state assembly in response to the governor's address highlighting the emphasis on horticulture is reproduced below:

> In Kinnaur a certain minister urged people to grow apples since land availability is less. I asked the people to get the minister to sign an agreement so that Maize can be supplied to them and then they can grow apples. Unless there is a way to transfer grain from the surplus areas, the overspecialization cannot be allowed to happen. (Negi 1971)

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entirely unanticipated but almost a determinate outcome of the policy shill made in light of the national and international compulsions.

[74] It was clear that the promotion of temperate fruit cultivation would selectively benefit a narrow mid-hill belt occurring predominantly in the districts of Shimla and Kullu. As the former was politically ascendant, there was significant concern that the policies will benefit a particular political constituency.

[75] In fact as late as 1971, the Chief Minister's address in the state assembly on the occasion of the presentation of budget included explicit mention of the dual agricultural strategy— cereal cultivation in the lower areas and horticultural promotion in the upper areas (Parmar 1971). It is important to note that satisfaction at the enunciation of this policy was duly expressed by the leader of tribal population of the state, Thakursen Negi.

It was perhaps perceived that the policies to promote commercial horticulture would have few benefits for the impoverished tribal populations of this area and the gains would accrue to the relatively prosperous sections among the landed peasantry. As net buyers, the immediate interests of the tribal populations lay in securing a supply of food grains for subsistence.[76]

The opposition to the commercially oriented agricultural policies gradually petered out in light of several factors. Perhaps, one of the most important among them was the near total political dominance of the Congress in the state and particularly the stature of the chief minister Yashwant Singh Parmar. Moreover, it came to be widely believed that the small size of the land-holding in the hills coupled with low yields made the cultivation of cereals on the lines of the plains' agriculture non-feasible/unprofitable in Himachal Pradesh.

The exclusion of other paths to agricultural modernization has also to be understood in its relation to the evolution of agricultural research and even more agricultural administration in India. It is important to note that the space in which an alternative to the dominant agricultural strategy could be articulated quickly shrank and ceased to exist. As Dandekar (1994) has documented in his history of agricultural research in India, the model of research established by the British which was firmly rooted in the centralization of decision-making in the fashion of typical command and

[76] Thakur Sen Negi an ICS (Indian Civil Services) officer and later the elected representative from Kinnaur and the speaker of the house was one of the most vocal opponents of the policy.

control mechanisms has only been further entrenched after independence.[77] In Dandekar's view:

> On one hand, the penchant of the central government to concentrate more powers at its own level had led to a vastly proliferated bureaucracy...due to its increasing concern in seeing to the implementation of the plans in the states (and) the union-state relationship in agricultural development was not conducive for the maximum utilization of the potential for increasing agricultural production. (1994: 151)

The government's emphasis on coordination and control led to the establishment of supra-regional bodies like National Commission on Agriculture about which Dandekar (1994: 159) has remarked that it was "more Imperial than the Imperial Commission on Agriculture" set up by the colonial British government. The increasing technocratic bias was even reflected in the structuring of the extension services. The National Centre for Management of Agricultural Extension, which was established in 1987 declared that its main aim was:

> to identify, appreciate and develop modern management tools, techniques in problem-solving approaches and utilizing the mechanism of personnel management, resources management, input management and finally conflict management at the organizational level. (in Dandekar 1994: 171)

The inexorable march of the instrumental thinking in agricultural development has, again, in Dandekar's words led to the conceptualization of "reality as a set of systems (where) variation is reduced to differences in parametric values". This is what

[77] Lewis (1995) in his very sympathetic and predominantly first-hand account of the planning process, especially, the operational constraints, sees centralism as a consequence of "Giantism" (Chapter 4. 16-51)- the fact of India's huge size and often perplexing diversity.

happens “when the vastness and the variety of the problem are recognized but there is unwillingness to decentralize” (ibid. 1994: 180).[78]

The decision to continue with bureaucratic governance, the so-called “steel frame” of the British Empire was taken after careful balancing of the putative threats of disintegration that the country faced and the imperialist trappings of the unreconstructed bureaucracy. As Rudolph and Rudolph describe:

> …Democrats and reformers… preferred to rid the state of an imperial legacy known for its elitism and conservatism. But more statist council prevailed. Patel [the home minister]… warned… “Remove them and I see nothing but a picture of chaos all over the country.” Nehru, who had been unconvinced, changed his stance… “The old distinctions and differences are gone…In the difficult days ahead our service and experts have a vital role to play and we invite them to do so as comrades in the service of India. (1987: 76)

At the ideological level, of course, it was remarkable how a leadership that had until very recently pitched its argument for a separate statehood on the basis of the pervasive existence of backwardness, illiteracy and poverty could promote a strategy that was ostensibly not for that majority.[79] The commercially successful fruit cultivation up to this point was restricted to the affluent, educated and the well connected and was limited, geographically, to a handful of pockets where the pioneers, mostly the British settlers, had lived. There was, thus, nothing in the experience with fruit cultivation of the ordinary cultivator that could warrant such a single minded shift in a direction that would

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[78] It would be pertinent to point out the existence of an acute awareness among the policy makers of the paradox— indeed the tradeoff between equity and decentralization. In Lewis’s (1995: 254) words, this realization was “far from being the esoteric insight of a few social scientists, the probable conflict between decentralization and equity was emphatically recognized by most of the state officials, planning board members, and politicians...”

[79] Of course, the policy of horticultural promotion was pursued amidst fulsome invocation of 'socialism' that remarkably closely echoed the national political discourse. Of course, the increasing dissonance between the rhetoric and reality at the national level was becoming increasingly clear but was still resorted to— reflecting the dominance, rather monopoly, of centralized economic planning with which it was inextricably linked.

clearly not only entail significant use of resources but also by the same token diversion away from research and promotion of existing cultivars. Even in the experience of the neighboring state of Kashmir, which was the largest and almost monopoly producer of apples and other temperate fruits, there was little that suggested bright prospects for such a course of action.[80] So can we draw the conclusion that the strategy was adopted because the state elite opted for its own interest and those of the large farmers to which it was beholden. Here, the role of the state, even its composition, becomes important. At the heart of the issue is the question of the autonomy of the state— how autonomous is the state.[81] Bardhan (1998), for instance, has considered the Indian state fairly autonomous, at least, in the two decades following independence. In this period, the state was committed to the agenda of capital accumulation by emphasizing the command economy approach through expansion of public sector. Subsequently, the authority of the state owing to the diversity of the polity and more specifically the ruling coalition has been severely eroded leading to a change from "developmental" to "regulatory" role (Bardhan 1998: 74). The case of Himachal Pradesh combines a belief (then widespread) in the ability of the state to affect transformation through dissemination of proper information combined with improvements in the institutional and other infrastructure necessary for the success of commercial horticulture.

[80] The situation in Kashmir was such that the large cultivators came to sub-lease land from smaller producers who were unable to cultivate themselves for reasons such as lack of sufficient capital and knowhow. Moreover, the system was and continues to be dominated by pre-harvest contractors who dictate terms to small producers and also skim off the major portion of the surplus

[81] The literature on the state— its autonomy or the lack of it and other aspects is voluminous. Here we will consider mainly the discussion of the Indian State except when general theoretical issues have bearing on the subject at hand.

The commitment of the state to horticulture indeed to apple was soon to become almost total. Of course, the question of lower Himachal Pradesh, which was topographically not suited to the horticultural strategy, was always present and usually dealt with in passing.[82] The government's stated goal of promoting socialism was at loggerheads with its avowed policy of promoting horticulture whose adverse implications for inter-regional equity was not in doubt. A glimpse of the true intentions of the government and the measure of its commitment to socialism were provided by the fate of a proposal introduced in the state assembly in 1972 to levy wealth tax on horticulturists. It was stoutly opposed by the ruling Congress party, especially, by the members representing the horticultural areas on grounds of being discouraging for the orchardists.[83]

The other symbol of government's avowal of socialism was the policy of land reforms. The state's class bias and its collaborationist role was amply reflected by the various loopholes that were left in the government policies on the issue combined with the overwhelming political dominance of the landed interests on ground.[84] The measures were deprived of whatever radical edge they had been imparted by the rhetoric emanating from a half-century old debate. As was pointed out on the floor of the assembly itself, by

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[82] The forest minister for example, in response to queries by the members of opposition about the agricultural strategy reiterated that "of course both fruit and grain cultivation are required as people will starve if they do not produce grains. Lift irrigation schemes will be put up for lower Himachal where apple can not be grown". The lift irrigation schemes never got implemented with any seriousness in view of their huge capital requirement.

[83] Dile Ram Shabab (1972), a prominent Congress party member, for instance, declared that wealth tax provisions if implemented will cause people to give up on horticulture

[84] HP Land Improvement Act for 1973 placed a ceiling on land ownership at 30 acres. Land ceilings for various categories of land were as follows:
Irrigated (2 crops a year)— 10 acre
Irrigated (I crop a year)— 15 acre
Dry Land suitable for orchards—30 acre and
Lahaul, Kinnaur, Pangi, Rohru (predominantly tribal areas)— 50 acre

no means a forum for advancing radical change, on numerous occasions, the reforms were easily circumvented by the usual suspects acting alone or in combination.[85] The local political institutions for self-governance were of course far from neutral in their use of power vested in them by the state law- makers to reallocate land. The demands for better implementation of land reform measures were blunted by the ambivalence of a majority of members on the issue, which was quite vocal about its stand and was not averse to raking up other issues for pressing home their point.[86]

In the political arena, the polarization along regional lines was evident in the positions taken for and against the issue of horticulture. Whereas the Congress members, especially from the upper Himachal were proclaiming that: "there could be no slogan other than apple for Himachal"[87] (Chauhan 197: 32) the opposition members were questioning the status of apple as the sole, or in any case, the dominant cash crop.[88]

Politics of Minimum Support Price

In the story of the ascendance of apple, perhaps no other issue has been more critical than that of the Minimum Support Price (MSP) in mobilizing the popular opinion for or against the apple orchardists. In addition, it was applied as the litmus test by the

[85] J.B.L. Khachi (1972) brought attention to the fact that it was the section of rich owners that had disproportionately availed of the redistribution of village commons *(shamlat)* and land vested in other forms of common property regimes like *nautor.* On another occasion, the same member expressed concern that outsiders, especially bureaucrats from outside of Himachal Pradesh were buying land suitable for apple cultivation in places like Karsog at throwaway prices. Apprehensions were also voiced about how these large, non-Himachali apple growers could come to be involved in an unequal and exploitative relationship with the small. impoverished *pahari* peasants

[86] Kewal Rain Chauhan (1972), another Congress member from the apple belt, asked for land reforms and ceiling on urban property.

[87] Kewal Ram Chauhan

[88] Kishori Lal (1980)

apple orchardists to the government of the day to gauge the degree of its commitment to the “welfare of the farmers”. As has been pointed out earlier, the support price was first declared in 1981 to compensate the farmers for the massive damage inflicted on the apple crop by scab. Even though mooted initially as an exceptional measure, it became a permanent fixture owing to the increasing stridency of the class of apple growers and their political clout.

Table 3: Support Price for the period 1981-1999 (in Rupees)

1981	0.50
1986	1.30 (g), 1.5(s)
1987	1.50 (g), 2.00 (s)
1988	2.25
1989	2.75
1990	1.30
1991	----
1992	----
1993	2.00
1994	2.50
1995	3.00
1996	3.50
1997	3.75
1998	3.75

(Source: Directorate of Horticulture, Shimla, Himachal Pradesh)

The support prices during the above period have been consistently higher than calculated cost of production. Not only that, the increase in remunerative support price over time has more than compensated for the impact of current inflation.

In the Indian context, the role, fixing and the impact of procurement prices have had a contentious and complex history. Here, it would only be possible to present a very brief summary of the discussion that is indeed huge in terms of both the time it has spanned and the scope it encompasses. The policy of declaring minimum support price

had its origins in the government drive to increase food grain production. In the words of the Agricultural Prices Commission (APC) set up by the government in 1965:

> One of the major uncertainties which afflicts farming activity emerges from the not infrequent phenomenon of a sudden and precipitous fall in the price of agricultural commodities. The objective of the guaranteed minimum price, as universally understood, is to remove this uncertainty. This should enable farmers to pursue their production efforts with the assurance that any temporary glut in the market cause either by the supply or the demand factor will not be permitted to depress their incomes. (cited in Dandekar 1994: 324-325).

There is yet another objective of the minimum support price. According to the APC:

> the device of the minimum support price should be utilized to assure the progressive farmer that his effort to augment production through adoption of improved technology will not become un-remunerative due to the price factor[89].(Cited in Dandekar 1994: 327)

Once, the goal of the minimum support price to promote improvement in technology is accepted, it becomes necessary to factor in the cost of production. The question that next arises is whose cost of production to accept? For instance, there is the "low" cost associated with the efficient farmer and the "high" cost that results from marginal operations. Furthermore, if income stabilization is taken to be a goal then other factors such as the input-output price parity and inter-crop price parity become important. In view of the complexity involved, the APC noted that:

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[89] It would be instructive to delve into the antecedents of this relatively new change of position with respect to the role of price incentives in agricultural production. In a landmark paper in 1960, T.W. Schultz had analyzed the adverse impact of PL-480 program on price of food grains and ultimately the rural producers. Going against the orthodoxy, then prevalent, that in Third-world countries, of which India was an exemplar, the price response of cultivators was very low, if not negative (the so-called backward sloping supply curve). Dandekar (1994) has contested the findings on both empirical and theoretical grounds pointing that the above proposition holds for only a small sub-section of cultivators. Lewis (1995) has provided an account of the role that the pressure from the US played in greater emphasis on "getting the prices right".

> best with such serious problems and indeterminates, a mechanical approach to price determination would not allow dynamic adjustments to take place... and the weights for the different factors have to be exogenously determined.(cited in Dandekar 1994: 330)

In case of apple the disjunction between cost of production and support price was never hidden. For instance, in 1986, when the support price was pegged at Rs. 1.30/kg in general and Rs. 1.50 for small farmers, the Cost of Production was estimated to be Rs. 1. (Dahiya and Singh 1997). In 1988-89, the support price of Rs . 2.25 was announced, which marked a still greater departure from the calculated cost of production of Rs 1..50/kg. The next year happened to be an election year and accordingly saw an increase of Rs 0.50/kg to Rs 2.75/kg— an incredible 22 percent increase in one shot! Thus, it's clear that the increase in support price over time has been much more than what factoring in of an inflation rate of 8-9 percent would have warranted— in fact the support price has assumed the function of a remunerative price-prompting Dahiya and Singh to remark:

> It goes without saying that the horticultural price policy has been implemented on the basis of political economic considerations with little regard for economic rationality and scientific basis…(1997: 598)

The prescription for "exogenous" weights in case of minimum support price for apple has translated into a policy that is politically determined. The minimum support price policy in case of cereals or food crops has essentially been a matter of balancing the interests of producers with consumers-the main goal of the government being to procure at a price that is above a certain minimum level and be able to download so as to protect consumers from excessive prices. In case of apples, a non-essential commodity, the government never had a policy of compulsory procurement. The result is that most of the produce has been disposed off through the market channels. Moreover, the government

has no commitment to the consumers (at least in terms of preventing excessive prices) as apple is not considered to be a food staple. Therefore, the only effective constraint to increasing the support price was the fiscal burden that the government was willing and capable of bearing. The minimum support price in effect provides a way for the producers to offload the lowest quality fruit that would not find a market or a remunerative price in any case.

The issue of support price had, thus, come to symbolize an exercise in pampering of the apple lobby fueled by the exigencies of partisan politics. Let us examine the case of procurement in 1989-the total volume, cost to the exchequer and the main beneficiaries.

Table 4: Total Government Spending on Procurement of Apple and Quantity Procured for the Period 1986-1998

Year	Government Spending on Procurement (Crore Rs.)	Quantity Procured (tons)
1986	3.27	25,226
1987	4.26	21,452
1988	4.06	18,083
1989	30.49	110.896
1990	0.6	4,621
1991	----	----
1992	-----	-----
1993	-----	-----
1994	0.26	1,310
1995	4.57	15,247
1996	2.80	9,245
1997	3.49	9,972
1998	16.91	45,103

(Source: Directorate of Horticulture, Shimla, Himachal Pradesh)

From Table 4 it is clear that the government spending in 1989 did increase drastically. Moreover, the government was able to sell the apples procured for less than five crore

thus, incurring a net loss of about 27 crore. The financial setback was rendered even less palatable by widespread reports of corruption in the procurement process attributed to the connivance of officials with the big producers. An inquiry conducted later revealed that over 90 percent of the total money that was paid out went to 300 odd families[90], some of whom got compensated to the tune of hundreds of thousand of rupees. Clearly, the scheme intended to secure the interest of the small and marginal producer was working for the interests of a select few.

Another problem with the way support price had worked out was that only the lowest grade (also called "culled") apple was being offered for purchase by the government. For the producers, it had the impact of reducing the supply and thus keeping up the price. Also, the Indian consumer being extremely price sensitive, the lowest grade apple would have pulled down the price of better grade of apple too. Furthermore, according to economists, the support price policy was having exactly the opposite impact— of what was intended. The government was subsidizing inefficient production-reflected in the greater proportion of poor quality fruit procured.

The tale of increasing support price and its drain on state's exchequer elicited unfavorable reaction— indeed outrage— throughout the "lower" parts of the state. It should be remembered that apple cultivation is largely restricted to a narrow temperate belt that mostly occupies the districts of Shimla and Kullu.[91] The new government, which was already keen to reign in the runaway scheme, used it as an opportunity to initiate a more comprehensive Market Intervention Scheme (MIS) with the help of the

[90] Kishori Lal, the state minister for industries announced this in the assembly.

[91] Shimla, thus accounts for 40 percent of the total fruit production in the state. Over ninety percent of the arable area in the district is under apple cultivation.

World Bank. The MIS[92] differed in offering a minimum or floor price for each grade of apple marketed. More in line with the original provisions of the minimum support price policy, it offered an approach that differentiated between the different grades of fruit produced. One concomitant of the change in policy was the lowering of support price for the lowest grade of fruit that followed (which was reflected in the reduced procurement in the following years).

At the end, the fruit procured under the support price scheme has been, financially speaking, an exercise in loss making. One contributing factor that has been mentioned is the grade of fruit that is received. But there are other important factors as well. Himachal Pradesh Horticultural Produce Marketing Corporation (HPMC), a public sector enterprise, is one of the major procurement agencies responsible for processing of fruit. I have taken their operations in 1998-1999 to illustrate the process of procurement and processing and the problems therein that contribute to its overall unprofitability.

During 1998-1999 season, a total of 45,103 tons of apple was procured by the HPMC. Due to limited storage capacity made worse by the existence of 900 metric tons of fruit juice concentrate that remained unsold, the corporation had the options of selling the remaining, about 18000 metric tons, in the open market at reduced prices, processing it or destroying it at the collection centers. All three options involve net loss to the corporation. With the institution of MIS, the state government now has the advantage of the central government sharing half the losses incurred in the procurement operation.

[92] For instance, in 1990, the year of its inception, A grade apple could be procured at rates ranging from Rs. 75 to Rs. 115 per box of 18 kg.

Subsidies in Horticulture

The extent of subsidies provided to horticulture over the period 1992-1997 is provided:

Table 5: Amount of State Subsidy for Horticulture for the period 1992-1996

Year	Amount (in lac Rupees)
1992	208.3
1993	365.8
1994	389.9
1995	609.0
1996	670.6

(Source: Compiled from the figures obtained from Directorate of Horticulture, Shimla, Himachal Pradesh)

The subsidy, thus, underwent a three-fold increase in the period 1992-1996 packing boxes account for a major proportion of the total subsidy. Out of an estimated total annual subsidy amount of 50 crore, 10-15 crore and sometimes as much as 30 crore goes towards packing subsidies. The rest is made up of subsides for pesticides and fungicide. The main goals of subsidies are as follows:

1. Speed up technological innovation
2. Help build infrastructure and productive assets at the household level
3. Provide cheaper source of credit, and
4. Improve the use of inputs associated with higher productivity.

The information that follows is specific to the ninth plan period (1997-2002) and is taken from Directorate of Horticulture Publications(1999). The government provides a

fifty percent (50%) subsidy for plastic mulch subject to a maximum amount of Rs. 5000 per hectare per beneficiary. For installing drip irrigation, ninety percent (90%) subsidy is provided to small, marginal, scheduled caste and tribe and women farmers subject to a maximum of Rs. 25,000 per hectare. Under the head of "control of pest and disease", fifty percent (50%) subsidy on cost of fungicides is provided to small farmers whereas big farmers are entitled to thirty percent (30%) subsidy. A subsidy of Rs. 10 is provided for the standard 18 kg cartons. A transport subsidy of Rs. 1 per box is also provided (Annual Plan 1999).

One of the major goals of the government policy is to increase the area under apple and other horticultural crops. The aim of subsidy is to help defray the sizable costs involved in setting aside a piece of land for orchard development especially in light of the long gestation period involved (approximately 10 years). A fifty percent (50%) subsidy on planting material ranging from Rs.7500-8600 is provided. Further, a subsidy of Rs. 600-1500 is provided for rejuvenating old orchards.

The maze of "consumptive" subsidies provided by the state has led to a number of problems. Common ones include poor targeting and "leakages"— a euphemism that describes process of pocketing of benefits by unintended individuals. Singh and Sikka (1992) provide an account of how the big farmers are able to use their influence in diverting the subsidies away from small and marginal farmers. The administrative tasks associated with the disbursal of subsidies have been allocated to the Horticultural Development Officers (HDO) at the district level. This has taken a toll on the performance of extension activities, which is the main responsibility of HDOs.

Politics of the "Upper" and "Lower" Himachal and the evolution of Horticultural Policies

At this point it would be pertinent to describe the political situation in the state. The state had seen continuous rule by the Congress party until 1977 when *Jan Sangh*[93] swept into power for the first time. Ever since, the political equation in the state has been polarized between the Congress on the one hand and the Bharatiya Janata Party (BJP), the avatar of Jan Sangh on the other. Moreover, the polarization was made more acute by the clear demarcation of the influence of the two parties. The Congress was strong in the Shimla area, also known as "old" Himachal whereas the BJP found the bulk of its support in the populous district of Kangra and other sub-montane districts like Hamirpur and Bilaspur. The main rivalry lay between the politicians from Kangra or "new" Himachal (the parts of Himachal that were added in 1974 and which constituted till then the Punjab hill areas) and Shimla that had been the political heavyweight before the integration of Kangra. At several times, the issue of discrimination in development matters against the new parts was raised politically by interested politicians and found at least some resonance among the people. People with whom I discussed the issue of discrimination were mostly quick to dismiss it as a creation of career politicians and in general an indication of the degeneration of the political system as a whole where politicians raised such divisive slogans in order to garner votes. But in addition to lamentations about the nature of the electoral system and the refrain about the selfish politicians many people did not hesitate in pointing to differences between the people in the two areas. For instance, one prominent "progressive" orchardist in Shimla said, "We

[93] Jana Sangh was an influential party that is also the precursor of the Bharatiya Janata Party (BJP)— the cultural nationalist party presently in power at center.

have nothing in common with people of Kangra in the manner of dressing, customs or food. They have been influenced by the Punjabi culture, for example, in the incidence of the custom of dowry which was and is still, largely, absent here". Another farmer Laik Ram of Thanedhar when asked about the increasing incidence of dowry (widely considered to be a social "evil") commented:

> There have been changes. People do not respect and look after old people anymore. Religion has definitely declined. Two temples do not have *gur* [*Deota's* mouthpiece]. People now go to temples just to pay their respects and for mental peace. But I don't think dowry has really increased if you consider the increase in incomes and inflation. Unlike plains, people [the groom's side] do not demand dowry.

In 1988, the Congress lost the elections for the second time bringing the BJP (Bharatiya Janata Party) into power. Shanta Kumar from Kangra became the Chief Minister. In the bitterly fought elections, the political polarization along regional divide had become clearer than ever. The election of Shanta Kumar immediately created some consternation among the apple farmers and their bodies such as the apple growers' associations (popularly referred to as the "apple lobby"). Shanta Kumar had made some noise in the election campaign about reviewing the support policy in the event of his coming to power. Overall he sounded ambiguous on the issue of price support, especially in context of his declarations about working for the lessening of regional disparities within the state and for the poorest of rural populace. Upon assuming office, the government came to be saddled with the problem arising out of increase in support price to Rs. 2.75/kg. Fortuitously, the year saw a bumper harvest of apple. The result, as described in the preceding section, was a record procurement of apple (110,000 tons) by the HPMC the total cost of which came to Rs. 30 million approximately. Amidst stories

of widespread irregularities the huge uproar that followed caused the government to institute an inquiry into the episode that was deemed akin to the plunder of state's treasury by vested interests. The government was, of course, also interested in deflecting the allegations of partisanship that were leveled by the representatives of the apple farmers.

Meanwhile, protests against the government policies that had been termed anti-farmer had started occurring, mostly in the Shimla area. The situation kept escalating amidst bouts of allegations and counter-allegations. In the June of 1990, two youth were killed by police firing on a demonstration that had, according to latter, gone out of control. In the aftermath of this incident, some violence was perpetrated in Shimla district against petty shop-keepers and other settlers from lower parts of Himachal Pradesh such as Kangra. The floor of the state assembly became unprecedented battle-ground for bitter bickering between partisan interests and emotional outbursts and sloganeering dominated the proceedings. The incident had dramatic impact as violent incidents of the kind are virtually unknown in Himachal, especially in the political arena.

As has been mentioned earlier, the proximate cause of the unrest was the massive procurement of apple by the government in light of the bumper harvest of 1989. The government procured approximately 28 percent of the total produce. Out of the total amount of Rs. 31 crore[94] paid to the farmers, nearly 28 crore [37] went to the districts of Shimla and Kullu alone. In the melee of charges and counter charges that followed amidst the protests against the anti-horticulture policies, it is possible to discern distinct patterns emerging from the intersection of long-term political trends and distinct

[94] 1 crore = 100,00,000 (10 million)

development ideologies. The regional divide that was predicated on the cultural differences between the "new" and the "old" areas acquired political salience due to superimposition by persistently partisan voting behavior of the two areas with the former emerging as a Bharatiya Jananta Party (BJP) stronghold directly counterpoised against the former as the long standing Congress bastion. On the economic front, the people of Kangra clearly had interests that appeared irreconcilable, at least in the short term, as both were competing for a share of the government largesse especially for infrastructural purposes. Thus, we see how the contingencies and compulsions of electoral politics succeeded by virtue of their catalytic role in bringing about a convergence of major structural factors that threatened a rupture of the polity itself. It was the apple issue or more precisely the "pampering" of the apple "lobby" that was made by the opposition into a major electoral issue.

While considering the process of politicization of the horticultural policy, it is useful to avoid reading the protests and violence as evidence of continuation of the pan-Indian farmers' politics by the farmers' "lobbies" in the state. Thus, developments in Himachal should not be construed as instantiation of some general movement in farmer politics towards the issue of price and subsidies. Rather, the events that followed in the aftermath of violent eruptions rendered the same as aberration— consideration that dominates the historical memory of the incidents to date. Thus, the situation is best characterized in terms of the interplay of historical tendencies and tensions that notwithstanding having powered the process of statemaking in the region were always prone to questioning and never came to have a truly hegemonic status.

It will be interesting to analyze the story of horticultural development and the widely divergent interpretations it has invited from contrasting perspectives. As the evidence from the legislative proceedings over the years makes clear, the elements that contribute to the divide have been there all along. The critical difference seems to have been made by the changing political landscape— where the hegemony of Congress was successfully challenged and the political system in the state became, *de-facto*, divided into a two party type of arrangement leading to increased competition and close outcomes. Also, in some ways, the battle lines became all the more clear owing to the extraordinarily influential spokespersons that the two parties and indeed the two areas came to have. On the side of Shimla, or the "old" Himachal, there was the formidable Veerrbhadra Singh, who comes from the ruling family of the erstwhile princely state of Bushahr. Kangra or the "new" Himachal was represented by Shanta Kumar, a leader who is definitely a product of the cultural nationalist stream of political thought championed by the Bharatiya Janata Party and previously the Jana Sangh. Veerbhadra Singh was seen as the natural leader of the people of Shimla area and presents himself as such, often by adopting unabashedly populist position on political and economic issues. An important source of his political resilience has been his close relationships with the old elite of the area, who almost invariably happen to be big orchardists themselves. Furthermore, he has managed to have a relatively clean image in an arena where it is all too common for politicians to be tarnished by scandals of one kind or other.[95]

[95] Here an observation of John Harriss (1982) comes to mind. In trying to grasp the phenomenal popularity that M.G. Ramachandran was able to achieve in the southern state of Tamil Nadu over a relatively brief span of time, one of the main factors he attributed it to was his spotless image. People thought that he was not corrupt for "He does not need to be, for he is so wealthy" (Harriss 1982: 254). Significantly, similar perception of Veerbhadra Singh was also widespread in view of his aristocratic background and great

Shanta Kumar, on the other hand, was always portrayed as a person of suspect origins and therefore loyalty, at least in as much as his lack of *pahari*-ness mostly because of perceived proximity to Punjabi customs and culture, always offered convenient target to his opponents for attack. Schooled as he is in the tradition of cultural nationalist thought, he has always projected Himachal in terms of its linkages and continuities with the rest of the country and especially the plains, Hindi speaking "mainstream". An example of this thinking is provided by the position he took on the issue of promotion of pahari language, which enjoyed great popularity in the context of a new and fledgling state seeking to define and reiterate its identity. Shanta Kumar very forthrightly declared that languages spoken in Himachal, about twenty, were really dialects whereas Hindi is a language with (and because of) vastly richer literature and history.[96] The fact that he went to the extent of differentiating among different dialects spoken in Himachal was, of course, in stark contrast to notion of pahari as a homogeneous and monolithic language— the natural tongue of the inhabitants of the hills. On the issue of development, Shanta Kumar's long held position was that government policies should promote a balanced approach, not aggravating the existing economic differences. His attempts at questioning the amount of subsidy being provided by the government to apple growers on economic grounds, poor targeting and leakage were interpreted as signs of bias against the "old" Himachal and mainly aimed at "punishing" the people for voting consistently for Congress party.

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personal fortune. In this (undoubtedly cynical) view, nothing better could be expected of career politicians for they were after all mere upstarts.

[96] It will be pertinent to quote here the statement he made on the floor of the house, citing Gunnar Myrdal in Asian Drama in support of his opposition to the demand: "We encouraged Hindi as the official language during our earlier stint in 1977-1979. As Gunnar Myrdal has pointed out, mother tongue is essential not just for the preservation of culture but also for development, not much can happen until our intellectuals think and write in Hindi" (1990: 36)

Let us turn here to the exchange in the assembly that followed the shooting incident. Even though, the debates were charged to an unusual degree by the tragic incident, the forces and motivations for and against polarization stood out clearly. One of the important themes that the incumbent government emphasized was the "pro-rich" tilt of the preceding government's horticultural policies, especially the support price provision. The Congress party reacted vehemently with the former Chief Minister Veerbhadra Singh[97] declaring:

> This is not a matter of the apple growers this is the question of the economy of the state. First, we have to recognize that the future of Himachal Pradesh lies in Horticulture. Agriculture is not suitable for Himachal Pradesh because of topography, pattern of land-holdings etc. Himachal Pradesh should not be just known for apples but as the fruit bowl of the country. The agitation is not party centered, it has people of every political inclination. We had emotionally integrated the state but this is being undone now. We should not exaggerate the sporadic incidents of violence against the people of lower Himachal. (1990: 37).

The ex-speaker of the assembly Vidya Stokes[98], herself a prominent apple grower from the heart of the apple belt of Shimla was at pains to project a homogeneous image of the apple growers and vehemently decried what they perceived as attempts to divide the farmers (on the basis of rich and poor, large and small). The ex-speaker made a personal statement refuting the charges of the cornering of subsidy by the big growers:

> I do not want subsidy for myself and I am sure there are many orchardists like me. We are being humiliated for establishing this industry in the state. Do not produce a division within Himachal Pradesh. We (the big growers) are very efficient because of our excellent marketing, I can even market for others (1990: 38).

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[98] Vidva Stokes is the daughter-in-law of the pioneer orchardist Satyanand Stokes.

The use of the word "industry" for apple cultivation was beginning to gain currency in this time period. By the use of this term, the presumably positive attributes of industries as harbingers of modernization were sought to be imparted to apple cultivation and cultivators. These may be best captured by listing the series of oppositions that industry invoked by its none-too-subtle juxtaposition against agriculture. Industry was about enterprise and entrepreneurs, diffusion of benefits and incomes, design and implementation and future. Agriculture, on the other hand, was about moribund tradition, stagnation, poverty and chance and with all these characteristics belonged unequivocally in the past. The analogy is supported in numerous other ways as well.[99] Lakshman Singh, an influential grower from Kotkhai in Shimla described the "multiplier" effects (as an obvious point of similarity with industrialization):

> Apple does not just benefit the growers. It is a 500 crore industry. We give employment to laborers, transporters and many other middlemen. The state earns a lot of revenues [from levies]. We provide support to people employed in processing industries and even in horticulture ministries. Where would these ministers and bureaucrats be if we did not have apple?

Ram Lal, the former Chief Minister, who had started the support price scheme in 1981 reiterated the same position:

> Regionalism has become our major problem. A 500 crore industry cannot be allowed to go extinct. In matters of progress, we should not divide the state. Agriculture in hills means horticulture. It is the only way soil erosion can be controlled. Some excesses have happened and they are the result of frayed tempers (1990:39).

[99] It is important to mention here that farmers movements and spokespersons in India have since long been occupied with the issue of granting formal industry "status" to agriculture. In this view, legal-political equivalence will be established as a result, which will also serve as a useful corrective to the "urban bias" in development. In practice, the equivalence would have made it mandatory for the government to periodically revise the support prices (administered by the government) upwards because inflation and cost of inputs will have had to be factored in just like in case of industrial goods ("parity" prices).

On the other side, the ruling part members emphasized the lopsided impact of rural development programs. Instead, the Chief Minister and some of his colleagues talked about focusing on uplifting the poor *(Antodtaya)*— the socio-economically marginal section. Dina Nath Shastri, the minister of horticulture, responded to Vidya Stokes's statement (1990:40) thus:

> It seems Ms. Stokes is the representative of the apple growers. If you are born in Kotgarh (the heart of apple-belt) then I was also born on an apple farm. Apple growers are not limited to Shimla hills. We have to think whether we want to give support price to growers earning Rs. 8-10 lacs (i.e. rich farmers) or to marginal growers. This is a valid question. Instead of rural development we should emphasize *antodava.* The issue is free loading and not regionalism. Support price should come in picture rarely and not regularly.

The members of the ruling party also refuted allegations of regionalism made against them by the Congress members by highlighting the allegations of financial malfeasance. Also intertwined in this issue were the questions of commitment to the development and integrity of the state. The opposition members targeted ruling party members for their alleged stance favoring continuation as part of Punjab in the past[100]. Also some of them were blamed for favoring *Dogri* at the expense of *pahari* language, thus weakening the struggle for separate statehood. Some other members of the ruling party described horticulture as being of limited utility for marginal farmers because of faulty marketing.[101]

Popular press is a rich and informative source about the evolving debate on the horticultural policy in the state. I utilized old issues of the popular weekly "Himalaya

[100] The ideology of cultural nationalism to which a number of members of the ruling party were wedded was clearly responsible for their somewhat different view on the issue of separate statehood. Kishori Lal (1967:40), for instance, had declared that "we could have got a bigger state by merger of the hill areas of Uttar Pradesh, Jammu and Kashmir and Punjab but people from Congress had a parochial view of things".

[101] Kewal Ram (1967:32)

Times" for popular representations of issues concerning orchardists. The newspaper is mainly targeted at the orchardists/ horticulturists in the state and has taken a consistently pro-horticulture and pro-development line.[102] As I discovered in my interviews with a cross-section of orchardists, policy makers and people in sympathy with the cause of apple growers, the views expressed in the newspaper coincided with the most articulate of the public opinion. In terms of both content and style, the arguments made could easily have been those of an erudite ideologue. The editor of the newspaper is part of a network comprising a diverse group of activists and intellectuals interested in development in the Himalayas. The commentary and discussion carried is usually not uninformed by the broader developmental debates of the day, thus, in the process, largely avoiding the empty polemics and partisanship that has come to be associated with similar attempts in the Indian milieu.

The core features of the development ideology propagated by the newspaper are as follows[103]:

Depoliticization of Development

The position of the newspaper on the events of 1990, the abolition of support price, and the resulting protests and firing was distinctly meant to depoliticize what were increasingly been seen as sectional demands. The stance adopted blamed the faceless

[102] Dwarika Prasad Unniyal, the chief editor of the newspaper comes from Garhwal in the Central Himalayas. As he recounts, he was spotted by the then Chief Minister of Himachal Pradesh Dr. Y.S. Parmar and invited to Himachal Pradesh. A self-described follower of Dr. Parmar, he has devoted his journalistic career to the promotion and dissemination of ideas on development of mountains.

[103] The idea presented here, it turned out, is strikingly similar to that advanced by Anthony Giddens. According to Giddens (1979: 193-195) three main ideological forms (which are all operational here) are:

1. The representation of sectional interests as universal ones.
2. The denial or transmutation of contradictions.
3. The naturalization of the present: reification.

(and non-Himachal) bureaucrats for the "anti"-apple grower policy[104] of the government ranging from the discontinuation of the support price to the failure of the *apni mandi*[105] scheme. The idea of World Bank support for the Market Intervention Scheme (MIS) was rejected and described as a bureaucratic ploy. In adopting this tactic, the discourse utilizes what has been termed as the "politics of authenticity" (Brosius 1999: 301). Furthermore, commenting on the discourses of environmentalism with strong similarities with development discourse being discussed here, Brosius notes that:

> The production of meanings and identities is today occurring in a global political space in which claims to authenticity are a critical dimension of legitimacy. To the extent that environmental movements represent an attempt to renegotiate the terms by which political agency has been exercised, their primary task has been to legitimate their efforts through assertions of authenticity (1999: 288).

The obverse side of this phenomenon consists of constructing an alternate narrative of the development experience of the state. Thus, in times of uncertainty, exemplified by the decision of the government to abolish support price, there was a crystallization of the tendency to order and recall the entire "developmental" experience in terms of the influence and agency of key people involved. For instance, the expansion of apple cultivation was projected as being driven by the vision, dynamism and even benevolence of the people concerned.[106] Several respondents mentioned the lack of moral fiber in leaders and bureaucrats running the show who had no dedication but were

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[104] Controversy over abolition of support price. Bureaucrats and their working style are anti-people. 3-9 April. 1990

[105] The *apni mandi* scheme was basically a proposal to shift the terminal market from Delhi to a place within Himachal that would presumably have decreased the relative power of traders. The concept did not take off for a number of logistical reasons, chief being the failure of the government to provide the necessary infrastructure.

[106] In a special edition commemorating the 23rd anniversary of formation of Himachal Pradesh, the newspaper in its overview of development concluded gloomily that that there was no hope left for orchardists. The orchard and the tradition established by Stokes stood out like a beacon amidst this bleakness (17-23 April, 1990)

merely going through motions often for pecuniary and "political" motives. Contrasting the austere lifestyle and rigorous work ethic of the first CM Parmar with the present generation of politicians known for dishing out endless piffle, Rajpal Chauhan of Kotkhai in Shimla noted:

> Dr Parmar could often be seen traveling on ordinary bus with a bagful of fresh vegetables on his side that he had bought just before boarding it. Can you imagine today's politicians doing something similar? He kept all these bureaucrats on a tight leash and haggled endlessly with the centre [federal government] for larger share of development funds for Himachal. Do you see any of the present politicians with similar clout?

The politics and the politicians in the state did not stand for the real issues or issues of concern to "real" people. Repeated references to the legacy of the late CM Dr. Parmar were made especially in contrast to the poor record of the government in protecting that legacy.[107]

Discourse of environmentalism

Another sustained strand of argument in driving home the importance of horticulture pertains to its importance in maintaining the "ecological balance" (Shekhar Pathak May 1-6, 1990) in Himalayas. While analyzing the "discourse of environmentalism" in popular media as well as outside it, Brosius's description of environmentalism is particularly appropriate:

> …Any attempts to understand social-movement aspects of environmentalism must necessarily be within larger sets of questions about this wider discursive domain and examine the complex relationship which exists between historical and contemporary forms of domination, existing or structures/institutions, the politics

[107] In an editorial, D.P. Unniyal summed up the gravity of the situation arising out of what was perceived as an unsympathetic government writing that if horticulture fails in Himachal, the state will break. Further, he opined that the unproductive economies (read traditional agriculture) of the lower hills cannot be made productive by destroying horticulture in the upper areas (June 26- July2). In another editorial (August 6-15:2), he issued a fervent plea to prevent "Parmar's beloved hills from sliding into an abyss"

> of representation, processes of discursive production, and emerging forms of political agency (1999: 278).

The exercise consists of allusions to the importance of the tree cover (horticulture) for preventing erosion in downstream areas. It was, thus, pointed out that not only was it in the interests of the North Indian states to work for the success of horticulture in Himachal Pradesh but horticulture promotion in Himalayas was a national duty.[108] It was, thus, asked (Dinanath Shastri June 26, 1990: 3) "what is 32 crore [expenditure on procurement] if it prevents siltation of Delhi". Traditional agriculture was painted as having an adverse impact on the environment.[109] Similar sentiments were expressed quite forcefully by a number of orchardists. Lakshman Thakur, a prominent orchardist of Kotkhai in Shimla when asked about the impact of horticulture on forests explained:

> Horticulture is a boon not only to Himachal but to the whole country. Tons of soil per hectare would have washed down if there was no apple. When people talk about expansion of orchards at the expense of forests, they should keep in mind that it would have happened even otherwise because of increasing population pressure. We would have been destroyed if we had continued with field crops. Now we have tree cover that actually prevents erosion.

Of course, there was no mention of the well-documented adverse impacts of horticulture[110] on forests because of both the demand for wood for packing and its expansion at the expense of forests. Here, it is interesting to compare the environmentalism of the Chipko movement of the neighboring state (Uttaranchal) with the environmentalism that is being touted here. The contrast is striking for the former has

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[108] D.P. Unnival (July 28-30, 1990*)*

[109] D.P. Unnival *(*Aug 6-15, 1990*)* wrote that, "It will be Himachal Pradesh's misfortune if plough comes to rule the mountains".

[110] The adverse impact is of course not limited to just erosion but also includes disturbance of ecological aspects including hydrological cycles that have been affected by indiscriminate encroachment into forests (with tacit approval of different governments), sometimes on extremely fragile catchment areas.

been focused on securing the rights of the rural population to forest products like fuelwood, which are vital for meeting the household needs. The predominant section among the movement, associated with Sunderlal Bahuguna has advocated the Gandhian vision of self-sufficient villages and has championed an ideology that has been labeled as "agrarian romanticism" (Brass 1994).

In Himachal Pradesh, the environmental movement on lines of *chipko* has been conspicuous by its absence, which is remarkable because of similar topography and social structure. In my discussions with policy makers and people interested in development policies, I detected very little enthusiasm for the *chipko* movement and its concerns. In fact, one of the prominent respondents commented: "What has Sunderlal Bahuguna done for the people of Uttarakhand?" Such views reflected a rejection of the possibility of improvement of the condition of hills people through achieving self-reliance. On the other hand, the dominant developmental view advocates greater integration of hill economy and society in general.

In time, the discourse of environmentalism has come to be entrenched in the official version of the horticulture story as well. There is, for instance, reduction in emphasis on the economic performance alone of the sector in attempts to justify the focus on horticulture. The Annual Plan of the Government of Himachal Pradesh notes that:

> The promotion of horticulture in the hilly areas like Himachal falls in the national priority because undulating physiography of the land in the hilly areas like that of Himachal Pradesh is more suitable for raising the horticultural crops as it does not require the frequent tillage and clean cultivation. The development of horticulture is not only supplementing the national food grid, by way of providing nutritive foods in the form of fruits and vegetables but also playing a vital role in promoting environmental conservation in Himachal Pradesh. The horticulture *industry* is presently contributing about Rs. 330 crore per annum to the Gross Domestic Product (GDP) (1999: 96 emphasis mine).

What is being attempted instead is linkage of the (positive) ecological and economic effects of horticulture ostensibly for the purpose of serving national interests. The discourse of environmentalism, thus, should not be seen as merely reflecting increasing ecological consciousness but an attempt to connect with the historically specific cultural representations of geographies of power. The spatialization of discourse, thus, achieved is similar to Sivaramakrishnan's (1999) characterization of regional discourses.

Poverty and hills

The emergence of apple cultivation is perceived, popularly and otherwise, as a great attack on poverty in hills. Conversely, anything that is seen as weakening apple cultivation or more accurately the apple growers is considered a retrograde step in the fight against poverty. It is in this light that a statement[111] like "Poverty is not the fate of mountains" makes sense. The statement was made in response to perceived deterioration in conditions of horticulturists. Reminding the readership that Dr Parmar's dream of a prosperous Himachal should not be abandoned. Poverty and drudgery need not be inevitable in mountains. Recalling how he was once traveling in Garhwal in central Himalayas (his birth place) with Dr Parmar and saw women in torn clothes hauling big loads of fuelwood and fodder. Comparing the conditions in central Himalayas with Himachal he said:

> There is still poverty of the worst kind, people are poor and cannot even afford to get their children education. *Maidani* (plains person) is still feared and hated there for their perceived cunning and dishonesty because they have suffered being

[111] D.P. Unniyal (August 22-29, 1990)

> part of large plains state [Uttar Pradesh]. And here we are just throwing away all that we have achieved.

Numerous references to the total value of the apple industry including its diffusion impact on rural employment and incomes abound in popular literature.[112] In sum, the appeal of the poverty-fighting property of apple is intimately tied to its attenuating effect on historically entrenched structures of domination. It is not material deprivation alone that provides the moral force to the poverty eradication argument. Additional support to the argument for the need to end poverty is provided by state's responsibility of welfare of its subjects. This idea of a benign, patriarchal, state-for people[113] has long historical roots in the Indian context and even pre-dates the British Colonial period:

> Indigenous Hindu and imported liberal state theory have also made substantial contributions to state formation and to the level and quality of stateness… the two theoretical traditions converge with respect to the priority of societal values over state goals. Both see society as preceding and limiting the state (and for liberalism, unlike Hindu theory, the individual precedes and limits the society)…(Rudolph and Rudolph 1987: 23)

Conclusion

It is clear from the foregoing discussion that state-society relations provide the entry point to arriving at an understanding of the evolution of horticulture development policies in Himachal Pradesh. The terms "state" and "society" cannot be taken as dichotomous and given. Far from it, the terms designate entities, processes, interests and perhaps above all mentalities or rationalities that may not be, at all times, clear and

[112] D P. Unniyal (July 17-23)

[113] The idea is implicit in the claims that are made on the state resources by different demand groups including the horticulturists. For instance, the government has found it impossible to cut back on expenditure incurred in providing subsidies or the minimum support price program on grounds of economic efficiency alone.

mutually exclusive. The account provided here is intended to serve as an illustration of the importance of the relatively "larger" structures that impinge on and shape even the micro-decisions and visions that at first glance seem to be of distinctly "local" vintage. The ubiquity of the modern nation-state and the concomitant structures of power that are activated by discourses of nationality, identity, progress and the most omnipotent of all, "development", cannot be discounted from any analysis of development— however local, grassroots or autonomous it may appear to be.

The modern state has often been considered the constellation of dominant classes working to advance their interests at the expense of other, weaker and more numerous sections. To ascribe totally to such a view would be to take a teleological approach to state formation. On the other hand, the state cannot be regarded as the expression of the pure will of the people and thereby simply a disinterested instrument for their welfare. The state can be conceptualized in more dynamic terms by considering it as a manifestation of the dispositions and "visibilities" engendered by the historically specific structures, discourses and their contingent intersections.

The state can, thus, be seen as "acting both on *and* through the subjectivities of individuals" (Shore and Wright 1997: 6 emphasis in original). The implementation of government policies, or governance, does not necessarily hinge on their ability to render themselves opaque, but rather on fostering a sense, both conscious and sub-conscious, of mutuality of interests. As Rabinow (1984) has pointed out, the effectiveness of these political technologies depends on their capacity to induce both "subjection" and "subjectification". The conventional developmental theories assume a simple convergence between subjective (individual) interests and "objective" requirements for

economic growth. No apple grower in Himachal Pradesh, however, imagines himself to be engaged in contributing to the national mission of capital accumulation to help launch the country into a higher developmental orbit. Rather, they see themselves as entrepreneurs, progressive farmers or whatever else but certainly not as automatons propelled by imprints of abstract growth theories. The relative role or importance of the state in mobilizing populations as agents may, of course vary. But it is always predicated on the existence of an *a-priori* agency— however residual and compromised it may be.

The accounts of development that rely exclusively on its hegemonic effect, thus, miss an important point. The task, therefore, is not merely to decenter notions such as the state and society but also identify the subject-positions that determine as well as are determined by the prescriptively powerful categorization of landscapes, environment and people that are prerequisites to modern policy-making exercises.

The anthropological literature on development is also saturated with references to its depoliticizing effects, which was indeed a salutary correction to the "mainstream" discussions that take for granted the (upward) march of scientific rationality.[114] Political issues are, thus, translated into technical questions of resource allocation and so forth that can then be relatively un-controversially translated into policy prescriptions with the obvious, far from equitable, impacts. As a general process, the technicization of decision-making and policy-making in particular remains the salient characteristic of the present epoch. But the capacity of scientization of life-domains to effectively subordinate "the political" remains to be empirically determined. For instance, in the case of Himachal Pradesh, even though consolidation and expansion of horticulture has

[114] The *tour de force* here of course, remains James Ferguson's (1990) *The anti-politics machine.*

been brought about by an increasingly powerful scientific-bureaucratic establishment, it has not made the scientifically determined policies immune from political charges and accusations. It seems likely that the effectiveness of depoliticization techniques will remain tentative in view of their variable impacts reflected in uncertain returns, which in turn are a function of the exigencies of the environment and markets.

Finally, the question of "interests" remains central to any analysis of development. Interests cannot be simply taken as universal, transcendent and given-what the neo-classical economics prescribes. Interest has to be historicized and understood as a product of diverse forces— social and political and at macro and micro levels. A mere institutional analysis will not suffice but an explicit consideration of the political determination of even such seemingly purely economic institutions as "markets" is what is required. The markets, however free they may be, are still subject to definite and substantial regulatory controls by the government— interventions that are implicitly if not explicitly political.[115]

[115] Bates (1995) has used the "New Institutional Economic" framework to provided interesting insights into the persistence of such non-market mechanisms as reciprocity and maladies like corruption from the perspective of the (insufficient) development and (improper) functioning of markets.

CHAPTER 4: APPLE GROWERS' ASSOCIATIONS: EMERGENCE AND ROLE IN THE TRANSITION TO COMMERCIAL HORTICULTURE

Introduction

The main purpose of this chapter is to describe and explain the emergence of apple grower associations in Himachal Pradesh. These associations have played an important role in safeguarding and promoting the interests of apple growers in the state with a range of interventions from effective collective bargaining with transport unions on the one hand to negotiation of input subsidies with the government on the other. In addition, the associations have worked to remove the logistical hiatuses that had in the past rendered the process of apple production and marketing very uncertain.

Himachal Pradesh is an anomaly in North India in having farmer organizations that are radically different from similar organizations in the neighboring states of Punjab, Haryana and Uttar Pradesh. The farmer organizations in the plains states mentioned follow in the steps of a long history of peasant activism often with varying degrees of militant overtones (Shah 1990; Omvedt 1993). Typically these organizations have a steadfast commitment to an agrarian ideology primarily rooted in rural-urban divide. The relations with the state have been adversarial with frequent reliance on mass protests, sit-ins (*dharnas*) and a stridency marked by deep distrust of the urban elite (Brass 1994). Their social base has been restricted to particular land-owning, predominantly rural, intermediate caste or a conglomerate of castes with a history of antagonism towards

upper as well as lower castes (Dhanagre 1983). In other words, the farmer movements in the plains have been intricately intertwined with the attempts of an influential section of landed class at socio-political assertion.

In Himachal Pradesh, on the other hand, the farmer associations have sprung up almost entirely as a result of the new strains placed on the growers due to their incorporation in market conditions that were often detrimental to their interests and impervious to their influence. These associations, in the absence of a history of peasant activism, have come into existence on the initiative of the local elite with powerful political connections. Also absent is the highly selective constituency from which their plains' counterparts draw their strength. In contrast to the conditions in the plains, caste here has not played an important role in either the formation of these associations or subsequent attempts at mobilization (Gupta 1997).

The agenda of the associations in the state has been different from their plains' counterparts goals. Perhaps more important is the difference in means adopted to achieve the goals. The associations work closely with the government, technical institutions and extension services to address long term as well as day-to-day problems of growth. They share the technocentric paradigm of horticulture with the various government agencies. Indeed the only common point in the programs of the associations and in the farmers' movement in the plains is their focus on the issue of farm-gate prices (Gill 1994; Banaji 1994). Both argue that there is a need to link these prices with the cost of inputs ("parity prices") in order to maintain the profitability of farming.

The differences in the farmers' bodies in North Indian plains states and Himachal Pradesh can be explained in terms of differences in historical trajectories of movements,

rural social structure and political economy. The historical analysis of the farmers' movement in Punjab through the colonial period to the present illustrates a close relationship between the relations of production that characterized farming and the issues that were raised. Specifically, the movements and their agenda were focused successively on enhancing security of land-tenure, rationalization of land revenue, enforcing of curbs on land-alienation and more remunerative crop-prices. The response of farmers as manifested in their collective action is, thus, strongly linked to attempts to modify and adapt to the regulatory apparatus imposed on them by the state and the markets. In subsequent sections these issues are taken up in detail followed by the interventions of the growers' associations and their impact.

Collective action, pressure groups and the state: overview of theories and their implication

Broadly, the working and influence of organizations and pressure groups have been examined from two divergent perspectives:

1. The success of a pressure group in its ability to influence the policy outcomes of the government have been seen as a function of its resources' that is, the internal organization, personalities involved and the specific tactics and strategies. Compatible with the so-called pluralist approach, this perspective privileges the empirical and the observable over the implicit and the contextual[116].

[116] See J Craig Jenkins for an overview of the main contribution and evidence, "Resource Mobilization Theory and the Study of Social Movements," Annual Review of Sociology 9 (1983): 527-553. Also see Olson (1965), Charles Tilly et al. (1975).

2. History, ideology, identity-formation and the organization of the policy process play the key role in the emergence and success of pressure groups and collective organizations. This approach also emphasizes the interactive aspect of the policy-making whereby factors like state actors can be taken into consideration making the analysis less one-sided.[117]

Primarily through the latter approach, not only success but even the emergence of the apple grower associations makes sense. Even though the resources of the associations have impact on their ability to intervene in a particular situation more often than not events can be seen as a result of the cumulative practices of the past,

Instead of dichotomizing the state and civil society of which the groups are considered to be a part, it is the use of the policy networks by state actors to further their own interests that determines the dynamics specific to a particular policy area. Policy-making is of course influenced as much by the interests within the institutional boundaries of the government as by the pressure/interest groups outside of it. A range of actors like politicians who need to win elections and bureaucrats whose careers may be affected need to be considered for their role in policy-making. With each policy-problem a constellation of interests come to fore as they reach the agenda. The policy arena is often sought to be sequestered off to prevent the participation of those who are perceived as outsiders and who threaten to upset the status quo. A classic example in this regard is that of the agriculture in Western countries, which has historically seen producers privileged over consumers. The participation of groups of environmentalists, food safety activists and other taxpayers in agricultural policy making has been stoutly and

[117] See Touraine (1981, 1985) and Melucci (1980)

unsuccessfully resisted by the agricultural lobby fearing that it may open the issue of subsidies to debate. Hugh Heclo (1978) provided the notion of issue-based networks where the old "iron triangles"[118] of policy making were seen as having been opened to heterogeneous groups representing diverse and often conflicting array of interests and values. The phenomenon of increase in complexity of policy-making in particular areas has been described as resulting from greater mobilization of interests. This in turn has been linked to greater awareness among different groups about their rights, which have been traditionally expressed in opposition to the privileges available to the producers.

Important for our purposes here is the idea of "by-product" pressure groups, which has been advanced by Olson to account for collective behavior. According to this formulation organizations projecting collective demands invite participation because of some other activity that they perform. In this sense their role as lobby is secondary (a "byproduct") to their main function. Pluralism of one sort or other has dominated the thinking about the role of groups in policy-formation. Corporatism, which was offered as a radical alternative to the *laissez-faire* approach of pluralism was more akin to some of the variants contained under the rubric of the latter term. One major addition, of course, was the injection of a salutary amount of realism to the theories proclaiming the diffused existence of competitive, non-hierarchical and self-generating groups. Later authors (e.g. Heclo 1974, 1978) have claimed that the interest groups particularly in the US may come to play a role they were theorized in a manner more similar to what is suggested by "competitive pluralism" than "corporate pluralism" (Wilson 1981).

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[118] "Iron triangle" was the term that was used to refer to the dominant role played by the troika of public bureaucracies, Congressional sub-committees and interest groups in a policy area such as agricultural decision making.

The single most important insight to emerge from the group studies is the centrality of variation in the state-group relationships in the sector encompassed in the term “policy-domain”. The practice in these domains, a function, among other factors, of history, is usually too diverse and fragmentary to be summarized by any system-wide account of policy formation.

Broadly speaking, the North American emphasis on means-ends calculation, methodological individualism and instrumental rationality in general has been characterized as the “resource mobilization” approach to social movements. The European tradition of research in this area highlights the historicity and situates these mobilizations at the juncture of social structural and cultural change. Habermas (1984), for instance relates social movements both in terms of goals and strategies to his well-known thesis of colonization of lifeworld of the civil society by the more circumscribed logic of a technicist capitalism. Mouffe and Laclau (1985), on the other hand, accord the processes of identity formation, ever contingent and fluid, the central position in their attempt to provide an alternative to the socially vacuous and ahistoricist accounts based in resource mobilization theory. In doing so, they tend to dismiss the existence of structures (for instance, political-economic) which afford opportunities and exercise constraints on the processes of identity formation that otherwise assume nihilistic proportions and threaten to veer out of control into absolute indeterminacy.

In an attempt to escape the dichotomy inherent in these materialist vs. idealist explanations of social movements, broadly construed, Cohen and Arato (1992) have postulated the existence of “dual logic” wherein the movements are seen as simultaneous

embodiment of instrumental logic to achieve tangible socio-economic goals as well as the manifestation of a historically specific matrix of socio-cultural forces that exert determinate influence on the processes of identity formation. The existence of "valence issues" provides a framework of connecting the two sets of, what are often deemed as, mutually exclusive concerns.

The apple growers' associations in Himachal Pradesh can be most appropriately analyzed in light of the historic convergence of interests between the state and a section of the society. Even though the organizations in their demands and strategies conform to the popular movement as opposed to social movement, an adequate understanding would require taking into consideration the crucial socio-political processes that are linked proximately to the discourse of development as it has emerged as a consequence of the long-term historical dynamic of domination and appropriation, opposition and co-option. The issue is important for situating these organizations in terms of their politics and orientation, whether they are mere appendages to the strivings of the constellation of dominant interests to maintain and promote their hegemonic position or they are articulations that attempt to harness the contingent "political opportunity structure" (Tilly 1990)[119] thrown up by the existing socio-political fissures.

The influence of apple growers and their associations arises from convergence of their interests and those of the state, particularly in its development avatar. The success of apple growers in getting the state to give preferential treatment to them is a result not

[119] The notion of "political opportunity structure" has invited criticism for the all-embracing quality that it has come to have and the consequent dilution in its explanatory power. Rootes (1997) calls attention to the contingent and conjunctural factors that have played a significant role in determining the success or the lack thereof the collective movements. It has also been pointed out that characterization of the state as "open" or "close" serves little purpose besides obfuscating the all-too-important differences that exist between different policy areas at any given point in time.

entirely of their efforts. The favorable consideration of apple growing in particular and horticulture in general has been as much, if not predominantly, a result of the state's interests as it was product of successful "lobbying". The apple lobby, as the pressure groups are called in the local parlance, was successful owing to their pursuance of appropriate strategies and pressure tactics, but more importantly the very creation of the lobby was due to the state interests. The lobby, which consists of the associations and "prominent" people, including the minister of horticulture, politicians elected from the apple belt and other social notables can not simply be seen as outside of the state and in opposition to it. In general, theories of group action tend to either underestimate the importance of the state, as in case of pluralistic approaches where state is thought of as merely one of the contending players in the dynamic involving a number of interest groups that leads to policy-making (Nordlinger 1988) or as in Marxism the state and its interests are reduced to being the condensation of the balance of class forces and thereby by necessity working for the promotion of the interests of the capital. The state, of course, is not just another player but has the power to constitute the role of the groups (Cerny 1990) and in its capacity for autonomous action, is different from groups. The extent of autonomy is far from being constant, apart from changing over time, it also varies across different policy sectors (Skocpol 1985).

In the Indian context, the agricultural lobby is seen as exercising determinate influence on the formation of agricultural policy. Varshney (1995) has emphasized the power of the farm-lobby at the central level as the decisive influence on the government policies particularly those related to the procurement prices and size of agricultural subsidies. According to him, this is all the more remarkable as it often meant overruling the

recommendations of economists and the bureaucratic interests within the committees where the prescriptions were hammered out. The primary cause of the phenomenon of somewhat disproportionate and uncharacteristic influence of farm-lobby in a Third-world context is, according to Varshney, the enormous clout of the rural sector owing to its sheer size, which translates into an equally unassailable position in the parliament. Marxist commentators of less liberal hue have taken issue with the "democratization" thesis at the core of Varshney's analysis of agricultural policy making and have sought to demonstrate its class-basis, which has been elided in the latter's consideration of an undifferentiated rural sector (Byres 1996*).*

In considering the relative importance of the state and the farm groups, it will be useful to consider examples from other countries where such groups have been described as highly influential. The case of farm policy in the US is described often in terms of the closed "iron triangle" that has lately disintegrated into policy networks (Browne 1998*).* Similarly, in Britain the evolution of agricultural policy demonstrates the vastly overstated case that had been made for the importance of the farm lobby. The state autonomy is the key to understand the nurturing and even the creation of a policy network by the British government to meet its strategic economic goals[120](Smith 1999). There were important differences arising from the predominance of *laisser-faire* policies in the US, declining farm populations that translated into smaller congressional representation and, not the least, the presence of contending interests within the farm bloc

[120] The state autonomy in agricultural policy area has been inversely related to the autonomy of the policy network despite a significant degree of overlap in their aims and methods. With the materializing of the European Union die autonomy of the policy networks has tended to increase at the expense of the state autonomy. But with the latest round of agreements reached in the GATT negotiations, the ball is back in the court of the national level policy makers with the resulting erosion in the policy networks (Smith 1993).

despite the predominance of the Farm Bureau.[121] The result was an agricultural policy that was the result of compromise rather than consensus and was *ad-hoc* in nature (Smith 1997*).*

Origins of Apple Growers' Associations

The origins of apple growers' associations in Himachal Pradesh can be traced to the efforts of the American missionary-turned-*pahari* orchardist Satyanand Stokes[122] (Sharma 1999). A pioneer apple orchardist, the formation of association under his leadership in the area of Kotgarh represented the first attempts to secure government intervention for the transportation of this highly perishable commodity. The expansion in the area under apple cultivation and consequently production had led to skyrocketing of mule carriage— the only means of transport then available in this inaccessible area cutting into the profits of farmers. This scenario was soon to become all too familiar to farmers struggling under a host of adverse conditions. Horticulture in Himachal Pradesh until the second-world war was predominantly a colonial vocation, mostly with little economic rationale. It was primarily geared towards production for self-consumption

[121] The increasing fragmentation of the farm groups is connected to the increasing specialization of the US agriculture due to which the general farmer organizations have declined in membership and support in comparison to the burgeoning commodity lobbies, which also increases the potential for conflict.

[122] Stokes, easily the biggest grower of the area in turning to Hinduism, of the *Arya Samaj* (discussed in detail in a later section) variety, presents an early (and widely emulated) case of the convergence of upward economic and social mobility. Described simply, the affluent sections of the *pahari* society sought to consciously follow the more puritanical plains' Hinduism as opposed to the "contaminated" and "lax" pahari variant. The tendency has been described as "Sanskritization" by Srinivas (1989). Stokes's Hindu beliefs were characterized by the same vigor as his earlier faith in Christianity, as the following excerpt shows (Shimla Parish News 1947:3):

> …Mr Stokes …married an Indian Christian girl, lapsed into heathendom, became a Hindu, and was the right of temple entry as a Rajput. Mr Stokes then turned from being an ardent supporter of the mission into its bitterest opponent. He perverted his means to establish an Arya Samaj school in opposition to Mission school sabotaging their efforts by offering higher salaries to the Mission teachers to join them and bring their pupils

with the small and uncertain surplus usually disposed of in the tiny state capital of Shimla that served during the sweltering summer months as the capital of the British Raj, thereby becoming the temporary home of the "consuming classes" of India.

The nature of the problem and the response of farmers to it will in times to come constitute an enduring ingredient of the larger pattern of interaction of apple-growers and government. Being the first to break through the barriers of subsistence agriculture, the apple farmers were seen as having defied the enormous odds that the fate had stacked against them. The people of Kotgarh and later the apple farmers of the state in general saw themselves as the mirror image of the picture of the poor, ignorant and benighted *pahari* in the dominant plains-centric socio-cultural discourse. In other words, the claims that the hill farmers could make of their government in their efforts to combat widespread prevalence of poverty, disease, ignorance and superstition could not have been invested with greater legitimacy. Of course the choice of weapon to fight the hydra-headed monster that hillness had come to embody could not be clearer. Development in its relatively economistic avatar had come to be the accepted wisdom with increase in incomes being the single most important practical goal towards which the government policies were to be geared. The problem of transportation was addressed by the government by allowing the use of motor-transport on the Hindustan-Tibet road that passed by the area- a step that was also important for it signaled a shift away from a purely strategic/ security perspective on the hills.[123] It is important to remember that the use of the highway for the transport of agricultural produce was granted as a result of the

[123] In the strategic calculations of the colonial state, the Himalayas formed the impenetrable barrier to the southward expansion by powers (e.g. Czarist Russia) that were engaged in a power struggle ("Great Game") to carve out exclusive spheres of influence. There was, thus, little emphasis on economic activity including building of infrastructure such as roads as that would compromise the essential "sentinel"-like function of the Himalayas

concerted efforts resulting in petitions to the local authorities on the behalf of the farmers by a group of social notables— themselves engaged in horticultural activities. This "lobbying" action was facilitated by the close relationship between the petitioners and the authorities and the mode of interaction set the blue print for the future farmer action.

The replacement of subsistence agriculture by commercial horticulture with a predominant market orientation brought new challenges in its wake. The change in the consumption pattern of apple-from being a luxury item to a commodity for mass consumption-placed demands on farmers for management and organization of multiple functions related to the production, transportation and marketing of the produce. The personal networks and the quasi-"niche" marketing based on specific targeting were no longer viable. The statewide production of apple increased from 12,000 metric tons to over 2,76,681 tons in 1995-96 (Directorate of Horticulture 1998). The production increased as a result of the increasing area that was brought under cultivation of commercial horticultural crops. For instance, the area under apple cultivation increased from 3,025 hectares in 1960-61 to 78, 292 hectares in 1995-96 (Directorate of Horticulture 1998). The large-scale shift to commercial horticulture came at the expense of subsistence-oriented crops that were traditionally cultivated in the area. Transportation was and still continues to be one of the important bases of collective action involving the apple farmers of the state, for the simple reason, that the mountainous terrain along with the long distances from the main markets render the cost of transportation a significant component of total production costs. Moreover the highly concentrated ownership of trucks— the chief means of transportation— made the freight charges very susceptible to easy manipulation especially during the peak season threatening not only the profits but

the crop itself as the resulting impasse between growers and transporters often resulted in long delay.[124]

The solution to the continuing problems of apple farmers had thus to be found within the existing socio-political framework. The unsuccessful experience with cooperatives also spelled an end to further quests for new ideas and experiments in this direction. With the widening of base of apple farmers and the resulting numerous small and marginal entrants in the field the need was felt, more than ever, for a mechanism which could restrain the behavior of transporters and other marketing "intermediaries".

The apple grower association in Thanedhar was formed in 1977. Paraksh Thakur, one of the founder members and a well-known orchardist otherwise explains:

> I had just finished my masters from Himachal Pradesh University (HPU). I had been selected to the position of Deputy Commandant in the Indo-Tibetan border police force (ITBP), but being the only son, had to take over family affairs on passing away of my father. It was 1977 and the government had just imposed a ban on green felling [a conservation measure]. There was a lot of uncertainty in the air about the impact on farmers [who depended on forests for their packing requirements]. A retired doctor married to the daughter of Singha [a prominent family] was instrumental in starting the association. I got involved as a young member and later stood for position of pradhan and was elected. Subsequently, I was elected unopposed for two terms. I am presently a member of *Zila Parishad* [a district level body of elected representatives above the panchayat].

The 1977-experience and its fallout

The 1977 general elections in India were historic in that for the first time after independence, a non-congress government was formed at the center. In Himachal Pradesh voting has followed the same national pattern leading to the formation of the first non-congress government in the state. One of the main issues that had become the major

[124] Chetwode (1972) describes how some of the pioneer orchardists of Kullu left for England after independence-their departure precipitated by the increasing logistical hurdles faced by them on account of the replacement of mule/human transport by motorized means.

election plank of opposition seeking to challenge the political domination of congress was its pro-*status-quo* orientation. The major problems confronting the country, it was claimed, required nothing short of social and political rethinking. Jayaprakash Naravan, the leader of the opposition demanded restoration of autonomy of institutions, which were widely seen as having been corroded by the preceding thirty years of uninterrupted Congress rule.[125] According to Rudolph and Rudolph:

> Jayaprakash Narayan stood at the center of Janata's shortlived effort to reconstruct a Gandhian alternative compatible with a modern economy and state… his Gandhian values led JP to try and transform Indian society by moral rather than institutional means. The JP movement aimed first to save and then to deepen democracy by transforming moral standards and practices…(1987: 166)

The apple growers' associations throughout Himachal Pradesh including Kullu were established in this period characterized by relative liberalism and idealism conducive to social experimentation.[126] The primacy of agriculture in the economy was forcefully asserted by spokesperson of farmers such as Charan Singh. The Gandhian ideology with its emphasis on decentralization and characterization of villages as "real" India found prominence in the political discourse and communication (Hasan 1989). In Himachal Pradesh, the leading figures in the drive for establishment of associations were politicians who also happened to be orchardists keenly interested in improving conditions for apple growers.

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[125] Rudolph and Rudolph (1987) have described the victory of Janata Party as a blow to the Nehruvian policies favoring industrialization and urban areas in general. The agrarian ideologues for the first time found important voice in the government of the day.

[126] The brief period of Janata rule (1977-79) saw implementation of pro-rural legislation and policies related to agrarian returns higher farm-gate prices and agricultural credits on an unprecedented scale. The record is particularly outstanding for the expansion of area under irrigation, especially in agriculturally backward states, and food grain production (Handelman 198 1).

Lindberg (1995) has linked the emergence of New Farmer's Movements such as the *Shetkari Sangathana* in Maharashtra and the BKU (Bharatiya Kisan Union) in the Western Uttar Pradesh to the structural changes produced in the wake of the Green Revolution of the 60s and 70s. In addition, some important differences in the two organizations can be traced to the differing ecology of the respective regions. The class of middle farmers, which forms the backbone of mobilization in farmers' associations has been described as highly fluid owing mainly to the price movements that are controlled to an important degree by the government provision of support prices. In other words, the increasing commodification of rural life, combined with the uncertainty in the market conditions, provides incentive for the middle farmers-the most vulnerable group, to mobilize for better returns.

The Kullu association started with a meeting of about fifty "progressive" farmers of the area in Chandratal. The structure of land-holdings in Kullu and Himachal in general is such that the vast majority of farms are very small even by Indian standards. A handful of farmers only can be called large and that too in a strictly relative manner of speaking. Not only are they all established apple farmers but also come from reputed and influential local families. It is people from this background that most often also double as progressive farmers. Another characteristic of Kullu valley and hill societies in general is the lack of caste orthodoxy the like of which is rampant in the plains. The caste differences among farmers did not present an obstacle to their collective efforts aimed at promoting and securing the interests of apple farmers. Another important characteristic of these associations, which contributed in no small measure to their subsequent success, was the adoption of a politically non-partisan position quite common to farmer social

movements (Mooney and Majka 1999). As an illustration of the principle as well as perhaps more importantly to prevent a disastrous division among the local elite, Pandit Jeet Ram who was a well known albeit "principled" *Congressi* (Congressman) was elected the first president of the association in 1977. The position of the secretary went to Thakur Chandrasen who belonged to one of the main opposition parties *Janasangh*. Ground rules had in fact been laid down for the future by this action that involved consensus and accommodation as opposed to election and confrontation. This almost symbolic opposition of consensus/election and accommodation/confrontation became the defining motif of the organizational culture of the association. In my interviews with the office bearers of the associations, both past and present, in different parts of state, absence of elections was always described as an indicator of the unity of growers and lack of "politics". At times, there were attempts to hide elections, if they had taken place.

Organizational culture

Gradually, however, I was let in on the fact that elections happened with some regularity. Their occurrence was an indicator of the breakdown of the powerful mechanisms that existed for evolving consensus. "Election was forced by the young people, who adopted a confrontational attitude," recalled the secretary of the association, emphasizing the unconventionality of the situation and the stridency that is often a rule than an exception in these situations. In fact, there has existed a *de facto entente* between the rival groups that are ultimately identifiable with the elite of the area. The dissent against incumbents often is easily traceable to the rival political groupings that encourage and sustain it. "These associations are tools in the hands of politicians", disenchanted

and erstwhile active members often accused the associations of overt political affiliations. In an environment where associations are seen as gateways to enormous influence among the sizable constituency of apple growers, politicians (especially those in power) attempt to control this rich resource. The means adopted vary from extending selective patronage to favorable or neutral prominent members to attempted takeovers of the associations. Numerous examples of the former can be cited from all the three associations that I studied in Upper Kullu, Lower Kullu and Thanedhar. Dhani Ram was widely regarded as a rank opportunist who was capable of changing his colors considerably to advance his self-interest. Of late he had been making increasingly frequent forays to the state capital to meet the state horticultural minister to canvass his support for membership to various P*anchayati Raj*[127] institutions. Apparently enjoying very little credibility, Dhani Ram was still able to secure a growing following and was providing the minister with means of extending and securing his influence.

Sometimes, the challenge from a particular group cannot be met by the existing conciliatory mechanisms and what follows is open strife and disruption. One such incident involves the Upper Kullu Growers' association and its two powerful groups associated with rival political contenders. The underlying hostility flared up into open confrontation in 1993 resulting in the formation of a splinter association. The demarcation of the area of operation (to prevent competition) could only be accomplished

[127] Panchayati Raj or self-rule has emerged as a thrust area in the “new” paradigm of development that seeks greater local empowerment with a view to ensuring meaningful participation and control of planning and execution of development projects. Himachal is one of the few states where Panchayati Raj has made significant progress but overall the whole movement can still be described as being in infancy. The numerous committees that have spawned will provide inputs to decision-makers. The politicians in power are disbursing positions on these committees to create influence. An entrepreneurial class of growers has been at the forefront of negotiating for these positions, the extent of whose benefits are still unclear.

at the intervention of the government authorities[128] and the incident created lasting bitterness that lingers to the present day.

In keeping with their strictly apolitical stance, the associations have tried to maintain a degree of independence from the government of the day especially in financial matters. The Upper Kullu Growers Association, for instance, built its office building about ten years ago. Recalling the options before the association, the general secretary recalled:

> There was a government offer for partial funding of the building construction cost. At the time of its construction, the building was one of the biggest in the area. There was some doubt about our ability to finance such a venture. After the general body meeting where the issue was discussed, it was decided that it would be far better to rely on individual member contributions rather than sacrifice the neutrality of the association. It still amazes me that we were able to build this fine building from voluntary donations alone.

In any case, the government proposal of soft loans to finance the purchase of inputs are often required by law to be routed through cooperatives which also renders inevitable regular government intervention in the guise of for example, auditing of accounts. "We decided to refuse the government proposal of increased assistance after weighing the pros and cons, it would have led to government interference in our day-to-day functioning and made us more vulnerable to political manipulations", said the secretary of one of the associations. Of course, the rejection has to be understood as at least partially a result of the lack of trust in the cooperative model. The increasingly diminishing rate of returns in horticulture in general and apple cultivation in particular has not prompted the associations to reconsider the cooperative model. On this basis the "Shathla Cooperative" can be considered to be the only example of successful

[128] Source: Communication between the upper Kullu association and the district collector.

cooperative. Its otherwise good performance is somewhat overshadowed by its limited area of operation and thereby overall impact.

It is important to emphasize the role of local elite in the running of these associations. Again, owing to the absence of middle castes and the lack of economic differentiation it has been possible for the social notables to enjoy relatively stable support among a wide cross section of local society. The mechanism for conflict resolution remained centered in the "consensual-compromise" approach that had become entrenched as a consequence of the congress brand of politics that relied on creation of networks of patronization to give representation to the diverse groups constituting the Indian society.

Emergence of farmers' movement: some important factors

History

In Himachal Pradesh and Himalayas in general, the farmers' movement had been non-existent in the above mentioned senses. First, the market penetration in agriculture was in earliest stages and was absent to any appreciable degree in most parts of the state. Production was scattered and was oriented towards subsistence. The role of the state either direct or indirect in agriculture was minimal to the point of being non-existent.[129] After independence, the government of the erstwhile Punjab of which Himachal Pradesh then formed a part adopted a policy of expansion of commercial horticulture to "uplift the condition of peoples inhabiting Punjab hill states". Hitherto, horticulture had been

[129] There existed widespread resentment against exploitative practices like *begar (corvée*) and revenue. Settlements, which occasionally spilled over into protests in different petty hill states comprising Himachal Pradesh.

restricted to the elite mostly British settlers who pursued it mostly as a status symbol and sometimes for the limited purpose of meeting the demands generated by the British summer capital of Shimla.[130] The pre-independence period thus saw little or no peasant activism, which was in consonance with the largely quiescent socio-political[131] situation in the state.

Himalayas in the British scheme of things were mere outliers. In the early part of the twentieth century there was an increasing awareness of their role as a buffer between the great empires of the time— colonial Britain and Czarist Russia. In an economic sense, the hills were first considered an important source of forest resources, mainly timber, in the aftermath of the First World- War. Another important factor was, as has been mentioned earlier, the "marginal" nature of much of the cultivation that was practiced. It was not considered important enough to merit the kind of state intervention and regulation that was the target of many important peasant rebellions and movements of the period.[132] The mountainous areas thus remained relatively aloof from important currents of socio-political and economic transformations especially in the context of emerging nationalist movement. This isolation was the result of the minimal "clout" of the hills primarily because of their geographic and economic isolation

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[130] The British had founded Shimla as the "summer capital" of the Raj.

[131] There were some attempts at social regeneration and reform of pahari Hinduism that was seen as having been corrupted by the widespread practice of animal sacrifice and other social evils like *reet* (custom of bride price). Arya Samaj, a revivalist Hindu organization was responsible for initiating the campaign, which found its bulk of support in the largely urban dwelling trading community of *Soods*. Its influence was restricted to the urban areas.

[132] Champaran movement by the Indigo growers was targeted against the coercive conditions that had been imposed by the British capitalists in the aftermath of the incorporation of disorganized, small-scale cultivators. in the capitalist system of the Raj, geared primarily towards profit maximization and keeping the wheels rolling in the mills of Lancashire

Poltical-Economic factors

After independence, the slow evolution of subsistence agriculture into commercial horticulture was speeded up by the state push in that direction. The close association of the state with agriculture in particular and the civil society in general was the distinguishing feature of Himachal Pradesh after reorganization.[133] The erstwhile freedom fighters, for instance, were accommodated in the political set-up in influential positions.[134] Moreover, the electoral politics in the state revolved around Congress party and was dominated by stalwarts, all of which greatly restricted the opposition space. The general consensus that existed on state-building and poverty alleviation led to a largely non-contentious "development politics". The political paradigm centered on cooperation and emotive appeals to the unity of the hill-people helped to keep the problems being confronted by society and their putative solutions clear and in focus. It is clear that the emergence of apple growers' association in 1977 was directly an outcome of the debacle that Congress party had suffered at central and state levels. The problems of apple farmers were now seen as amenable to collective action. More importantly, it was felt that the problems were distinct enough to require an understanding that could best be supplied by the farmers themselves.[135]

[133] Yielding to the long-standing demand of the hill people for separate state, the center promulgated an order effecting the creation of the separate state of Himachal Pradesh largely overruling the objections of Punjab of which the hill states were then a part.

[134] Padam Dev is an example of someone who was in forefront of "Prajamandal" agitation who went on to become a member of the state legislative assembly. Most prominent example is that of Dr. Yashwant Singh Parmar who later became the chief minister and is called the architect of Himachal Pradesh.

[135] The heavy representation of farmer interest in Janata Party government that had assumed power at the center had paved the way for a more explicit incorporation of the farmer perspective.

Village-social structure

One of the most important factors that contributed to the relatively late emergence of farmers' organization is the caste structure in Himachal Pradesh. The caste system of hill societies has been the subject of great many studies including several by now classics.[136] A common theme emphasized by these studies has been the relatively unorthodox character of hill caste system, compared with the plains' Hinduism.[137] In addition, the caste system in hills has been described as predominantly two- tier as opposed to the three-tier system in plains (Tyler 1973), characterized by the absence of numerous middle castes that exist in plains and which have formed the backbone of agriculture and the rural social structure there.[138] The main caste distinction exists between upper and lower castes. Consequently, the traditional hostility that exists in plains between middle/agricultural castes and upper castes on one hand and lower castes on the other is also absent here.[139] Thus, one of the main social characteristics, which has

[136] Included among these are Berrernan's (1993) "The Hindus of Himalayas" and numerous works by Furer-Haimendorf.

[137] Agehananda Bharati and M.R. Srinivisan have pointed this out among other scholars.

[138] The agricultural castes, which occupy intermediate position in the traditional Hindu caste hierarchy have a long history of engagement with farming. The "sturdy" Jat (traditional agricultural caste of North-west India) yeoman of the *Doab* region was described by the British as the best cultivator in India. Subsequently, the British preferentially recruited a large number of members of these communities to armed forces, apparently for their "vigor and robustness". The British policies only strengthened the identity of these highly assertive communities especially in terms of its traditionally adversarial relationship with higher castes.

The middle caste culture, of *Jats* for instance, has long had a strong streak of anti -establishment ideology. They had rebelled against Mughals and later British in response to what were perceived as oppressive ruling practices. Perhaps, these attitudes arose as a result of being the "classic peasants: trapped in debt by the usurious rates of money-lenders, without secure rights to land, and with little access to levers of power in society" (Franda 1981). It was this section of landed farmers that would not only provide the bulk of men and materials for the farmers' movement in North India but also produce highly articulate "organic" individuals who will help put farmers on the national political map (Byres 1990).

[139] The anatomy of social conflict in rural India has undergone a tremendous shift due to the displacement of the upper caste domination by that of the newly politically and economically resurgent intermediate castes. Consequently, in a large part of the agrarian and particularly Green Revolution India, a new polarization between the middle caste land-owners and the lower caste agricultural workers has taken place.

been critical in sustaining the agrarian ideology and has equally importantly provided the main means of mobilization has been historically absent in Himachal Pradesh.[140] This absence of strong caste identity and solidarity has also had positive impacts with respect to the working of the growers' associations.

Himachal Pradesh is also a predominantly rural society. According to Statistical Outline of the State (1997), over 91 percent of the population of the state lived in villages. Coupled with the absence of industries and other large-scale business activity, even the few towns that exist are merely overgrown villages. Statewide, the lack of economic differentiation between towns and villages coexists with a relatively uniformly distributed caste structure (except the tribal areas). The cultural differences between towns and villages are minimal, not to speak of the existence of "urban-rural" divide. With the commercialization and modernization of agriculture, the people of the state, who had taken to commercial horticulture found themselves in a relationship with market, which was adversarial and almost completely beyond their control. With the increase in number of growers in the state, the transportation bottlenecks also assumed huge proportions. The location of the main market in Delhi, a big part of the problem, also came to symbolize perfectly the remoteness and unfamiliarity of the farmers with the market processes. The problem was of course not limited to marketing alone but started with the production and a multitude of hurdles that were faced therein by the small grower. The lack of inputs coupled with absence of micro-credit made for increased dependence of farmers on middlemen. These middlemen mostly appeared in the shape of

[140] See Jagpal, Zoya Hasan for an account of the highly successful mobilization tactics of Bharatiya Kisan Union (BKU) in western Uttar Pradesh, built upon and utilizing the traditional clan organizations (*khap*) of Jats.

pre-harvest contractors who paid a fixed amount for the standing crop, usually lower than the market price. In return the contractor assumed responsibility for the maintenance of the orchard as well as harvest and transportation. The lacunae in the system were visible to everyone. There was a widely recognized need for a collective farmer body that could deal with the situation in all its complexity. The first response of the government was to promote the farmers' cooperatives, which in a meaningful sense never took off the ground. The reasons for this are many.[141]

The emergence of associations followed from earlier largely unsuccessful attempts at setting up purchase and marketing cooperatives. It should be noted that the idea of production cooperatives was never seriously in contention. The proposal was first made by then Prime Minister Nehru in the Nagpur session of Congress party in 1959 after return from a tour of Soviet Union where, apparently, he was impressed by the functioning of collective farms. He was immediately opposed by Charan Singh, who was soon to emerge as the chief spokesperson of the middle level land-owning peasants (often referred to as *kulak)* throughout the North India, if not the whole country. As Rudolph and Rudolph note:

> It is hard to imagine why the Congress leadership supposed that the resolution would be placidly accepted. And it is hard to understand why Nehru thought it could be enforced without massive coercion and ideological mobilization. In the event, the resolution was swiftly followed by a crescendo of criticism…Charan Singh led the forces in Congress party that defeated Nagpur resolution… The defeat of the Nagpur resolution marked the end of efforts at the national level to bring about large-scale structural change in Indian agriculture…Congress's efforts to lower ceilings on landholding became suspect because they were now read as threatening property rights in agriculture. (1987: 317-318)

[141] One of the nascent experiments with cooperatives in Kullu, for example, ended with the implication of some of the office bearers in a scheme to defraud the body.

The opposition was based on the nature of Indian farmer who supposedly abhorred the idea of communal ownership of land. More specifically, it was reasoned that the cooperative movement would simply collapse from various kinds of "free rider" problems. Equally important perhaps was the largely adverse experience with cooperatives in the Indian context, which with a few exceptions fell easy prey to domination by powerful interests, demonstrating as a result, worst forms of corruption and nepotism all of which ultimately resulted in their dissolution or worse still a paper existence serving only the interests of a handful of people.[142]

Ideology of growers' associations: emergence of a lobby

A distinguishing feature of farmer mobilization elsewhere in North India in the post-independence period after 1947 has been its reliance on an ideology of "urban bias" inherent in policy-making and planning echelons of government. The claim of "urban bias" forms an important ingredient of the "agrarian populism" (Mooney and Majka 1999, Brass 1994, 2000) that in the Indian context derives its inspiration from Mahatma Gandhi's characterization of Indian civilization as primarily and intrinsically rural. Thus, the "agrarian question" here in the conception of popular movements does not just concern the issue of economic survivability and change but fundamentally the existence of a way of life that is deemed as being representative of the Indian ethos and essence and vanguard against an urban life-style rooted in a spiral of degeneration, parasitism, vice

[142] The cooperatives outside of Gujarat and Maharashtra have fared badly owing mainly to the excessive bureaucratic control and subsequent lack of accountability, which can be traced to a conservative and fragmented rural social structure (Attwood 1992).

and sloth (Brass 2000). This ideology and its certain corollaries[143] found themselves being vigorously championed in the post-independence India in Charan Singh who used it to counter effectively the specter of collectivization then looming large over the Indian horizons.[144] Another factor that helped this ideology strike roots fast and deep in the Indian countryside was the different caste composition of the urban and rural areas. The gradual evolution of the *varna* system into a complex hierarchy of occupational castes that with increasing urbanization eventually came to be differentially concentrated in villages and towns provided for easy resonance with a theory purporting "urban bias". In this thinking, the cultural differences between the rural/real and urban India are usually conflated with the economic arguments to indicate the reversal of values and ethos and a (urban-based) system that encourages and rewards it. The ideology insofar as it is based on the equation of rural with agricultural assiduously avoids the question of landless poor and other non-agricultural subordinate castes.[145]

The official policy of the state is seen as responsible for the origins and subsequent maintenance of urban-rural divide in modern India. The asymmetry exists, it is argued in levels of education, health-care, physical infrastructure like roads, electricity, water supply and telephones etc.— in short in levels of development— mainly as a result

[143] Namely that the family farm is the natural unit for agricultural production not only socially but also economically. The contention was derived from the thesis of Soviet agricultural economist Chayanov whose writings have since formed the core of a significant pan of the debate concerning the "agrarian question".

[144] Nehru whose fondness for certain aspects of the Soviet model besides leading to the adoption of the heavy industry path also led to a brief dalliance with the idea of collective farming- both probably being spurred by the same fascination with the large-scale, powerful interventions in opposition to the time-worn, enervated and subservient Indian tradition.

[145] Many observers have mainly for this reason labeled the post-independence farmer movement in general in India as a "Kulak" movement that projects and promotes the class interests of landed elite as rural interests usually to the great detriment of landless laborers and rural proletariat in general (Brass 1995). See Omvedt (1995), Handelman (1991) for a different perspective.

of the asymmetrical power relations.[146] Further it is often asserted that the powerlessness of rural areas despite its overwhelming numerical superiority derives from the subordinate status of castes inhabiting these areas. The caste has therefore come to be prism through which the agrarian question has conveniently been seen.[147] Mobilization in movements has also tended to be along caste lines.[148] We can therefore say that caste has been one of the most important ingredients of the agrarian question especially as it underpins the rural/urban divide in popular perception.

The growers' associations in Himachal Pradesh, on the other hand, can be easily distinguished by their almost exclusive focus on ameliorating market conditions in the favor of farmers. Strikingly absent are signs and motifs of struggle, militancy and radicalism in general. The only exception involves the violent incidents that occurred in 1990 when a crowd of agitating farmers was shot at by the police in Kotgarh resulting in two deaths. Narrating the incident, Parkash Thakur of Thanedhar said:

> There are always some extreme elements in all movements. This section was all along clamoring for confrontation. The police officer in-charge who ordered firing was also particularly stubborn. It was just an on-spot escalation that led to the incidents, I don't think it was anyone's intention on either side to enagage in violence.

The confrontational elements alluded to are a group of left-leaning activists who belong to a prominent family in Thanedhar, Shimla. The group has existed on the fringe

[146] There is no doubt that vast disparities exist between rural and urban areas in these and a number of other respects as well. For data pertaining to the differences see

[147] In all the adverse characterizations of state and central governments that have been done with the aim of highlighting their apathy and antagonism, the most enduring have been those that have painted the government as those of *banias* (a caste traditionally devoted to mercantilist pursuits and therefore implying literally a government of shopkeepers).

[148] Various combinations like AJGAR and KHAM that have come up at different historical junctures proved effective and enduring not just in terms of superior command of vote calculus but also in larger project of social assertion by agricultural castes cutting across regional lines.

of farmers' organization for a long time without experiencing any increase in their following or influence. Clearly, most orchardists were put off by their stridency which was too radical for their aims and purposes.

In response to the aforementioned firing incident, a state-wide call was given for a protest rally at the famous Ridge *Maidan* (ground) in the state capital, Shimla. The state-wide umbrella fruit and vegetable growers' association had given the call. Despite the grave nature of the incidents and the sheer immediacy, Hukam Singh, the secretary of the Upper Kullu fruit grower association had this to say:

> We were asked to get at least two bus loads of people for the rally. On the designated day, we got up early in the morning, and sure enough the buses were there. But there were hardly any people to fill the buses! Finally with much effort, we were able to barely fill one bus. As we proceeded to Shimla, my heart sank about the loss of face we were likely to suffer. Fortunately, when we reached the destination there was already a huge crowd that had arrived from various parts of Shimla and nobody noticed our empty buses. It was a narrow escape!

Even while relating the (admittedly) embarrassing lack of enthusiasm on part of Kullu growers for demonstrations and protest rallies, no attempt is made to endorse the means as right and valid. The poor were shameful because it violated the traditional code of conduct, *bhaichara* (brotherhood) whereby people are expected to participate and commiserate in times and occasions of hardships as well as happiness. More importantly, it was also unwise. As Hukam Singh added: "With what face will we go to Lekh Raj [president of the state association] next time with requests for inclusion of our grievances and demands in the memorandum submitted annually to the CM? With that kind of poor showing we sure can't press for it". The associations are thus totally devoted to working within the system, that is, with the government. Coupled with this is their stridently apolitical character, which is claimed to be an indication of their sole commitment to the

protection and advancement of apple growers' interests. The associations largely share in the government's technocratic view of horticulture where problems can be solved by greater and better application of modern technology. The common emphasis is on better management and the large body of growers is seen as lacking in the required technical information and its judicious application.[149]

At this point, it would be useful to mention a study of the political economy of sugarcane in Western India that holds important lessons for the issues raised here. Attwood (1992) in a seminal study has described the emergence of commercial agriculture centered on sugarcane cultivation and processing in Maharashtra. The role of the *Marathas*[150] with their tradition of organizing, a fluid social structure characteristic of frontier region and an ideology rooted in pragmatism have all caused the writer to term it as the "Revolution from the Middle". In addition, one of the defining features of the silent revolution has been the success of the rural intermediate castes relative to the urban middle classes, which comprise mostly of the upper caste groups.[151]

Himachal offers a study in contrast to the scenario outlined in the above study. Not only are the main agents of the agricultural commercialization— the rural middle castes— conspicuous by their absence but the social structure is marked by the absence of entrenched rural "rentier" class as well as the urban-rural schism characteristic of the

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[149] This perception has resulted in reliance on the agricultural extension approach, which has performed commendably in the case of Himachal Pradesh in the capacity envisioned for them by the government. The problem, of course, has been that almost total reliance on extension activities has resulted in neglect of other more important structural issues.

[150] The predominant agrarian caste in Maharashtra.

[151] The failure of the cooperative movement in Uttar Pradesh, for example, is attributed to the political dominance of upper castes, which are antagonistic to the advancement of rural interests. Moreover, the presence of several middle peasant castes with their influence limited to certain pockets and the existence of direct competition among them for political power seriously limits the possibility of a broad based rural coalition that can take on the entrenched urban interests.

plains. In a study of the farmers' movement in the state of Uttar Pradesh, Zoya Hasan (1995) has termed it as a predominantly political phenomenon— an assertion of power by the newly enriched middle and upper peasantry. The apple associations, on the other hand, have worked primarily for the amelioration of the logistical problems in the production and sale of a commodity— apple. In a limited sense, the associations have functioned as "brokerage complexes" (Nigh 1997) that facilitate communication and dialogue and help overcome traditional constraints. A community of farmers that was traditionally marginalized, especially, *vis-à-vis* the bureaucracy, could negotiate and communicate with the political representatives quite unlike the situation in the rest of the country.

The farmers' movement in India can be seen as engaged in an effort to redefine and redirect the thrust of the development strategy. The development policies in India since independence have followed the classical path of industrialization within the parameters defined by what is described as a "mixed economy". In this view, the "commanding heights" of the economy were reserved for the state whereas other lesser substantial areas were thrown open to private investment and market conditions (Bagchi 1995). On the issue of agrarian reforms, the consensus that was achieved in the top echelons was quite tenuous.[152] The period after independence, therefore, saw agrarian

[152] The Congress program for rural revitalization as enunciated in several pre-independence declarations and through various committees was centered on land-reforms including land redistribution and elimination of intermediaries from various land-tenure arrangements (Bagchi 1995, Hasan 1995). Of these, only the latter was implemented, leading to the elimination of rentier class, whereas the former was quietly jettisoned in light of the pressure exerted by the powerful rural oligarchical interests— itself a result of the specific configuration of class interests that came to dominate the ruling alliance. The critical task of ridding the countryside of the pre-capitalist/quasi - feudal arrangements was never completed, thus, allowing for the existence of potent non-economic constraints hampering the development of free market, for example, for labor (Bagchi 1995).

discontent being channeled into demands for land-distribution and greater tenurial security. It is in this sense of encompassing movement away from these demands that the farmers' movements in the aftermath of the "Green Revolution" induced commoditization can be termed as "new" (Lindberg 1995). These movements were focussed on the issues of "remunerative prices" price of inputs such as pesticides, fertilizers, power and return to labor and formed the part of the emerging discourse of "Urban bias".[153]

As mentioned earlier, the farmers' movements beginning in the 1970s have focused on the issues of the relationship of the rural-urban areas of the economy. In a bid to retain a greater proportion of surplus at the farm-level, the organizations (like the *Shetkari Sangathana* in Maharashtra and the BKU in Punjab) have taken steps to initiate some minimal processing. Gill (1995) and Lindberg (1995) have termed this as a salient turn away from the largely negative, agitational and defensive terms of the interaction of the rural sector and the markets on one hand and the state on the other.

In Himachal Pradesh, due to the socio-political and historical factors already mentioned and discussed, the agitational mode of farmer politics never struck roots. The close identification of the state government with the horticultural solution is clear from the numerous initiatives that were undertaken to make it a consistently profitable activity for the mass of producers. The Himachal Pradesh Horticultural Produce Processing and

[153] The "urban bias" discourse had its moorings in the socio-economic as well as political aspects that were often of a transnational character. Charan Singh, the prominent spokesperson of rural interests, in making his case for the existence of "urban bias" often utilized the Gandhian characterization of rural India as the "real" India- in addition to borrowing from the Chayanovian concepts of family farm, its capability to (independently) reproduce itself and its economic viability (Hasan 1989: Byres 1990). These claims were often buttressed by emphasizing the political marginality as evident from, for example, the miniscule representation of the middle castes in the administration and government. Of course, some of the cultural content of the divide was a specific colonial construction that along with other imperatives of colonial capitalism came to determine the colonial policies on issues like land alienation (Bose 1994: Darling 1994).

Marketing Corporation (HPMC) was established in 1974 with aid from the World Bank. It was followed by the setting up of the first and one of the biggest fruit processing plants in Parwanoo in Himachal Pradesh. The aim was to arm incomes from horticulture, which are highly susceptible to price impart some consistency to farm incomes from horticulture, which are highly susceptible to price fluctuations. In addition, the government invested heavily in setting up factories for manufacture of packaging material including cartons and grading and sorting centers. The price support scheme announced in 1981 for protection against the outbreak of scabies has worked as another subsidy to the growers. It is clear that the measures listed above have been taken guided by political considerations (Dahiya and Singh 1997).

Input subsidies and support price

The most important government intervention comprises its policy of declaring support price for apple during every growing season taking into consideration the production costs etc. The support price insulates farmers from the price fluctuations inherent in the market by providing a floor price below which the prices are prevented from sliding. In effect, the government ends up buying the most inferior fruit that cannot be marketed otherwise which in turn helps stabilize the prices, which would plummet otherwise and subsidize horticultural practices that are far from conducive to producing quality fruit.

Table 6: Procurement Prices, total amount and total value of apple procured in HP under the provisions of support price scheme

Year	Price of Procurement (per kg.) in Rupees	Total Quantity Procured (in tons)	Total Value of Procured Apple (in lac Rupees)
1986-87	1.30	25226	327.94
1987-88	2.00	21452	426.01
1988-89	2.25	18083	406.87
1989-90	2.75	110896	3049.64
1990-91	1.30	4621	60.07
1993-94	1.30	5210	65.07
1994-95	2.00	1310	26.20
1995-96	3.00	15247	457.41

Source: Directorate of Horticulture, Shimla

The government subsidies for inputs such as pesticides, fertilizers and other materials important for the production and marketing of horticultural crops have been the single most important factor in the successful diffusion of horticulture. The priority of the state is evident from the fact that apple subsidies alone account for over 80 percent of the total agricultural subsidies. The apple growers' associations play the role of a pressure group for maintenance and increase in the extent of support through these two measures. The association presents a formal memorandum[154] of demands to the state government regularly making the case for increase in support price on grounds of increase in price of inputs or exclusion of domestic labor in government calculation of cost of production (Omvedt 1993). The association has access to the decision-making through its prominent members who inevitably also happen to be in power. For instance,

[154] The demands for subsidies were expressed in a memorandum submitted to the minister Sushma Swaraj on June 27, 1995. Some of the demands were:

1. Due to government reduction in subsidies, the return from fruit production has reduced by half. Restore the level of subsidies to 50 percent.
2. Subsidies should be provided for small tractors and sprayers.
3. Central subsidy should be provided for roads to link fruit producing areas.
4. Cold storage facilities should be provided near Delhi and subsidies for the same should be provisioned.

in Kullu area, which was one of the sites of research, the political contest for representation to the state assembly has over about the last twenty years involved two individuals, belonging to opposing parties, who have both been office-bearers of the association. The association has thus striven to maintain its apolitical character so that "everybody works for the interest of the horticulturists/*bagvan* alone and not for partisan political ends". A similar position has also been reported in case of farmers' mobilization elsewhere in India (Brass 1995).

Nigh (1997) in a study of an organic coffee producing cooperative (ISMAM) in Mexico has described its operation as the result of successful brokering that it has been able to undertake with respect to the consumers in Europe. The structural transformation leading to easing of curbs on the transnational movement of goods and ideas has led to emergence of a ready market for organic produce, which the producers in Mexico are able to target, with the resources— cultural, economic and institutional— that they are able to marshal with the help of the cooperative. The key element is the plasticity of response that has been engendered by the cooperative because of the strategic role played by it.

The associations in Himachal Pradesh while being products of the structural transformation sought to be unleashed by the state cannot solely be considered the deterministic outcome of the same. To do so would be to consider the state monolithic and will entail according it disproportionate agency (Gupta 1995). More importantly, it will be tantamount to granting the state excessive autonomy-in fact privileging it over the social instead of considering it as a condensation of myriad daily practices— an emergent reality (Gupta 1995; Mitchell 1991). In other words, the narratives of agricultural change

usually emphasize one or the other side of the state-society binarism conveniently eliding the significance of the historical-discursive formations, which function as the site for their mutual constitution. Springer (2000: 90) in her study of agricultural change in the Indian state of Tamil Nadu analyzes the role of "development" as the differentiating force that provides "new criteria of distinction (by) providing tools for the assignment of new identities to places and persons". For instance, the emergence of the category of "progressive" farmer is related to the newly ascendant notions of efficiency, calculative intelligence and entrepreneurialism that form the core of the discourse of modernity in the domain of agriculture seeking to regulate and legitimize particular strategies (Giddens 1979). The category as my field experience shows is far from being class-neutral. Nevertheless the determination is far from being one-sided. Discerning orchardists quickly learn to decode the cultural practices of the state's agricultural agencies, which in effect condition and shape these putatively objective criteria. For instance, as one "progressive" farmer of Raisan, Kullu noted:

> I am looking for management information on Kiwi fruit. The problem is that the university does not really have it. They have not really specified the 'package of practices' and the information provided is insufficient. If they had it, I would have had no problem. I know how to get information from university scientists. I get them to visit and inspect my orchards regularly.

Clearly, a farmer does not become progressive on the basis of formal and objective criteria alone. It is the informal, cultural practices that have evolved in particular mutually constituting sites that determine the locus of determination.

In the preceding sections, I have highlighted the structural specificities that have provided the space for a very powerful discourse of development. It is to its examination that I now turn so that instead of an analysis of growers' associations as having been

generated by structure per se, an interactionist perspective can be offered. The problems with privileging of a state-centric narrative are many. Among the important ones are the consideration of state as omniscient, omnipotent and the sole legitimizing device. Far from this picture of state, it has been shown that the state is neither unitary/bounded (Gupta 1995; Saberwal 2000) nor the sole site of production of rationality (Mitchell 1991). Moreover, as Gordon (1991: 16 cited in Sivaramakrishnan 1999: 272) has noted: "the finitude of state's power to act is an immediate consequence of its power to know".

An analysis of the agricultural policy pursued by the state reveals important continuities with the colonial discourse of development in which enduring notions of social backwardness and its interpellation with issues of identity came to be embedded. As Bose (1994) has demonstrated, the Punjab Land Reform act of 1900 was precipitated by the perception of increasing rural destitution of the agriculturist castes variously described as "sturdy", "independent" and yeomen like by the "wily", "crafty" and Shylock- like members of the presumably urban mercantile castes like banias. Thus, the "structural" problem of the agricultural "malaise" (low productivity and lack of dynamism) was predominantly seen as a rural-urban problem rather than a problem of inadequate reforms resulting in poor penetration of capitalist relations of production. In Himachal, or the Punjab hill states as they were called until 1966, a variant of this discourse emerged as powerful "organizing metaphor" (Wright and Shore 1995) for political autonomy as well as better deal under the Federal Indian setup.[155] Yashwant Singh Parmar, the first chief minister of the independent state, a tireless campaigner for

[155] In 1966, Himachal Pradesh was carved out of the Punjab Hill States, as part of the pan-Indian process of linguistic reorganization of states. Some commentators have seen it as the Nehruvian modernism on retreat (Chaudhuri 1994). In any case, the new state of Himachal Pradesh remained "incomplete" as substantial hill areas remained with Punjab and it was not until 1974 on the merger of these areas that Himachal acquired its present shape and size.

separation from Punjab and a freedom fighter's also, not incidentally, known as the architect of the modern Himachal Pradesh. Parmar made his case for separation from Punjab on the basis of the geographic, cultural, and social differences of the pahari population compared to the plain dwellers of Punjab (Parmar 1965; Parmar 1970). The argument was basically made in terms of the distinctness of the pahari language (s) from Punjabi under which they had been subsumed by the earlier census. It is important to consider that this argument, though made in terms of the separate identity of hill dwellers, was made for the purpose of ensuring a fair deal ("right to development") to Himachalis in matters of development. It was claimed by Parmar that:

> …people of these hills steeped in poverty, ignorance and backwardness due to lack of means of communications and educational facilities, have had to face a most miserable existence and had been waiting for opportunities to be able to rise to their proper stature through the development of these hills coupled with hard toll and labor (1970: IV).

The reasoning for separate statehood even while deploying cultural arguments came to hinge on the impossibility of effective and sensitive administration from the power centers based in the plains. The developmental needs of the state and the people, according to Fazal Ali, the chairman of the State Reorganization Committee, required, "intimate and personal touch of the head of the state" whereas the "people of Himachal… [have] deep seated distrust of the men of the plains" possibly because of "the advantage being taken in the past, of the ignorance and poverty of the people of Himachal Pradesh by persons from outside the state" (Quoted in Parmar 1965: 14).

Immediately after gaining statehood, the agricultural policy of the state was occupied with attempts to erase the food-deficit in a bid to ensure its autonomy and self-sufficiency in an important area. Throughout this early period that lasted for roughly a decade (1966-1976), Parmar continued to be committed to the idea of appropriateness of

horticulture to the hilly areas. In this line of reasoning, the "traditional" subsistence agriculture was seen as unsuitable for the hilly areas in view of the very small size of land-holdings and limited scope for introduction of technological improvements *a-la* Green Revolution in the plains. It was suggested that a more viable policy in the context of adverse conditions in the hills would be to encourage fruit, especially, apple cultivation that would bring in the necessary cash for the purchase of food crops and other items of basic necessity. The agricultural policy, thus, came to center on the integration, or in any case, the connecting of the backward hills with the market. In the model that was considered, the state universities based on the American land-grant institutions and more proximately on the Punjab Agricultural University that was seen as a catalyst in ushering the state into Green Revolution, would generate the requisite know-how.

This in turn would be transferred to the farmers using the extension service. It is important to point out that this particular prescription that has since then come to assume a doctrinal status[156], which is seldom challenged in the official or the popular discourse, did not go uncontested in the earliest phase of its enunciation.

Shore and Wright (1997: 18) describe discourses as "configuration of ideas which provide the threads from which the ideologies are woven". The discourse of

[156] For instance, the International Center for Integrated Development (ICIMOD) based in Kathmandu in its whole hearted endorsement of the Himachal experience has christened it as "area based" development strategy and has vigorously advocated its transfer to other ecologically similar areas of the Hindukush Himalayas. In eliding the political-economic and historical factors that have shaped the development trajectory in Himachal, the "model" is the product of the much-too often seen reductionist endeavor that labels a solution as appropriate based on the consideration of physical factors alone in a social and political vacuum. The experience, of course, continues to rediscovered and proclaimed periodically as an exercise in "sustainable" development or a result of benign and omniscient state policies— the phenomenon at least in part governed by the global fads and fashions and partly a result of the exigencies of the development machinery, resulting from its need to reproduce itself (Ferguson 1990).

development with its emphasis on the peculiarity of the situation of Himachal and the need for it to "catch up" resonated powerfully with a wide cross-section of the state's population. The apple growers' associations have played an important role as sites for the reproduction of the dominant discourse and in doing so have legitimized the practices and policies of the state. The associations have uncritically endorsed and participated in an ideology (claimed to be lack of ideology) that serves to prop a highly under-specified model of "hill development" emphasizing the primacy, and indeed, the inevitability of "markets", "intensification" for "growth". At the same time, the reciprocal impacts have to be accounted for as well. While acting to consolidate the support and consent for state's actions, the very indeterminacy of the aforementioned core categories paves the way for endless contestation and negotiation in a variety of sites over the meaning and control of development. For instance, the incorporation of India in WTO has led to the flooding of market by cheap apple from overseas. The "logic of the market" which had over the past two decades come to be accepted as elemental and unassailable by not only the state but also the associations can no longer be trusted to defend and promote the "interests" of orchardists. The search for a new vocabulary to articulate the interests of farmers has simultaneously precipitated a crisis of confidence in the state. The state-society boundaries are clearly in for a major shift.

Transportation and Insurance

More than the extension service, it provides a convenient assemblage of techniques for the producer at the local level to connect with the bureaucratic and technical elite that control their interaction with the "market". The range of services,

which could be broadly termed as “translation” or “transposition”, help by channeling the local-level concerns into the narrow confines of the official mechanisms that are shaped by the technical and economic parameters governed by logic of efficiency.

A major intervention of associations involves the collective bargaining[157] that is undertaken by them with the transporter unions on the behalf of a diffuse peasantry. The result has been consistency of freight charges, availability of transport to even the smallest of growers, timely shipping of perishable fruit and, in general, reduction in the incidence of mal-practices by the transporters. The second main advantage has been the provision of insurance for the produce, which due to the long distance from the market, the unfavorable terrain and the consequent risk, has considerably enhanced the economic security of the farmers. Given below is the table of the amount of the insurance payment made to the farmers by the Upper Kullu growers' association from the compulsory levy of rupees 0.40 per box (comparable insurance from private insurers will cost Rs. 3.65 per box).

[157] Collective bargaining was facilitated by the pressure that was brought to bear on the transporters by apple grower associations through including the demands to regularize the freight charges etc. in the numerous memorandums submitted to the political and administrative setup. In a memorandum submitted on May 31, 1997, to the Secretary Vidhan Sabha, the grower association demanded that railway facilities be provided to lower the freight charges. In another telegram on August 18, 1998, the CM was notified of the impending strike by the transporters.

Table 7: Accidental Relief distributed by Upper Kullu Growers' Association

1977	15,431.34
1978	35,693.56
1979	28,289.85
1980	99,276.46
1981	72,601.95
1982	102295.63
1983	105339.82
1984	119271.44
1985	234350.72
1986	351188.12
1987	179758.50
1988	116877.00
1989	260152.00
1990	162007.00
1991	341464.78
1992	278896.50

(Source- Upper Kullu Fruit Growers' Association)

Conclusion

To summarize very briefly, the growth and influence of the farmers' associations can be understood only in the context of their privileged relationship with the state[158], which in turn is an outcome of the specific historical trajectory of the state in Himachal Pradesh, as well as the consensus on the development goals and policies. The consensus derives from the specific social structure that includes lack of urban-rural divide and the absence of middle, agricultural castes, which has led to a handful of social notables straddling multiple positions in the social and political-economic spheres. The result has

[158] In fact, a case can be made for the relative amenability of the Government of Himachal Pradesh to community and self-organization initiatives, which are ultimately linked to its willingness to devolve power. The case of strengthening Panchayati Raj (local self-government) institutions was mentioned earlier and is described in greater detail in Chapter 2. The move has been relatively more successful than in other states attesting to the relative lack of vested, entrenched interest groups, especially, those based on caste affiliation. Another example is that of the success of Community Forestry initiatives in the state again evidence of the government flexibility on the issue of power sharing (Blunt et al. 1999).

been a development discourse that is narrowly technicist in emphasis and is silent on the larger issues of asymmetry, inequality, environmental impact and the continuing hegemony of traditionally powerful groups. The achievements as well as the limitations of such a narrow discourse are clearly visible in the present case. The positive impact includes dramatic improvement in the level of education, fairly uniform improvement in infrastructure including the means of transportation and communication and a visible mark of transformation- all measures of success of the development model. The failures include the continuing concentration of power in the traditionally dominant pockets— geographically and socially— and a disregard for the hugely adverse environmental consequences of horticultural expansion. Overall, any balance-sheet of the associations' impact will indicate that they have served the purpose of advancing the farmers' interests in a largely instrumental manner without being the force of social transformation in the true sense of the word and without really questioning the construction or even the legitimacy of those interests.

CHAPTER 5: CLIMATE CHANGE IN HIMACHAL PRADESH- A STUDY OF PERCEPTION AND RESPONSE

Overview

Development of horticulture in Himachal Pradesh is based on a "model" that proposes transfer of technology and knowledge generated by scientists to farmers. Various aspects of horticultural management including agronomy, entomology and marketing, to name a few, are dealt with by specialists. The emphasis is on definition of "problems" in a way that makes them amenable to technical and general solutions. The control of environment and people's relationships to environment is attempted through application of highly reductionist and simplifying knowledge and accompanying techniques. The overall aim is to harness the productive capacities of people and environment through shaping of their interactions predominantly from the perspective of maximizing set of presumably societal goals. Of course, the process employed for arriving at these goals is largely a reification of the extant social and political systems.

Scott (1998: 183) has noted that, "legibility is a condition of manipulation" and "any substantial intervention in society…requires the invention of units that are visible and the degree of knowledge required would have to be roughly commensurate with the depth of the intervention". In case of Himachal Pradesh, as we have seen, the state's attempts to transform agriculture clearly did not lack in ambition, on the contrary, the scope of changes envisioned required a radical modification of the hill "way of life" or at

the least of the version that was considered by policy-makers to be particularly retrograde.

How did weather on which horticulture and apple production, in particular, is critically dependent escape the attention of planners and policy-makers? First, climate and weather did engage the attention of policy-makers but in a very schematic and simplified way that was clearly ill-equipped to deal with the micro-level variations. Given below is the classification excerpted from Annual Season and Crop Report for 1995-96 issued by the Directorate of Land Records:

> The typical geographical location of the Pradesh gives rise to variegated climatic and agro-climatic zones which give it a distinct advantage in terms of horticultural crops and off-season vegetables. It might be in order to recall that geography of a state has material bearing on its growth potential by determining its land-forms, land-use and cropwise profile and above all on its socio-economic complexion. The terrain also varies as one moves from South to North & from West to East. Due to its varying altitudes, the climate also varies from mild to cold. From the standpoint of production potential, the state can be divided into the following five categories [two are provided here for illustrative purposes]:
> 1. Valley up to an elevation of 1000 meters:
> These are very fertile and can be subjected to intensive cultivation.
> 2. Low Hills:
> These have an altitude of 1000 m to 2000 m above the mean-sea level and are suitable for raising horticultural crops (1995: 2).

The recognition of variation and yet the gross simplification fostered by typologies like the one presented above is not without reasons. Firstly, the division of the mountains into different agro-ecological regions was done with a view to enable better fit between planning and the conditions on ground. Nevertheless the categories generated were static and did not encompass the environmental complexity, which was simultaneously local and regional in character. Weather conditions over even a small area at a given point in time are the net result of the effects of forces originating and

acting on several scales simultaneously. The multidimensionality of the phenomenon as a result leaves a certain amount of irreducible uncertainty in the "system".

Farmers understand all this very well. They know the micro-environment including intricate patterns of linkage between features of landscape and weather. Farmers in Kullu where this part of study was conducted could talk very specifically about the weather peculiarities of their different parcels of land. The plots of land were thus used for specific purposes keeping in mind the weather conditions and the availability of water at the sites.

The striking differences in the ability of the scientific and traditional ways to recognize and account for the micro dimension of phenomena, that is variation, has not led to a commensurate inclusion of the latter in development planning. As discussed in the Chapter 1, the neglect has to do with factors related to the structure, politics and history of scientific knowledge. According to Scott:

> Why, then, the *unscientific* scorn for practical knowledge? There are at least three reasons for it… the first is the "professional" reason mentioned earlier: the more the cultivator knows, the less the importance of the specialist and his institutions. The second is the simple reflex of high modernism: namely a contempt for history and past knowledge…The third reason is that practical knowledge is presented and codified in a form uncongenial to scientific agriculture (1998: 305).

This, chapter deals with the climate change in the area and its impact on the performance of apples through the study of perception of change. Climate and climate change (or climate variability, more accurately) is described from the perspective of apple growers who conceptualize and perceive the change through empirically determined categories that are closely related to the impact on their livelihoods. A general case can, thus, be made regarding "situated" or embodied cognition in which the

environment is grasped through intentional categories. This understanding is in contrast to the nature of scientific understanding that relies more heavily on deductive reasoning. The difference in reliance on inductive and deductive reasoning is, of course, a matter of degree. Also, the knowledge that forms the basis of folk understanding of climate and environment in general cannot be easily partitioned into relatively autonomous domain unlike the scientific knowledge. In this sense, the understanding is always shaped by the context, including pattern of historical interactions.

Introduction

The impact of global climatic change on agriculture has recently become a subject of increasing importance (Price and Barry 1997, Glantz 1988). Most studies, however, confine their inquiries to the biological and physical domains, concentrating mainly on representing the responses of crops to various changes in climate. Studies focusing on the socioeconomic aspects of global climatic change are sparse, and have been almost exclusively restricted their analyses to the impact of environmental modifications on agricultural production (e.g., Lamb 1985, Parry 1978, Parry et al. 1989; Post 1985, Scott et. al. 1990 Chmielewski 1992). Most of these impact studies are dependent on the broad scale predictive ability of General Circulation Models, on which they are based, reducing the utility of these models in fine scale studies at the regional or local level. The impetus for the broad scale studies has been the interest of inventing broad policy recommendations, and both biological and economic researchers have taken a top-down approach to climate changes, focusing predominantly on the macro agro-ecological level. Micro-level studies of the impact of climatic variability on people's livelihoods at the

farm level and their consequent responses are relatively few, although Glantz (1988, 1989, and 1994) has had some success in linking macro change with micro effects by researching institutional mechanisms that respond to environmental perturbations. In light of the uncertainties involved in diachronically modeling climatic events, as well as the general paucity of long-term climatic data in developing countries, it has been suggested that research on cultural adaptations and climate would yield useful insights (Gunn 1994, Crumley 1989, Orlove et. al. 2000). To this end, individual farmers' understandings and perceptions of climate assume critical importance. Our study is based on the premise that any research aimed at understanding (1) the impact of climate change and variability and (2) the resulting socioeconomic responses, should take into account farmer's awareness of weather fluctuations. It is my hypothesis that understanding local perceptions of the relative amounts, direction, and impact of climate change are keys to arriving at an understanding of patterns in human responses.

Climatic Impact on Apple

Over the past decade, however, the valley has witnessed a steady decline in apple production owing mainly to a fall in productivity. In 1995, apple production amounted to just one-fourth that of the peak production years of 1988-1989 (Apple Growers Association 1997). The two main commercial varieties of apple in the valley are Red Delicious and Royal Delicious. Both are highly valued for their color and size attributes. Colloquially they are called "female" apples. The valley has witnessed a continuous decline in apple quality in these "female" varieties for more than a decade. "Male" varieties used for cross-pollination ("pollinators"), including the Golden Delicious, have

suffered less from the climatic uncertainty but are not commercially important. The present-day low productivity crisis first appeared in the year 1989-1990, when the valley production hit an all time low— a 50 percent reduction from the previous all time high year. Production while experiencing some seasonal fluctuations has not recuperated fully and continues an overall decline.

In this paper I will examine local perceptions of the climate variables seen as responsible for this decline in apple quantity and quality. The specific questions this chapter seeks to answer are:

1. Along what dimensions do people perceive climate change? What are the climatic attributes that are seen as having undergone a change?

2. How do people discern “climate” and “climate change”, especially as climate comprises a continuous impingement of potential information on senses? In other words, through what categories are climate/climatic change perceived? Are they limited to the traditional categories of their local weather calendar?

3. Can climate change be recognized or can people only perceive weather (Kempton and Boster 1995)? Are susceptible farmers more attuned than others to perturbations in the environment?

To consider why local perceptions, such as those of Himalayan apple farmers in this study, are more accurate for certain kinds of weather and climate change, it is useful to look at mechanisms by which weather affects agricultural output. Parry's (1984) summary of these mechanisms includes changes in: 1) length of the potential growing season, 2) plant growth rates, 3) mean yield, 4) variability of yields, 5) level of crop certainty, or the probability of a given yield, 6) yield-quality, possibly unrelated to

change in the yield or amount, and 7) sensitivity of plants to agricultural inputs. With Parry's potential effects as a backdrop, apple can be considered as an "indicator"[159] or "proxy" crop for several reasons. First, apple is relatively strongly coupled to the environment, especially to variations in climatic parameters. For instance, timing and amount of snowfall and frost in early spring have significant influence on the quality and quantity of apples produced. Second, apple constitutes the mainstay of the regional economy. Moreover, the importance of the apple reaches much beyond its significance in the livelihoods of the people. The cultural significance of apple can be adequately understood only by considering the historical and political-economic factors of agricultural production in Himachal Pradesh. These biological and socio-cultural dimensions of apple production, along with readily available production and climatic data, make it an ideal subject for the analysis of decision-making and climate change. Finally, since the area of study is mountainous, it is possible to discern the shift in the apple belt in terms of the response of the upper and lower limits of cultivation to the change in temperature profile.

History of Apple Production in Kullu

Before the spread of apples (roughly until 1965), agriculture in Kullu valley was predominantly of the subsistence type based on staples such as rice, wheat and corn. Moreover, the green revolution had still not impacted the region due to the prevailing agricultural systems in the hilly terrain. Most cereal production came from the local,

[159] The term "indicator species" is used for apple in Kullu not solely because of its phenological properties but because of its cultural significance, a function of the interaction of agricultural history and political ecology of the region.

hard, landraces while hybrids were virtually unknown. Some of these landraces are still extant, although the area under cultivation of these subsistence crops is rapidly shrinking (Sharma 1996). Not surprisingly, most subsistence crops are cultivated by small-scale farmers at the upper agroecological margins of the valley.

Given the area's dependence on apple, and the lack of other options, climatic conditions have become more critical for people's livelihood strategies in Kullu valley with time. Table 8 reflects in very significant ways the changes that have taken place in the region's agriculture over the past two decades. Primarily, the emphasis has shifted from subsistence to commercial farming. For example, the area under cereal crop cultivation has undergone a drastic reduction, especially for landrace varieties. The area thus freed has been converted to orchards. Over the last two decades (1977-97), the area under orchard has undergone an increase from 28 percent to about 60 percent (Apple Growers Association 1997). Moreover, most of the orchards planted after 1975 have been predominantly on land belonging to small-scale and marginal farmers. Although this shift initially served the small and medium-scale farmer interest well, it also has engendered dependence on the market for the household subsistence needs. The system changes in production have penetrated all spheres of life, from the food people consume to the way people dress and relate to each other.

Orchardists have suffered a great deal in socioeconomic terms in the last decade on account of a declining apple economy. With the rise in income of apple and other fruit crops, during the prosperous times education of orchard family children had assumed a new priority. However, with education came a general reluctance of young people to work in the fields and orchards preferring instead to take more prestigious

urban or town oriented occupations. Moreover, when apple production declined, it was not possible for farmers of apple and similar crops to easily shift over to other crops, because of the massive start-up investment for trees nurtured over an 8-year period beginning to bear fruit. The small holder class of apple farmers (2-5 acres) who had stopped cultivating for subsistence was the worst hit, and crop failure for even one year left them with no course other than to look to bank loans for bailouts. Tables 8 and 9 summarize land distribution and use for the Kullu Valley.

Table 8: Agrarian Structure of Kullu Valley in 1989-1990

Area under horticulture	19,340 hectares
Area under apple	14,244 hectares
Fruit trees	4,379,889
Apple trees	3,665,662
Total orchardists	34,448

Table 9: Kullu Valley Land Distribution in 1989-1990[160]

Less than 2.5 hectares	30,136 families
1-2 hectares	3,192 families
2-4 hectares	951 families
4-10 hectares	152 families
More than 10 hectares	17 families

(Source: Directorate of Horticulture, Shimla)

An alternative to farming in the region is public works employment, which typically is not sought by the middle class. Larger farmers diversified some into the tourism industry (e.g., hotels, guest-houses, taxis) as it began to take off 10 years ago.

[160] Land holdings are fragmented but the stringent conditions required for successful apple cultivation restrict the potential suitable sites. Orchardists, therefore, usually have one parcel of prime apple orchard in the "belt", whereas, the remaining parcels are used for other crops and are considered marginal for apple cultivation even when they have been planted with apple trees, usually in the earlier boom periods.

This option was less accessible to the capital-poor middle class who sought to make up for the lack of capital and know how with bank loans. Little did local people realize that the volume of tourism was soon to prove woefully short of their expectations, resulting in the success of only a few larger hotels.

From interviews of five key government agricultural scientists engaged in research and extension in the area, I discovered that they recognized the climate as changing, or at least increased variability of weather. Regarding the decline of apple production, they emphasized technical solutions. For instance, it was iterated time and again that one of the driving forces behind the present crisis was the lack of pollinizers. The official recommendation is that pollinizers should cover about 20 percent of any orchard. Scientists said that most of the trees which serve as pollinizers, like Golden Delicious, had been chopped down and replaced with commercially lucrative varieties like Red Golden. As one of the scientists working at Indian Agricultural Research Institute (IARI) in Katrain at the centre of Kullu valley explained:

> People have cut down pollinizers ("male" apple trees) and planted Red Delcious for commercial reasons. Farmers also tend to complain a lot. People are managing their orchards well still manage good crops. Has weather not changed for them? Also there is lot of herd mentality. People have sprayed excessive amounts of pesticides and killed pollinators like honey bee. They can no longer expect to get good crops without making any effort.

However, the typical farmer responded in interviews that the number of pollinizers had decreased prior to the decline in apple performance. As Jimmy Johnson of Raisan elaborated:

> Due to climate change there is gap between the flowering periods of 'males' and "females" [leading thus to ineffective pollination]. In fact, Golden Delicious is no longer a pollinizer and flowers either before or much after Royal Delicious. We were less dependent on pollination in past

Scientists and local farmers were clearly not looking at the problem through the same set of eyes. Farmers believe that the "disturbance" in climate is at the heart of a series of inter-related changes, which are adversely affecting the performance of apple. Scientists, on the other hand, tend to emphasize interventions and management techniques that can be implemented by farmers to offset the impact of downturn.

The Himalayan Weather Calendar and the Associated Cycle of Agricultural Activities

The traditional calendar of local Kullu farmers represents ideal types or pristine, undisturbed climates. Different periods in the calendar year are usually described in conjunction with corresponding weather activities. The following ideal cycle (see Table 10) was provided in interviews with older informants. They describe the traditional calendar as a relatively accurate portrayal of local Kullu valley weather until approximately 1970 when they reported significant climate change in subsequent decades.

From the table given below, it is clear that the perception of change in climate coincides rather closely with the weather calendar. Also, weather parameters are often mentioned through their association with livelihood activities, that is, agriculture in the present case. In other words, the demarcation of calendar into "seasons" and distinct weather periods is done on the basis of both the intrinsic properties of the phenomenon and its impact. The onset of winter, for example, is marked by both the advent of cold winds and the drying and storing of cattle fodder for winter their period. The transition is typically over-determined and marked by the presence of several independent but related

indicators. For instance, winter commences when the trees shed their leaves and the temperature, intensity and direction of winds change.

Table 10: Weather Calendar and Associated Activities: Now and Then

Local term	Approximate period	Description (ideal)	Description (present)
Magh	Jan 15-Feb 15	cold with snow fall	Some rain and snow
Falgun	Feb 15-March 15	less cold with snow	Rain
Chaitra	March 15-April 15	rain, snow rare	Some rain and snow
Baisakh	April 15-May 15	no rain, clear skies	Dry with some rain
Jeth	May 15-June 15	Hot	Dry
Asadh	June 15-July 15	hot (till June 30), pre-monsoon rain	hot and dry
Sawan	July 15-Aug 15	Rain	hot and rainy
Bhadra	Aug 15- Sept 15	rain (till Aug 30), dry	Predominantly rainy season (stock of drying grass for fodder)
Ashwin	Sept 15-Oct 15	clear (corn, dal harvest; wheat, barley sown)	First half rainy and second half dry
Kartik	Oct 15-Nov 15	mostly clear (paddy harvest), shorter days	Same as ideal
Mangsir	Nov 15-Dec 15	snowfall, drying fir leaves and wood for fuel	Same as ideal
Paush	Dec 15-Jan 15	maximum cold with snow	Very little snow

(Source: Field Interview)

Perception of Climate Change

Snowfall

People perceived a definite reduction in snowfall over time. More specifically, snowfall events were thought to oscillate in two important ways: (a) reductions in the intensity of snowfall, and (b) changes in the timing of snowfall. Recollection of memorable events, like the largest snowfall in a decade, was the most common method individuals used to discuss reductions in the intensity of snowfall. As one woman orchardist in Seobagh recalled:

> Once in early 1970s when I was in sixth grade, it snowed so much all of a sudden that the school had to be dismissed. All the children played with snow and made figures out of it. I remember it was one of the heaviest snowfall, it lasted for three days without stopping.

There was a wide divergence in opinion concerning the timing of onset of reductions in snowfall; for example, elderly informants believed the reduction in the amount of snow to have begun in the late 1970s, while relatively younger informants felt the decline began in the mid-1980s.

More than 85 percent of the informants (n=58) felt that the timing of the snowfall had undergone a change. For them, the onset of early snow in December and January had occurred more infrequently over time and the period of snowfall now, more often, extended through the months of February and March. Raju of Katrain suggested that "early snow was more long lasting and resistant to melting than the late snow. Besides contributing nitrogen for plant use, early snow also replenished soil moisture and prevented the buildup of humidity in late March and early April".[161]

Rainfall

Participants in the study reported no discernible change in the intensity of the rainfall. Bhagat Ram of Ghurdaur in Kullu recalled that the rainfall period earlier was very clear-cut: "20 days of *Asadh, Sawan* and 10 days of *Bhadon* were full of rain". There was a shift reported in the distribution of rain across time. Locals said the monsoon rains were slightly displaced to the period beyond mid-August. Lal Chand, for

[161] People have a finely tuned perception of amount of snowfall that takes into consideration the topographic variations within the valley. When talking about decreasing snowfall, for example, they will compare amounts of snowfall at several places to indicate a pattern. In the Kullu valley, the permanent snowline is visible around the year and is not considered by people as directly influencing the microclimate of an area.

instance felt that “the seasons are ‘late’ by at least 15 days”. Local perceptions further indicated that the incidence of rainfall in March and April has increased, coinciding with a significant increase in the number of cloudy days during that period. These changes were seen as a consequence of increasing amounts of late snowfall.

Temperature

There is a perception that the temperature distribution has undergone a significant shift in addition to an overall increase in temperatures. For example, the hottest period of the year is no longer the month of Jeth (15 May-15 June), but has shifted ahead. Earler as Bhagat Ram noted: “last 10 days of *Jeth* and first 10 days of *Asadh* used to be so hot that leaves of corn would curl and wilt”. The months of March and early April, on the other hand, are unusually cold. Jimmy Johnson blamed the cold wave in April for damage to apple. The periodicity of temperature is believed to be influenced by the timing of snowfall. Late snowfall, for example, was implicated as a causal factor leading to cooler temperatures in March and April.

Extreme Weather Phenomena

The increase in phenomena such as cloudbursts was widely noted. Incidence of landslides, on other hand, was perceived to have slightly declined or remained relatively constant over time. Elderly people recalled two major floods in their lifetimes, the first in 1947 and the latest in 1995. The floods were recalled in terms of human life and property. The earlier flood was, interestingly, always recalled in association with religious riots that occurred in the same year. Divine intervention to wash away

bloodshed in the valley was given as an explanation of the phenomena. Several bridges that had been built by British and had been in existence for over 100 years were washed away in incidents of "cloud burst" over last five years.

Discussion

Apple farmers use snowfall and rainfall incidences to describe deviations from normal or "ideal" climate. Moreover, distinctions are also made regarding the timing and distribution of various aspects of the weather cycle. These perceptions are informed by the *habitus* of the apple farmers of Kullu, which as a "system of enduring and transposable dispositions, functions as the generative basis of structured, objectively unified practices" (Bourdieu 1977: 82). Bourdieu's concepts of habitus and field and their dialectical interplay are particularly trenchant as they provide a fruitful way of overcoming the objective/subjective duality that often plagues accounts of human-environment interaction. Thus, the perceptions of climatic variables while ultimately being constrained by the finite range of their values are more proximately structured by the intersection of the personal, objectified histories as embodied in the habitus of social actors and the field of agriculture as a repository of differential practices and strategies. For instance, perception of rainfall rather than being the imprint of "objective" environmental conditions, or conversely, manifestation of an *a priori* mental template, is the result of the interplay of agriculture as an economic and cultural activity and the "position" of the hill farmer.

The perception of climate change is informed and structured by the dynamic nature of human-environment relationship in Kullu region of Himachal Pradesh. The

traditional weather calendar, for example, provides a template or a set of predispositions that constitute the habitus and makes possible the comprehension and interpretation of changed climatic conditions due to "analogic transfer of schemes permitting the solution of similarly shaped problems, and thanks to the unceasing correction of the solutions obtained" (Bourdieu 1977: 83). Farmers commonly recalled that *makki* or corn could not grow in Manali at the upper end of Kullu valley but was now spreading into "heights". Behari Lal of Bhuntar noted that that "now Makki comes from Manali whereas earlier we used to supply them Makki". Also "chilli that used to stay green now turns red at heights whereas *safed mash* [a kind of lentil] can now grow at heights".

Farmers made sense of local climate through the use of categories that were not limited to nor determined by the traditional weather cycle. On what basis, therefore, do farmers perceive climatic change? Why are farmers' perceptions of particular changes in weather cycle so widely shared? Two possibilities arise from these questions:

1. The phenomena farmers perceive are intrinsically noticeable. For instance, visual salience[162] of snowfall might make it more easily observable than changes in temperature extremes during summer. Thus, people are more likely to notice, especially over time, types of change that are visually more salient.

2. The phenomena farmers perceive are associated with particularly important outcomes. Apple farmers, for example, are most likely to notice climatic events associated with changes in their apple crop. Therefore, farmers reduce and order vast amounts of potential climatic information through the knowledge of relatively well-defined "windows" of apple performance-related parameters. For example, apple color

[162] "Visual salience" is used to refer to the intrinsic property of the phenomenon, which renders it more observable due to the existence of a corresponding psychophysical or physiological processing mechanism.

climatically depends on the amount of sunshine in the month of August. Therefore, if a month was marked by more than "usual" cloudiness and apples do not develop a bright red color, the deviation of cloud cover from its ideal pattern will be noted by the majority of farmers.

Apple farmers in the Kullu valley conceptualize weather cycles in a very systematic manner. Actual weather was described by its deviance from the ideal weather cycle. Exceptional decreases in snow, for example, were discussed in a comparison with other years. People often pointed out that "the snowfall used to be as high as two and one-half to three feet here, whereas now it is hardly an inch". Local perception of changes in snowfall is therefore predominantly in terms of the deviation (e.g., decrease) from, perhaps, the more visually salient maximum annual precipitation; in other words, perceptions are not centered at average values. Maan Chand of Jari in Kullu while describing the changes in weather conditions emphasized the impact on incidence of diseases:

> All these diseases have weakened the trees. Blight, for instance, eats away the tree. We have to do at least 7-8 sprays these days and even then lot of apple is spoiled because of pests. Earlier snow used to kill all the pests now we have to do it. Well, it does not snow much, only for namesake nowadays. In 1961-62, I remember, there was 2-2.5 feet of snowfall and last year we had 3 inches. Now for good apple you have to go higher. Best apple earlier used to come from Haripur [about 30 km downstream of Manali] but now it comes from above Manali [upper end of the valley]. That is how much the belt has shifted.

Therefore, it could very well be that the average snowfall over a particular five-year period might be perceived as having increased because maximum snowfall had increased, while average precipitation may decrease or be static. Also, there is relatively little mention of the absolute amount of snowfall. Since perceptions of snowfall are widely shared in the village, amounts that are registered as "normal" are non-arbitrary.

The specific patterns of variation between individuals should be the subject of later studies, but this is not to say that perception is non-utilitarian. The graph below indicates that periodic (decadal) maximum snowfall has indeed decreased, especially after mid-eighties. Local perceptions of precipitation changes seem to be conditioned by these declining amounts (see Figure 5).

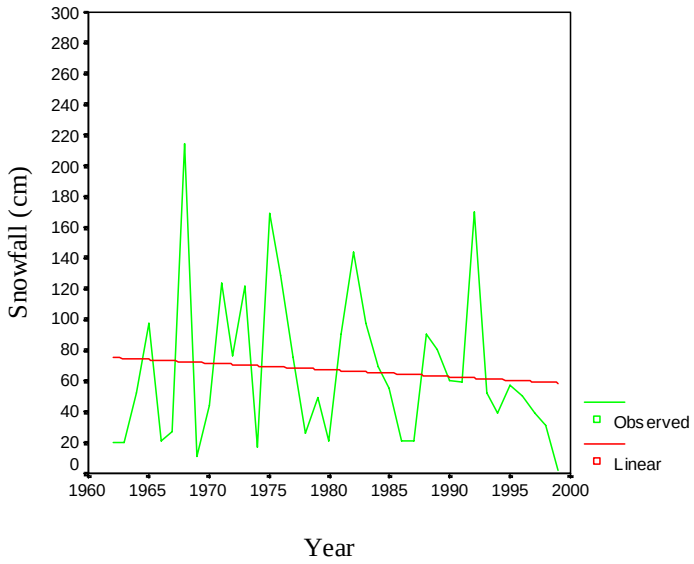


Figure 5: Total Amount of Snowfall (1961-2000)
(Source: Indian Agricultural Research Institute, Katrain, Kullu, HP

As previously noted, perception of the intensity/maximum of snowfall is closely linked to the perception of snowfall distribution. In fact, the perception of a changed climatic pattern on the whole seems to be derived from the perception of a reduced intensity of snowfall. That a temporal distribution of snowfall can be derived from the higher intensity of snowfall means a greater proportion of snowfall will occur early in the year (see Figure 6). According to farmers, late snowfall in February and March occurs mostly as a mixture of sleet and rain, resulting in lower temperatures and thereby a late onset of spring (see Figure 7).

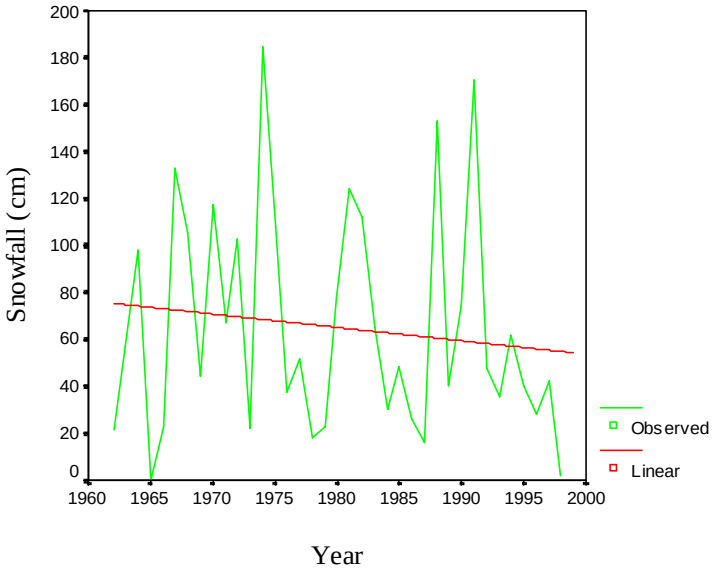


Figure 6: Early Snowfall (Dec-Feb) 1963-1999
(Source: Indian Agricultural Research Institute, Katrain, Kullu, HP)

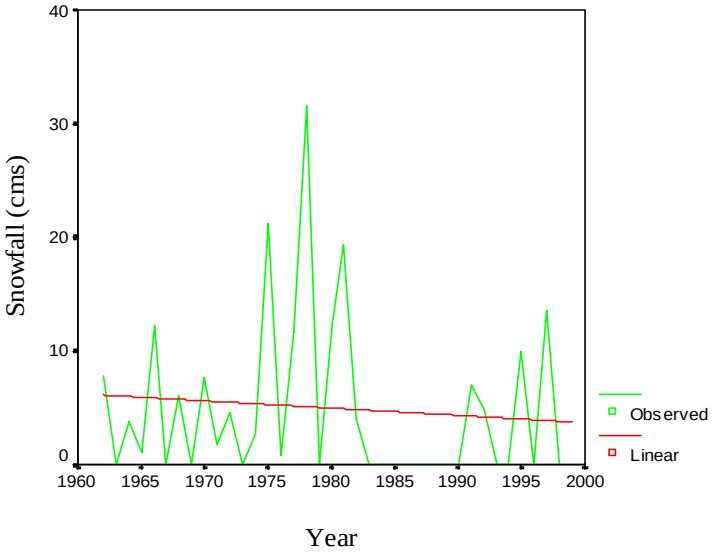


Figure 7: Late Snowfall (March -April) 1961-1999
(Source: Indian Agricultural Research Institute, Katrain, Kullu, HP)

The local perception of climate seems patterned by its utilitarian aspects. It is interesting to note that the patterns of change described by farmers are closely linked to the annual growth cycle of apples. Chaman Lal of Raisan, who is a prominent orchardist and nursery owner described:

> I started farming here after moving from Manali. Having inherited 1 hectare, I decided to start a nursery for apple, pear, peach and apricot. More and more people were taking to orchards but the government was not able to meet the increased demand. At that point, I remember, some of the best orchards in the valley were located in Bajaura [lowest point of the valley]. The apple produced there had good 'shine'[color]. For about 15 years we got very good crop. There was only one spray, of oil, to prevent scale. Now we have to do about 14 sprays. This is due to the shift in *Mausam* [weather]. Actually there is no weather now. April is cold instead of February. Look we are still wearing sweaters! Snowfall has reduced, even Bajaura used to get up to 2 feet of snow now we don't have that kind of snowfall even here. In fact we had snow for two months, December and January. This snow does not melt easily and lasted till March. It provides nutrition to soil and also kills the diseases and pests. Now it does not snow in December at all. In January, we have some light snow which melts easily. These fluctuations of temperature actually cause scab. For good crop you need constant low temperatures. March and April, which used to be clear are now cloudy. Sometimes we even have cold waves and hails. My orchard at 'height' has not had any crop for three years now because of the problem of hails. That is the problem with orchards at heights. Humidity in March and April also result in Canker which makes the apple trees hollow. The scientists have not been able to help us at all about this. If we have good snow in January then we have clear skies in March and April. Snow kills humidity. For apple we need deep and gentle sloping soils. That is why orchards don't do very well at heights. With the coming of summer, soils dry very fast due to little snow. By June we often have drought and we even lose trees. Apples thus don't have good size and remain green. You have to differentiate between quantity and quality. Sometimes we may have good bearing but drought later which causes fruit drop. The temperatures have really increased. We have ceiling fans here now. Earlier no one had seen a ceiling fan. Apple belt has moved 30 kilometers over last 50 years. Bajaura was once the starting point now there is no apple below this place [Raisan].

Amount of snow determines the number of chilling hours and thereby the time of bud-break. If snow has been normal-heavy, approximately 2-3 feet, the perception of its occurrence is positively correlated with heavy early snow and little late snow. Therefore, a snow level of 2 ½-3 feet seems to represent the optimal pollination and fruit-bearing conditions for an apple crop. Early snow is regarded as durable, long-lasting and full of nitrogen; late snow, on the other hand, is described as watery, transitory and understood to adversely impact pollination and apple fruit-bearing. Both the amount and the

distribution of snowfall are utilized as local benchmarks for assessing the utilitarian effect of snowfall. Particularly significant is that the high correlation between early snowfall (Dec-Jan) and total/annual snowfall intervals for the 37 years concerned, with a Pearsons' R of .769 at 99 percent confidence. Almost inevitably, any mention of early or late snow is accompanied by a description of its impact on the yield or performance of apple.

There was a trend over 35 years towards slight decrease in amounts of annual rainfall, but rainfall was predominantly perceived in terms of its temporal distribution— the attribute on which the color of an apple mostly depends and, more importantly, the survival of the plant itself by its regulation of moisture stress. Next to chilling hour requirements of apple and its dependence on snowfall, the most commonly mentioned aspect of environment was soil moisture. Snowfall was considered to be critical for maintenance of proper levels of soil moisture. Chaman Lal of Raisan complained that "the thick and durable snow of December and January that used to recharge soil moisture no longer occurs". In turn "insufficient moisture prevents apple from attaining good size". Moreover, the delay of monsoonal rain beyond August also prevents color development in apple. As Bhagat Ram pointed out "after apple has reached its full size, rains help to provide color. But there are no rains in August when they are most needed". Chaman Lal further added that "there is a drought period in June that can cause the plant to die and sometimes there is a dry and very hot period in April that can dry the pollen". Actual fluctuations in the amount of annual rainfall are not very significant compared to the variations in the actual amount of annual snowfall (See Figs. 6 and 9). Snowfall has, thus, fluctuated widely in amount as well as its distribution. These trends perhaps explain the perception of amount of rainfall as unchanged relative to that of snowfall. It is

plausible that people conceptually lump incidents of increased rainfall with extreme weather phenomenon such as perceived increases in cloudbursts. One can further speculate on the relationship between this categorization and the clearly awesome and destructive nature of these events. Considering that weather cycles were described overall as displacement, it would be difficult to accommodate these extreme events in their framework without marking the events as the modal, or as religiously significant. The marking of extreme rainfall events as "floods" helps tie weather to events of religious significance (in addition to their obvious utilitarian impact) and therefore make them highly memorable. For example, most informants agreed on the number and timing of major floods that had hit the valley since their first recollections of 1947.

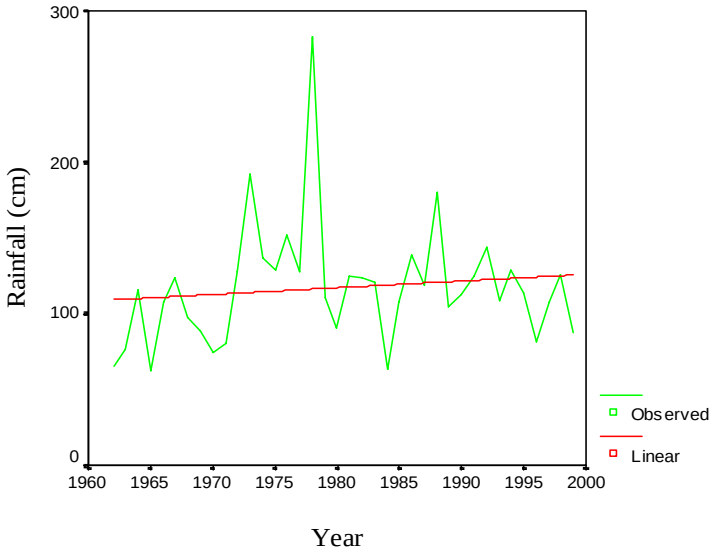
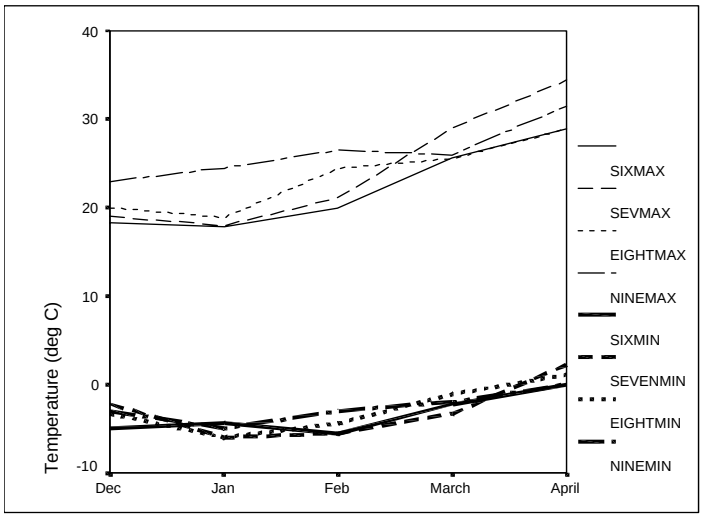


Figure 8: Total Annual Rainfall (1962-1999)
(Source: Indian Agricultural Research Institute, Katrain, Kullu, HP)

Similarly, very little change in weather was perceived beyond the month of September, after the apple harvest (see Table 10).

The perception of altered temperature distribution can be regarded as a derivative phenomenon since it is driven by the "unusually" low levels of snow. Overall, of course

the climate is described as being much warmer. But people's perceptions of temperature changes are not simple ones describing increases or decreases; they are mainly related to changed distributions. Temperature aspects of the weather cycle have been particularly displaced; e.g. cold weather lasts well into April and May. The month of July witnesses very hot temperatures instead of the ideal "rainy, warm and humid" patterns, and the changes are viewed as a result of temporal changes in snowfall. Even "heat" is not the same as it used to be. It is now much more 'humid' which leads to outbreaks of diseases (almost as if inadequate snowfall causes the moisture to remain and re-appear as humidity).



Key (e.g.): NINEMIN: Minimum Daily Temperature for the Nineties
NINEMAX: Maximum Daily Temperature for the Nineties

Figure 9: Decennial Change of Temperature in Kullu (1962-1999)

Climate change is of course explained predominantly in terms of its impact on apple. To a lesser degree, people also cite observations related to expansion of cultivation of traditional crops to hitherto inhospitable areas. Muneeshwar Suri of Raisan pointed out that "*Gandam* [wheat] is now growing at heights where it could not grow

earlier. They are even growing paddy there!" Thus, the overall description of displaced climate change implicitly includes comparisons with the normal/traditional weather calendar. People filter or aggregate their descriptions of activities that overlap two months of the traditional calendar; this makes possible a timing of activities that could not be accommodated by a strict adherence to an "ideal" month. The traditional weather calendar, therefore, is a model for rather than of climate, and acts as a template for the conceptual organization of climate-dependent activities in a temporal fashion. In spite of this purpose, the given weather cycle does not determine or constrain the perception of climate as anomalous.

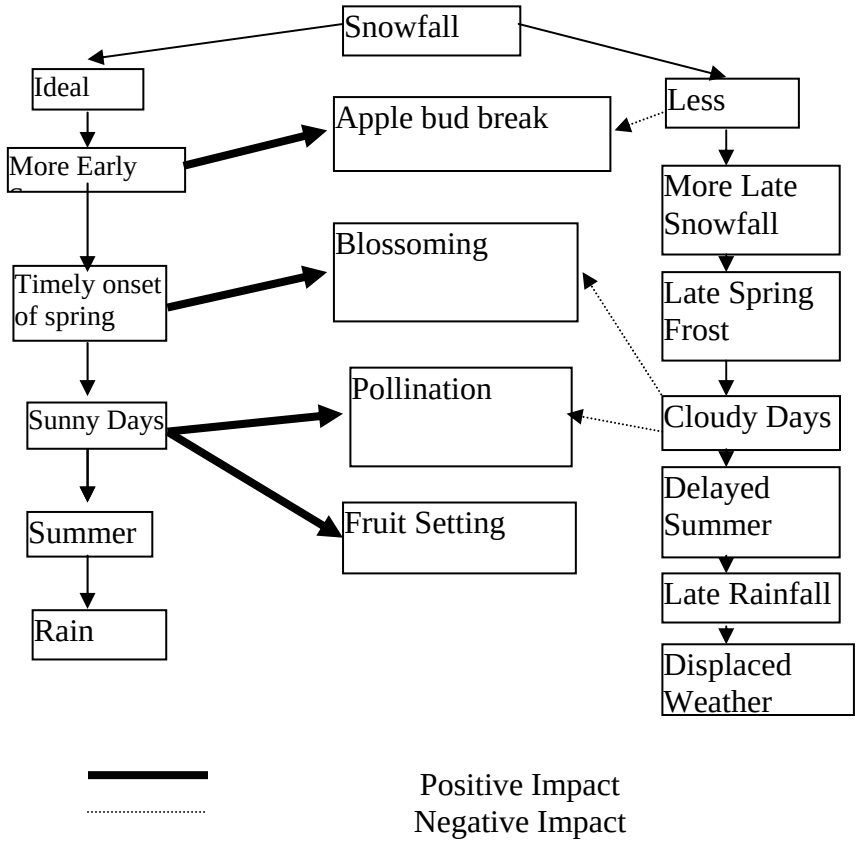


Figure 10: Apple-Climate Interaction

TABLE 11: WEATHER CONDITIONS DURING THE "GOOD" AND "BAD" YEARS

Attribute	Apple Yield	Months						
		Dec	Jan	Feb	March	April	May	June
Maximum Temp.	Good	12.58	10.8	11.3	14.83	21.65	24.58	27.36
	Poor	15.71	11.6	12.24	18.93	20.74	25.65	27.50
	Diff.	-3.13	-0.8	-0.94	-4.10	0.91	-1.07	-0.14
Minimum Temp.	Good	2.23	1.036	1.838	4.02	8.31	12.30	15.75
	Poor	3.19	2.186	1.998	6.35	8.05	12.24	15.4
	Diff.	-0.96	-1.15	-0.16	-2.33	0.26	0.06	0.35
Rainfall	Good	6.014	7.18	12.69	21.80	9.40	8.23	7.94
	Poor	0.90	8.34	7.84	7.6	13.49	5.32	5.24
	Diff.	6	-1.16	4.85	14.2	-4.09	2.91	2.7
Snowfall	Good	13.23	22.98	40.5	5.72	0	0	0
	Poor	1.27	8.0	40.40	1.14	0	0	0
	Diff.	11.96	14.98	0.010	4.58	0	0	0

For Table 11, the mean of different conditions are calculated for each of the relatively important months for "good" and "bad" years. The difference in the conditions for the good and bad years can be taken to be rough a indicator of the importance of the particular condition for apple productivity.

From the table, it is clear that the "good" years are characterized by relatively low Minimum temperatures (Mean of Average daily maximum temperatures) during January, February and March. For April the reverse is true, indicating the importance of mild temperatures for flowering. For May and June as well, good years are characterized by

relatively low temperatures. For average daily minimum temperatures, the differences are much smaller.

Differences in amounts of rainfall indicate, generally, a higher amount of rainfall is associated with “good” years. There are two exceptions, however. In January a slightly smaller amount is associated with “good” years. This cannot really be explained in terms of the framework employed. The “lower” amount of rainfall in April associated with “good” years, on the other hand, is due to its deleterious impact on pollination and, thus, flowering.

The pattern of snowfall across “good” and “bad” years clearly demonstrates the importance of the total amount. Higher amounts are associated with better yields. Even snowfall in March seems to have a positive impact and does not hamper the yield.

The perception of climate change is shaped mainly by the associated impact of changed climatic conditions on the apple crop. The knowledge of apple-climate interaction, therefore, mediates local perception of climatic change. The main patterns of crop-climate interaction that underlie apple farmer’s perception of climate change concern the impact of changed climatic conditions on: 1) blossoming and yield, 2) fruit quality, and 3) ecological ramifications.

First, climatic changes alter the pattern of blossoming, bearing and, therefore, fruit yield. The lack of early cold in December and January is understood to adversely affect the chilling requirements, which range from 700-1200 hours. As Abbott (1994) points out, a chilling requirement averaging 10 weeks below 5°C is required to meet the internal conditions necessary for bud break with the onset of spring temperatures. An April late cold can delay blossoming and reduce the pollination activity of bees. Also if

it rains in this period, there is a risk that pollen will be washed away from plants. The amount of snow is understood as strongly influencing the soil moisture especially in the case of early snow. Late snow, besides being deficient in several other aspects, also fails to replenish soil moisture to the desired degree. Also, late snow affects the process of pollination indirectly; a relative immobilization of bees is triggered due to low temperatures brought about by late snowfall.[163]

Pollination is accorded considerable attention by the apple growers. In this regard, the adverse impact of weather and pesticides on pollinators are clearly noted. As Bhagat Ram of Ghurdaur noted:

> Today we live in an 'artificial' age. We buy our food from shops. Look at the growing diseases because of all the spicy food people are eating. And these foods don't provide any real nutrition. There is all round decline of quality. Top soil which used to be 8-10 inches is now only 2-7 inches. The government by giving nautor [land distribution to poor and low castes] land has really made the problem worse. These people do not know how to cultivate land. They are trying to grow crops on steep slopes causing erosion. We have poisoned our environment. Honey bee has declined. We have to rent bee hives now from the government. Even butterflies, of which I remember endless beautiful varieties, have declined a lot. Soil is no longer the same. These artificial fertilizers suck nutrients from soil and produce a lot of heat. You get good yields but ultimately soil is destroyed.

Second, climate changes affect apple quality. Moreover, the degradation of quality is not uniform throughout the valley; there are distinct patterns. People often remarked that the apple belt is moving up in the valley. In Bajaura, located in the lower part of the valley, good quality apples that fetched competitive prices were produced 10-15 years ago. Due to a gradual reduction in quality, many apple orchards are no longer

[163] Himalayan honeybee, *Apis cerana*, endemic to the area, starts foraging at temperatures as low as 7°C, whereas, *Apis Mellifera*, which has been introduced over the last 10 years gets initiated at around 13°C (Pratap and Pratap 1997).

viable, accounting at least partly for their transition to vegetables. There was a broad consensus that the lower limit of apple cultivation has extended to Raisan, approximately 30 km. North of Bajaura, along the valley.

In terms of understanding of the climate changes and the underlying causes, the notion of displacement is really critical for people. Displacement in this sense is used to imply disturbance or shift away from "equilibrium" conditions. In other words, the place had a particular weather where as Muneeshwar Suri said "Rain used to occur in rainy season". But now everything is topsy-turvy. The balance is disturbed and in some way is only to be expected. With all the changes in diet and culture, there is nothing really surprising about it. The geographic manifestation of this all-pervasive disturbance is the shift in vegetation belts where traditional crops are growing at much higher altitudes and lower parts of valley like Bajaura are no longer producing apple. Finally, the contradiction in what people want and what they do— how they (in) advertently hurt their own interests was made very often. Within this "disturbance of harmony" framework several different "theories" were advanced for the explaining the adverse turn in climate.

Chaman Lal of Raisan felt that:

> the *chil* (pine) plantations by government [part of afforestation drive] have really caused a marked change in weather. Chil tends to suck underground water. Moreover it flowers at the same time as apple and it produces a lot of pollen. This pollen interferes with the pollination process in apple. People are just waiting for some definite understanding in this regard. Moment they get that, they are going to uproot all the trees and nobody will be able to stop them. Anyways what good is chil. The wood is so bad that you can hardly do anything with it. They should have planted something which was useful to people.

Dharam Veer of Seobagh explained that climate change mostly occurred in the aftermath of the construction of a huge reservoir on the Beas river that flows through the valley. He complained that:

> Pandoh dam created the problem [of climate change]. An expert who was doing research once told me that the water body there interferes with climate by affecting cloud formation. Pollution has also affected climate. Twenty years ago there were hardly any vehicles to be seen around here. Now we can't sleep in nights because of the noise. The government should have to pay compensation for destroying the livelihoods of so many people by building that dam.

Lastly, there are ecological ramifications of changes in climatic conditions. There is a widely held perception that the increasing incidence of pest and disease comprises a shift in disease ecology, and that climate change has played a vital role. Canker, a disease that causes a tree to decay, has become more rampant. The rate of infection is now between 5-10 percent, and an increasing number of sprays are now required for the routine control of pests. The number of sprays has increased from about four in the 1970s to about 12 per year today.

The categories through which the environment is perceived and acted upon can, therefore, be regarded as prescriptive (Shweder 1991). Furthermore, categories are inductive but local characterization of the weather cycle as disturbed seems to be ordered by the intention of the social actors. It should be noted that an emphasis on practical intentionality does not rule out the visual salience or biologically pre-potency of changes (Shweder 1991). The basis for meaningful action lies in the structure of perception, or the relationship people observe between different parts of the weather cycle. This structure cannot be explained without consideration of a socio-cultural context that

includes an implication for intentional nature of these categories.[164] Humans register climatic phenomena by their intrinsic salience, but this salience neither defines nor determines the structure of perception. In the case at hand, for example, both the perception of climate change and its structure depend on the perception of their associated impact on apple production. The relationship between perception and climate seems to be governed by what Ingold (1995) described as the dialectical relationship between "affordances" of the environment and the "effectivities" of the social actors. Thus, perception of climate change is structured on one hand by apple farmers' activities in terms of the knowledge and intentions they possess, and on the other by parts of the landscape, (i.e., "affordances") that, even though pre-existing, make sense only in light of the activities (in this case, apple growing).[165] The requirement of the red delicious apple for a specific and interrelated complex of environmental conditions ("niche"[166]) renders its performance highly variable over time and space. In addition, the existence of niches as discontinuous and fragile patches also imparts an easy observability, which needless to say is not deducible from the environmental conditions alone, *in vacuo,* but can properly be understood only in light of human-environment relationship. It is highly probable that, historically, the local cultivars of maize and rice occupied the same position.

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[164] Paul Sillitoe's study of ethnoclimatology of Wola (1996) demonstrates that even in a region with what can only be described as an undifferentiated weather regime, two distinct seasons are perceived that correspond closely with the meteorological data. The perception of climate is structured by the distinct agro-ecological outcomes associated with different aspects of the two seasons.

[165] Ingold's conceptualization of perception of environment as deriving from the immersion in an active relationship is treated as a special case of Bourdieu's much more inclusive concepts of "habitus" and "field". Thus, the human-environment interaction can be best studied not by consideration of disembodied, abstract and *a-priori* models and categories but by recovering it from the web of concrete practices which are historical and context bound.

[166] The environmental niche of apple can be considered to be structured in terms of the following dimensions: elevations between 1200-1500m that provide the requisite chilling hours and low/acceptable risk of frost and hailstorms, interaction of aspect and soil moisture that can control moisture stress.

The main points that emerge from the foregoing discussion are:

1. Certain aspects of the "climate change" are predominantly empirically informed ("intrinsically noticeable"). For instance, the perception of decrease in snowfall is driven by clear, widely shared memories of decrease relative to some maximum level.
2. Apple farmers are more likely to notice events associated with changes in apple performance. Farmers, thus, reduce vast amount of potential climatic information through knowledge of relatively well-defined "windows" of apple performance-related parameters.
3. The notion of the weather cycle, especially, its displacement is derived from the traditional weather cycle.

Climate change-from perception to action

In 1996 (when the study was first done), the perception of climate as changing was almost totally limited to the farmers who were facing the brunt of increasing crop failures. In 2000, the change is acknowledged by a broad cross-section of people including scientists and policy-makers. Perhaps, even more importantly, climate change is now regarded as definitely occurring and adversely affecting apple production.

The reasons for the change in attitude towards changing climatic conditions reflect, firstly, mounting evidence of crop failures, in some cases spectacularly low production (as in 1999) on account of abnormal weather conditions. Secondly, there is an increasing acceptance of the idea or concept of climate change influenced, clearly, by the discourse on global warming. In conversations and sometimes even in print, the weather

changes observed are understood as part of the global trend towards warming. Increasing pollution, deforestation and general increase in population are all seen as factors forcing the change.

Among apple farmers, climate change is considered the main factor that has led to decline in apple production, even total failures. Actually, it is easier to see the impact of climatic parameters in case of dramatic performance (mostly failures than successes). The increasing incidence of failure of the apple crop has led to diversification in many areas. In the second study area of Thanedhar in Shimla, increasing area has come under crops like cherry, almonds and other temperate fruits. But as one farmer remarked, "the other fruits are mainly for support. There is nothing that exceeds the profitability of apple, especially, keeping in view its shelf-life".

The climate change concerns have been taken up by the Apple Growers' Association of Upper Kullu. Issue of climate change and the need for better, more adapted cultivars has found their way into the annual memorandum that is submitted by the Himachal Pradesh Fruit and Vegetable Growers' Association to the Chief Minister.

Following is the text of a memorandum submitted to the CM on September 13, 1995:

> Due to ferocious floods lot of people have lost their lives. In addition substantial damage has happened to land and other property:
> 1. National Highway-21 should be handed to Border Road Organization [for better maintenance].
> 2. Affected orchardists whose property has been damaged should be compensated as soon as possible.
> 3. Essential commodities should be provided.
> 4. Culled apple should be procured by government on an emergency basis.

Apple has come to be identified with the prosperity and well-being in, and even of, the state. One indicator of this is the coverage provided in the media, especially regional and national newspapers. An analysis of the media reports on horticulture reveals presence of discussions and news surrounding and related to weather, budget, prices and yields. "Himachal heads for 40 percent rise in apple yield" (Ahuja 1998) is how the record production of 1998 was described by media. The reactions of a cross-section, including growers and scientists, were profiled as (also, note the persistence of uncertainty regarding weather, almost until the harvest):

> Himachal Pradesh will reap a bumper apple harvest this season thanks to the favorable weather this time, the rise in yields is estimated to be around 40%… Initially, the growers were apprehending a poor crop due to the erratic weather… But now the crop has crossed the flowering stage and *unless the weather turns hostile*: Himachal is surely headed for a record bumper crop (emphasis mine)…

Weather constitutes a significant amount of space devoted to problems confronting horticulture and apple in particular. The aspects of weather which are covered most relate to moisture, that is drought-like situations and snowfall. "Heat destroys apple crop" (Sharma 1999) was the title of a news item that described the effect as:

> Once again, the vagaries of weather have spelt doom in the apple-isle of Himachal Pradesh. Apple trees, which used to shower prosperity on growers, this year have become barren. The apple crop is just 5 percent this year…

In a story titled "Snow delights apple growers" (Anonymous 2000), the impact of snow and lack thereof is described thus:

> The two days of heavy snowfall has brought cheers for the apple growers of Himachal Pradesh who were so upset over their crop prospects. The interior areas of the [Shimla] district had over 40 cm of snow since last evening. With this the snow recorded during the current season has touched 98 cm. Scientists say this is enough to meet the requirements of apple plants for a high yield of the crop. Dr

> S.P. Bhardwaj, Additional Director of the Fruit Research Station, Mashobra, told that 54 cm of snow was recorded last year which resulted in a poor yield of apple crop…1,200 to 1,600 hours of chilling period is required for the apple plants and so far over 1,100 hours of requirement has been met.

These weather parameters are discussed in conjunction with their impact on flowering, fruit-set and ultimately yields. The level of discussion is quite sophisticated and assumes an understanding of the common processes and stages involved in apple growth and maturity. It is interesting to note that the "news" of these "abnormal" weather conditions appears almost simultaneously with the occurrence of these phenomena. Also, weather, including deviations from the "normal", from the perspective of other crops is hardly covered.

Conclusion

Three main implications follow from this analysis. Firstly, the cultural model of climate as it is evident from the weather calendar fails to anticipate the perception of climate change. Even though the concepts of cycle and displacement seem to be borrowed from the traditional weather cycle, they basically act as no more than templates for the organization of the perception of climate change. A more productive way of explaining these perceptions can be based on the concepts of *habitus* and field as used by Bourdieu (Calhoun 1993). Here, environmental perception and action would not be conceived entirely on the basis of precursor-like role of cultural models constituted by attitudes (Strauss and Quinn 1997; Kempton et al 1995). The former approach will allow for the consideration of cultural models as being construed "for" rather than "of" climate, implying therefore that the constituting knowledge can be strategically deployed, or in

other words, it does not encompass the "whole" of human-environment interaction in the present context.[167]

Secondly, policy based solely on educating people (changing their models "of" climate) as a means for generating consensus on the issue of global warming and its potential solution is not likely to go very far. A pragmatic approach in this regard must also include (dis)incentives for adherence to recommendations aimed at mitigating specific problems.

Thirdly, the story of climate change perceptions is only half-complete without an understanding of the way(s) in which these perceptions can be the basis for action. This part involves the embedding of these perceptions in regional discourses of farmer's rights. In other words, understanding their relevance for action requires an understanding of how perceptions are imparted with political-economic valence (translated into political-economic agendas). The process involves "continuous interaction between (en)textualization and (con)textualization" (Silverstein 1997), and as a result "sectarian" perceptions come to acquire social salience.

Climate variability and changes have rendered the role of planning and research in agriculture more crucial than ever before, and the climate factor thus needs to be included in any program aimed at maintaining and enhancing the agricultural sustainability of the northwestern Himalayan region. In order to understand how humans would respond to climate change, it is essential to study people's perceptions of climate and the

[167] "Models for" refer to the understanding of an environment, animated, as a result of the process of active engagement, as opposed to, "models of", which comprise detached and passive knowledge. I have somewhat modified Ingold's dichotomization of environmental knowledge as engaged and passive by placing them at the ends of a continuum which restores importance to representations, ideologies etc., albeit in a secondary role. The position has implications for research as it concedes primacy to the empirical examination of environmental practice over dissection of representations as means to understanding perception and action.

environment in general. Since it forms the basis of decision-making, local knowledge of climate should be incorporated into any strategy meant to mitigate the impact of climate change. Any framework for understanding decision-making must be based on criteria more inclusive than just economic maximization. The understanding of the costs and benefits associated with a particular course of action is shaped by the materials offered within the objective world of the agent since “what one thinks” is related to “how one thinks” and the relationship between the two is mediated by the worldview to which one adheres (Shweder 1991). The framework for making agricultural decisions and climate cannot thus be isolated from culturally constituted ways of seeing, knowing and valuing the world.

CHAPTER 6: CONCLUSION

> Some may wish to argue that all conceptions of things, even totally inconsistent, must inhabit the same global mind; that such a global mind is latent within each of us…and that its is some shared right of access to that global mind that constitutes our common humanity…[therefore] it would seem to follow that psychic unity is not what makes us the same…psychic unity is simply that which makes us imaginable to each other. (Shweder 1991: 18)

In searching for the answers to the puzzling anomaly of Himachal Pradesh as a development exemplar, I have tried to combine structural and processual approaches. By the former, I mean political-economic and social factors, and the system of relations, that are resilient and have prevailed over a relatively long time span. The structural dimension encompasses both material and ideological conditions that have decisively shaped the development trajectory of Himachal Pradesh. By the processual approach, I imply the events and interactions that comprise the flesh and blood of the more enduring but less observable structures.[168]

Much has been made of the abiding and perhaps predictable law-like content of structures (for example, in Radcliffe-Brown's "natural science" of society). The process on the other hand is what is contingent and even ephemeral. It is this opposition that Sahlins (2000: 298) recommends overcoming, when he notes that:

> It does not seem to stretch…[the] idea too far to make it out as a description of the constitution of historical events by cultural structures. For it speaks to the

[168] Two examples of events that have been important in their own right by virtue of the dynamic they set in motion as well as for being culmination of long-term socio-political currents. Firstly, the formation of Himachal Pradesh as a separate state not only represented a crystallization of the historical quest of *paharis* for political independence from plains. It also marked the upswing in the state-led development efforts. The clashes in 1990 between the apple growers and police on the issue of support price constitute an event that contains within it not only the proximate precipitating factors but also pointers to the larger polarization and divisions that had led to the clashes. The debate that ensued highlighted the context of the incident and had a decisive impact on the government-apple grower relations for times to come.

> transformation of *sui generis* happenings, having their own properties and reasons, to the order of culture in which these properties acquire a determinate mode of existence

In the ultimate sense, then, the "event" or the "incident" is but the instantiation of the structure: that which illuminates the underlying, deep rules. The implications of this ontological position are not difficult to discern— that is the regularities and the search for pattern should be the motif of the human sciences. Contingency and its inexplicability or at least its resistance to subsumption under structure should be reason enough to reject it on the grounds of being contrary to the goals of production of legitimate knowledge.

Giddens' theory of structuration has been a conscious attempt to overcome the duality between structure and agency in a bid to provide an over-arching approach to social theory. In this more encompassing view, structure is considered as simultaneously consisting of more stable rules and relatively ephemeral practices. As Giddens himself summarizes his departure from classical approaches rooted in a fundamental opposition between structure and action:

> One of these dualisms is between structure and event, usually overlapping directly with that of unconscious/conscious… The supersession of the dualism of structure and event, is most readily approached… by introducing distinction between system and structure, the former being ordered in terms of the reproduction of spatially and temporally situated events, the latter being both the medium and outcome of these events…(1979: 255-256).

Ortner has further refined what has broadly come to be known as the "practice theory". For the present purpose of understanding the case of Himachal Pradesh as a development exception in the Himalayas as well as India, at large. I have adopted an approach that attempts to reconcile the divergent positions spelled out above. Regarding the use of Himachal Pradesh as a success story Rhoades has noted:

> …indicators underlying the "success" cases are largely economic (i.e., rapid increase in incomes, savings" acquisitions, improvement in health or education). Therefore, the logical conclusion is to stress income-generating activities such as those provided by the introduction of horticultural crops for market (Sharma 1996; Teaotia 1993). The implicit assumption is that the lessons from these successful cases can be transferred to regions that have not yet been transformed…(1998: 33).

In other words, the explanation of the phenomena tries to strike a balance between the particularities that make it distinct and the continuities with the larger field of development experience in India and elsewhere. The boundary and the balance between the general factors and conditions and the irreducible specificities needs to be established in order to draw conclusions about the replicability of the experience elsewhere.

To recapitulate, the problematic consists of arriving at an explanation of the success of Himachal Pradesh in transforming its subsistence agriculture to apple-centered horticulture. In the subsequent sections, I will discuss the different factors, social and political-economic, that made the change possible. I will also differentiate the more "exogenous" and "endogenous" aspects that have influenced the direction and pace of change. It is noteworthy that the structural (at least economic) factors are more salient or easily observable, probably due to familiarity as most of the development theory is couched in economic terms, than the relatively elusive processual factors that are empirical and can not be deduced from the more "fundamental" structures. Attention to practice, thus, implies essential unpredictability of systems.

In analyzing the development experience of Himachal Pradesh, it is useful to keep the successes and failures in perspective. The use of the word "success" implies a certain acceptance of the criteria used for spelling out what constitutes development and success in that endeavor. At the same time, adoption of a pragmatic perspective does not

preclude the questioning of the norms and measures being used to arrive at the criteria. The aim in the following sections will be to strike a balance between the two.

The main factors responsible for (un-) successful development in Himachal are political autonomy and marketing along with other failures. Each will be discussed serially:

1. **Political Autonomy**

As a number of observers have noted (e.g., Sharma 1987), consolidation of hill-areas and the granting of statehood in 1966 (fully in 1971) marked the watershed in the developmental record of the state. The importance of political autonomy is, of course, well understood by people and policy-makers in the state. The perception that political autonomy was crucial to the development of the region was the chief driving force behind demand for statehood. That the demand for separate statehood existed in a well articulated from as early as March 1, 1948 (immediately after the independence of India from British rule) is clear from the following extract taken from the memorandum submitted to the Home Minister (Sautha 1948 cited in Singh 2000: 154-155).

> We want a separate unit comprising all the Punjab Hill States… It is a patent fact that we, the people of these hills materially differ in [sic] own habits, customs, culture, etc., from those of the plains and the adjoining provinces, East Punjab and United Provinces. Our languages too differ from them to the unavoidable minimum. The life and the present circumstances of the hill people being as such necessitate the formation of the separate autonomous state… The resources… too numerous too mention here, remain unexplored for the simple reason that the local people had no hand in the government… India has attained her freedom and now in free India it is our right that we also be free to shape our destinies and manage our affairs ourselves to our best interests…

From the passage[169] cited above, a picture emerges of the popular understanding of the linkage between economic improvement and cultural and political autonomy. Economic growth cannot take place until destiny/governance is placed in the hands of the "local people". Presumably, it is the understanding of local conditions and the genuine interest in development that are missing under the rule by outsiders (people from Punjab). Note the difference and the distance between official and "vernacular" versions of development. The official orthodoxy considered backwardness mainly a function of ignorance and lack of knowledge among other things. These ills could be solved by technically proficient bureaucracy that can after (dispassionate) diagnosis of the problem recommend (objective) suitable solutions. The model apart from being top-down is premised on an abstract, impersonal understanding of knowledge and its indiscriminate application ("transfer") regardless of the specificities of time and place. At another level the understanding is quite self-serving as it identifies effective agency with bureaucrats/technicians and leads to the institution and perpetuation of their control.[170] The "vernacular" understanding of development as an embodied process is rooted, on the other hand, in its inherently cultural and political nature. Not only is the knowledge of the conditions that obtain at the local level unattainable from "books" but devotion required for development can hardly be expected from an outsider.

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[169] The passage cited here can be taken as fairly representative of the demands for statehood and the (cultural) logic that was used to project these demands. For details see chapter 3.

[170] The much-lamented lack of power and effectiveness of state and its linkage to developmental failures have often been used to recommend greater autonomy. But independence in the name of efficiency has historically served to bolster the "state-for-itself," self-justifying and self-serving as well as self-determining, which arose when the socialist state was appropriated by its own functionaries" (Rudolph and Rudolph 1987: 62).

In determining how political autonomy translated into development success, the role of the first Chief Minister of the state has to be taken into consideration. Single-minded focus on horticulture, mainly apple, and a concerted drive to discontinue "traditional" agriculture were undertaken with characteristic gusto. While highlighting the role of Y.S. Parmar, the first chief minister, it is important to contextualize his thinking and actions in the post-independence political scenario. Parmar was a product of times and was representative of the generation of state-level leaders, who had come to power in the post-independence phase. Highly educated, often from elite backgrounds, these leaders were thoroughly steeped in the high modernist ideology, one of whose distinctive marks was disregard bordering on contempt for anything "traditional".

The societal impact of modernist ideology was magnified by the relatively "autonomous" character of the state, until the 1970s (Rudolph and Rudolph 1987). The autonomy resulted from the normative consensus about both the basic orientation and the role and importance of the state. Regarding the former, Rudolph and Rudolph (1987: 62) point out that:

> India's ideological consensus and constitution featured socialism along with secularism and democracy. For Nehru, socialism meant using the planned development of an industrial society to eliminate poverty, provide social justice, create a self-reliant economy, and assure independence and national security in world politics. In a mixed economy, the state would occupy the commanding heights. The socialist state would serve society by providing collective and public goods from which everyone would benefit.

The case for the importance of the state, indeed its primacy, as the instrument of development had strong historical precedents as well as support from more conjunctural factors that were "exogenous" even global in origin. As Patnaik notes:

> The broad agreement on the need for planning [and strong state] was in tune with the intellectual ambience of the period which in turn reflected the state of the international economy. The Great Depression of the inter-war period had destroyed any faith in the virtues of the free market… In stark contrast to the state of affairs in the capitalist world, the Soviet Union was not only free from the ravages of Depression, but was experiencing rates of growth which, until then, were unprecedented in human history. The difference between the two experiences which was traced to socialism and its accompaniment, planning, not only turned a whole generation of nationalist youth to socialism, but inculcated among them a conviction in the necessity of planning. With in the country itself, it was generally understood, laissez faire was the modus operandi of economic imperialism…It was hardly surprising in this context that State intervention, and planning in some form, would be seen as essential [for] raising the living standards of the masses, i.e., for realizing the promise of a free India. (1998:159-160)

Thus, the effectiveness of the state or its ability to appropriate the popular "intent to develop" for the cause of an administrative, top-down and technical program was the result of the peculiar state-society relationship that had historically existed in Himachal Pradesh as well as the larger political-economic setup in which this relationship was embedded. Development in emerging as the expression of both consensus and conflict over not only the use and allocation of resources but the very meaning of democracy, participation and progress has come to be the "dominant symbol…wherein many things and actions are represented in a single formation…[the] unification of disparate signification…interconnected by virtue of their possession of analogous qualities or by association in fact or thought" (Turner 1967: 28).

The granting of autonomy affected development priorities and resource allocation that was made for the realization of policy objectives. For instance, road building that was taken up by the central government in the aftermath of the Indo-China conflict of 1962, was used by the state government to promote horticulture development. The establishment of the state university for horticulture also helped in providing solutions to

the technical problems being faced by the growers. In addition, an elaborate network of subsidies was put in place covering various inputs like pesticides and fertilizers and transportation, on one hand, to the declaration of minimum support price schemes to provide floor to the prices and buffering the farmers against extreme price fluctuations.

Some insights can be inferred on the basis of epistemological and ontological principles that were implicit in the development strategy. The task of transfer of technology, materials and other necessary inputs, which was undertaken by the state, in the earlier stages, was quite uncomplicated and worked in largely unidirectional fashion. At this stage, the structural factors like accessibility fulfilled the pre-condition and proved sufficient for expansion of apple. This phase can be considered successful in a narrow sense, that is, of increasing the total number of trees and the area covered by them. On the other hand, the process of expansion was riddled with severe lacunae, which could not be foreseen by the simple technology transfer model that was being used. Firstly, there was an astonishing degree of reliance on the delicious group of cultivars (90 percent of the total) covering in effect a huge swathe of mountains with monoculture. This near-total homogeneity has led to increasingly severe pest infestation- attempts to control the same have been ecologically and environmentally ruinous.

In another respect, the views of the government and growers have converged on the issue of subsidy. For instance, the apple grower associations are always lobbying for higher rates of subsidies. On the other hand, the subsidies have nearly precipitated a fiscal and political crisis and will likely be curtailed in the light of the World Trade Organization's (WTO) rules to which India is a signatory. The "agreement" on the issue of subsidies was also facilitated by the absence of competing demand groups.

The developmental interventions faltered most tellingly in the following instances: The main beneficiaries of apple cultivation and horticulture in general are relatively large growers in mainly two districts Shimla and Kullu of Himachal Pradesh. Both effects are very similar to those experienced with Green Revolution in general in India. The main criticism of Green Revolution impact has been its exacerbation of inter-and intra-regional equity based on access to resources to capital, land and water. The undesirable "side effect" was, of course not entirely unanticipated but rather rationalized as a tradeoff with the much needed growth and increase in production. According to Breman (1997: 48-49):

> The scenario amounted more or less to promoting economic growth while promoting ignoring or minimally postponing the problem of social distribution. In short, the differentiating impact of official development policies was not coincidental but rather the logical result of the 'betting on the strong' strategy chosen by the Indian state. The trend toward polarization that occurred in many parts of the country arose from the sustained refusal by the national elite to redress the inequality among the rural population by implementing a more radical institutional reform in the agrarian sphere.

Even the quantum of subsidies pocketed by the large farmers has been much greater than their numbers alone would have predicted. In addition to the "principled" preference for the large farmer who has more resources at his command, the bias also reflects the unsuitability of the research and extension services and their approaches for mass contact and mobilization that is required for reaching the small and marginal farmer. For instance, the kinds of packages and practices being promoted by the research and development agencies presuppose a literate and "connected" peasantry— conditions that are often not fulfilled in reality.

2. **Marketing and other failures**

One of the most important threats to profitability of apple and horticulture in general comes from marketing system(s) in place. It is interesting to note that marketing conditions have been far more resistant to government regulation than agriculture. The government efforts to rid the marketing process of intermediaries and render it transparent have been largely unsuccessful. The issue highlights the importance of effective state action and its structural prerequisites. In case of marketing and sales that are executed mostly in the terminal market at Delhi and other major towns outside Himachal Pradesh, the state government does not have the jurisdiction unlike agriculture where the policy is totally under their control. Also the traders are much better organized than the growers and resist fiercely any attempt to weaken their position.

More fundamentally, the policies of the government fail to anticipate and even taken into account the multiplicity of arrangements that have existed for marketing and related operations.[171] For instance, there are a number of channels that exist for marketing of the horticultural products to the final consumer. These channels include varying number of links that mediate between the producer and the consumer. The reasons for the existence of these mechanisms are complex. For instance, the system of pre-harvest contractors was a direct outgrowth of the lack of wherewithal on part of farmers to cope with the multiple tasks associated with harvesting and marketing. Another factor was the conflict of the orchard operations with other agricultural tasks. With time and shift to mono-cropping, the practice has largely been discontinued (for

[171] The shortcoming manifests itself in a broad range of governmental activities. For instance, in regard to road construction, it has been noted by Banskota and Jodha (1992: 104) that "it may not fit well with a mountain development perspective with full sensitivity to different mountain specificities [due to] … indifference to multiple and diversified options…"

temperate fruits) except in isolated pockets. A major constraint is the mismatch between the requirements associated with modern production (which are either ignored or left to the ingenuity of people) and marketing strategies and the endowments of the majority of producers. A simple illustration of this would be the incompatibility between the standard of uniformity demanded in the market and the conditions of production. Small holding size, lack of standard trees (due to which tress bear fruits of variable quality) and dispersed production make installation of mechanical sorting and grading equipment uneconomical. The only remaining option is manual grading, which is problematic because of lack of skilled labor required for the purpose besides adding to the cost of production.

Another major policy failure has been in the area of diversification of demand that could give farmers more options as well as reduce the control of traders over the terms of trade. The inability to come up with alternatives to capital-intensive and centralized processing operations makes the range of operations like procurement and transportation vulnerable to similar distortions that happen in marketing of the table-fruit. Little has been done, for instance, in diversification of product lines so as to better take into account local tastes and preferences with the result that the focus remains on a handful of products with limited market and severe competition with the existing players (with better capital, reach and marketing).

The solution, of course, does not lie in furthering the rigmarole of regulations that exists, ostensibly for the purpose of providing relief. The government operations are worse in the sense of being reliant solely on “command and control” technique and therefore vulnerable to a multitude of leakage and wastage problems. The complexity of

situation is enhanced by factors such as information-intensive character of modern production and marketing systems in light of dependence on a varied mix of exogenous inputs that are required for production and distance (and the resulting *differences*). The result is that because of inter-connectedness and indeed mutual dependence, the local is dependent on its reproduction for larger structures over which it has little control. For individual growers (at least a majority of them) the transaction costs of interacting in an environment characterized by high levels of uncertainty (and unreliability) can be prohibitive. The alternatives are either high levels of government regulation with the aim to structure the interactions and transactions of a bewildering array of interests, parties, lobbies and demand groups that have been thrown together. The regulatory path as we have seen has not worked as it assumes the existence of state as an impartial arbiter of different contending groups. That is far from true, in a situation where the state's autonomy is continually being eroded. In addition, the state and its myriad agencies have a propensity to act for their own benefit and perpetuation.

In contrast, the present system, has tended to work when effective institutions have evolved to tackle some of the problems. For instance, the problem of transportation was a major bottleneck due to which the growers were often at the mercy of unscrupulous transporters like price-fixing, delays and unavailability during peak demand. Individual growers were unable to influence the behavior of the transporters. The formation of fruit growers' association in Kullu helped to collectively negotiate and enforce the agreements that were reached with the transporters at the local level. The system works because of the face-to-face interaction between the association and the transporters who risk being identified and censured if they renege on their contracts. The prescriptive

significance lies in the scale and composition of such interventions. The arrangement has worked well because the parties involved have good knowledge of the requirements and are willing and capable of enforcing penalties for violation of the agreement reached.

The generalization of the lessons from Himachal experience is a difficult question. On one hand, the "model" is perfectly transferable if abstracted at a high enough level and will work anywhere with "similar conditions". For instance, at the level of the question of peasant response to prices, the case does indeed prove that the experience is transferable in as much as peasants have been proved as not being intrinsically resistant to change (and the profit motive). But for generalizations of this magnitude, there is no specific advantage in studying the experience of Himachal Pradesh in the first place. Other extreme response to the "high" universalism could be unrelenting attention to detail so much so that the case at hand is imbued with so many particularities that it in effect becomes unique, ruling out any lessons. Thus, the answers that are required (and plausible) require posing of appropriate questions and assume a (pre-) existence of a framework. The present research is focused on identifying the "middle path" in terms of time-space dimensions of the complex phenomenon that development is, to situate it between the poles of comparability and incomparability.

Clearly, one has to be cautious while drawing lessons from development— less a singular phenomenon than the emergent outcome of the interplay of host of processes and structures. A cursory glance may reveal some apparently straightforward answers- although not necessarily correct. An example could be the usefulness of roads for development- a nostrum of axiomatic proportion motivated by the modernist concern for contact and against backwardness bred under isolation. The data on the effectiveness of

roads is much more ambivalent. Roads have increased economic activity in some parts of the Himalayas whereas they have been relatively ineffective in other areas. The constraints and opportunities associated with construction of roads in mountain areas have been summarized by Banskota and Jodha:

> Due to difficult operational logistics, and heavy overhead costs, road construction is both physically difficult and financially high-cost option. Besides due to scattered settlements and largely subsistence oriented activities, the use of such roads remains low for such a long time. Both these factors make road construction an unattractive proposition for investment planners. (1992: 104)

Commenting on the source of impetus for road construction activity that some parts of the region have witnessed, Banskota and Jodha (1992: 104) note that, "other factors such as security considerations…can induce investment in road construction in the hill areas". Lastly, as Rhoades (1997: 33) has pointed out, " the fact that prosperous roadside areas with historic linkages start from a different trajectory than, marginal, roadless areas", therefore, it is often difficult to determine if it is roads that have led to development or it is the existence of some specificity that led to the construction of roads and ultimately development

The "linking with market" is another factor that is often deemed essential for development, especially, of subsistence economies. But market can not be taken to be an ahistorical mechanism[172] for "markets cannot exist in a deinstitutionalized form: no economic phenomena do" (Harris-White 1996: 23). The markets and the unleashing of market forces have differential effects on different segments of population. Not only are

[172] Here the characteristics of markets, as they exist in modern and traditional settings, have been spelled out, in terms of radical differences by Polanyi. According to this influential view, "Systems of non-market exchange have been recognized to comprise two principal sorts: redistribution and reciprocity…[these] non-market exchange have been contrasted with that of a stylized modern society where a commercial logic rules and an unembedded price-making market dominates economic life (Polanyi 1985 cited in Harriss-White 1996: 22).

marketing arrangements linked to the modes and relations of production bur the latter is influenced by the former as well. A significant part of development thinking is also engaged in the task of creating conditions suitable for operation of market forces, that is, removing the vestiges of what are considered to be "extra-economic" considerations from contaminating the working of the market processes. Commenting on the futility of an endeavor like this, Harriss-White notes that:

> If the institutionalized nature of the markets is accepted for the present, there is still a world of difference between regarding institutions as imperfections, deviations or constraints to a commercial logic (reified as perfect competition) based on profit maximization and voluntarism, and regarding the institutions of markets as inherent and essential characteristics of their functioning: as what society *is* (1996: 25 emphasis in original).

Furthermore, the particularities associated with the investment of surplus can be highlighted by offering a comparison with the cases elsewhere in India. In Himachal Pradesh, as we have seen, there are differences within the apple belt regarding the use to which surplus is put to. The big apple growers in Kullu tend to invest more in non-agricultural, often urban type of enterprises (real estate and tourism).[173] The surplus in Thanedhar area is ploughed back into technological and other improvements in the management of orchards. Remarkably, the investment of surplus into rural or non-rural agri-processing industry is totally absent, probably due to appropriation of this function by the state.[174]

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[173] The tendency has increased over time in keeping with the increase in urbanization and tourism inflow, which have collectively led to inflation in real estate prices. The big farmers have been quick to utilize these opportunities for profit-making. In Thanedhar, in contrast, the opportunities for non-agriculture investment are scant. Independently, the tendency towards greater risk of crop-failures can be expected to affect the process of re-investment into agriculture as the profitability is threatened.

[174] In contrast, many parts of India with relatively "advanced" agriculture have seen increase in agri-processing activity as a result of diversion of agricultural surplus into these operations. The process has

The Middle Road: Between the Unique and Universal

The factors that are identified as having played an important role in the "success" of horticulture in Himachal Pradesh present a mix of structural and processual factors- some of which are quite replicable elsewhere (subject to other, local constraints, of course) whereas some others are stubbornly local. But the mere accounting of processual/local and conjunctural need not be taken as a flight from reason or science. As Shweder notes:

> In the structural traditions, the search for an autonomous being…proceeds in one of two ways. Descartes made famous a method of erasure (through radical doubt) whereby everything sensuous, subjective, embodied, temporary, local, or tradition-bound is viewed as prejudice, dogma or illusion…others have made famous a method of subtraction whereby everything different about different ways of being in the world (or different ways of seeing the world) is treated as error, noise, or bias, and pure being is the abstraction of those common denominators that make people the same. [But] traditions not only obscure but also illuminate…[and] while traditions are particularizing (who could live by ecumenism alone?), a peculiar existence can be a selective affirmation of pure being…(1991: 8-9)

As discussed earlier the lack of development is usually attributed to the under-developed nature of "markets"— often associated with developed countries— and, therefore, considered a pre-requisite for development. At least in part, the basis of the aforementioned characterization, according to Harriss-White (1996: 25) is the "idea that the cultural richness of the markets might be understood as the sum of obstacles to a realizable, competitive, generalized exchange is the product of a pathological paradigmatic ambition".

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been facilitated by the existence of a merchant class that has significant control over land and other factors of production. Usually, these merchant-landlords are of the same, dominant caste, which helps in the in consolidation of tremendous powers. This has caused Harriss-White (1996: 329) to term these powerful owners-entrepreneurs as the "Masters of the Countryside".

The insights and answers will, thus, be derived from empirical observation, which any comparative exercise should proceed from. The "cases" have to be first understood on their own before they can be used in comparative exercises for arriving at the "principles". "A critical approach to analytical language has quite important implications for the hard-nosed world of agricultural policy-making and politics too" (Harriss-White 1996: 24).

Thus, subjecting some of the concepts like "transportation" (or infrastructure), and "markets", much associated with successful transformation of "stagnant" subsistence agriculture, throws light on the dispensations that are often fashioned using these core concepts. From the brief discussions above, it follows that even the use of disembodied concepts, much less wholesale theories, is untenable when tested against messy reality.

One of the correctives to the transfer of solutions and theories can involve careful tempering of the received wisdom against careful empirical research. "Fieldwork" is ideally placed for such an endeavor since "the intimacy of ethnographic encounter generally…prompts…affirmative attitudes towards the people being studies" (Herzfeld 2000: 25). According to Gupta and Ferguson (1997: 35), "Ethnography's great strength has been its explicit and well-developed sense of location, of being set here— and not-elsewhere".

A bridging of Development Anthropology and Anthropology of Development implies that the mutual exclusion implied through oppositions between structure and agency and culture and economics can be overcome. Also "such a shift entails, among other changes, the realization that attempts to reduce uncertainty and to create predictability in social life are doomed to failure" (Herzfeld 2000: 164).

The solutions and answers to development problems of mountains will require a plurality of approaches, both conceptual and methodological. The existing knowledge base will be useful but will also have to be revised to accommodate the manifold specificities that characterize "places" at particular times. Finally, as Rhoades has argued:

> Such solutions might include diverse methods such as modernization through the transfer of technology, building infrastructure, and creating new markets, but it might also occur through revitalization of traditional production systems, group economic activity, and linking with new global partners on the outside…. Conventional science would insist that only one of the perspectives… is valid…"*the revolutionary science appropriate to Himalayas would insist that there is something of value in all of them*" (Ives and Messerli 1989: 250-251) (1997: 38-39 emphasis in the original).

APPENDIX 1: HOUSEHOLD SURVEY QUESTIONNAIRE

1. Number of members
2. Caste
3. Age
4. Education
5. Sources of Income— Government job, farm, off-farm
6. Size of Land-holding— Irrigated and Non-Irrigated
7. Land Reforms— Recipient of land under redistribution program (*nautor*)
8. Use of land received under land reforms (Sold, cultivated, orchard, uncultivated)
9. Orchard— Area, Age, Different varieties (Change over time)
10. Performance over time (Causes?)
11. Inputs— Source, Use, Change over time
12. Orchard Management- Pollinizers, Pollinators (Honey bee hive rentals?)
13. Pre-harvest contracting of orchards (If yes, why). Incidence over time
14. Transportation— Role of associations
15. Insurance— Role of Insurance (whether availed of it, if so, when?)
16. Diversification— vegetables, other fruits (Why/Why not?)
17. Field Crops— Corn, Paddy, Wheat, Bullocks for plowing?
18. Number of Dairy animals (Hybrid and Indigenous). Change over time.
19. Artificial Insemination (If yes, then distance of the facility). Year when first started.
20. Yields and sale of milk (if any). Sale Price and season
21. Source of fodder
22. Water Supply
23. Electricity (Monthly Tariff)
24. Source of fuel (Firewood, LPG), Distance traveled for firewood, Average duration that LPG canister lasts.
25. Source of Information on Management (Horticultural Development officer), Technical support, Seminars, Workshops, Training, "progressive" farmer.
26. Off-farm work— Duration, Kind and Income per diem
27. On farm work— Unskilled (Harvesting, Transportation, Spraying), Skilled (Pruning)
28. Migration (Permanent, Temporary)
29. Role of Panchayat (Aid, Loans, Other help)
30. Timber Rights in forests (Last time availed)

BIBLIOGRAPHY

Abbott D L

1984 *The apple tree: Physiology and management*. Grower Books: London.

Aggarwal, Arun and K. Sivaramakrishnan (eds.)

2001 *Agrarian Environments: Resources, Representation, and Rule in India.* Duke University Press: Durham.

Aggarwal, Arun

2001 State Formation in Community Spaces? Decentralization of Control over Forests in the Kumaon Himalaya, India. *The Journal of Asian Studies*. 60 (1): 9-40

Ahuja, Charanjit

1998 Himachal heads for 40% increase in apple yield, *Indian Express*, June 22. Chandigarh

Allan, N.J.R., G.W. Knapp and C. Stadel (eds.)

1988 *Human Impacts on Mountains*. New Jersey: Rowman and Littlefield.

Alvarez, Sonia E., Evelina Dagnino and Arturo Escobar.

1998 Culture of Politics and Politics of Cultures: Re-visioning Latin American Social Movements. Boulder: Westview Press.

Amin, Shahid

1998 Gandhi as Mahatma: Gorakhpur District: Eastern UP 1921-22'. In S*elected Subaltern Studies,* Ranajjit Guha and Gayatri Spivak Chakravorty (eds.). Pp. 78-135. New York: Oxford University Press.

Anonymous

2000 Snow Delights Apple Growers, *The Tribune*: Oct 5. Chandigarh.

2000 State of Schooling, *Indian Express.* July 11. Chandigarh

1997 Primary Education in India: Class Struggle, *India Today*. October 13

1999 De-schooled Society. *The Hindu.* February 7. Chennai

1999 Nepalis rescue apple harvest in HP. *The Hindustan Times,* August 18. Delhi

1998 Apple growers plan rally against Centre decision on imports. *Financial Express*, August 10. Delhi

1999 Himachal apples face Chinese onslaught. *The Hindustan Times,* April 3. Delhi

1999 Concern over import of apple. *The Tribune,* July 1. Chandigarh

Apple Growers Association
1997 Production Data Sheets. Kullu Valley, Himachal Pradesh, India.

Attwood, Donald *W*
1992 *Raising Cane: The Political Economy of Sugar in Western India.* Boulder: Westview Press.

Azad, K.C., R. Swarup and B.K. Sikka
1988 *Horticultural Development in Hill Areas (A Study of Himachal Pradesh).* Delhi: Mittal Publications.

Bagchi, Amiya Kumar.
1995 Dialectics of Indian Planning: From Compromise to Democratic Decentralization and Threat of Disarray. In *Industry and Agriculture in India since Independence, Vol. 2,*.T.V.Sathyamurthy (ed.). *Pp. 46-93.* New Delhi: Oxford University Press.

Baker, Mark J
1997 Common Property Resources: Theory and the Kuhl Irrigation Systems of Himachal Pradesh. India. *Human Organization* 56(2): 199-208.

Banaji, Jairus
1994 The Farmers' Movements: A Critique of Conservative Rural Coalitions. *In New Farmers' Movements in India*, Tom Brass (ed.). Pp. 228-246. London: Frank Cass.

Bandhopadhyay, D
1994 Reflections on Land Reforms in India since Independence. In *Industry and Agriculture in India since Independence.* Vol. 2, T.V. Sathyamurthy (ed.). New Delhi: Oxford University Press.

Banskota, Mahesh, Trilok S. Papola, Jurgen Richter
2000 *Growth, Poverty Alleviation and Sustainable Resource Management in the Mountain Areas of South Asia*. International Centre for Integrated Mountain Development (ICIMOD). Kathmandu: Quality Printers.

Bardhan, Pranab
1998 T*he Political Economy of Development in India.* Oxford University Press: New Delhi.

Bates, Robert H
1995 An Assessment of the New Institutionalism. In *The New Institutional Economics and the Third-World Development*, John Harriss, Janet Hunter and Colin M.Lewis (eds.) London: Routledge.

Berkes, Fikret and James S. Gardner (eds.)
1997 *Sustainability of Mountain Environments in India and Canada*. Winnipeg: University of Manitoba.

Bernard, Russel H (ed)
1998 Handbook of Methods in Cultural Anthropology. Walnut Creek: Altamira Press.

Bharadwaj, Krishna
1994 Regional Differentiation in India. In *Industry and Agriculture in India since Independence*, T.V. Krishnamurthy (ed.). Oxford University Press: Delhi.

Bharati, Agehananda
1988 Mountain People and Monastics in Kumaon Himalaya, in *Human Impact on Mountains.*, Allan, Nigel J.R., Gregory W. Knapp and Christoph Stadel (eds). Pp. 57-83. Totowa: Rowman and Littlefield Publishers.

Blunt, Mel, Keith Jeddere-Fisher, Kinsuk Mitra, Madhu Sarin
1999 *Forestry Project Impact Assessment Report*. Shima: Government of HP, Forestry Department and British Department for International Development, India

Blyn, George
1966 *Agricultural Trends in India, 1891-1947: output, availability and productivity*. Philadelphia: University of Pennsylvania Press.

Bose, Sugata and Ayesha Jalal
2000 *Modern South Asia: History, Culture and Political Economy*. New York: Routledge.

Bose, Sugata
1994 *Credit, Markets and the Agrarian Economy of Colonial India.* Delhi: Oxford University Press.

Bourdieu, P
1977 Outline of a theory of practice. Cambridge: New York.

Brass, Paul R
2000 The Strong State and the Fear of Disorder. In *Transforming India: Social and Political Dynamics of Democracy*, Frankel et. al. (2000). *Pp. 60-88.* Delhi: Oxford University Press.

Breman, Jan and Sudipto Mundle (eds.)
1991 *Rural Transformation in Asia*. Delhi: Oxford University Press.

Brosius, Peter J.
1999 Analysis and Interventions: Anthropological Engagements with Environmentalism. *Current Anthropology*. 40 (3): 277-309.

Browne, W.P
1988 *Private Interests, Public Policy and American Agriculture.* Lawrence, KS: University Press of Kansas.

Brush, S.B.
1976 Cultural Adaptations to Mountain Ecosystems: An Introduction. *Human Ecology* 4(2): 125-133.

Byres, Terence J
1998 *The Indian Economy: Major Debates Since Independence*. Delhi: Oxford University Press.

Calhoun, Craig, Edward Lipuma and Moishe Postone (eds.)
1993 *Bourdieu: Critical Perspectives*. Chicago: The University of Chicago Press.

Calhoun, Craig
1993 Habitus, Field and Capital: The Question of Historical Specificity. In *Bourdieu: Critical Perspectives*, Calhoun, Craig, Edward Lipuma and Moishe Postone (eds.). Pp. 45-61. Chicago: The University of Chicago Press,

Cerny, P
1990 *The Changing Architecture of the State*. London: Sage.

Chand, Kanwar P. and R. Swarup
1991 Appraisal of a Successful Marketing Cooperative in Himachal Pradesh. Shimla: Agro-Economic Research Centre, HP University

Chand, Ramesh
2000 Agricultural Development, Growth and Poverty in India's Mountain Region. In *Growth, Poverty Alleviation and Sustainable Resource Management in the Mountain Areas of South Asia*, Banskota, Mahesh, Trilok S. Papola, Jurgen Richter (eds.). Pp. 275-293. International Centre For Integrated Mountain Development (ICIMOD). Kathmandu: Quality Printers.

Chaudhuri, Pramit
1994 Economic Planning in India. In *Industry and Agriculture in India since Independence,* Satyamurthy, T.V (ed.). Vol. 2.. Pp. 94-115. New Delhi: Oxford University Press

Chauhan, Kewal Ram
1967 Legislative Proceedings. 4(2): 32. Shimla: HP Legislature and Secretariat.
1972 *Question Hour*. In Legislative Proceedings. 4(2):32. Shimla: HP Legislature and Secretariat.

Chetwode, Penelope
1972 *Kulu: The End of the Habitable World.* London: John Murray.

Chene, Des Mary
1997 Locating the Past. In *Anthropological Locations: Boundaries and Grounds of Field Science,* Gupta, Akhil and James Ferguson (eds.). Berkley: University of California Press.

Chmielewski, F
1992 Impact of climate changes on crop yields of winter rye in Halle (southeastern Germany), 1901-1980. *Climate Research* 2:23-33.

Cohen, Jean and Andrew Arato
1992 *Civil Society and Political Theory.* Cambridge, MA: MIT Press.

Cole, Ken
1999 *Economy-Environment-Development-Knowledge*. London: Routledge.

Cowen, M.P. and R.W. Shenton
1996 *Doctrines of Development*. London: Routledge.

Crumley, C L and Marquardt W H
1987 *Regional dynamics: Burgundian landscapes in historical perspective*. San Diego: Academic Press

Dahiya, Prem S. and Ranveer Singh
1997 Horticultural Development in Himachal Pradesh: Profitability, Policy and Prospects. *Indian Journal of Agricultural Economics*, 52(3): 592-599.

Dandekar, V. M
1994 *The Indian Economy: 1947-1992. Volume 1: Agriculture.* New Delhi: Sage Publications.

Darling, Malcolm Lyall.
1994 Prosperity and Debt. In *Credit, Markets and the Agrarian Economy of Colonial India,*, Sugata Bose (ed.). *Pp. 29-57.* Delhi: Oxford University Press.

Das, Ghanshyam
1985 *Institution of deota: a study in social and political interactions in a Kullu village*. Unpublished M.Phil Thesis. Shimla: HP University.

Davidson-Hunt, Kerril
1997 Class, Gender and the Commons in the Indian Himalaya. In *Sustainability of Mountain Environments in India and Canada* Berkes, Fikret and James S. Gardner (eds.), Winnipeg: University of Manitoba.

Department of Economics and Statistics
1997 *Statistical Outline of Himachal Pradesh*. Shimla: Department of Economics and Statistics

2000 *Economic Review*. Shimla: Himachal Pradesh Government Press.

Department of Horticulture
1999 *Udyan Vikas: tathya aivam ankade, ek drishti me* (Horticulture development: evidence and figures at a glance). Shimla: Department of Horticulture, HP Government..

Department of Horticulture
2000 *Spray Schedule*. Solan: Department of Horticulture, Y.S. Parmar University of Horticulture and Forestry, HP.

Department of Planning
1999 *Annual Plan* Shimla: Department of Planning, HP Government.

Dhanagre, D.N.
1983 *Peasant Movements in India, 1920-1950.* Delhi: Oxford University Press.

Directorate of Land Records
1998 *Annual Season and Crop Report*. Shimla: The Controller, Printing and Stationary, Himachal Pradesh.

Dirks, Nicholas B., Geoff Eley and Sherry B. Ortner (eds.)
1994 *Culture/Power/History: A Reader in Contemporary Social Theory*. Princeton: Princeton University Press.

Doornbos, Martin and Sudipta Kaviraj
1997 *Dynamics of State Formation: India and Europe Compared.* Indo-Dutch Series on Development Alternatives. New Delhi: Sage Publications.

Dreze, Jean.
2000 A Surprising Exception: Himachal's Success in Promoting Female Education. *Manushi* (112): 23-29.

Dreze, Jean and Amartya Sen (eds.)
1997 *Indian Development: Selected Regional Perspectives*. Delhi: Oxford University Press.

Dreze, Jean and Amartya Sen
1995. *India: Economic Development and Social Opportunity*. New Delhi: Oxford University Press.

Eckholm, E
1975 The Deterioration of Mountain Environments. *Science* 189 (9): 764-770

1976 *Losing Ground.* New York: Worldwatch Institute and Norton and Company, Inc.

Escobar, Arturo
1995 *Encountering Development: the making and unmaking of the Third World*. Princeton: Princeton University Press.

1996 Constructing Nature: Elements for a poststructural political ecology. In *Liberation ecologies: environment, development, social movements*, Richard Peet and Michael Watts (eds.). Pp. 46-68. New York: Routledge.

Ferguson, James
1990 *The anti-politics machine: development, depoliticization and bureaucratic power in Lesotho*. Cambridge: Cambridge University Press.

Frankel, Francine R.
1978 *India's Political Economy.* Princeton: Princeton University Press.

Fricke, T
1986 *Himalayan Households: Tamang Demography and Domestic Processes*. Ames: Iowa University Press.
1993 *Himalayan Households: Tamang Demography and Domestic Process*. Delhi: Book Faith.

Furer-Haimendorf, C.V
1964 *The Sherpas of Nepal: Buddhist Highlanders*. London: John Murray.

1979 *The Sherpas of Nepal: Buddhist Highlanders*. London: East-West Publication.

Gardner, Katy and David Lewis
1996 *Anthropology, Development and the Post-Modern Challenge*. London: Pluto Press.

Giddens, Anthony
1979 *Central Problems in Social Theory*. Berkeley: University of California Press.

Gill, Sucha Singh
1995 The Farmers' Movement and Agrarian Change in the Green Revolution Bell of North-west India. In *New Farmers' Movements in India,* Tom Brass (ed.). Pp.165-195. Delhi: Frank Cass.

Glantz, M H.(ed.)
1994 *Drought follows the plow: cultivating marginal areas.* New York. Cambridge: Cambridge University Press.

1998 *Societal response to regional climatic change: forecasting by analogy.* Boulder: Westview Press.

Grove, Richard, Vinita Damodaran and Satpal Sangwan (eds.)
1998 *Nature and the Orient: The Environmental History of South and Southeast Asia.* Oxford University Press: Delhi.

Guha, Ramachandra.
2000 *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*: Expanded Edition. Berkley: University of California Press.

Guillet, D.G.
1983 Towards a Cultural Ecology of Mountains: The Central Andes and the Himalayas Compared. *Current Anthropology* 24: 561-574

Gunn J D
1994 Global climate and regional biocultural diversity. In *Historical ecology*, Crumley C L (ed.). Pp. 67-99. School of American Research Press: New Mexico,

Gupta, Akhil
1995 Blurred Boundaries-. The Discourse of Corruption, the Culture of Politics and the Imagined State. *American Ethnologist, 2*2(2): 375-402**.**

Gupta, Akhil and James Ferguson (eds.)
1997 *Anthropological Locations: Boundaries and Grounds of Field Science.* Berkley: University of California Press.

1997 Discipline and Practice: "The Field" as Site. Method, and Location in Anthropology. In *Anthropological Locations: Boundaries and Grounds of Field Science,* Akhil Gupta and James Ferguson (eds.). Pp. 1-47. Berkley: University of California Press.

Gupta, Dipankar
1997 *Rivalry and Brotherhood: Politics in the Life of Farmers in North India*. Delhi: Oxford University Press.

Habermas, Jurgen
1989 *The Structural Transformation of the Public Sphere.* Cambridge: Polity.

1984 *The Theory of Communicative Action*. Vol. 1. Boston: Beacon Press.

Handelman, Howard (ed.)
1991 *The politics of agrarian change in Asia and Latin America.* Bloomington**,** Indiana University Press.

Harriss-White, Barbara
1996 *A Political Economy of Agricultural Markets in South India*: *masters of the countryside*. Thousand Oaks: Sage Publications.

Harriss, John
1982 *Capitalism and Peasant Farming: Agrarian Structure and Ideology in Northern Tamil Nadu*. Delhi: Oxford University Press.

Harriss, John
1991 Agriculture/Non-agriculture Linkages and the Diversification of Rural Economic Activity: A South Indian Case Study, In Breman, Jan and Sudipto Mundle (eds.) *Rural Transformation in Asia*. Delhi: Oxford University Press.

Hasan, Zoya, S.N. Jha and Rasheedudin Khan (eds.)
1999 *The State, Political Process and Identity: Reflections on Modern India.* New Delhi: Sage Publications.

Hasan, Zova
1995 Shifting Ground: Hindutva Politics and the Farmers' Movement in Uttar Pradesh. In New *Farmers" Mo*vements in India, Tom Brass (ed.). New Delhi: Frank Cass.

Heclo, Hugh
1978 Issue Networks and the Executive Establishment. In *The New American Political System,* A. King (ed.). Pp. 24-60. Washington: American Enterprise Institute

Herring, Ronald
1999 Embedded Particularism: India's Failed Developmental State. In *The* D*evelopmental State,* Meredith Woo-Cumings (ed). Pp. 276-306. Ithaca: Cornell University Press.

Herzfeld. Michael
2001 *Anthropology: Theoretical Practice in Culture and Society.* Malden, MA: Blackwell Publishers.

Horticulture Development: facts and figures
1998 Shimla. Directorate of Horticulture.

Ingold, T
1992 Culture and perception of the environment. In *Bush base: forest farm,* Culture, environment and development, Croll E and Parkin D (eds.). Pp. 39-56. London: Routledge,

Ives, J.D. and Messerli, M.
1984 Stability and Instability of Mountain Ecosystems: Lessons Learned and Recommendations for the Future. *Mountain Research and Development*: 4(1): 63-71

1989 *The Himalayan Dilemma: Reconciling Development and Conservation*. London: Routledge

Ives, J.D
1987 The Theory of Himalayan Degradation: Its Validity and Application Challenged by Recent Research. *Mountain Research and Development* 4 (1): 63-71

Ives. J D, Bruno M and Rhoades R E
1997 Agenda for sustainable mountain development. In *Mountains of the world*, Messerli, B. and Ives J D (eds.). Pp. 409-445. New York: The Parthenon Publishing Company.

Jankovic, Vladimir
2000 *Reading the Skies: A Cultural History of English Weather, 1650-1820*. Chicago: The University of Chicago Press.

Jenkins, Craig J.
1983 Resource Mobilization Theory and the Study of Social Movements. *Annual Review of Sociology* 9: 527-553.

Jessor, Richard, Anne Colby and Richard A. Shweder
1994 *Ethnography and Human Development: Context and Meaning in Social Inquiry*. Chicago: University of Chicago Press.

Jodha, N.S., M.Banskota and Tej Pratap
1992 *Sustainable Mountain Agriculture: perspectives and issues*. New Delhi: Oxford and IBH Publishing Co.

Johnson, Jeffrey C
1998 Research Design and Research Strategies. In *Handbook of Methods in Cultural Anthropology*, Russel Bernard (ed.) Pp. 131-173. Walnut Creek: Altamira Press.

Jordan D, Grant
1993 The pluralism of pluralism: an anti-theory, In *Pressure Groups*, Jeremv J,Richardson (ed.). New York: Oxford University Press.

Joshi, B.K
2000 Development Experience in the Himalayan Mountain Region of India. In *Growth, Poverty Alleviation and Sustainable Resource Management in the Mountain Areas of South Asia*, Banskota, Mahesh, Trilok S. Papola, Jurgen Richter (eds.). Pp. 137-171. International Centre For Integrated Mountain Development (ICIMOD). Kathmandu: Quality Printers.

Kanwar, Pamela
1990 *Imperial Shimla.* Delhi: Oxford University.

Kempton W, Boster J S and Hartley J A
1995 *Environmental values in American culture.* Boston: MIT Press.

Khachi, Jai Beharl Lal
1971 In Legislative Proceedings. Section 12 (11). April 8, 197 1. HP Vidhan Sabha and Secretariat.

Kishor, Sunita
1993 "May God Give Sons to All": Gender and Child Mortality in India. *American Sociological Review*, 58 (2): 247-265.

Kreutzmann, H
2000 Improving Accessibility for Mountain Development: Role of Transport Networks and Urban Settlements. In *Growth, Poverty Alleviation and Sustainable Resource Management in the Mountain Areas of South Asia*, Banskota, Mahesh, Trilok S. Papola, Jurgen Richter (eds.). Pp. 485-515. International Centre For Integrated Mountain Development (ICIMOD). Kathmandu: Quality Printers.

Kumar, Ravinder
1997 History of the State in India: Change and Continuity. In *Dynamics of State Formation: India and Europe Compared.* Indo-Dutch Series on Development Alternatives. Pp. 124-145. New Delhi: Sage Publications.

Kumar, Shanta
1990 *Proceedings of Vidhan Sabha*. Section *1(6):* 27" March, 1990. HP Vidhan Sabha and Secretariat.

Laclau, Ernesto and Chantal Mouffe
1985 *Hegemony* and Socialist Strategy: Towards a *Radical Democratic* Politics. London: Verso.

Lakhanpal, Bishan Dutt
1973 The sword of Mahapunjab still hangs over Himachal. In Himalaya Times. Vol. 33 (12): 9-12 August.

Lal, Kishori
1980 *Legislative Proceedings*. 2 (6): 23. Shimla: HP Legislature and Secretariat.

Lal, Ram
1990 *Legislative Proceedings*. 3 (2): 23. Shimla: HP Legislature and Secretariat.

Lamb M M
1985 *Climatic history and the future*. Princeton University Press. Princeton: New Jersey.

Lewis, John P
1995 *India's Political Economy: Governance and Reform.* Oxford University Press Delhi

Lindberg, Staffan
1995 The Shetkari Sangathana and the BKU. In New *Farmers' Movement in India,* Tom Brass (ed.). Pp. 95-125. London: Frank Cass.

Maine, Henry S
1879 *Village Communities in the East and the West* (3rd ed.). London

Melluci, Alberto
1980 The New Social Movements: A Theoretical Approach. *Social Science Information* 19(2): 199-226.

Migdal, Joel S., Atul Kohli and Vivienne Shue
1994 *State Power and Social Forces*. Cambridge: Cambridge University Press.

Mitchell, Timothy
1991 The Limits of the State: Beyond Statist Approaches and Their Critics.*American Political Science Review:* 85(l): 77-96.

Moench, M.
1989 Forest Degradation and the structure of biomass utilization in a Himalayan foothills village. *Environmental Conservation.* 16: 137-146

Mooney, Patrick H. and Theo J, Majka
1999 *Farmers' and Farm Workers' Movements in America.* New York: Twayne Publishers.

Mukherji, Partha Nath
1998 The Farmers' Movement in Punjab: Politics of Pressure Groups and Pressure of Party Politics. *Economic and* Political *Weekly 33(4): 12-25.*

Myrdal, Gunnar
1968 *Asian Drama: An Inquiry into the Wealth of Nations*. Harmondsworth, England: Penguin Books.

Nadda, A.L
1987 *Economics of apples*. Delhi: B.R. Publishing Corporation.

Nazarea, Virginia D (ed.)
1999 *Ethnoecology: situated knowledge/located lives*. Tucson: University of Arizona Press.

Negi, Thakursen
1971 In Proceedings of the Vidhan Sabha. Section 11 Part 1. H.P Vidhan Sabha and Secretariat Shimla.

Netting, Robert
1981 Balancing on an Alp: Ecological Change and Continuity in a Swiss Mountain Community. Cambridge: Cambridge University Press.

Nigh, Ronald.
1997 Organic Agriculture and Globalization: Associative Corporation in Chiapas, Mexico. Human *Organization* 56(4): 427-437.

Nordlinger, E
1988 'Return to the State: Critiques'— *American Political Science Review*, 82: 975-85.

Norgaard, Richard B
1994 *Development Betrayed: the end of progress and a coevolutionary revisioning of the future.* London: Routledge.

Olson, Mansur
1965 *The Logic of Collective Action.* Cambridge: Harvard University.

Omvedt, Gail
1993 *Reinventing revolution: new social movements and the socialist tradition in India.* New York: M.E. Sharpe.

Orlove B, Chiang J C H, and Cane M A.
2000 Forecasting Andean rainfall and crop yield from the influence of El Niño on Pleiades visibility. *Nature* 403: 68-71.

Ortner, Sherry B.
1994 Theory in Anthropology since the Sixties. In *Culture/Power/History: A Reader in Contemporary Social Theory*. Nicholas B. Dirks, Geoff Eley and Sherry B. Ortner (eds.). Pp. 372-412. Princeton: Princeton University Press.

Parmar, Y.S

1965 *Himachal: its proper shape and status.* Directorate of Public Relations, Himachal Pradesh Government,

1970 *Himachal Pradesh: Area and Language.* Directorate of Public Relations, Himachal Pradesh Government.

1971 Proceedings of the Vidhan Sabha. Section 12: Part 1. H.P. Vidhan Sabha and Secretariat: Shimla.

1970 *Himachal Pradesh: Case for Statehood.* Shimla: Directorate of Public Relations.

Parry M L

1978 *Climate change, agriculture and settlement*. Hamden, Connecticut: Archon Books.

Parry M L, Carter T R, Konijin N T (eds.)

1989 The impact of climatic variations on agriculture. Vol 1. Assessments in cool temperate and cold regions. Dodrecht: Kluwer Academic Publishers.

Pathak, Shekhar

1990 Himalayas necessary for ecological balance. *Himalaya Times*. May 1-6. Shimla

Patnaik, Prabhat

1998 Some Indian Debates on Planning. In *The Indian Economy: Major Debates Since Independence*, Terence J. Byres (ed.). Pp. 116-159. Delhi: Oxford University Press.

Peet, Richard and Michael Watts (eds.)

1996 Liberation ecologies: environment, development, social movements. New York: Routledge.

Polanyi, Karl

1985[1985] *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.

Post, J D

1985 *Food shortage, climatic variability, and epidemic disease in pre-industrial Europe.* Cornell University Press, Ithaca.

Pratap, U and T. Pratap

1997 Managed crop pollination: the missing dimension of mountain agricultural productivity. Discussion paper series no. MFS 97/1.

International Centre for Integrated Mountain Development
Kathmandu, Nepal

Rabinow, Paul
1984 *The Focault Reader*. Harmondsworth: Penguin.

Rangrajan, Mahesh
1998 Production, Desiccation and Forest Management in the Central Provinces 1850-1930. In *Nature and the Orient: The Environmental History of South and Southeast Asia,* Grove et al. (eds.). Oxford University Press: Delhi.

Rhoades, R.E. and S.I. Thompson
1975 Adaptive Strategies in Alpine Environments: Beyond Ecological Particularism. *American Ethnologist* 2: 535-51

Rhoades, Robert
1997 *Pathways Towards a Sustainable Mountain Agriculture for the 21st Century: The Hindukush-Himalayan Experience*. Kathmandu: International Centre for Integrated Mountain Development (ICIMOD).

Rhoades, R.E. and R. Booth
1982 Farmer-Back-to-Farmer: A Model for Generating Acceptable Agricultural Technology. *Agricultural Administration* 11: 127-137.

Richardson, Jeremy J.
1993 *Pressure Groups*. London: Oxford University Press.

Rootes, Chris
1997 Shaping collective action: structure, contingency and knowledge. In *The Political Context of Collective Action: Power, Argumentation and Democracy,* Ricca Edmondson (ed.) London: Routledge.

Rudolph, L.I. and S.H. Rudolph
1987 *In pursuit of Laxmi: 7he Political Economy of the lndian, state.* Delhi: Orient Longman.

Saberwal, Vasant K
1999 *Pastoral Politics: Shepherds, Bureaucrats and Conservation in the Western Himalaya*. Delhi: Oxford University Press.

2001 Environmental Alarm and Institutionalized Conservation in Himachal Pradesh, 1865-1994. In *Agrarian Environments:*

Resources, Representation, and Rule in India, Aggarwal, Arun and K. Sivaramakrishnan (eds.). Duke University Press: Durham.

Sahlins, Marshall.
2000 *Culture in Practice: Selected Essays*. New York: Zone Books.

Satyamurthv, T.V (ed.)
1994 *Industry and Agriculture in India since Independence.* Vol. 2. New Delhi: Oxford University Press.

Scott, James C
1998 *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have failed*. New Haven: Yale University Press.

Scott, M.J.,Rosenberg, N.J.,Edmonds, J.A.,Cushman, R.M., Darwin, R.F., Yohe, G.W.,Liebetrau, A.M., Hunsaker,C.T., Bruns, D.A., DeAngelis, D.L., Hales, J.M
1990 Consequences of climate change for human environment. *Climate Research* Vol.1: 63-79

Schultz. T
1964 *Transforming Traditional Agriculture*. New Haven: Yale University Press.

Sen, Amartya.
1997 Radical Needs and Modern Reforms, In *Indian Development: Selected Regional Perspectives*. Dreze, Jean and Amartya Sen (eds.). Pp. 1-27. Delhi: Oxford University Press.

Shabab, Dile Ram.
1972 *Legislative proceedings*.1(6): 24, April 4. HP Legislature and Secretariat.

Shah, Ghanshyam
1990 *Social Movements in India: a review of literature*. Newbury Park, CA: Sage Publishers.

Sharma A N
1997 *Growth, employment and poverty: Change and continuity in rural India*. New Delhi: Vikas Publications

Sharma, H.R
1996 *Mountain Agricultural Development Processes and Sustainability: Micro-Level Evidence From Himachal Pradesh, Indian Himalayas*. Kathmandu: International Centre for Integrated Mountain Development (ICIMOD).

Sharma,, L.R
1987 *The Economy of Himachal Pradesh: Growth and Structure*. Delhi: Mittal Publications.

Sharma, Pawan
1999 Heat destroys apple crop. *The Hindustan Times*, May 2. Delhi

Sharma, Rita
1993 *The new economics of India's Green Revolution: Income and employment diffusion in Uttar Pradesh*. Ithaca: Cornell University Press.

..

Shore, Chris and Susan Wright
1997 *Anthropology of Policy: Critical perspectives on governance and power*. London: Routledge.

Shastri, Dinanath
1990 *Legislative Proceedings*. 2(4): 40. Shimla: HP Legislature and Secretariat.

Shastri, Padmaji
1999 Poor Crops in Himachal Pradesh to keep apple prices high this season. *The Hindu*, July 23. Chennai

Shweder R
1995 *Thinking through cultures: expeditions in cultural psychology*. Harvard University Press. Cambridge: Mass.

Sillitoe, Paul
1996 *A Place Against Time: Land and Environment in the Papua New Guinea Highlands*. Amsterdam: Harwood: Academic Publishers.

Silverstein M and Urban G
1996 Natural histories of discourse. Chicago: University of Chicago Press.

Singh, Chetan
1998 *Natural Premises: Ecological and Peasant Life in the Western Himalaya*: 1800-1950.

Singh, Mian Goverdhan
1994 *Himachal Pradesh: History, Culture and Economy*. Shimla: Minerva Publishers.

Singh, Ranveer and B.K. Sikka
1989 Production and Marketing of Apple in Himachal Pradesh. Agro-Economic Research Centre, Himachal Pradesh University, Shimla. . (mimeo.)

1992 *Impact of Input Subsidies on Horticultural Development in Himachal Pradesh*. Agro-Economic Research Centre, Himachal Pradesh University, Shimla (mimeo.).

Singh, Ranveer
1997 Economics of Export Oriented Horticultural Crops of Himachal Pradesh. .Shimla: Agro-Economic Research Centre. Himachal Pradesh University, Shimla. (mimeo.)

Singh, Tapindra
1970 Resolution for Independent State. In *Himachal Pradesh: Case for Statehood,* Y.S. Parmar. Pp. 35. Shimla: Directorate of Public Relations.

Singh, Veerbhadra
1990 Legislative Proceedings. 2(4): 32. Shimla: HP Legislature and Secretariat.

Singh, Yogendra
2000 *Social Change in India: Crisis and Resilience*. Delhi: Har-Anand Publishers.

Sivaramakrishnan, K
1999 *Modern Forests: Statemaking and Environmental Change in Colonial Eastern India*. Stanford: Stanford University Press.

Skocpol, T
1995 'Bringng the State Back In: Strategies of Analysis in Current Research' in *Bringing the State Back*, Evans, P,B., Rieschemeyer, D. and Skocpol, T. (eds.), Cambridge: Cambridge University Press.

Smith, M.J
1993 *Pressure, Power and Policy: State, Autonomy and Policy Networks in Britain and the United States.* Pittsburgh:. University of Pittsburgh Press.

1990 *The Politics of Agricultural Support in Britain: The Development of* Agricultural Policy Community, Aldershot: Dartmouth.

Springer, Jenny
2000 State Power and Agricultural Transformation in Tamil Nadu. In *Agrarian Environments: Resources, Representations and Rule in India,* Arun Aggarwal and K. Sivaramakrishnan (eds.) Durham: Duke University Press.

Srinivas, M.R
1989 *The Cohesive Role of Sanskritization and other Essays*. Delhi: Oxford University Press.

Srivastava, Ravi S
1999 Rural Labour in Uttar Pradesh, India: Emerging Features of Subsistence, Contradiction and Resistance. *Journal of Peasant Studies*. 26 2&3 23-57

Stokes, Vidya
1990 *Legislative Proceedings*. 2(3): 38. Shimla: HP Legislature and Secretariat.

Strauss C and Quinn N
1997 A cognitive theory of cultural meaning. Cambridge: Cambridge University Press.

Thompson, M., M. Warburton and T. Hatley
1986 *Uncertainty on a Himalayan Scale: An institutional theory of environmental perception and a strategic framework for the sustainable development of the Himalaya*. London: Milton Ash Editions.

Tilly, Charles, Louise Tilly and Richard Tilly
1975 *The Rebellious Century: 1830-1930*. Cambridge: Harvard University Press.

Thorburn, S. S
1886 *Mussalmans and Money-lenders in the Punjab.* London.

The PROBE Team
1999 *Public Report on Basic Education in India*. New Delhi: Oxford University Press.

Thorner, Daniel
1964 Agricultural Cooperatives in India. Delhi: Asia Publishing House.

Touraine, Alain
1981 *The voice and the eye*. Cambridge: Cambridge University Press.

1985 An Introduction to the Study of Social Movements. *Social Research* 52 (4): 749-787

Turner, Victor
1967 *Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca: Cornell University Press.

Tyler, Stephen
1973 *India: an anthropological perspective.* Pacific Palisades. California Goodyear Publishing Company Inc.

Unniyal, Dwarka Prasad
1990 Hope amidst despair. *Himalaya Times*, April 17-23. Shimla.

1990 If horticulture goes Himachal will break. *Himalaya Times*, June ` 26-July 3. Shimla

1990 Horticulture: the backbone of Himachal Pradesh. *Himalaya Times*, July 17-23. Shimla

1990 Horticulture promotion- a national duty. *Himalaya Times.* July 28-30. Shimla

1990 The mountains of Parmar should not be allowed to slide into an abyss! *Himalaya Times*. August 6-15. Shimla.

1990 Breakdown of Horticulture will be catastrophic. *Himalaya Times*. August 6-15. Shimla

1990 Poverty is not the fate of mountains. *Himalaya Times*. August 22-29

Vaidya, C.S
1996 *Strategy for Development of Agriculture in Himachal Pradesh with reference to Economic Liberalization Policy*. Shimla: Agro-Economic Research Centre, HP University

Varshney, Ashutosh
1995 *Democracy, development and the countryside: urban-rural struggles in India.* New York: Cambridge University Press.

Verma, L.R
2000 *Natural Resources and Development in Himalayas*. Delhi: Malhotra Publishing House.

Wilson, G
1981 Interest *Groups in the USA.* Oxford: Clarendon Press.

Wright, Susan and Chris Shore.
1995 'Towards an Anthropology of policy', *Anthropology in Action,* 2 (2): 27-31.

Zurick, David and P.P.Karan
1998 *Himalaya: Life on the Edge of the World.* Baltimore: The Johns Hopkins University Press.