Chapter 6

LOCAL INSTITUTIONS AND INNOVATION IN JHUM

6.1 Objective

In the last chapter, we have analysed the various kinds of innovative activities associated with the practice of Jhum in Nagaland. For instance, we found evidence of innovative changes in the products, tools, and method of cultivation and distribution of products. We have seen that the existing social fabric, the system of governance importantly shape the innovative activities of these communities. We have also seen that some innovative activities, especially those sponsored by the governmental bodies, are often different from their traditional values and beliefs. In this chapter we analyse the role of institutional framework in shaping the trajectory of innovation in Jhum. We also attempt to analyse the implications of innovative changes in the tools and method of production in Jhum and distribution of Jhum outputs for the institutional structure of these communities.

The section 6.2 discussed the various definitions of institution, largely drawing upon the literature on institutional economics (6.2.1). The section also explores the types and categories of institutions (6.2.2). The role of institutions in shaping innovations of a society is also discussed here (6.2.3). The institutional framework of a traditional society is discussed in section 6.2.4. We see that the institutional framework of traditional societies is largely categorised as informal institution in the literature. We, therefore, have a detailed discussion of informal institution in section 6.2.5, and changes in informal institution in section 6.2.6. The discussions of these sections show that there is considerable overlap between informal institution and culture. Moreover, while the literature on the role of informal institution on innovation is few and far between, there is a considerable amount of literature on the role of culture on innovation. We, therefore, draw upon this set of literature (section 6.3) before proceeding to summarise the discussion and put forward our specific research questions in 6.4. We analyse our field observations in section 6.5, and section 6.6 puts the main argument of the chapter together.
6.2 Institutions: an Analytical Framework

6.2.1 Definitions of Institutions

In one of the earliest definitions of institution, Veblen (1919:26) defined institution as “settled habits of thought common to the generality of man” and “an outgrowth of habit”. According to Hamilton (1932:84), “institution connotes a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of people”. In other words, it may be used as a synonym for procedure, convention or arrangement. Institutions define the broad range of activities of human beings, while, at the same time, imposing a form upon these activities. In other words, institutions define the world of use and wont to which we imperfectly accommodate our lives (Hamilton 1932). According to Parsons (1940), institutions define the normative patterns of what constitutes proper, legitimate, or expected mode of action or social relationship.

Some definitions of institutions are less concerned with the normative aspects mentioned above. Schotter (1981), for instance, defines institutions as organisers of information. For Hodgson (2006) institutions are the accumulated body of knowledge. Past experiences are encapsulated in institutional rules, which guide the formation of further expectations about the future change. It is now well established that human beings are cognitively constrained in their calculative ability and explorations of alternatives and are only *boundedly rational* (Simon 1956). An institution in this context can serve as a framework to reduce uncertainties in human interaction and decision-making by shaping expectations about the environment (Sjostrand 1993). For instance, institutions like technological service systems reduce uncertainty about technical solutions. Similarly patent laws and other intellectual property rights laws reduce uncertainty about appropriation possibilities. Thus, institution acts as signposts, responsible for reduction of informational and computational burden of every economic man (*Homo economicus*).

Conceivably, the more an institution encodes expectations the more it reduces uncertainty and problems arising out of bounded rationality (Ostrom 1986).¹

¹ For Ostrom, ‘institutions’ can be defined as the sets of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained,
Institutions, therefore, are expected to manifest a behavioural regularity in a population of individuals confronting same decision situations (Witt 1989).

6.2.2 Types of Institutions

These definitions however do not distinguish between formal and informal institutions. North (1990) categorises institutions into two groups: formal and informal. Formal institutions are the rules of the game in a society. Alternatively, they are the humanly devised methods that constrain human behaviour (constitutions, laws). However, one can also offer a broader notion of institutions as a set of rules or "enabling constraints" that regulate and constitute behaviour (rather than only constraining it) (Nooteboom 1999: 39). Informal institutions, on the other hand, are spontaneously developed customs, traditions and beliefs, encircles a human being in a society. Consequently, they structure incentives in economic, social as well as political exchange of human beings.

Witt (2004) categorises institutions in three groups based on the way they emerge.

1. Spontaneously emerging institutions: Examples of this kind include customs, conventions, rules of conduct, norms of fairness, and inequality preserving rules. These institutions arise as spontaneous solutions to a social dilemma, though as a temporary phenomenon. Character-wise, these institutions are self-enforcing in nature. Actions are generally interplayed under the ambit of game theory. In some sense they are similar to the view of institutions as normative pattern as envisaged by Parsons (1940).

2. Voluntarily established, authority-based institutions: The examples are the authorities themselves (rules, sovereigns, governments, parliaments, and the subordination they demand, furthermore the regulations of interactions that the authorities stipulate and (try to) enforce – (property rights or the law). Such institutions result from purposive action on the part of usually many agents who may therefore always also tend to contest the existing institution(s). A main characteristic feature of these institutions is that they need to be enforced, at least up to a certain degree of compliance, in order to survive. The what aggregation rules will be used, what procedures must be followed, what information must or must not be provided and what payoffs will be assigned to individuals dependent on their actions.
means of enforcement may range from individual brute force, collectively practiced ostracism, to specialized enforcement agencies, with or without constitutional self-constraints.

3. Intentionally planned and implemented institutions: This type of institutions includes the examples of public and private bureaucracies and corporations. These institutions are designed and sustained on purpose by uncontested authority. This means, of course, that they presuppose already sufficiently effective formal institutions, i.e. enforcement of the authority, the entitlement rights, and the contracts on which they rest. Often, such corporate bodies are better subsumed under the concept of “organizations”.

4. However, these categorizations are not often meant to be watertight, and an institution in one group may share properties of others. Moreover, the dominant reason for the emergence of similar institutions may also differ across countries. Since the main objective of this study is to understand the role of institutions in the innovation dynamics, we now take a brief look at the functions of institutions in the context of innovation.

### 6.2.3 Importance Of Institutions in Shaping Innovation

Given that institutions reduce uncertainty in human interaction, a growing body of literature has addressed the impact of institutions on inherently uncertain activities of technological change and innovation. Edquist and Johnson (2000), in this context, elaborate on various related aspects. We briefly elaborate on each of them.

#### 6.2.3.a Managing Conflicts and Cooperation

Conflict has the potential to be a very serious problem in connection to innovation activities, especially given that it is one of the important factors, which get provoked at times of innovation. In other words, if technological change benefits new interests, a resistance cannot be ruled out from the beneficiaries of the old technology against the change. A simple example may be given in terms of conflict of interest between old aged workers and young workers with respect to a technological change. Since technological change often makes old skill obsoletes, in favour of new skills, it may

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2 See North (1990) for the difference between institution and organization.
benefit young workers at the cost of their older counterparts. However, by virtue of their already existing power, aged workers may be in a position to thwart the attempt and stall the very process of technological change. Alternatively, some changes in the institutional framework may take place to accommodate their demands. The existence of institutions like social security arrangements, education, and retraining rights are the examples of modifications in institutional structure, in such situations.

6.2.3.b. Providing Incentives to Innovation

There are different incentives, which are involved in learning and participation during the process of innovation. Some are of the pecuniary kind. They are- salary and wage schemes, income taxes exemptions, tax allowances, and inheritance rules. Temporary monopolization of knowledge such as copyrights, patents, trademarks are also important as incentives. Among the various non-pecuniary incentives, one may highlight the institutional arrangement of promotion through collective entrepreneurship by ensuring trust and sharing of skill and information. The incentives for communication and cooperation between various agents involved (or having the potential to be involved) in a process of innovation is another form of non-pecuniary incentive. These are all institutional set-ups that are responsible for generating incentives on the lines of innovation.

6.2.3.c. Controlling Innovation

Institutions are entities that introduce stability, rigidity, into the economy, and they may act as innovation brakes rather than the accelerators. Indeed, uncertainty in success is not the only source of uncertainty in an innovation process. An innovation may also throw up unexpected negative externalities, which are difficult to assess and evaluate a-priori. An existing institution giving high preference to stability in an economy may prohibit such technological activities, either explicitly or implicitly (laws against human cloning).

It is important, therefore, to recognise that institutions may have both supporting and retarding effects on innovation. The balance between them, however, may be very

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3 See Rosenberg and Birdzell (1986).
different between societies and economies, and may change over time. Also, technology has been a very important reason for institutional change. For the present study, however, we only focus on the change in informal institutions, as these are the main guiding principles of socio-economic behaviour in traditional societies in the absence of written, codified, rules. Before analysing the mechanism of change in informal institutions, we attempt to understand the structure of informal institutions, their functions, and types in more detail.

### 6.2.4 Institutional Framework in Traditional Society

In the categorization of North (1990), the institutional framework of the traditional societies can be understood as informal institutions. They are often spontaneously developed customs, traditions, and beliefs in a society. Informal institutions are also defined as socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels (Brinks 2003; North 1990; O'Donnell 1996; Carey 2000; Lauth 2000). Culture too plays an important role in shaping informal institutions (North 1990; Galvan 2004). According to Ullman-Margalit (1978) and Axelrod (1986), informal institutions are functional or problem solving in character. They provide solutions to problems of social interaction and coordination. The behaviour of tribal communities who practise *Jhum* in North-East India are guided and guarded by institutions, which are location-specific with social and cultural diversities reconciled with ecological conditions under which they are created (Ramakrishnan 2001).

For a better understanding of informal institution, following caveats are important to take note of. First, informal institutions should not be considered as weak institutions. Often, it is the ineffectiveness of formal institutions that rules on paper are widely circumvented or ignored. These are the cases where formal institutional weakness does not necessarily imply the presence of informal institutions. An example from O'Donnell's work mentioned about weak institutionalised structure in Latin American democracy that resulted in substantial abuse of executive authority.⁴ Subsequently in

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⁴ O'Donnell argued that in much of Latin America, the formal rules of representative democracy are weakly institutionalized. In the absence of institutionalized checks on executive power, the scope of permissible presidential behaviour widened considerably, which resulted in substantial abuse of executive authority. See O'Donnell (1994).
another work, O'Donnell (1996) highlighted how the factor of clientelism is responsible for reducing the effectiveness of representative institutions. His works show two distinct patterns of formal institutional weakness that are departed from formal rules. The former is best understood as non-institutional behaviour, whereas the latter is an informal institution.

Secondly, informal institutions should be distinguished from informal behavioural regularity. It is to be noted that not all patterned behaviour is rule-bound or rooted in shared expectations about other's behaviour (Hart 1961; Knight 1992). On this issue, Daniel Brinks highlights on the nature of removing one's hat in church and one's coat in a restaurant. The former case is an informal institution, whereas the latter is simply a gesture of behavioural regularity (Brinks 2003). Not removing one's coat in the restaurant do not trigger any social disapproval or sanction that might act just oppositely in case of the former. A behavioural regularity can be considered as an informal institution only when it responds to an established rule or guideline, inviting external sanction the moment it is violated (Waterbury 1973; Darden 2002; Manion 1996; Della Porta and Vannucci 1999).

Thirdly, it is important to maintain the distinction between informal institutions and informal organisations (like clans, mafias) (Huntington 1968). This need to be done along the similar line the formal organisations (such as political parties or unions) are distinguished from formal rules (North 1990).

It is, however, often difficult to distinguish informal institutions from culture. Cultures generally help shape informal institutions, and the frontier between the two is a critical area for research (North 1990; Galvan 2004). While shared values are important constituent of culture, informal institutions only demand the existence of shared expectations. As a result, culture can be more rigid than informal institutions, or a particular set of informal intuitions can be valid across varied (albeit in a minor way) cultural contexts. We come back to this issue in section 6.3.

In the next section, we categorise the informal institution in different types based on the relationship with formal institution (Lauth 2000).

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5 Shared expectations may or may not be rooted in broader societal values. See Fajardo (2000); Van Cott (2003).
6.2.5. Types of Informal Institution

Informal institutions are often typified according to its relationship with formal institutions. Sometimes, there are found to be two, contrasting, categories. The first category sees it as a problem solving or functional entity, which provides solutions to problems of social interaction and coordination (Ullman-Margalit 1978; Axelrod 1986). This in a way also helps in enhancing the efficiency or performance of formal institutions (Weingast 1979; Weingast and Marshall 1988; March and Olsen 1989). Quite orthogonal to this way of categorisation, the second category portrays informal institution as problem creating (or dysfunctional), especially for effective functioning of formal institutions.6 In recent studies, it has been traced that informal institutions do, at times, reinforce or substitute formal institutions.

To understand these arrangements, it is necessary to develop a typology based on two dimensions. The first dimension is based on the degree of convergence/divergence between formal and informal institutions. Distinction here is brought through the informal rules that produce a substantively similar or different result expected from a strict and exclusive adherence to formal rules. The second dimension reflects the effectiveness of the relevant formal institutions. Effective formal institutions actually constrain or enable political actors' choices. Where formal rules and procedures are ineffective, actors believe the probability of enforcement (and hence the expected cost of violation) will be low.7 The figure below (figure 6.1) presents these categories.

The types located in the upper left (complementary) and the lower right (competing) cells correspond to the "functional" and "dysfunctional" types that dominate the discussion in much of the literature. The figure also depicts two rather less discussed types: accommodating and substitutive that allows us to make sense of other, less familiar institutional patterns.

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6 Situations like clientelism and corruption often undermine the performance of formal democratic, market, and state institutions. See O'Donnell (1996); Böröcz (2000); Lauth (2000); Collins (2002a).

7 Effectiveness does not mean efficiency. History is littered with examples of inefficient institutions that nevertheless effectively shaped actors' expectations. See North (1990).
Table 6.1 A Typology of Informal Institutions

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Effective Formal Institutions</th>
<th>Ineffective Formal Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent</td>
<td>Complimentary</td>
<td>Substitutive</td>
</tr>
<tr>
<td>Divergent</td>
<td>Accommodating</td>
<td>Competing</td>
</tr>
</tbody>
</table>

Source: Helmke and Levitsky (2004: 728)

6.2.5.a. Complementary Informal Institutions
It represents the informal institutions that coexist with effective formal institutions where actors expect the enforcement of rules that exist on paper. The outcome is convergent in nature and enhances efficiency by facilitating the pursuit of goals within the formal institutional framework (Lauth 2000; March and Olsen 1989).

6.2.5.b. Accommodating Informal Institutions
In combination with effective formal institutions, this type of informal institution produces divergent outcomes where actors, albeit disliking the formal rules, remain unable to change or openly go for violation of the former. Hence, these institutions may not be efficiency enhancing but maintain the stability of formal institutions by dampening the demands for any change.

6.2.5.c. Competing Informal Institutions
It represents the case where informal institutions coexist with ineffective formal institutions. In this type, there is no enforcement mechanism for complying with formal rules. This in a way enables the actors to violate or ignore the rules. The outcome is divergent in nature, where one needs to violate one set of rules in order to comply with the other.

6.2.5.d. Substitutive Informal Institutions
The substitutive informal institution is a case in point where formal institutions are largely ineffective in nature. This type of institution is found where state structures are weak or lack authority (Lauth 2000).
6.2.6 Institutional Change

Although designed, primarily, to provide stability to a system, institutions do change. Moreover, there is little disagreement that change and evolution of an institution would depend much on its type, origin, and objectives. It is believed that there are (at least) three basic reasons for change in institutional structures (Elster 1983; Knight 1992).

First, there are accidental changes: no forces of natural or social necessity seem to be at work for such changes with no prominent causal mechanisms. What happens just happens. It is in a characteristically post-modernist turn of phrase, which also effectively captures the highly contextualized spirit of many micro historical explanations, purely a matter of contingency (Rorty 1989). However, it may be noted that such forms of change are rarely observed in the realm of formal institutions.

Secondly, a change might be evolutionary, mainly due to technological change. These models often borrow biological metaphor in analysing change in institutional pattern. According to these models, the initial variation might have occurred utterly at random, as a matter of pure accident and chance. But, there are some selection mechanisms at work, usually competitive in nature, which picks some variants for survival (Nelson and Winter 1982; Williamson and Winter 1991; Axelrod 1984, 1986; Ellickson 1991). According to Veblen (1919) radical technical change and technological revolutions has been one such selection mechanism, which have repeatedly, broken institutional barrier, provoked institutional change, and generated new institutions. Freeman and Perez (1988), in their theory on techno-economic paradigms, however, argue that institutional adaptations also tend to accompany incremental technical change, besides the radical ones. Edquist and Johnson (2000) argue in the same spirit that every innovation leads to change in institution through motivating a different kind of interactive learning between various agents involved in the process of development, and use of the said technology. In addition to technical innovation, organisations also promote institutional change. According to North (1990), organisations are the ‘players of the game’, often set up in consequence of the opportunity set provided by the existing set of constraints (institutions). They,

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8 The distinction between ‘soft’ and ‘hard’ institutions may be useful for understanding institutional change. In many cases soft institutions are more easily adaptable and open to incremental changes than hard institutions, and on average hard institutions may be more durable than soft ones.
however, may become a major agent of institutional change, often unintentionally, through their attempts to accomplish their objectives.

Third, a change can be a product of intentional intervention. In other words, the change might be the product of the deliberate interventions of purposive goal seeking agents. Those agents might be either isolated individuals or organised (interest) groups (French 1979). However, an institutional change in the direction of organised groups is more likely because of their highly concentrated nature. Indeed, high costs of organising small unorganised interests (general people) reduces the probability of effective lobbying on their part and may result in a direction of institutional change that favours organised and powerful interest groups, with serious (adverse) normative implications regarding equity and redistribution. However, institutions sometimes bring about unintended consequences as well, where an intentional intervention may benefit only some, or all, or even none of the intentional agents (Knight 1992). Of course, this type of change is mostly observed in the realm of formal institutions.

6.2.6.a. Path of Institutional change

We have discussed that formal institutions are created by design (policy or strategy) while informal institutions are more likely to develop spontaneously. But, formal institutions cannot be designed without taking informal institutions into account. As pointed out by North (1990), revolutionary changes in formal institutions are not possible because effective functioning of formal institutions often calls for their efficient coordination with informal institutions, which are much slower to change. Hicks (1969) also points out that the emergence of institutions is often a long-term process including both minor and radical changes, in which existing institutions condition new ones. The complementarities with other institutions and learning encapsulated within an institution have, therefore, an important bearing on the nature of institutional change. Effectively, these factors give rise to gradualism in institutional change. Conceptualising institutions the organisers of information, or

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9 See, for instance, Richardson 1993.
10 Such gradualism is often known as ‘path dependency’. The most simplified version of path dependency that history matters. In other words, this concept implies that every successive act in the development of an individual, an organisation, or an institution is strongly influenced by, and dependent on the path (experience and evolution) previously covered. See David (1985, 1988, 1994), Arrow (1994), Rizzello (1997) among others. However, the concept of path dependence is often
accumulated body of knowledge, as argued before, the reasons for gradual changes in institutions can be located in the way information feedback works between events and the environment (Mokyr 1991), and, thereby, new knowledge is generated (Nootenboom 1997).

Role of information feedback and knowledge generation in institutional change has made it possible to relate institutional change with human cognitive processes. The concepts of Schema, cognitive frame (Anderson 2000), and shared mental models (Johnson-Laird 1983, Denzau and North 1994) have been used to link individual (or collective) cognitive change with change in institutional design. This process involves perceiving, constructing, making sense of the world around an individual (Hodgkinson 2003). The idea so developed then stored in the form of mental models, belief systems, and knowledge structures (Weick 1979, 1995; Walsh 1995). All these forms are perceived by an individual to bring an order in his or her environment, which provide both creative ideas and new insights in contrary to the biases and inertia.\(^{11}\)

Schemas represent categorical knowledge, pertaining to an object or an event, according to a ‘slot’ structure (Anderson 2000: 155). Values in these slots or attributes are, often, assigned on the basis of past experience with the event. Since prior learning and adaptation is a social process, these schemas or frames can be assumed to function as socially shaped filters (Witt 2000) that guide human decision making by shaping their response pattern to an emerging problem in the environment.\(^{12}\)

Cognitive frames are, therefore, central to understand why individuals might stick to a particular mode of perceiving the environment. Individuals can develop a shared cognitive frame about an event through interpersonal communication and exchange of views (Witt 1998). A parallel development has taken place in the field of institutional economics to conceptualise institutions as shared mental models. For Mantzavinos et. al. (2004), shared mental models are internal representation of institutions, and are

\(^{11}\) Refer Simon’s (1991) “bounded rationality” problem.

\(^{12}\) Cognitive learning can be of two types, namely learning through own experiences and vicarious learning by observing others. For details on vicarious learning see Bandura (1986, Chapter 2).
shaped by inter-personal interaction of individual mental models. Mental models, in turn, reflect the influence of social values and customs in perceiving and interpreting an environmental situation. All these scholars point out that schemas, cognitive frames, and mental models are the cognitive units of institutional change. These are also the bases of stability that an institutional framework intends to provide. They are also slow to change giving rise to gradualism in institutional change. Their inertia results from their embeddedness in social values and customs as well as due to complexity of social processes that, finally lead to the development of shared collective view (shared mental models or shared cognitive frame) of a problem situation. As far as institutions are repository of knowledge, transfer of human knowledge that is required to bring about a change in institutional structure depends, once again, on social interaction and the development of shared understanding and common interpretative schemes (Polanyi 1967). Institutional change thus requires, and results in, substantial adjustments at the human cognitive level. Besides the cognitive factors, institutions (especially the informal ones) are also slow to change because of their interdependence with other institutions, often encapsulated in ‘culture’.

In fact, as far as institutions are based on shared expectations, and culture is an embodiment of shared social values and norms, institutions can safely be assumed as a sub set of culture. The literature on informal institutions and innovation is scarce. We, therefore, draw upon the literature on the various aspects of culture and innovation to analyse our findings. Note that the basic objective of this chapter is to analyse how various institutions of the Naga society has shaped the way they adopted to various kinds of innovations we have discussed in the last chapter, further shape the institutions in these societies.

6.3. Culture – Some Concepts and Definitions

Social changes are imminent from the adoption of new technologies. Certain inertia to change is also inherent in all societies. However, some societies are more conservative, risk averse and resistant to change than others. Quite often, this
dissimilarity is attributed to difference in ‘culture’. It is defined as an inclusive system of communication, which incorporates the biological and technical behaviour of human beings with their verbal and nonverbal systems of expressive behaviour. It is the sum total of a way of life, including such things as expected behaviour, beliefs, values, language, and living practices shared by members of a society, or a region; It consists of both explicit and implicit rules through which experience is interpreted. In reality, in some way, everything in culture is argued to cultivate reason and, thereby, cultivates the human being (Jaroszynki 2007: 219-221).

For Wolf (1999), the concept of culture allows one to unify realms, which might otherwise look disjoint. For instance, the relationship between people’s material relations with the world, social organisation and configurations of ideas. According to Wolf (1999), people use their ideas as guides to act upon the world and change it. As that activity brings in a change in the world and the social relations in which people are enmeshed, people reappraise these relations of power and their cultural constructs. The function of culture is to establish modes of conduct, standards of performance, and ways of dealing with interpersonal and environmental relations that will reduce uncertainty, and increase predictability. It influences behaviour and explains how a group filters information. Cultural meanings render some forms of activity normal and natural and others strange or wrong (Douglas 2004).

In economics, Nobel Laureate Douglas North discusses culture within the maximisation framework. He treats culture as a robustly practical way of life responding to changes in prices and costs and drawing the economic system along with it (North 1981). He sees that culture is also a resource for finding justifications. He recognises its forensic function: it provides theories, which explain why things must be done thus and not otherwise, it makes informal rules and judges whether they have been breached, and if so, what penalties are due.

13 The “cultural theory” pioneered by Mary Douglas (Douglas 1973/1982, 1978, 1987), and further developed by a group of anthropologists and political scientists (Thompson, Ellis, and Wildavsky 1990; Adams 1995; Hood 1998; Wildavsky, Chai and Swedlaw 1998), sets out four ways of organizing, justifying and perceiving social relations: individualism, hierarchy, egalitarianism, and fatalism. It postulates that these four cultures are in permanent contention in each conceivable domain of social life. Thus, the theory makes it possible to perceive a wide, and ever-changing, cultural and social variety while still allowing for general propositions about social and political life.
DeMaggio (1997) tries to establish that culture has cognitive underpinnings, and can be interpreted as shared schematic representation of environment. However, culture is more inert than individual institutions. It is this cognitive underpinning of culture, which allows us to incorporate culture in our methodological framework. The dynamics of change in culture, like informal institutions, can be located in the way human beings organise knowledge and develop a shared worldview about the environment.

### 6.3.1. Innovation and Culture

Culture has a profound influence on the innovative capacity of a society. A society's values shapes innovative activities by providing social direction to the process of technological change. The social organization of a culture tends to operate as a source of authority, responsibility, and aspiration, thus influencing the course of technological advance and the creation of material culture (Herbig 1994). Barnett (1953: 5), on this remarked, “a number of not yet fully identified cultural, psychological, social, and institutional arrangements must first exist before people will be moved to obtain, create, use and exploit technology to their benefit". Culture itself, within a system, influences both the inquisitiveness of the members of the society and their tolerance for new ideas, and, therefore, the rate of discovery and innovation (Hofstede 1980). Thus, hard work, long hours, and dedication to change and to the establishing of a new venture may or may not be considered a virtue, depending on the cultural milieu. Margaret Mead reflects on the cultural costs of innovation in the following way:

“To the Chinese, the introduction of power machinery meant that he had to throw over not only habits of work but a whole ideology; for dissatisfaction with the ways of his fathers in one particular meant doubt of the father's way of life in all it aspects. If the old loom must be discarded, then 100 other things must be discarded with it, for there are somehow no adequate substitutions.” (Cited in Herbig 1994: 51).

Existing cultural conditions determine whether, when, how, and in what an innovation form will be adopted. If the behaviour, ideas, and material apparatus, which must

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14 Lewis Mumford noted that the history of technology will be far more significant when technology is considered in its dynamic social context. As cited in Jamison (1989).
accompany the use of innovation, can affect improvements along lines already laid down in the culture, the possibilities of acceptance are much greater (Saxon 1954). Thus, technology follows culture and culture follows technology.

The barriers to technological change can also be conceptualized in cultural terms. This can be assessed while understanding the basic values of the group, the concepts of right and wrong, the nature of the articulation of the elements of the culture, and the fundamental fit or integration of its parts (Foster 1962). Culture thus influences tolerance of new ideas and inquisitiveness (Wallace 1970). Often this property of culture has been extended to imply that level of innovation within a society is directly proportional to the encouragement and status given to entrepreneurial efforts (like creativity) within the culture (Shapero and Sokol 1982).

In the classic book named “Innovation: The Basis of Cultural Change,” H.G. Barnett (1953) postulated a positive correlation between the individualism of a society and its innovative potential. He found that there is a greater likelihood of new ideas when an individual is given a greater freedom to explore and express opinions. Value of freedom is argued to be more pronounced in an individualistic society in comparison to a collectivist society. Also, the domain of intellectual property right is well marked in such a society. Thus, the psychological characteristics of independence, achievement, and nonconformity, all of which have been found to encourage innovation, are contemplated to be more commonly present in individualistic societies (Shane 1992). Below we present some of the key differences between a collectivist and an individualistic society, as summarised by Hofstede (1992). 16

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15 Primitive societies are generally collectivistic in its structure. A collective (other-directedness) orientation implies 1) an emphasis on diffused relationships, that is, relationships not limited to a particular domain or function, 2) a pan-ethical approach to action, emphasizing social objectives in decisions, 3) an intergenerational time perspective that considers the rights of both current and future generations, and 4) an emphasis on collective harmony and discipline. In contrast, an individualistic orientation (an inward, self-oriented view) implies 1) the welfare of society is best served by allowing people to pursue their own economic self-interest, 2) an emphasis on the importance of guaranteeing individual freedom and self-expression, 3) an emphasis on self-sufficiency and control, and 4) derivation of pride from one’s own individual accomplishments. See Table 6.2.

### Table 6.2: Key Differences between Collectivist and Individualist Societies

<table>
<thead>
<tr>
<th>Collectivist</th>
<th>Individualist</th>
</tr>
</thead>
<tbody>
<tr>
<td>People are born into extended families which continue to protect them in exchange for loyalty.</td>
<td>Everyone grows up to look after other in-groups him/herself and his/her immediate (nuclear) family.</td>
</tr>
<tr>
<td>Identity is based in the social network to which one belongs.</td>
<td>Identity is based in the Individual.</td>
</tr>
<tr>
<td>Employer-employee relationship is perceived in moral terms, like a family link.</td>
<td>Employer-employee relationship is contractual, supposed to be based on mutual advantage.</td>
</tr>
<tr>
<td>Management is management of groups.</td>
<td>Management is management of individuals.</td>
</tr>
<tr>
<td>Relationship prevails over task.</td>
<td>Task prevails over relationship.</td>
</tr>
<tr>
<td>Collective interests prevail over individual interests.</td>
<td>Individual interests prevail over collective interests.</td>
</tr>
<tr>
<td>Private life is invaded by group (s).</td>
<td>Everyone has a right to privacy.</td>
</tr>
<tr>
<td>Opinions are predetermined by group membership.</td>
<td>Everyone is expected to have a private opinion.</td>
</tr>
<tr>
<td>Laws and rights differ by group.</td>
<td>Laws and rights are supposed to be same for all.</td>
</tr>
<tr>
<td>Dominant role of the state in the economic system.</td>
<td>Restrained role of the State in the economic system.</td>
</tr>
<tr>
<td>Economy based on collective interests.</td>
<td>Economy based on individual interests.</td>
</tr>
<tr>
<td>Ideologies of equality prevail over ideologies of individual freedom.</td>
<td>Ideologies of individual freedom prevail over ideologies of equality.</td>
</tr>
<tr>
<td>Harmony and consensus in society are ultimate goals.</td>
<td>Self-actualization by every individual is an ultimate goal.</td>
</tr>
</tbody>
</table>

Source: Hofstede (1992)

We, however, have pointed out in chapter 5 that assigning credit to individual innovators is often to be a reflection of belief in linear time, rather than a reflection of such social parameters. Interestingly, most individualistic societies believe in linear time, while many collectivist societies believe in non-linear, cyclic time, where such association between creation and creator is not made directly.
Innovation is difficult in a society that is static in nature.\(^\text{17}\) Opposite to it, a dynamic society on the other hand promotes innovation. This dynamic orientation is brought by factors - willingness to face uncertainties, taking balanced risks, urgency and timeliness, and readiness to accept change.\(^\text{18}\) Hofstede (1992) further indicates that societies, which score high on individualism and low on the power dimension, have a higher economic growth and a greater tendency to innovate. The greater a society stresses social hierarchy, the less the innate innovativeness of that society tends to be (Shane 1992). This can be witnessed in a system where there is a strong presence of bureaucratic control and in hierarchical societies based on rules and procedures. Change which is brought about by innovation thus tend to be slow in its pace when countered by the hierarchical system. The two elements i.e. innovation and hierarchies are, therefore, argued to be mutually exclusive to each other.

For our analysis, we particularly focus on three features of culture, which have also received attention in the discourse on institutional design of traditional societies and their transformation, namely, property rights, labour, money & market.

6.3.1.a. Property

The concept of property and the related discourse is often argued to have a colonial origin, and is linked with the emergence of capitalism (Peters 1998). According to Peters (1998), it may be misleading to discuss the complex, non-exclusive patterns of access and the use characteristic of pre-capitalist land tenure in terms of property relations. One therefore needs to bring the component of social relations while studying property under a dominant ‘folk’ view, generally persisting in the primitive or collectivist societies (Firth 1965). This way, property relations in the collectivist societies can be approached not as relations between persons and things but as social relations between persons with respect to things (Peters 1998; Hann 1998). These social relations could be a “bundle of rights” as outlined by Henry Maine (1861) in *Ancient Law* where a basic distinction is made between rights in things and the rights in persons that people held by virtue of belonging to specific social groups and

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\(^{17}\) Innovation takes place only during acute condition.  
\(^{18}\) Mokyr (1991) indicated openness to new information, willingness to bear risks, religion, and value of education all matter in generating technological progress within a society. Also See Rothwell and Wissema (1986); Beteilte (1977).
political communities.\textsuperscript{19} These rights are further emphasized by Gluckmann (1965) in understanding the mode of delegation in a political hierarchy, especially while working on land tenure system in Africa. According to him, the typical African king delegated rights to regional chiefs, who in turn delegated these rights to the village headman where the plots are allotted to the households for the settlement. Gluckmann (ibid.) referred it as an ‘estate of production’, which, by contrast, is understood as ‘estates of administration’ in the colonial discourse. Gluckmann’s analysis was designed in part to correct the errors and abuses of colonial administrators, who had sometimes treated chiefs or kings as owners in a European sense, and neglected to take into account, their obligations toward their subjects. In other cases, colonial officials classified apparently unused land as ‘wasteland’ in order to transfer it into the ownership of the colonial power, ignoring the customary rights of indigenous groups on these lands.

One important contribution to this end is made by Franz and Keebet von Benda-Beckmann (1999). They apply the notion of layer not to the social structure of particular societies, as is done by Gluckmann (1965), but to social organisation. The most overarching layer is designed by the norms of a cultural tradition (or ‘ideology’). This first layer is called ‘cultural -ideological’ layer. The second layer consists of political and legal regulations, which may come in a plurality of ways and specify, for example, the form in which objects are to be held and whether or not they can be alienated. This layer is called “legal – institutional” layer. Layer three consists of the ‘social relations’ of property. This layer includes, for example, the particular land use or inheritance patterns and the way they may be tied to particular forms of kinship. This layer also includes whether and how these uses and patterns will be more or less egalitarian. Finally, at the layer of ‘practices’ the actors may reinforce the patterns of the other layers or they may initiate changes. It emphasizes on the complexity and systemic embeddedness of property (Hann 1998), which must be analysed at all four of these layers. Changes may proceed at differential rates at the different layers. Thus, it might be difficult, or even impossible, to reach at a precise date of an overall transformation of the property regime (Hann 2005).

\textsuperscript{19} Marcel Mauss’s study of The Gift (1990 [1925]), in which exchange was predicted upon transformations in the ways in which people relate to each other through things, in other words upon property.
As is well known, a primitive or traditional society emphasises more on the notion of the philosophy of commons. Individual rights, under such a doctrine, is limited, if not absent. However, common property rights are not open access system. While in case of latter, there exists no authority to exclude anybody from using the property; community can possess necessary authority to prevent any non-member of a community from using a common property (Ostrom 2000). Ostrom (2000) further emphasises that property rights are often a ‘bundle of rights’ consisting rights on access, withdrawal, management, exclusion, and alienation. We reproduce the text from Schlager and Ostrom (1992) to understand these rights (as mentioned in Ostrom 2000: 339):

- **Access:** The right to enter a defined physical area and enjoy non-subtractive benefits (for example, hike, canoe, sit in the sun).
- **Withdrawal:** The right to obtain resource units or products of a resource system (for example, catches fish, divert water).
- **Management:** The right to regulate internal use patterns and transform the resource by making improvements.
- **Exclusion:** The right to determine who will have access rights and withdrawal rights, and how those rights may be transferred.
- **Alienation:** The right to sell or lease management and exclusion rights.

Conventionally, in the economics literature, private ownership is regarded as better than community ownership because of the provisions of alienation (Ostrom 2000). This implies two things: first, selling or leasing of properties would ensure it is used in the most economically efficient way. Secondly, with the help of a clear rule of access and exclusion, the overuse of a property would be avoided, leading to overcoming the free rider problems. Absence of free rider problem would also serve as an incentive to invest in properties for improvement. However, many scholars have pointed out that absence of private ownership is not the key reason for overuse and resource degradation. Larson and Bromley (1990) show that poor resource endowment, low income and high discount rate can lead to overuse and resource degradation in many forms of property rights, including private ownership. Ostrom (2000) further refers to many empirical studies showing effective resource use and management under common property rights in various parts of the world. Moreover,
if we look at the issue as 'bundle of rights', then many authorities or users under a so-called common property rights may also have clearly defined rights on access, withdrawal, management and exclusion-giving incentive for long term investment to improve the stock of resources. Thus, various characteristics of a private property right system may be present even under a common property right system. In the absence of an alienation right, one may not be able to sell or use land as mortgage though. However, it assumes existence of a perfect market for credit, which may not be a reality.

Ostrom (2000), in fact, summarises certain attributes of the participants, which enhances the performance of a communal property right system. These are:

- When participants can have access to accurate information about the condition of resources and potential benefits, costs and risks associated with it at a low cost.
- When participants share generalised norm of reciprocity and trust.
- When participants can develop a low cost monitoring or regulatory framework.
- What group of users is relatively stable.
- Participants plan to live in that place for a long time, and expect their offspring to use the resource system. In such a situation, they will discount the future at a lower rate, leading to more sustainable use of resource.
- They use collective choice rules, rather than the extreme rules like unanimity and control by few.

One conclusion easily emerges: a transition from common property rights to private property rights is neither automatic nor easy, since they depend on various shared norms of behaviour. Such shared norms of behaviour also shape the way individuals pay importance to acting in ways that is viewed as right and proper, irrespective of immediate consequences of these acts (Coleman 1987). When an individual has strongly internalized a norm related to keeping promises, for example, the individual suffers shame and guilt by breaking it. If the norm is shared with others, the individual may also be subject to considerable social censure for taking such an action. When a community is guided by the philosophy of commons, one may
reasonably assume that such norms of reciprocity and belief in collectivism would be quite high.

Further, property relations are often guided by nested rules, making these relations quite stable. According to Kiser and Ostrom (1982), there are three levels of rules that cumulatively affect the actions taken and outcomes obtained in using CPRs (Common Property Resources). The rules are - operational rules, collective-choice rules and constitutional-choice rules. The first rule is responsible for the day-to-day decisions made by the appropriators. This rule is concerned with time, mechanism, and location of withdrawing resource units. It also identifies the monitoring authority, as well as the mechanism to regulate, such systems. The same set of rules determines the extent and the nature of information about the system to be exchanged along with any reward penalty scheme associated with these actions. The second category of rules is argued to influence the operational choices where the policies about CPR management are formed. The third category of rules are the overarching set of rules, and acts as fulcrum in bringing changes to the first as well as the second category of rules. One can think of the linkages among these rules and the related level of choices actions (See fig 6.1).

**Figure 6.1: Linkages Among Rules and Levels of Analysis.**

<table>
<thead>
<tr>
<th>Rules</th>
<th>Constitutional</th>
<th>Collective choice</th>
<th>Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Analysis:</td>
<td>Constitutional Choice</td>
<td>Collective choice</td>
<td>Operational choice</td>
</tr>
<tr>
<td>Processes:</td>
<td>Formulation</td>
<td>Policy-making</td>
<td>Appropriation</td>
</tr>
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<td></td>
<td>Governance</td>
<td>Management</td>
<td>Provision</td>
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<tr>
<td></td>
<td>Adjudication</td>
<td>Adjudication</td>
<td>Monitoring</td>
</tr>
<tr>
<td></td>
<td>Modification</td>
<td></td>
<td>Enforcement</td>
</tr>
</tbody>
</table>

Source: Ostrom (2001: 170)
The process of appropriation, provision, monitoring, and enforcement take place at the operational level. The process of policy-making, management and adjudication of policy decisions occur at the collective-choice level. Finally, formulation, governance, adjudication and modification of constitutional decisions are argued to take place at the constitutional level. Changing these rules at any level will increase the uncertainty that individuals faces. As we have already argued rules provide stability of expectations, and efforts to change rules rapidly can reduce that stability. According to our discussion of cognitive factors, sudden and abrupt changes disturb the shared mental models as or schema of individuals about the objective and mechanism of these rules. Further, it is usually assumed to be easier to change the operational rules than the constitutional – choice rules since the latter is more deeply embedded in the culture and ideologies of the society than the former.

6.3.1.b. Labour
Karl Marx analysed the rule of labour in the context of capitalism where it is treated as a marketable commodity. Capitalism organises labour through the wage relationship. Wage relationship is, however, only one of the ways that labour can be organised in a productive way. On this, Eric Wolf (1999) argues that there are three main means of organising labour to extract value from those who produce it by their work: kinship, tribute and capitalism. While kinship system mainly works on family labour, tributary system organises labour by force (Durrenberger 2005). Each of these processes defines a characteristic mode of production with its own characteristic forms of distribution and social relations. These ways of organising labour also has their own beliefs, values and practices that might make them appear inevitable and self-perpetuating. The schemas, or shared mental models they create are, therefore, quite rigid. It is evident from the attempt made by Durrenberger (2005) to locate these practices and understandings in culture. As discussed, kinship system is formed by the acts of engendering and sharing blood, living together and eating common food. This system is often more resilient than a capitalist system in sailing through ‘bad periods’ (say, bad harvest) since effort level is not necessarily determined by expected profit

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20 These levels exist whether the organized human activity is public or private. Also see Boudreaux and Holcombe (1989).
The concept of wage is not common in this society, as community members themselves participate as the labour force in the agricultural field. Profit motive in this society is perceived as social capitals, which help in developing good relationship with the community members.

6.3.1.c. Market and Money

Both market and money operate on an economic base. An economy's base is the social and material space that a community, or association of people, make in the world (Gudeman 2005). Comprising shared material interests, an economy connects members of a group to one another (Gudeman 2005). Quite often, economy is made synonymous with existence of market. However, ethnographers have extensively argued and showed that that, historically, economy includes more than market, or the market-like exchange of goods and services. This is not only true for pre-industrial societies, but also for industrialised modern societies (Patterson 2005). From an anthropological perspective, economy covers the acquisition, production, transfer and use of things and services. For example, material things are produced and processed outside formal markets, and many transfers take place through practices such as social allotment and apportionment, inheritance, dowry, bridewealth, bloodwealth, indenture and reciprocity, each mode, again, having a variety of expressions (Strathern and Stewart 2005; Yan 2005). According to Gudeman (2001), economy contains two realms: realms of community and realms of market or impersonal trade. Both these realms are found in all economies. The form of these realms, however, varies across time and space. These two faces of economy are of intertwined nature, often making it difficult to identify the border, which separates them (Achian and Demsetz 1973). Communities may be embedded in one another, or they may overlap, and differ in interests and internal structure. Nevertheless, communities are held together by shared interests that constitute their base and networks of relationships. These networks can be thick or thin sets of ties that vary in strength and importance. Through such community connections, things are appropriated, created, and possessed which

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21 Granovetter (1973) identifies networks as having strong and weak ties, and suggests that weak ties may lead to more rapid diffusion of information.
maintains the relationships. Nevertheless, while, communities are more or less linked to economic processes, not all their performances are economic in nature.

Markets, in contrast, revolve on impersonal trade and exchange. However, these exchanges may be mixed with communal ties, as in case choosing trade partners or opting for open-ended contracts with people belonging to same ethnic group. But, in principle, the relations between people, and between them and things, are contractual in market trade. The forms and nature of contracts vary, often, across size of market. The trades taking place within a local market are surrounded by rules that may be tacit or customary, where often agreement is sealed by a handshake. However, when markets are large with anonymous participants, the rules usually are more explicit and the agreements are specified and written.

This brings us to the use of money in traditional societies. Although many such societies had ‘moneystuff’ (or special-purpose money),\(^{22}\) rather than the general-purpose money that serves as a uniform standard of exchange and use in market economics.\(^{23}\) This is due to the reason that the economy (or what we say as ‘pre-capitalist economy’) in this society were *multicentric*, having two or more 'spheres of exchange'.\(^{24}\) For Durkheim (1965), a traditional society has two circuits of social life. One, the everyday, short term, individuated and materialistic. The other circuit is the social, long term, collective and idealised, even spiritual. Market transactions fall into the first category and, according to Durkheim (1965) all societies seek to subordinate this sphere to the conditions of their own production, which is the realm of the second category (Polanyi 1944). The importance of money, however, has increased many folds in western societies giving it the distinction of a social force all of its own. The rest of the world, however, apparently retains the ability to keep it in its secondary place (Hart 2005).

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22 See Polanyi (1944), Strathern and Stewart (2005); Yan (2005).
23 The word ‘money’ comes from Juno Moneta, whose temple in Rome was where coins were *minted*, and most European languages retain ‘money’ for coinage. Moneta was the goddess of memory and mother of the Muses. Her name was derived from the Latin verb *moneo*, whose first meaning is ‘to remind, bring to one’s recollection’. For the Romans, money, like the arts, was an instrument of collective memory that needed divine protection. As such, it was both a memento of the past and a sign of the future. See Hart (2005).
24 In contrast, capitalist (market) economies are by definition *unicentric*, because everything, even the factors of production, circulates in an economy unified by the market principle and the universal solvent, general-purpose money.
6.4. Synthesis and Research Questions

Institutions are important in bringing stability in human behaviour. They also shape changes in human behaviour. For effective functioning, both formal and informal institutions have to be complimentary to each other. Any effective change in the overall institutional structure has to ensure that changes in formal and informal institutions are synchronised with each other. Informal institutions, which focus on customary values and tradition, also have cognitive underpinning. The change in informal institution is steered by the human cognitive process embodied in mental models, cognitive frames, or schema. All these elements result in bringing a gradual change in the overall structure of an informal institution. The practice of Jhum in the traditional societies in Nagaland is strongly embedded in local knowledge and belief structure, encapsulated in informal institutions. However, there is not much literature on how informal institutions shape innovation. We, therefore, take help of the literature on culture and innovation, being aware of the fact that informal institutions constitute only a subset of culture. We take three components of culture, each of them being an (informal) institution, for our analysis. These components are property rights, labour relations and money & market. Focusing on these three aspects, we now put forward our basic hypothesis and research questions to be analysed with the help of primary data in the next section.

Our key hypothesis is that various local institutional norms in Nagaland have importantly shaped the nature and the dimensions of innovation. We, in particular, explore how local institutional norms have shaped innovations in crop diversity and patter, tools, method of cropping and distribution of Jhum outputs. We have the following set of research questions:

1. It is well articulated in the secondary literature (mentioned in chapter 3) that Nagaland has rich cultural diversity. We examine how this cultural diversity gets translated in the domain of institutional diversity in Nagaland, focusing particularly on rights on Jhumlands.

2. What, if any, are the implications of institutional diversity for innovative activities of the various tribes in Nagaland.
3. We have seen that common property rights can consist of several bundle of rights. What is the characteristic of common property rights on Jhumland in Nagaland. Also, what are the implications of such broader rights for innovation activities?

4. Cognitive processes importantly shape perception about environment, and, hence, institution. We examine what are the factors involved in shaping their perception about the various schemes introduced by the government.

6.5 Institutions and Innovation in Jhum: A Field Based Analysis of Nagaland

In this section we present our analysis based on our field observations.

6.5.1 Institutional Diversity in Nagaland

We have discussed in chapter 3 that rich tribal diversity exists in Nagaland, and decentralised local institutions often guide their practice of shifting cultivation. In this context, it is important to note that much of the authority of local institutions is derived from a special provision of the Indian Constitution (Article 371A), which has been instrumental in protecting the tradition and customary laws of the state. As a result, local institutions have not come in conflict with other set of formal institution of this country. This testifies the validity of the argument that changes in formal institutions are often shaped by prevailing informal institutions. Presumably, a preference for these local norms has led to a demand for this constitutional provision. This provision remains a cornerstone to policy making in the State. It has ensured protection and preservation of the unique traditions and customary laws of the State.

Article 371(A) of the Indian Constitution provides that any act of the parliament, relating to religious, social and customary practices of the Nagas and those relating to land and its resources shall not apply to Nagaland unless it is ratified by the State Assembly.
The community rights on all land and territory in the State, unless otherwise acquired by the Government, have provided for community ownership of assets, which is looked after by the Village Council in every village. As per the ‘The Nagaland Village and Area Council Act, 1978, the Council has special powers to maintain law and order and administer justice within the village boundaries in accordance with the customary laws, and usages. Section 15(1) of the Village Council Act provides that “the village shall ... have full powers to deal with internal administration of the village”. The Councils act as the village courts in accordance with the powers entrusted under the Rules for Administration of Justice and Police in Nagaland, 1937. In case of disputes between villages, two or more Village Councils can settle the dispute in a joint session. Both these provisions thus exempted Nagaland from following certain rules framed by the Government of India which would have come in conflict with their rules prevailing in their society.

During our field visits we also found evidence of institutional diversity across tribes. Historically, among the Konyaks of Mon district, the Anghs (king) have been the most powerful people, whose words were treated as law. For the Semas of Zunheboto district, the monarchy was the form of governance, where the Chief possess the absolute power. In both cases there was a Council of Elders to assist the highest authorities. The bases of selection of king were “their bravery in war, skilful democracy, richness in the farm of cattle and land, or power of oratory in contrast to the hereditary system in which the office of the king passes to the eldest son of the death of his father” (Yonuo 1975: 15). The Aos of Mokokchung district and the Lothas of Wokha district do not have monarchy. Rather, the Village Councils are the main governing authority. Among Lothas, however, the members of Village Councils are not elected members. They are chosen from the group of elderly people. Aos, on
Changki village, however, hold regular elections for the Village Councils. The ancient Ao villages were the symbols of republican form of the government. Entire social and political system of the Aos was structured under the system of *Putu Menden* (the Council of Elders).²⁷ It is noteworthy that elderly people play a significant role in the institutional bodies of all tribes. Like the importance of trees in indigenous societies, elders are also respected for their deep experience with the system. This is particularly important given that no written records of past behaviour are kept by these societies.

In the present period, the Village Council is the overall authority to look after the administration in the villages. They are also the owners of *Jhumlands*. Villages where *Anghship* and Chieftainship are present, as in Mon and Zunheboto district, however, have retained the Anghs or the Chiefs as the owner of their community owned lands. In case of Mokokchung and Wokha district, the ownership belongs to the Village Council itself. This is important for our analysis given that almost 90% of land in these districts is used for *Jhum* cultivation (SHDR- Nagaland 2004). We have already emphasised that *Jhum* is practiced under common property system. Almost 92% of lands are community owned and therefore, governed by customary laws that regulate the forests and *Jhumland* in Nagaland. *Jhum* lands are divided into ‘*Jhum* blocks’ to enable the communities to sustain the practice by allowing only one block to go under cultivation each year. Each family/household is allotted a plot in this block to practice *Jhum*. The plot, therefore, comes under individual ownership of the family for two/three years depending upon the tenure of the cropping phase. During this phase, the families retain the rights of access, withdrawal, and management of the land. Once the phase ends, the family shifts its base to allotted lands in another plot, leaving the field as fallow for years. The decision-making capacity regarding the period of fallow is, however, retained with the Village Councils. Thus one can see that *Jhumlands* also provide individual bundle rights for temporary period, keeping, nonetheless, the rights of exclusion and alienation in the hands of the community.

²⁷ The system of theirs got appreciation from various British Administrators and scholars during the colonial period. Verrier Elwin, wrote, “Each village amongst the Aos is a small republic, and each man is a good as his neighbours, indeed, it would be hard to find anywhere else more thoroughly democratic communities. Head men, Tatars, so existed but their authority are very small.” Hutton, in fact, found them more close to Europeans in their governance structure than other Indian communities. See Elwin (1969: 324).
An interesting situation emerges in Chuchiyimlang village, in Mokokchung district where outmigration of younger generation has created problems in the labour force utilised in Jhum. As a result, the Village Council has given the permission to people to settle in their village from outside. The council has also given permission to the community members to allow leasing of their plot to those villagers who are new in the village. This is an evidence of limited right of alienation to private individuals (or families). The lease agreements, however, hardly involves monetary payments. They mostly involve crop sharing.

What are the implications of this institutional diversity for local innovations? We could not find any evidence of diversity in the behaviour regarding crop diversity, cropping pattern or fallow cycle management. However, there seems to be a diverse pattern in their behaviour regarding marketing of Jhum crops. Conceptualising market as a dimension of innovation, we found difference in the attitude of the villagers. We have already discussed in chapter 5 that Angh of the Chenmoho village takes it as his responsibility to ensure food to those villagers who are poor and deprived of food. So, any surplus food productions in the village first get redistributed among the village members. Only the residual can be permitted to go to outside market. Whereas in case of villages in Mokokchung, Zunheboto and Wokha districts, the decision to market Jhum crops is taken by the family members themselves. Overall, the members of Village Councils in these villages seem to be more in favour of marketing their Jhum crops. According to them, the exposure to market helps the community in sustaining the economic base of the society. Besides, the exposure to market also reportedly gives the villagers more scope to incorporate new innovative ideas in their agricultural practice.

We also find that various kinds of individual bundle rights are feasible under the overall community right system. The right of management is often seen as conducive to promote innovations by individuals. We have indeed observed individual effort to
introduce new crop variety in their respective lands. We, however, fail to observe any clear association between the two. As has been already mentioned in chapter 5, individuals do not boast, or expect reward for, their innovativeness. They, rather, implement a novelty after discussing it in the Village Council.

6.5.2 The Church, the Morung and their Implications for Shared Mental Models Towards Government Schemes

We do observe a varied pattern of responses to marketisation of Jhum crops. We also observe diversity in their response pattern to various governmental schemes. Note that these schemes often promote various market oriented individualistic entrepreneurship. We argue that various cognitive processes over a long period of time have shaped this pattern of behaviour. In particular, we discuss the role of ‘modern education’ under the sponsorship of the Church and the State, and the conventional system of education under the aegis of Morung.

6.5.2.a. Morung

The Morung, or communal dormitory, was the most important and traditional school of the Naga tribes within the village community. Among some tribes, such as the Ao, one Morung served as the dormitory for all the young unmarried men of a khel (cluster of clans). A similar one, called ‘Tsuki’, was maintained for the young unmarried women. These institutions were the common property of the khel. The Morung was the informal school of a Naga child. All the clan, khel and village history, folklores and legends, songs, traditional practices, including the laws governing community living, were taught here. Practical life skills, problems and successes were sorted out

26 In Ao dialect, the Morung is called as ‘Ariju’, where Arr means ‘enemies’ and Ju means ‘to watch’. Therefore, Ariju means ‘the watch place of enemy’. See Singh (2008).
27 Khel is the land owned by different clans in a village. See the details in the SHDR-Nagaland, (2004).
28 J.P.Mills called it as ‘Public School’ because it used to impart experiences of the elders and social values. See Mills (1973: 5).
and shared; each learned from the experiences of others. Any questions could be asked and answered in the privacy of this fraternal environment.

In the present period, Morung has lost its role due to changes brought by ‘modern’ amenities, in most cases, after the spread of Christianity (Singh 2008), Morungs have been replaced by modern schools. Today, a visitor to any village in Nagaland would find a Morung often as a deserted place, where it stands alone as a museum article glorifying its past history. The long history of Morung and its role however have a deep impact upon the village community, specially upon the elders. These elders generally become the Village Council members. Their decision is influenced mostly by the lessons they learnt in Morung during their childhood. Due to the presence of their authority, often the decisions made in the Village Council go for the well-being of values and customs associated with the community. One can get the impression on how any new or innovative idea gets oriented when it comes in touch with the Village Council. We tried to explore and study the responses to the schemes, which attempted to convert Jhum fields to terrace fields. Note that, promoting terrace cultivation in Jhum field has become a part of programmes in Government Schemes since the Fifth Five Year Plan (1974-1979).

While interacting with the villagers, I found that a key source of opposition comes from the change in land use pattern that terrace cultivation entails. Almost all the villages cited the factors related to land rights as a key problem with this plan. The main problems, as cited by them, are given below.

- The ownership of property change from collective to individual, whenever Jhum field is replaced by terrace. To elaborate, unlike the temporary bundle rights on access, withdrawal and management, individuals or families will require a permanent right in terrace lands.
- The production from newly convert terraces was low and farmers were apprehensive about sustaining such high input oriented activities in the subsequent years. Terrace cultivation usually demands high and timely input as high yielding seed varieties are usually planted in the wet terrace fields.
- The diversity of crops possible to be raised at one time on terrace land is very low, compared to traditional Jhum fields. The multilayered and multi-species crops of the Jhum meet the requirement and life style of the indigenous
communities much better over time and space than single species cereal/non-cereal grown in terraced land.

- *Jhum* land, due to its land-use system, is 'untouchable' by law, as it cannot be mortgaged to bank or financial institution against loans. The conversion to permanent ownership through terrace paves the way for making it a saleable commodity.

- Terrace cultivation often requires use of labour, who are not from the communities, giving rise to change in labour relations existing in these societies.

- Thus, although in a stage of decay, the ideals of *Morung* still dominates the thinking of people, especially elders, in Naga villages. This shared view may have also influenced their response to alternative modes of agriculture.

### 6.5.2.b. Church

The influence of Church, on the other hand, is on the rise. The Church today enjoys an overwhelming influence on the Naga people. Initially though, the general attitude of the early Christian missionaries was not so cordial towards the tribal traditional practices and culture. Over the years, as we have already discussed in chapter 3, the Church sought to become accommodative towards various cultural practice and social beliefs of the Nagas. However, the influence of Church has also promoted individualism in the society.

If we look how Church influences innovation in *Jhum*, we find education as the key factor. The influence of Church has brought a new form of education system in the village level. The school education is formally structured and designed to educate the villagers about modern societies and practices. It is quite different from the
Morung system which is informal and respond, mainly, to male members of the society. The formal school encourages co-education where boys and girls can learn together. Once, the schooling education is completed, the young generation generally go out of village for higher education. The exposure to higher education gives them job opportunities in Government departments and other autonomous organisations. These officers when they return to their native villages often play the role of changing agent in influencing the Village Councils by placing the government’s policies and action. As most villages in Nagaland have less labour force, due to out-migration of younger generation, villagers often find problems in tackling issues relating to Jhum. These situations sometimes make the Village Councils, accept the government policies on Jhum.

The government officials here take the help of Church as the mediator in many occasions whenever meetings are to be conducted with the Village Council members. The educated (through ‘modern’ education) priests (’Father’ or pastor) mediate between the villagers and the agency. It is the church, which helps mediate in any Jhum-related activity. The faith shown by the Church on the government schemes on Jhum regulation have made it possible for government departments to influence the Village Council members.

The role of pastor or priest is however important as their views often influence the discussion. During the third field visit, when I went to Kohima for a National Seminar, in an occasion I got an opportunity to interact with a “Father” of St. Joseph College, Jokhoma.31 His view on Jhum was shaped by the colonial belief as the understanding of newer science where it is considered as a necessary evil to environment. Next to him, I saw another priest who was a local Naga. The response provided by the former priest did not satisfy him. As the former priest was senior to him, he decided to keep silent. Later on when I met village pastor in Chui village (Mon district), I was taken aback by his acknowledgment of cultural importance of Jhum. He was also a local Naga from Mokokchung district. Thus, people within the Church may also have an influence on village level decision making. Moreover, this difference of view also reflects the fact that the influence of the Church is not, perhaps, all pervasive, leaving space for traditional belief and values to influence the

31 The Father hailed from the state of Kerala.
behaviour of these communities.

We find an interesting co-existence of values propagated by the modern education and by the Morung. The out-migration of the educated younger generation has mostly left the villages, leaving the administration of these villages entirely in the hands of old and elderly people. The Village Council members are mostly the elders who were trained in the Morung's system where the priority of Jhum is understood within a common property system. The agencies on the other hand, bring in those policies which aim at regulating Jhum and promoting terrace/wet-rice cultivation, a land-use system which proposes permanent ownership and individual rights on property. The difference in this 'shared view' often results in lesser acceptance of government schemes, or avoiding collaborative innovation. In case of districts like Mokokchung, Wokha and Zunheboto, government collaboration with Village Councils are more as compared to Mon district. Four reasons are possibly responsible for this diverse pattern of responses. These are differential exposure to Modern Education, presence of village representatives in government sectors, arrangement in Institutional mechanism, and unavailability of cultivable land. (See table 6.3).

Table 6.3: District wise Variation in Attitude to Governmental Schemes

<table>
<thead>
<tr>
<th>District</th>
<th>Institution</th>
<th>Tribe</th>
<th>Orientation to Market</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mokokchung</td>
<td>Putu Menden</td>
<td>Ao</td>
<td>High</td>
<td>Better coordination with government schemes</td>
</tr>
<tr>
<td>Mon</td>
<td>Anghship</td>
<td>Konyak</td>
<td>Low</td>
<td>Redistribution mechanism within the village</td>
</tr>
<tr>
<td>Wokha</td>
<td>Democratic</td>
<td>Lotha</td>
<td>High</td>
<td>Better coordination with government schemes</td>
</tr>
<tr>
<td>Zunheboto</td>
<td>Chieftainship</td>
<td>Lotha</td>
<td>High</td>
<td>Scarcity of cultivable land, make the community inclined towards occupation like piggery business and cash cropping.</td>
</tr>
</tbody>
</table>

Source: Field Work

Finally, we examine the implications of these innovative changes that are brought about by the various schemes on the labour relations and market processes in Naga
society.

6.5.3. Labour, Money, and Market

6.5.3.a. Labour

Employing a person for "Labour" is not traditionally followed in Nagaland. In Jhum, the labour relation is reciprocal and kinship based. It is the family members and the community members who provide support to any village farmer whenever he seeks it. In return, the farmer helps the other community members when their need arises. Thus, labour in this society bears a value, which is culturally conceived and is aimed at bringing community feelings. While discussing about the importance of community relationship in Sungratsu village (Mokokchung district) with the Village Council Chairman, I came across an incident where a villager lent his food grains to a fellow villager to support the latter's yearly survival. The villager gave this with the belief that similar support would be reciprocated to him when his need would arise. When I enquired to know what binds such acts of reciprocity, I was told it is the sense of duty or 'feeling good' to keep one's promises that ensures the sustainability of this mechanism. Interestingly, he did not mention about 'village level sanction', or 'punishment' as the driving force! Although such sanctions might be present, the villagers seem to have internalised the values that these sanctions try to develop.

The nature of labour relations present in Nagaland possibly stands a chance to get modified due to change in the land-use system. The conversion of Jhum to

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32 Haimendorf (2004: 112) "... the buying and selling of slaves was not considered quite right by my Waikching friends. Perhaps it was that they had already unconsciously adopted a few of the standards of the plains, to which they lived so near; for they told me indignantly that the people of several villages to the south used to sell even their own brothers and clansmen. But this raises the wrath of Gawang, the god of heaven, who punishes the offenders even during their life-time. Whoever sells a human being into slavery will never have a son, and will die early".
Terrace/Wet-Rice cultivation has resulted in hiring 'wage' labour, which has, hitherto, been an alien concept in a traditional Naga society. The wage labourers are brought from the valleys in Dimapur and neighbouring state of Assam, where terrace/wet-rice cultivation is immensely done. Along with migrant labour, there is also a possibility of entry of new cultural traits, increasing the possibility of further changes in their institutional structure.

6.5.3.b. Money and Market

Market existed in traditional society through reciprocity and redistribution, as mentioned earlier in Chapter 5. The exposure to 'modern' market however has brought a change in the modus operandi of traditional business. Beside this, the incorporation of wage factor associated with labour in Naga society has prioritised the value of 'money' in the present period. Ironically, the demand of market forces have brought a change in the 'resource units' (crops grown in Jhum), effecting the 'resource system' (here Jhum). As an example, the profit made through the sale of secondary crops/cash crops have resulted in cultivating less primary (cereal) crops in the Jhum field. The shift has led to decrease the amount of grains stocked in the village granary. For villagers in Sungratsu (Mokokchung district) and Changki (Mokokchung district), it has affected the spirit of agricultural festivals, where distribution of surplus food grains among the village community have traditionally remain a valued custom. One can foresee the possibilities on how it might result in affecting the community bondage in the long run.

Market has also given a new identity to village individuals. The recognition has been impregnated through entrepreneurship. Women through their initiative and
cooperation have developed a special niche here. For instance, in Wokha village (Wokha district), exposure to Kohima market, have improved the monetary status of women. This has also motivated them to form their own Hoho (Union), a mouthpiece voicing their concern. An official of the state horticulture department mentioned during an interview, about a woman from Khensa village in Mokokchung district. She has show entrepreneurial ability through promoting ginger production in her kitchen garden. The sale of ginger in the (modern) market has brought good revenue to her which villagers replicated (the model) after witnessing her success.

6.5.4 Analysis

Due to the presence of the Article 371A of the Indian Constitution, Naga people can be governed by their traditional informal institutions in an uninterrupted manner. Following our discussion in section (6.2.5), we categorise it under the substitutive and the competing informal institutions. To recollect, the substitutive informal institution is a result of combination of an effective informal institution and an ineffective formal institutions with a compatible outcome that is convergent in nature. The competing informal institution, on the other hand, refers to non-existence of any formal rules. The role of formal institutions like statutory laws has no influence in the internal mechanism of the community. Even the use of money was minimum. Exchange was done by items like brass disc, pigs, and salt in many villages.

However, in the recent years,
Jhum regulating schemes introduced through various external agencies like government departments/autonomous organisations have been altering these modes in a significant way. These schemes came with the objective of bringing innovations in Jhum cultivation where issues like economic emancipation and livelihood are also targeted. The Church played role of a mediating agent in bringing this transformation. Thus, a tendency to converge the, hitherto non-functional, formal institution with the informal institution can be seen. This is witnessed in case of selling the secondary/cash crops in Kohima market, where entrepreneurship is facilitated through the various formal institutional regulations. The code of rules is written and has to be followed by each salesperson. Thus, villagers, in some cases, despite their schematic distinction, have accepted the policies of the government. We categorise this unison in the category of accommodating informal institution.

Exploring further the elements of common property, we find that there exist some individual bundle rights, giving community members temporary rights of withdrawal and management (even alienation in one case). However, a shared mental model respecting the norms of reciprocity and communality prevails despite the presence of such individual rights. These shared views seem to guide their behaviour even today. In terms of innovative behaviour, we argue that the presence of this shared view might explain why they do not remember names of individuals who introduce innovations in Jhum.

This is also revealed in the example of reciprocity in seed exchange by the farmer of the Sungratsu village (Mokokchung district). This behaviour flagged the influence of social norms on the individual behaviour. It highlights the condition when an individual has strongly internalized a norm related to keeping promises. To be specific, for example, the individual suffers shame and guilt when a personal promise is broken. If the norm is shared by others, the individual is also subject to considerable social censure for taking an action considered wrong by others. The repercussion on such norms of behaviour due to increase in individualistic aspirations and the logic of self interest that market promotes, is difficult to judge a priori.

Rules in the traditional society of Nagaland are *de facto* in nature (Wade 1988). These rules are found in three levels - operational rules, collective-choice rules and constitutional-choice rules (Kiser and Ostrom 1982). The operational rules are
applicable when an individual farmer makes a decision to bring any improvement in his field while doing Jhum. For instance, in case of seed, the farmer has the right to choose the better seeds for cropping. The collective-choice rules are made in the Village Council, where decisions are normally based on (cultural) norms. An example of such rule is the decision to avoid plantation of trees, which was taken by the Village Council. Finally, the constitutional choice rules are based on the institution on which a community is based. One might also expect a modification in the system as the logic of market might replace the authority of Village Council as the overall authority.

The example of occupying a part of Jhum land by the State Agricultural Department for a period of two years in Chenmoho village (Mon district), highlight the association of villagers with the land, which bears a social significance. It has disturbed the planning procedure of village people where they see land as an “estate of production” rather than an “estate of administration” (Gluckmann 1965). The divergence on view on property is also evident in government records which describe fallow land in Jhum as ‘wasteland’.

The issue of employing wage labour in terrace cultivation is argued to be a manifestation of schematic differences in perceiving labour relations. For in Jhum, the labour is provided by the village community or the family, where ‘labour’ as a term has a social significance in building the bondage among the community members. The labour relationship based on kinship system in this society has been affected when there is a change in the land-use pattern.

In terrace cultivation, the people employed are mostly wage labourers from valleys. Community people cannot take active participation in terrace/wet-rice cultivation due to lack of knowledge and expertise in the form of cultivation. Also the permanent ownership in terrace, make them dissociate with the values tied with the common
property rights. Similarly, for a migrant, who is hired in terrace/wet-rice cultivation as a wage labour lack the knowledge to practice *Jhum*, as the knowledge system differs between this two forms of agriculture.

Briefly, therefore, we observe that despite long history of modern education *Jhum* occupies a special position in their economic and cultural behaviour. Often, the villagers show reluctance to replace *Jhum* by other forms of agriculture. Modern education has contributed to this phenomenon in an interesting way: the younger generations, who have been educated in the modern system, do not reside in the villages leaving agriculture in the hands of the elderly people. These latter groups of people had their education in *Morungs*, continue to practice *Jhum* and hence maintaining social values associated with it. The younger generation, however, show greater eagerness to accept cash cropping and other entrepreneurial options provided by the government. In particular, it appears that schemes which promote various entrepreneurial activities have found more acceptance than the schemes, which explicitly suggest replacing *Jhum* cultivation by terrace/wet rice cultivations. However, we also find evidences of tension and conflict between the existing informal rules and the behavioural regularities promoted by these various governmental schemes. It can be a matter of further research whether such a development would eventually make the special provision of 371A of the Indian Constitution, redundant. Consequently, the pattern and dimensions of local innovations may also undergo a change.