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On Trust and Trees

Cooperation and Conflict in Community Forest Management in
Two Indian Villages

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Abstract

Two villages in Orissa, India, have been studied with the purpose to explain the difference between a working forest protection committee and a non-functioning committee, in order to get an extended understanding on collective action and local sustainable development. One of the villages has achieved successful co-operation, institutional building and functioning forest management and the other village is characterized by conflicts, destruction of the forest and distrust among different groups.

Following an analytic framework from Elinor Ostrom, paired with the discourse of social capital, the different levels of cooperation in the two cases can be explained with functioning rule making institutions and arenas for face-to-face communication – creating social capital but also in external factors as the lack of support from the Forest Department and the instability caused by new inhabitants in the village. Although the context of each case might be specific, some general conclusions have been drawn, putting weight to the potential of local communities to collectively take care of the natural resources they use and the importance of institutions and rules for the management, a process of importance to understand in order to solve environmental problems. The study has given some insights on the process of creating co-operation and unity, and concludes emphasising the dynamics of cooperation levels.

Keywords

India, Orissa, common property resources, cooperation, social capital, community forest management.

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‘Jangala bina banchiba nahi, jangala amara jibana bhai.’
We cannot live without forests, it is our life.

1. Introduction

1.1 Collective action for forest: Purpose of the study

A world without forests is unthinkable. However, forests all over the world are increasingly disappearing. Some resources have characteristics which makes it hard to manage and take collective decisions upon their common use and regulation. Resources as forest, grazing land or the atmosphere, can easily be overused and destroyed even if it was not the intention of the individual users. Many explanations and suggestions for policies are suggested, a frequent applied solution is to save forest from the alleged careless local inhabitants. However, empirical findings have shown that this was a wrong analysis of the mechanisms leading to deforestation and moreover, that local communities can sometimes very well handle complex natural and institutional systems in a sustainable manner.¹

One successful example is found in Orissa, a poor state on the eastern coast of India, where many villages have taken initiatives to protection and management of forests. In the 60s, the area begun to suffer from deforestation but some people started to act in order to stop the degradation, with positive result. The practise of protection spread from village to village and today there are hundreds of villages which are managing thousands of hectares of forest land.² Those villagers have succeeded in co-operation and protection, something the Forest Department failed to do.

I got the opportunity to go to India to carry out fieldwork, thanks to the Minor Field Study programme at Sida. The broader goal of this work is to contribute to a deepened understanding of sustainability issues. The solutions to environmental problems are likely to be found with more knowledge and understanding of the processes of building institutions for management of natural resources. The research question was broadly how rural communities bring about to organise the management of their common natural resources, a subject chosen due to its global relevance; environments are breaking down with disastrous, far-reaching consequences but coincidentally there are attempts to overcome the problems. The dynamics behind those positive achievements need to be further understood. What can people do, despite poverty and free-riding dilemmas, in order to manage their local common environment?

More specific, the aim of the study is to get an extended knowledge of the mechanisms and processes that make humans and communities co-operate to various degrees. Even within an organisation, collective action could be difficult

¹ Ostrom 1990:23, 1998:1

² Conray 2000:52

to achieve, but with more interaction, social capital is developed and the process goes smoother. Many theories account for the reasons of well-functioning institutions and less on the dynamics of cooperation and how institutions do come about. “What remains unexplained is how some appropriators overcome, and others do not overcome, the problems associated with collective provision of delicately calibrated institutions that create situations in which individuals find it advantageous, credible and safe to pursue contingent commitments to rule compliance and mutual monitoring.”³ The question about the origin of institutions is the most important and difficult question, partly because the process of establishment of institutions is in itself a problem of collective action at all levels of social organisation.⁴

In order to comprehend the process of cooperation, a successful and an unsuccessful case will be investigated with help from theories on collective action, Common Pool Resources as well as social capital. My main questions are as follows: What makes local communities go from non-cooperation to cooperation, or from cooperation to non-cooperation, in the case of local forest protection? and What can explain the differences in outcomes between two villages, one protecting their forest and one divided by internal conflicts? To get deepened insights of those questions, a study of community forest protection has been conducted in two villages in Nayagarh district, Orissa, India.

1.2 Outline

The paper is basically structured in two parts: the first on theoretical and methodological matters and the second part on the fieldwork and analyses of the findings. The theory chapter starts with briefly exploring environmental problems and the debate on their cause and solutions, with deforestation as an example. The research on collective action and common property regimes is presented. Furthermore, reasons contributing to establishment of collective action, especially in the case of common property resources, are discussed and a few variables are selected for a closer investigation. The factors are divided into two groups: institutional arrangements and the group of users. Methodological choices are discussed in the following section.

The empirical chapter is introduced with an overview of forest management in India and Orissa and continues with a description of the two villages Chadyapalli and Khatia. After the analysis of the result is presented, the final chapter ends with a discussion on further research and an evaluation of this work. To facilitate for the reader, a wordlist of Indian words and timelines of the development in the two villages are presented in appendix one and two. The interview questions and maps of India and Orissa are also found in the appendices.

³ Ostrom 1990:187

⁴ Rothstein 1996:157f

2. Theory

2.1 Problems of environment and development

2.1.1 The complexity of knowledge – the example of deforestation

Environmental issues deal basically about the relation between humans and our surroundings - how we can create and maintain a sustainable interaction with the environment. Sustainability illustrates a complicated and differently interpreted description of ‘good’ resource management in a broad sense, geographically and time wise. The problems are complex; they occur on local and global level and they are often multi-causal generated. One part of the problem of environmental destruction lays in the definition of reality and the perception our capacities and where we are willing to search for possible solutions.

The ecological crises started to be debated in the late 60s, when it was noticed that environmental destruction occurred despite the progress of science.⁵ The challenges of environmental problems broadened the discussion on knowledge, questioning concepts of Western science, as rationality and the divide between humans and nature. An example will be given, concerning deforestation.

Forests are important for many actors and in many ways, stemming from their richness in biodiversity (tropical forests covers 7% of the earth’s surface and contains 50% of all species⁶). Today, with declining forests conditions and increased competition for the resources of the planet, the conflicts in interests are accentuated. The goal with forests production, for most scientists, states and companies, has been to yield the most possible timber. For local communities, it is rather non timber forest products (NTTP), as fodder, fire wood, medical plants, animals to hunt and eatable leaves and roots that are important.⁷ Especially in countries in the South (developing countries), substantial populations, many of them indigenous, are more or less dependant on those forest products. Consequently, the (Indian) tribal culture, religion, economy and social life practically have become intertwined with the forest.⁸ Forests are also important for providing ecological services, which means biodiversity, help to retain rainfall which prevents flooding, cleanse water and secure soil from erosion.

Whose definition of rational forest management - national income increasing timber production or local multi-species consumption - should be practised? The forest becomes an arena of conflict between modern and non-modern systems of

⁵ Appffel and Banuri 1993:24ff

⁶ Brown and Pearce 1994:3

⁷ Appffel and Banuri 1993:31

⁸ Fernandez 1987:8

knowledge.⁹ Similar contradicting opinions exist concerning the causes of the decline of forests. The set of causes to the deforestation tend to vary depending on institutional affiliation, academic persuasion or business/economic concern and a singular view of the cause is frequently paired with a singular view of the solution.¹⁰ Some argue the slash and burn practise of traditional communities or the increased population pressure are major threats, others claim that deforestation to a large extent is caused by the one-sided focus on commercial interests.¹¹

A third set of causes-solutions can be explained by the different systems of knowledge; scientists, government officials and donors are imposing unsustainable policies while ignoring existing management institutions successfully performed by local communities. Fikret Berkes, a recognized researcher on common pool resources, writes: "Much of the resource-management thinking – for example the 'tragedy of the commons' model – is Western, ethnocentric, emphasizing competition rather than cooperation and assuming supremacy of individualism rather than communitarianism."¹² However, it is equally dangerous to believe that local forest protection is a guarantee for wise decision making and well-performing management but local people have nevertheless as much if not more right to make mistakes, when managing their own resources, as have outside groups.¹³ A sustainable forest management practise, encompassing biological preservation and the well-being of communities dependent on forests, should not be allowed to fail because insufficient communication over disciplines or between modern and non-modern ways of knowledge.

⁹ Appffel and Banuri 1993:1, 21

¹⁰ Ostrom & Wertime 1998:196

¹¹ Appffel and Banuri 1993:4, 27

¹² Berkes 1989:2

¹³ Wilk 1997:105

2.1.2 Collective action dilemmas

‘What is common to the greatest number has the least care bestowed upon it. Everyone thinks chiefly of his own, hardly at all at the common interest.’

Aristotle, Politics, Book II, chapter 3.¹⁴

Even the old Greeks were aware of the problem of collective action. Later, the same dilemma was expressed in the metaphor the tragedy of the commons¹⁵ which has come to symbolise the degradation of the environment to be expected whenever many humans use a scarce resource in common (even though the expression ‘the tragedy of the commons’ is misleading and should instead be called the dilemma of open access, as soon will be discussed).

Environmental problems, as well as many social problems, both local and international, consist of the same structural dilemma. Since single individuals or communities cannot solve the problems alone, joint decisions and collective action are needed, but the short term incentives of the individuals are not to cooperate and the characteristics of the resource or service in question are often such that cooperation is made difficult.¹⁶ What seems to be the most rational, beneficial decision for an individual might be less beneficial for both the individual and the group, in accumulation with the choices of others. Thus is the collective rational often separate from the rational of the individuals. Within this group of problems we find not only the tragedy of the commons, but also the prisoner’s dilemma and free-rider problems, or with a broader expression, problems of collective goods and collective action.

The metaphor the tragedy of the commons describes a field where shepherds let their animals graze together. As long as there is a possibility of yield, there are incitements for single shepherds to increase his or her herd until all grass is gone. When the numbers of animals or users increase, it will lead to a moment where another animal will only give higher costs for everyone, since the field becomes too exploited and the benefits of the increased herds will just benefit the shepherd owning those animals. The benefit of one shepherd to have more animals on the commons, exceed the cost of the bad quality of the grass etc, which, contrary to the costs, all shepherds are suffering from. This shepherd is a free rider on the others. Free-riding behaviour occurs when individuals do not contribute to the provision and/or production of a joint benefit in the hopes that others will bear the cost of participating and that the free-riders will receive the benefits without paying the costs. When an individual cooperates to achieve an individual goal that is as well a common goal, the costs of the individual may exceed the short term benefits of cooperating. This incentive can lead to non-cooperation even if

¹⁴ Ostrom 1990:2

¹⁵ Hardin 1968:1243

¹⁶ McKean 1992:247f

the goal is in the interest of the single person and despite his or her knowledge that their free-riding may ruin the whole collective effort.¹⁷ It ought to be the interests of the users to carefully manage a valuable resource but some natural resources have the characteristics which make it more difficult to share the responsibility and make reasonable decisions on protection regulations.

Why does this dilemma occur? The choices of the individuals are affected by the characteristics of the resource and by institutions, as property arrangements. Property rights, ownership, are social relations that define the property holder with respect to something of value (the benefit stream) against all others. It is a claim to a benefit stream that is approved by some higher authority (often the state).¹⁸ Rights can belong to a single person, to the state, a group of owners or there could be a good or resource that no one owns. Some environmental problem occurs when there are no rights defined. The resulting overuse is called open access. It is the tragedy of non-exclusion but since Hardin called it the tragedy of the commons, it is often misunderstood that the reason for depletion is common property.¹⁹ “[G]overnment officials look at common property, think they see unowned property, and declare it to be public property or state property to save it (or, too often, to sequester rents for themselves or their clients).”²⁰

2.1.3 Common pool resources

Collective action dilemmas can follow from institutional factors or by attributes of the resource. Basically, all goods (resources) can be divided in categories deepening on two characteristics; exclusion and rivalry in consumption, also called subtractability or non-jointness. It is important to distinguish between the resource and the regime (the property arrangements or institutions).²¹

Normal commodities found at the market as clothes or food, are called private goods. Private goods are individually consumed and then they become unavailable to others. National parks or public television broadcasting for example represent another type of good, public goods. (The different types of goods should be interpreted as ideal types which only few goods perfectly fulfill.) Typically for pure public goods are the attributes of non-exclusion and non-rival consumption (or the degree of nonsubtractability or jointness). The exclusion principle, which differentiates private goods from public goods, refers to the ability of sellers to exclude potential buyers unless they pay a specific price.²²

Rivalry (subtractability/non-jointness) means the degree to which more than one user can consume the same good, simultaneously. One person’s consumption of

¹⁷ McKean 1992:248

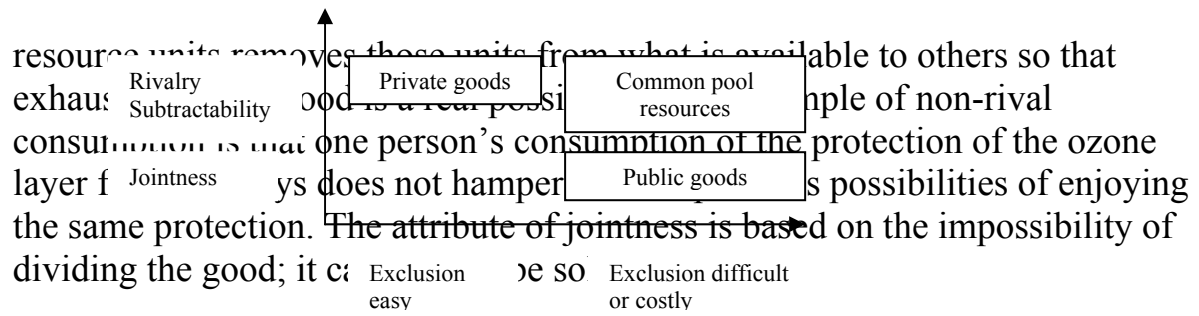
¹⁸ Bromley 1992:4

¹⁹ Bromley 1992:3

²⁰ McKean 1992:252

²¹ Berkes 1989:9

²² Oakerson 1992:44



Common-pool resources is a third type of resource, which shares some characteristics of both private and public goods; rivalry and non-exclusion. A common-pool resource (CPR) is a natural or man-made resource, for example an ocean, an irrigation system, a forest, the air or the Internet – of which many are threatened by unsustainable management and open access. However, a CPR can be managed as common property. First it must be considered whether the resource is capable to support multiple users, which means the capacity of the CPR to exclude users. The capacity is affected by the physical boundaries, the size and available technology. As public goods, CPRs have a relative high cost of achieving physical exclusion and share the problem of free-riding.

Secondly, CPRs are characterised by rivalry or subtractability, at least partially. A CPR is formed of a flow of resource units and a resource system producing those units. The resource system is characterised by jointness (non-subtractability); more than one consumer can collect wood from a forest. But the resource units are subtractable; the wood collected by one individual cannot be collected by another one. An effect of the subtractability of the resource-unit is the possibility of approaching the limit of the number of resource-units produced by a CPR.²⁴ Overappropriation can lead to the destruction of the resource itself, even if is a 'renewable' resource.²⁵ "Each individual user is potentially capable of subtracting from the welfare of other users; but, within limits, all users can derive benefits jointly."²⁶

²³ McKean 1992:248

²⁴ Ostrom 1992:296

²⁵ Keohane and Ostrom 1994:415

²⁶ Oakerson 1992:44

Figure 1. Attributes of different types of goods

Source: Developed from McKean 1998:25

To summarize, common pool resources are defined by 1) it is costly to achieve physical exclusion from the resource, and 2) the presence of subtractable resource-units.²⁷ The difficulty of excluding beneficiaries is a characteristic that is shared with public goods, while the subtractability of the resource units is shared with private goods (figure 1).

2.2 Possibilities for cooperation

2.2.1 Institutions

Is it possible to overcome the dilemmas of collective action and establish incentives for cooperation as regards CPRs? Hobbes suggested an external power, a Leviathan, to centrally control and force the actors to adjust. Another solution is the mechanism of the market but it cannot handle all kind of goods (if there is no rights defined, you cannot sell or buy the good and thus it cannot be part of the market). Simply speaking, the solution lies in forming an institution of the participants.²⁸ It might seem unrealistic to believe in apparently altruistic solutions but a large amount of empirical evidence, as well as laboratory experiments, have shown many examples of cooperating groups, overcoming the tragedy of open access.²⁹

What type of solution or story political scientists are telling depends on their worldview and perceptions of human nature.³⁰ One obstacle in reaching a more cooperative outcome is the actual perception of reality and of human nature. This is reflected in the static models of the tragedy of the commons and the prisoner's dilemma, where the actors are portrayed as helpless victims trapped in preset structures or as norm-free maximisers of immediate gains who will not cooperate unless coerced by external authorities. Elinor Ostrom calls attention to the disjuncture between policy recommendations based on theories of human behaviour in those dilemmas and what has been experienced in the field. She criticizes the lack of understanding of the complicated task of designing rules in complex social and ecological systems.³¹ Thus we need to replace the simplistic models of human rationality and herein comes one of my analytical themes; attributes of the users. However, the players are influenced by the rules of the game, which is the institutions, and the other research theme.

With institutions, it is generally meant 'the rules of the game in society' or "the regularised patterns of behaviour between individuals and groups in society".³²

²⁷ Ostrom 1992:295

²⁸ Ostrom 1990:17

²⁹ Ostrom 1998:1, 1999:17

³⁰ Rothstein 1996:134

³¹ Ostrom 1998:2f

³² Leach, Mearns and Scoones 1999:226

The set of rules constrain some activities and facilitate others; without them, social interactions would be impossible. Institutions include formal rules established by law and official regulation and informal rules, endogenously enforced. Organisations are thought of as the “groups of individuals bound together by some common purpose to achieve objectives”³³ and are established to help the development or rules, to formalise rules through legislation or social contract and to enforce and implement them. During the 1980s institutional analysis became more popular again in many sub disciplines of political science, since differences in institutional arrangements could easily explain the great variations in politics. To understand society, political institutions gave the most important explanatory factors rather than social or economical structural variables.³⁴ For example, the mentioned disjuncture between theories and empirical findings challenged the rational choice theory. “Briefly put, the [rational choice] theory says there is no reason for rational self-interested individuals to act co-operatively in the pursuit of common objectives, for the goods produced by such co-operation are “public” in nature.”³⁵ But in fact people do overcome free-riding dilemmas and the theoretical explanation was attributed to the pre-existence of political institutions that could provide different forms of “selective incentives” to those and only those agents who contributed to the collective purpose. Institutions are not only ‘rules of the game’ but they also affect what values are established in a society, for example for trust and fairness. “[I]t is the structure of the decision making institution that plays the decisive role in changing individuals’ view of wherein their self-interest lies.”³⁶

The scholars discovered examples of local communities where the users had set up complex rules and norms for resource management and decision-making. Institutions of traditional property arrangements have often been unseen or ignored and left out at a country's first attempt to formalise property rights. This process of exchange of traditional arrangements to individual or public ownership has in many cases eliminated the initiatives for monitoring and restrained use and led to free ride and resource depletion. The diversity and strength of such institutions are still giving them an important role in the creation of meaningful livelihoods. Luckily, there is an increasing recognition of the benefits of local management in national policies and development projects.

2.2.2 Social capital

Social capital is a catchword of the late 1980s and the 1990s, though its origin could be traced back some decades. As other forms of capital, the social capital helps to produce something and is seen as the missing link in explaining working democracy, economic development and solution of collective action dilemmas.

³³ North 1990:5

³⁴ Rothstein 1996:141, 144

³⁵ Rothstein 1996:143

³⁶ Rothstein 1996:149

Social capital is most often defined with the words of Robert Putnam: ‘features of social organization, such as trust, norms and networks, that can improve the efficiency of society by facilitating coordinated action’.³⁷ Furthermore, social capital is property of groups and not individuals and it increases through use. An example of social capital at work is given by Elinor Ostrom:

‘Appropriators who live near the CPR from which they appropriate and who interact with each other in many situations other than the sharing of their CPR are apt to develop strong norms of acceptable behaviour and to convey their mutual expectations to one another in many reinforcing encounters.’³⁸

However, the result of social capital in action does not always have to be desirable and far from all networks or associations are likely to generate habits of mutual trust and collaboration. Social capital is not necessary continuously distributed either horizontally across segments neither vertically from local to broader levels.³⁹ When strong social capital is limited to a small group, its inner strength is built on the exclusion of the people outside that group.⁴⁰ This kind of bonding social capital, within a certain group, is not facilitating wider co-operation as much as social connectness cutting social cleavages or bridging social capital.⁴¹ Membership in many groups gives increased capacity for solving problems at many levels since there will be overlapping memberships and a mix of loyalties will give crossed lines of conflict which can ease conflicts.

Two other uncertainties with social capital are, besides the already mentioned aspect of which kind of social capital that is beneficial for democracy; how does it work and where does it come from? Its basic ambiguity lies in the confusion of what social capital is from what it does; in other words the outcome and the source. Definitions of social capital should focus primarily on its sources rather than its consequences i.e. indicators of the types and combinations of social capital that are present, and not be confused with social capital itself.⁴² In our case, an existing CPR-institution is an indicator of social capital but is not social capital itself even though the collective action will reinforce the social capital.

Regarding the still rather unknown mechanisms behind the positive effects of social capital, it lowers the transaction costs for collective action, which means the costs for getting information, agreeing on what to do, monitoring and enforcing the rules. This comes about through face-to-face communication and learning of social norms (of trust and reciprocity) from repeated interaction. One of the strongest and most frequently replicated findings in controlled experiments

³⁷ Putnam 1993:169

³⁸ Ostrom 1990:206

³⁹ Woolcock 1998:25

⁴⁰ Woolcock 1998:8

⁴¹ Blomkvist 2001:7

⁴² Woolcock 1998:35

is that substantial increase in the levels of cooperation happens when individuals are allowed to communicate on a face-to-face basis, and this effect stays for subsequent rounds. Another often replicated finding is that those who expect that others will co-operate in social dilemmas are more likely to co-operate themselves.⁴³ The social interaction in networks contributes to social learning and practise in understanding, communication and problem-solving. How those mechanisms could contribute to an eventually improved democratic performance on higher levels as the nation-state (the scaling problem), is not discussed in this paper.

But still we do not know why trust, norms and networks are formed in the first stage and how can it spread, or in other words, the basic dilemma of the origin of institutions. Can social capital only be developed if there is some social capital already? Putnam suggests social capital is historically bound, path dependency, as in his examples of traditions of cooperation Northern and Southern Italy. Not providing my readers with an answer, I join the choir of requesting more time and change into the research: ‘What are the dynamics of the construction and destruction of civic engagements?’⁴⁴

Finally, it is fairly challenging to catch and interpret social capital in another social setting, in another culture. Abstract concepts as trust could have different cultural meanings⁴⁵ and the Indian culture with strong rules of behaviour between castes and sexes and ages etc., complicates the analysis for a foreigner. Despite the shaky ground in those regards and though social capital is a concept from the western world, it is argued to be applicable and even very suitable to developing countries, where interpersonal trust and informal networks are likely to be of huge importance.⁴⁶ Of course, social capital, as any single factor, cannot constitute the panacea to all social problems, anywhere.

3. Method

3.1 A framework for analysis: Attributes contributing to good performance

Given the complexity of the collective action dilemmas, no one should be surprised to find a vast number of theories on the subject and there are an endless list of parameters contributing to the creation, capacity and robustness of institutions to organize the management of common-pool resources. There are three major difficulties in this task:

- a) how to determine the indicators of organisation,
- b) the complexity and large number of variables and dimensions, and

⁴³ Ostrom 1999:17-19

⁴⁴ Levi in Blomkvist 1998:28

⁴⁵ Blomkvist 2001:32

⁴⁶ Blomkvist 2001:7

c) the difficulties in operationalizing the concepts.⁴⁷

Two aspects of the troublesome complexity of the variables influencing organisation are the lack of clarity in how different factors might have different importance in different situations and whether some variables are of more weight in different stages of an institution: the set up, maintenance and quality of the outcome (with other words, the creation, survival/robustness and good performance). Are the factors for success just the opposite of those leading to the tragedy of open access? For example, “If a relatively large number of individuals make high demands on a single CPR, do not communicate with one another, and act independently taking only their own expected return into account, the ‘tragedy of the commons’ is likely to occur“.⁴⁸ The answers are far from absolute and must be sought in communication between disciplines and actors, as much of the existing rudiments of theories are being developed at different disciplines and in interaction between different traditions of issues and methods. Elinor Ostrom’s conclusion from her endeavours to find theories on collective action is that there is no single, monocentric theory applicable to all circumstances and no single rule can explain successful performance.⁴⁹ Rather, there is a need for pluralistic family of theories. Those are still under evolution, and maybe ever will be?

In a not yet completed paper, she outlines four building blocks which are supposed to be essential for any explanatory theory of collective action. The first block is ‘Multiple types of collective action problems’, related among other things to the kind of resource in question. The following is called ‘Types of individuals involved in collective action problems’ and the third is ‘Multiple attributes of group structure as size and homogeneity’. The last block is ‘Multiple rules that effect collective action dilemmas’.⁵⁰ A similar structure is find in the conceptual framework approved 1985 by the Panel on Common Property Resource Management of the National Research Council in the USA. The framework, which should be used as a heuristic tool rather than a predicative model, is developed to enable comparisons over locations, universities and time. The framework is based on four types of attributes; 1) the physical attributes of the resource and the technology used to appropriate its yield, 2) the decision-making mechanisms (organisation and rules), 3) the choice of strategies and interactions among appropriators and finally 4) the outcomes.⁵¹

From a large database of field cases collected by the International Forestry

⁴⁷ Arnold 1998:

⁴⁸ Ostrom 1992:297

⁴⁹ Ostrom 1998:19

⁵⁰ Ostrom 1999:5

⁵¹ Oakerson 1992:43

Resources and Institutions (IFRI) Research Programme, Indiana University, USA, Elinor Ostrom has derived several lists of variables contributing to the emergence and sustainability of common property regimes. The most well-known are the eight design principles characterising robust CPR institutions from *Governing the Commons* of 1990. Another list of variables is a collection of variables mentioned in case studies being associated with the emergence of appropriator organisations, containing seventeen factors⁵² and a recent article develops ten attributes of the resource and the users of the resource, having an influence on collective action.⁵³

For this paper, the focus is on the three last framework attributes, or on the two last building blocks; the attributes of group structure and the rules that effect collective action dilemmas. I have used the institutional design principles of Elinor Ostrom from 1990 and added variables related to the characteristics of the appropriators, which were considered as complementary and necessary to a satisfying explanation for the context of my fieldwork. The features of the physical resource are not treated extensively, even if the kind of good - the characteristics of the resource - affects the conditions of the collective action problem. The ambition was to also include resource attributes but given that all those variables together could make up almost 20 factors, I will focus here on those with highest explainable value and with reliable information about. The selected variables are relatively central to many researchers, they are relatively easy to understand and use, and generalizable.

The management of the CPR is facilitated if the users have an understanding of the dilemmas of non-subtractability and exclusion, since the knowledge influences their choice of strategies. The appropriators also need to know how to measure improvements and degradation, in order to get feedback from chosen action alternatives and eventually reform the choices.⁵⁴ The focus in this case study is not on those more ecological matters and I do not have the competence to investigate the potential of improvement of forest quality etc. and therefore I cannot judge the ecological knowledge of the users. My two cases are selected with the aim they would be similar in terms of the resource features.

Indicators for performance of the CPR regime or the outcome are not explanatory factors but are briefly covered in order to further understand why certain variables contributed to a desirable outcome. A crucial aspect in evaluating performance is the time frame and thus the potential to adapt to changes and maintain long-term sustainability. In *Making the commons work* the authors emphasise two criteria, efficiency and equity, in order to define a successful

⁵² Ostrom 1992:299

⁵³ Ostrom 2000

⁵⁴ Ostrom 2000:41

situation of common property management and collective action.⁵⁵ Different definitions of efficiency and equity do exist and it should be remembered that the study of consequences is value dependent.

Efficiency can be defined as reaching an optimal rate of use or at least not exceeding the level of sustainable yield, or in other words, to not squander the natural resource and to keep the resource level of investment. Efficiency could also be related to the human interaction and the difference between the benefits resulting from the operation of an appropriator organisation and the decision-making and potential deprivation costs of the institution.⁵⁶ Efficiency is also to meet the goal of establishing the organisation.⁵⁷

Equity means that the distribution of costs is similar to the distribution of benefits. However, there are different perceptions of fairness, or the normative principles that underlie the allocation of benefits and burdens.⁵⁸ Most often it is considered equitable if all appropriators are included in deciding the rules for both appropriation and membership etc., and of certain importance is the participation of poor groups and women.

3.1.1 Attributes of institutional arrangements

The rules, or institutions, are considered to be of great importance in explaining the functioning of CPR management or collective action in general. Simple seen, two basic conditions (necessary though not sufficient) are defined property rights and the development of an appropriator organisation.⁵⁹ For better performance, there should be a common understanding about definitions for membership, rights and duties of membership (access to appropriation, take part in monitoring etc), how decisions are made for deciding change in rules and how conflicts will be resolved.⁶⁰ Instead of analysing the specific rules, which in reality shows an impressive diversity, Ostrom turns to principles characterizing stable CPR institutions. Those are conditions that help to account for the success of these institutions in sustaining the CPRs and gaining the compliance of generation after generation of appropriators to the rules in use – the list do not constitute necessary conditions for achieving institutional robustness.⁶¹ The eight design principles from *Governing the Commons* are as follows:

I1 Clearly defined boundaries: Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the resource itself – the area wherein the rules will apply and the

⁵⁵ Oakerson 1992:51

⁵⁶ Ostrom 1992:309

⁵⁷ Young 1994:441

⁵⁸ Prakash 1998:16

⁵⁹ Ostrom 1992:293, 298

⁶⁰ Ostrom 1992:297

⁶¹ Ostrom 1990:90

appropriators rights are valid. More is written about the borders of the resource and less on the delicious task to define the 'demos', but without specifying those authorised to use it and those without access, the local participants face the risk of open access, as discussed in earlier chapters. The criterias for membership and its rights and responsibilities should be clear.

I2 Congruence between appropriation and provision rules and local conditions: The rules must be adopted to the ecological context (this factor is linked to knowledge about the local environment). Congruence between appropriation and provision rules and local conditions explains why centrally directed reforms or management system often fail; they are too rigid and cannot adjust to changing circumstances.

I3 Collective choice arrangements: This means that most individuals affected by the operational rules can participate in modifying the operational rules, and preferable also the definitions of membership and design of the decision-making process itself. Local appropriators participating in decision-making are contributing to the legitimacy of the protection and compliance of the rules.

I4 Monitoring: Reputation and shared norms are insufficient to produce cooperative behaviour – the rules are likely to be violated. Monitoring is thus necessary. This can be formed in various ways, with guards or as it is common in Orissa, by all village men on rotating basis (so called thengapalli). Monitoring is often a bi-product of using the resource.

I5 Graduated sanctions: Graduated sanctions stands for that the initial sanction is very low and increase with the seriousness or frequency of the misbehaviour.

I6 Conflict-resolution mechanisms: Even with all other rules are in function, when a rule has different interpretations etc., an arena for conflict resolution is necessary. It can be informal or require an outside mediator.

I7 Minimal recognition of right to organise: The rights of the appropriators to devise their own institutions should not be challenged by external governmental authorities. The Indian forests are mostly owned by the state (the Forest Department) and when local communities claim they have rights to set up rules for forest management and enjoy more benefits as they have the formal right to, conflicts are likely to appear. The autonomy of the villages has increased with the recent policy developments of Indian forest legislation but especially in Orissa, the community forest supporters are demanding more rights, which they in several cases already have acquired informally. (See the chapter on forest protection.)

I8 Nested enterprise: All already mentioned institutional principles should be

organised in multiple layers, if needed. In complex and large ecological systems, the long-term sustainability depends on the capacity to establish rules consistent with rules at other levels. I also interpret it as a support system enabling exchange of experience and conflict solving, and less threat from neighbours free-riding, if they also have institutions and are linked in networks.

3.1.2 Attributes of the group of users

Even if we have excluded the resource characteristics, the resource is central to the users in two senses, the cooperation is likely to increase if the a sufficient group of appropriators are dependent on a functioning resource and if the appropriators share a common perception and understanding of the problem of the CPR. With ‘appropriators’ of a CPR it is referred to the set of individuals or households who withdraw resource-units from a CPR.⁶²

A1 Low discount rate: Appropriators use a sufficient low discount rate in relation to future benefits to be achieved from the resource and attach less value to the benefits expected in the immediate future.⁶³ “The higher the discount rate, the closer the situation is to that of a one-shot dilemma in which the dominant strategy of all participants is to overuse the CPR.”⁶⁴

A2 Social capital: Appropriators share (bridging) social capital (networks, trust and social norms). Norms of trust and reciprocity can lower the expected costs involved in collective action.

A3 Leadership: Political leaders have shown to be important in solving collective action problems, if they enjoy a reputation of trustworthiness among members and they must have both the incentive and the capacity to reward those who contribute their fair share and to punish those who do not.⁶⁵ The village elites should have a personal interest in community management and be willing to run the show for non-monetary gains.⁶⁶

Some ambiguous attributes of the appropriators not included in the scheme above are the kind of players and dimensions related to community: size and homogeneity. The discourses on social capital and on local management of resources are closely linked to the debate on community, which is a rather vague and politicalised concept. It can be characterised by small size, a viable social unit and homogeneity.⁶⁷ The impact of differences in size of the group has been largely debated, some argue small size is necessary for collective action

⁶² Ostrom 1992b:297 from Plott & Meyer 1975

⁶³ Ostrom 2000:40

⁶⁴ Ostrom 1990:91

⁶⁵ Rothstein 1996:158

⁶⁶ Saxena 1996:69f

⁶⁷ Agarwal and Gibson 1999:630

(communication and accurate knowledge of the microenvironment), others claim a network of local groups ('nested enterprise') can manage large areas. One problem is that many other variables changes when the size of group increases.⁶⁸

Size can be related to the homogeneity of the group. Homogeneity concerns individual attributes that are more or less possible to influence, as language, ethnicity, caste, class, political affiliation etc but also, in the discussion on CPR, the commonality in terms of norms, perception of fairness and common understanding of the costs and benefits of different strategies. Those variables can vary in eternity and each may operate differently. Some combination of heterogeneities in capabilities and interests can create substantial benefits from cooperation but other combinations of heterogeneities exaggerate still further the bargaining power of some over others and become an obstacle for the development of cooperative agreements.⁶⁹ For these attributes, the question arises of power structure, degree of even distribution of knowledge and networks etc. and its influence and as discussed, the link between efficiency and equity is complicated. More marginalized groups are often more dependent on the forest products and social capital is not always spread evenly, horizontally or vertically.

Before entering into the forest and the villages, some comments must be made on the choice of cases and methods and difficulties therein.

3.2 Reflections on methodological choices

The objectives of the study, What makes local communities go from non-cooperation to cooperation, or from cooperation to non-cooperation, in the case of local forest protection? were my focus the whole time but in combination with various hypothesis. The interesting question of the establishment of institutions proved to indeed be very hard to trace down and the reality did not give simple cases but one village of oscillating levels of cooperation, thus rather being a question of the robustness of the institution. This difficulty should be acknowledged. My first intention was to study positive examples of local cooperation for common natural resources in a Southern (developing) country. Orissa was suggested as an interesting area for studying of successful CPR management.

Within Orissa, Nayagarh is one of the most active and organised district concerning forest protection, furthermore it is not so far from the state capital Bhubaneswar and I also had valuable contacts within this area. The first idea of comparing successful cases in Nayagarh to another area of Orissa was rejected as being too complicated in practical terms. While in Nayagarh, I first visited nine

⁶⁸ Ostrom 2000:41

⁶⁹ Keohane and Ostrom 1994:425

different villages in order to get an overview of both forest management institutions and Indian village life and I talked to functionaries in the forest protection movement. Two villages, Chadyapalli and Khatia, were suggested for a comparison on cooperation processes by my key informant, my translator, who is working with the subject in the area. The criterion for selection, the dependent variable, was the degree of successful collective action for forest management and after visits the decision was confirmed; the villages seemed to be two opposite types. The villages are not so different regarding size of the forest, number of inhabitants and since they are located within the same area rather close to the district capital Nayagarh, they were considered as comparable as possible, without searching through even more villages. The other nine villages are not such clear 'ideal types' and are dominated by one or two castes and are of various sizes. The two selected villages turned out to be different regarding caste composition but it did not matter, as will be seen. However, I could not foresee all variables influencing the complex process in forehand.

The independent variables are based on CPR theory and experience from case studies by Elinor Ostrom and others. Since there are so many variables influencing collective action, I tried to keep my mind open to understand the important conditions in my field contexts but I was particularly interested in factors as social capital and homogeneity. To the eight design principles from *Governing the Commons*, three attributes of the appropriators are added, since they were considered giving a necessary complement to the institutional variables and higher explanatory value for my cases. The variables should also be central, comprehensible and with ability to be generalized. Time and space of the thesis have not allowed for an extended analyse of the larger regimes which influences local conditions, besides of the forest protection network. Variables as size, homogeneity, dependency on the resource, characteristics of the nature resource and the different kind of players' rationality were abandoned due to lack of reliable data, since I did not ask or the informants did not mention them. Concerning resource attributes, the difference between the villages is small, as far as I could understand. However, this is open for future studies. The selection of variables has been a painful process and there is no evident way of doing it but I hope my combinations are giving some answers to the process of cooperation in Chadyapalli and Khatia. As Ostrom wrote about the multi-actor, multi-level process of governance on commons: "Such systems look terribly messy and hard to understand. The scholars' love of tidiness needs to be resisted."⁷⁰

I visited the two selected villages about ten days each, over a period of three months (November 1999 to January 2000). The patterns of cooperation and interaction were investigated through group discussions with the chairman and members of the forest protection committee and elders of the village and I tried to

⁷⁰ Ostrom 1998:29

cover different groups (women, people in different village streets (*sahis*) and the low castes) to get diverse opinions. Most often we sat in the veranda outside someone's house, or in front of the community house and it was not possible to sit isolated. Informants were found with a snowball technique, i.e. to get recommendations and hints on whom else to talk to. I tried to select informants with central importance to the subject but also to meet other groups which could give other nuances. There might of course be a tendency towards conformism since I used group interviews but I tried to approach the same issues from different angles with different people, and also double check with the experience of my translator.

In order to create a relation of trust between myself and my informants, since it would improve the communication, I tried to adjust to their social behaviour and kept a rather low attitude regarding clothes and vehicles. The research approach is inspired by Participatory Rural Appraisal (PRA), which is a methods emphasising participation and empowerment of local people and see researchers as facilitators, self-critical and responsible for their behaviour.⁷¹ I choose qualitative methods although I did rarely use the typical visual PRA techniques.

For the interviews, I used semi structured questions, quite open-ended and thus facilitating a relaxed conversation with possibility to follow up unexpected comments. The basic questions were the same, covering three areas: the resource, the village institutions and social interaction and networks. With a preset agenda and questionnaire it is easier to compare and more reliable, if you got the questions right, but you are also more imposing your worldview on the informants. Since I started with many variables and it is difficult to compose questions in a different culture, I chose an open-ended interview method. The questions and answers were most of the time translated from English to Oriya and back. My translator, Barna Vaibha Panda, is working for the Nayagarh Forest Federation which makes him biased but also gives benefits as he is very familiar to the subject and he is an instant encyclopaedia to local and Indian culture and politics. A great advantage was that he was well-known and trusted and he went along with all types of villagers from leaders, women to children and harijans. A few times other forest fieldworkers translated for me.

Social phenomena are hard to catch and classify, especially since they often are part of dynamic processes. Another complication in this case comes from performing social research in a foreign culture. It is difficult to interpret social capital in another cultural context, with maybe other forms of rationality, other norms, and on top, relying on lingual interpretations. A degree of scepticism is needed for the historical data from the informants, since memory tend to change through time. The villagers often used a poetic language with references from

⁷¹ Chambers 1992:13f

their cultural inheritance, which is beyond my knowledge. I might have used concepts unfamiliar to them, which were misunderstood and sometimes my translator refused to interpret my questions, because they were inappropriate, to my surprise.

4. The field study

4.1 Governmental forest management in India

Since the colonization by the British, the forests of India has been governed centrally by the state and the forests became increasingly a resource to exploit for industrial values and bring revenues to the government. As of the beginning of the 1980s, the state owned or controlled 77% of the forests.⁷² Increased pressure on forests from commercial interests as well as growing populations with growing needs, have contributed to serious problems of degradation and deforestation. Today the total area under forest cover is 19.4 percent, far below the Forest Department (FD) goal of 33 percent.⁷³ The debate on the causes of deforestation in India has produced two totally opposite viewpoints; the official position emphasizing the demand side (increased population and livestock, fuelwood extraction, modernisation etc) and the popular perspective blaming the failure on the forest bureaucracy and its centralised, profit-focused and corrupt nature.⁷⁴

Also many researchers are recognizing a system error of the forest management practise. “A growing number of foresters and planners acknowledge that one of the most promising strategies to stabilise forest resources may be through creating partnership between rural people and forest agencies.”⁷⁵ As been highlighted in the research on CPRs, rural communities have in many cases governed their local resources successfully but when they lost their traditionally rights to the forest etc, their responsibility also came to an end. Many plantation projects, which increased in the 1980s, have been failures and it would however not be feasible to replant all the lost forest cover. If the management and protection is bad, it do also affect plantations and since they often consisted of monocultures of fast-growing exotic species, the plantations did not respond to community needs and the projects did not resolve conflicts about forest rights, leading to the final result of non-cooperating villagers.⁷⁶ Attempts to include social targets with economical, as the large SIDA financed project with *social forestry* in several states including Orissa, lacked genuine community participation and faith from the local population and did not serve the subsistence need of the poor.⁷⁷ The rights to the forest and decision-making power were still in the hands of the

⁷² Apffel and Barin 1993:29

⁷³ Wilk 1997:98

⁷⁴ Chakraborty 1994:231f

⁷⁵ Poffenberger and McGeen 1998:20

⁷⁶ Poffenberger and McGeen 1998:20

⁷⁷ Wilk 1997:99f, Saxena 1996:27

Forest Department or of external donors.

In order to come to terms with the inefficiency of the government to solve problems as the environmental degradation of forests and biodiversity as well as the hardened livelihoods of forest dependent populations, the governmental forest management strategy was reviewed. The result, the National Forest Act of 1988, suggests that the future of the forests lies in partnership between the forest department and the local communities. The new aim of India's forests is to primarily satisfy environmental and subsistence needs and secondly economical goals.⁷⁸ In pursuance to the legislation, the policy of Joint Forest Management (JFM), was formally accepted by the Government of India 1990 and giving more formalised involvement of local forest users. It is based on local forest protection committees which as compensation for their protection are promised some intermediate benefits as the rights to NTFPs and a share of the regenerated timber when it is to be harvested. The individual states can choose to adopt the proposals into their own legal statutes.

The outcome of the new policy is widely debated and maybe more time might be needed for an evaluation of the policy shift of a large bureaucracy. While there are positive outcomes as changes in attitudes and increasing numbers of protecting communities, it eventually becomes important with critical reflections and long-term strategies to implement the policies. On the one hand, JFM is seen as a progressive shift in attitudes and some practices towards state recognition of the interdependence of the well-being of forests and the well-being of the women and men dependent on them. On the other hand, the intentions behind the new policy might not be perfectly honest: it is seen as an effort by FD to ensure protection of forests at a very low cost⁷⁹ and their definition of participation is unclear: there is no real transfer of rights and decision-making power to the local forest users.⁸⁰ The 'jointness' in the policy is questioned, especially since the basic agenda is pre-determined.⁸¹ This is concluded from the implementation of the JFM, whereas the promising expressions of the law have not in reality changed much of the FD goals of lucrative timber production⁸² and the standards of the regulation have proved to be too static in relations to the local variety of institutional arrangements and conditions⁸³. The greatest difficulties will come when the forests are ready to be harvested and if the local groups will get their share and if the government can control distribution. Julie Wilk argues that the JFM is not fulfilling the eight design principles of Elinor Ostrom when it comes to the power to formulate rules locally and the recognition of rights to organise

⁷⁸ Wilk 1997:98

⁷⁹ Kumar 2000:47

⁸⁰ Wilk 1997:102, Kumar 2000:48

⁸¹ Sundar 2000:275

⁸² Wilk 1997:98, Kumar 2000:42

⁸³ Pal 2000:62, Conroy 2000:54

without being challenged by external authorities.⁸⁴ The JFM allows the FD to regain the trust and alliance of the villagers⁸⁵ and mutual trust is just what is needed for successful reforestation – but it also requires clear rights and decision-making power for the local people.

4.2 Community forest management in Orissa and Nayagarh

Historically, communities throughout the Indian subcontinent have managed forests with the use of social and religious norms⁸⁶ and forest and natural resources have naturally been at heart of many struggles.⁸⁷ What makes forests so important to rural Indians? Of course the interests of forest varies from areas and between people but for the majority of forest users is the first need of forests to generate products for subsistence use.⁸⁸ 275 million Indians are said to be dependent on forests.⁸⁹ India has a third of the indigenous population (adivasis) of the world and in the forest covered parts of Orissa are almost half of the population adivasis, and their culture is based and developed from a life in forests. In Orissa, the needs and interests of forests are generally fuel wood, agricultural equipments, house building and special needs of bamboo weavers, potters and bangle makers.⁹⁰ For the farmers are the ecological benefits invaluable: more rain, better soil condition, less erosion and decreased heat at summer. The products harvested by local people in Orissa include fuelwood, tubers, edible green leaves, fruits and berries, mushrooms, green leaves for plate-making, dry leaves for use as fuel, small timber, medicinal herbs, creepers for rope-making, and seeds for making oil. Earlier fuel wood scarcity has however changed the fuel wood basket and do now include more agricultural waste, as cow dung, sugar cane straw, mango leaves and root stocks. Contrary to many other areas in India and over the world, men and not women are collecting fuel wood in Orissa.

The recent erosion of the resource base of forests triggered a process of rethinking among the villagers. Long before the JFM, there were already many self-initiated forest protecting communities in West-Bengal and Orissa. The state-owned land is thus held under more than one property-regime; it is managed as common property but at the same time also as state property. As many as 15 000 communities may now be involved in overseeing the forests in India, protecting over 1.5 million ha of state forest land.⁹¹ According to the Orissa Forest Forum, 10 000 Orissan village communities are involved in protecting nearly 400 000 hectares⁹² leading to the conclusion that Orissa has “perhaps more self-initiated

⁸⁴ Wilk 1997:107

⁸⁵ Poffenberger and McGeen 1998:4

⁸⁶ Wilk 1997:98

⁸⁷ Sundar 2000:260

⁸⁸ Conroy, Mishra and Rai 2000:52

⁸⁹ Saxena 1996:13

⁹⁰ Barna Vaibha Panda 11/12/99

⁹¹ Sundar 2000:255

⁹² Mohapatra, Richard 1999:37

CFM-groups than anywhere else in the world of comparable size”.⁹³ Orissa is the fourth poorest state of India, covered with forests to 37%, dominated by agriculture and rural life: over 85% of the population of 32 millions live in nearly 51 000 villages in 30 districts.⁹⁴

The practise of community based forest management became widespread in the sixties, especially in the districts of Nayagarh, Balangir, Dhenkanal and Sampalpur (see map in the appendix). In Nayagarh, a key role played by the small village of Kesharpur, on the slope of a former forest covered hill, Binjagiri.⁹⁵ Environmental changes caused by deforestation stimulated among others the teacher Joginath Sahoo and Narayan Hazary, a political scientist at Utkal University, Bhubaneswar, to start with the traditional thengapalli (stick rotation) or guarding the forest on a rotation basis, in 1972. A village committee for forest protection was set up and an organisation called Brukshyo O Jeebara Bandhu Parishad, BOJBP, which means Friends of Trees and Living Beings. Their philosophy is based on Gandhi principles of non-coercion and inclusion, seeking transformation through moral pressure instead of violent or costly control systems. To spread their message and influence people, they use traditional methods as foot marches (podiatry), fasting, lying down on the ground (Dhahran) or touching the feet of someone who cut the trees. During the following years the movement spread to other villages around the hill and further in Nayagarh district. In 1982, a platform was created of 22 villages and with a grant from Oxfam India Trust in 1984, enabled the BOJBP to set up a seed bank, a seedling nursery and an office for coordination including staff to spread environmental awareness and women’s development.

The state forests are classified into either protected or reserved forest. Almost half of the Orissan forests are reserved forest land, which belongs to and is managed by, at least in theory, the FD for national purposes and local communities have no rights. Protected forest belongs to the revenue department but FD is legally responsible for its management, in practise FD ignore PF. Villagers have more rights to the demarcated protected forests.⁹⁶ In inability or apathy of the FD to manage all the forest land has in fact given the villagers the freedom to create protection committees.⁹⁷ Also other case studies “reveal that forest management is intensely local, and that national legislation can be modified, ignored or enforced by local communities to fit their circumstances”.⁹⁸ In whole India, the forest department has been a problem for forest protection since they are poor and corrupt and did not understand the village institutions in existence. But to various degrees in Orissa, the FD staff has also tolerated the initiatives of the villages to

⁹³ Conroy, Mishra, Rai 2000:52

⁹⁴ Pal 2000:62

⁹⁵ Hazary and Hazary 1987:233-235, Pal 2000: 63, BOJBP at a glance

⁹⁶ Conroy, Mishra and Rai 2000:52

⁹⁷ Arora-Jonsson 1998:5, Saxena 1996:60

⁹⁸ Gibson, McKean and Ostrom 1998:18

manage the forests and sometimes helped to solve conflicts.⁹⁹

During the 1990s, contacts have increased between protecting committees all over Orissa and a structure is evolving with both district and national levels of the network or movement. In Nayagarh district, the Jangal Surakshya Mahasangha (Forest protection federation) was set up in 1992 with 324 villages. Together with six other district federations, they established Odisha Jungle Mancha (OJM), the Orissa Forest Forum, in 1997. There are many other CFM initiatives in other states but Orissa is special with a movement built up from below through networking during a long time and is not initiated by an external network, according to one of its leaders.¹⁰⁰ The demands by now are to get penalty power in local communities for forest theft and the rights to sell extra fuelwood, minimum within the range area but are in the longer run demanding the division level.¹⁰¹ The objective of the forum is to act as a pressure group and organise mass mobilisation for formulation of a pro-people forest policy favouring the interest of forest protecting and managing village communities. The OJM aims particularly to include women, scheduled castes and scheduled tribes in the process¹⁰² and the inclusiveness is a good sign for its broader success and robustness. A study shows environmental movements in Orissa expand and reach results if they succeed to bridge groups together.¹⁰³

4.3 Chadyapalli

4.3.1 The multi-caste village with a well-managed forest

⁹⁹ Conroy, Mishra and Rai 2000:54

⁹⁹ Arora-Jonsson 1998:5

¹⁰⁰ Barna Vaibha Panda, Nayagarh Forest Federation 19/12/99

¹⁰¹ Mohapatra, Richard 1999:40

¹⁰² Pal 2000:67

¹⁰³ Swain 1999:19

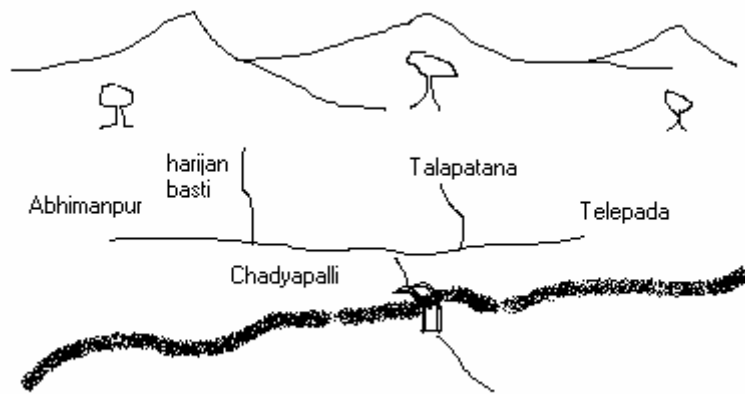


Figure 2. Chadyapalli village, with hamlets

Chadyapalli is situated between a river and a range covered with quite dense forest. Around 400 households make up Chadyapalli, spread in four sahis (settlements, hamlets). The biggest hamlet is also called Chadyapalli and its extension is called Abhimanpur. The two other hamlets are located some hundred meters away and are smaller; Talapatana and Telepada. Almost all common caste groups (jatis) of Orissa are found here (about 15 in total), as brahmins (priests), weavers, barbers etc, with the dominance of chasa, one agricultural jati. The majority of the population are small scale farmers or landless labourers but increasingly the men work in the service sector, outside the village. Within the Chadyapalli main sahi is a smaller harijan ('low caste', untouchables) community of around 20 households, working as bamboo weavers.

No one can tell the exact size of the forest but over 500ha is suggested. A smaller part belongs to the revenue village, which is marked out by stones, and the rest is protected undemarcated forest (keshara) under supervision of the forest department (FD), though everything is perceived by the villagers as 'theirs'. The forest is covering a hill and is then continuing far into another district in an rather unpopulated area, which diminish the risk of free-riding from that side. "We are meeting our needs from the nearest patch and we never have to go to there, it is too far."¹⁰⁴ Most valuable in terms of money is varieties of bamboo which has a wide range of uses and is fast growing. Some of the trees are planted but most of the forest is naturally regenerated. "Before the protection, all wild animals disappeared, like bear, deer, bore and most of them are back, besides bear."¹⁰⁵

The degradation of the forest started in the 40s but the pressure worsened in the 80s. "When the foresters started to protect the forest, the whole family of forest died, even the sons (the next generation)."¹⁰⁶ Since the early 1980s, the nearest patch where only rootstocks and no mature trees. This affected the local climate

¹⁰⁴ Talapatana men 15/12/99

¹⁰⁵ Talapatana men 16/12/99

¹⁰⁶ Talapatana men 15/12/99

and contributed to and worsened droughts, according to the villagers. The reasons for destructions were, with the words of the Talapatana men, that nobody took care of the forest after the independence in 1947 and the increase in population.

One driving force for forest protection was the lack of forest products and that they had to go far away to get wood. Talapatana, the hamlet most close to the forest, started to protect a part of the forest in 1991, due to the worsened scarcity after two years of drought. When the other villagers saw how small trees came up, everyone realised how important the forest is. “If they can protect, why cannot we” the villagers said in the other hamlets.¹⁰⁷ In the beginning there were some conflicts but mostly with outside villages. Chadyapalli got a lot of support to start up the forest protection by BOJBP, Friends of Trees and Living Beings. In Chadyapalli, they particularly value the encouragement of Joginath Sahoo (called Jogi) from BOJBP. Even if the scarcity problem was there since a few years, the initiating spark came from Jogi and his knowledge, both on environmental aspects and on the possibility of co-operation and protection from his experience from many other protecting villages and cluster of villages. “We felt recharged when he talk to us”. “We were feeling the pinch but not finding a way out and we may protect but others or FD may disturb. Jogi gave good examples of people protecting elsewhere”. “We had informal discussions in the verandas in the afternoon on what we would do. We felt nobody in our back to support us.”¹⁰⁸ Maybe one can say he gave confidence and social capital to Chadyapalli? If Jogi would never had come, the men in Talapatana says, “If we are united, why not protect, maybe some 3-4 years later” but also “who would tell?”

In the first 3 years, they guarded the forest on a rotation basis, so called thengapalli, but today it is not necessary as everyone knows the rules and obey them. With thengapalli it is easy to see and feel the value of co-operation but today the norms to follow the rules are strong and anyone would tell if they see a theft, also girls and old.¹⁰⁹ A guard is present at the entrance of the forest but today forest management is more important than pure protection. The rules for forest use have been the same almost the whole time. The regulations are arranged through limited days of access to the forest, harder rules for vulnerable areas and valuable species but the basic rule is to not cut green trees in most areas. Collection of fuel wood has not been so badly affected since it is free to collect dry leaves and dead branches. The initial ban to only enter the forest only once a week was changed to twice a week after complaints from the harijans.¹¹⁰ Different parts of the forest have different levels of access. On the more far away side of the hill it is allowed to take green branches for ploughs and houses etc. In the reserved forest you cannot enter with an axe or weapon. The forest area near

¹⁰⁷ Abhimanpur men 11/12/99

¹⁰⁸ Talapatana men 15/12/99

¹⁰⁹ Talapatana men 15/12/99

¹¹⁰ Adhimanpur men 11/12/99

to the village is completely closed for cutting of bamboo, but dry branches are fine. Bamboo and other valuable species can just be cut during a special period and with a pass. In case anyone has a special need, they might change the rules temporary for everybody. For a sum of Rs 1 only, a member of the village can buy a pass to collect one piece of bamboo, two days a week. The pass is sold the day before and the forest is just entered at one place where there is a check post with a temporary guard. It is only sold to village members but if any Nayagarh person needs wood, he can ask a friend in Chadyapalli to buy the pass in his name. This person is then a kind of guarantee for the reliability of the outside person and the villager is then accountable for the person to obey the rules.¹¹¹ To extend rights to outsiders when the forest condition has improved is common in Orissa, according to a study of 43 communities.¹¹²

This income has been important for the development of the protection and co-operation in the village. It has given wealth and status to the committee and enabled them to make bigger investments; so far the new high school is the main achievement but it also gives a security to the village, in case of emergencies. In 1997 they gained 45 000Rs from the bamboo, in 1998 62 000 Rs, but in 1999 only 35 000 Rs due to accounting problems (se below).¹¹³ Other income sources are broken branches sold in village auctions, pond fish, water tax, fee for irrigation water, and the common agricultural land for temples. The earnings are spent on administration stationary, the school (including bribes to officials), a guard in the forest and the Talapatana road. Every time there is an executive committee meeting the secretary shows the expenditures and the budget is set at the general body yearly meeting.

4.3.2 Village institutions and the women's group

There are a few formal groups in the village. Most important is the village committee and the forest protection committee, which have been seen in different forms over the years. As common in Indian villages, there is a group for temple issues and other formations are political parties and for irrigation co-operation. The women have a strong committee and the village hosts the office of a cluster of 15 forest protecting villages, the Ratnamala Jungle Surakshya Federation.

At the time of protection set-up, there was no village committee for all the four hamlets but each had a separate village institution for solving of small conflicts. But with the forest protection, the village united, something they often did express. 1991 a village forest protection committee (VFPC) was formed to deal with the common assets of the village (as ponds, temples, mango trees, community halls and cremation grounds).¹¹⁴ The VFPC members met almost

¹¹¹ Hadhubandhu Senapati 5/11/99, Abhimanpur 11/12/99

¹¹² Conroy, Mishra and Rai 2000:52

¹¹³ Abhimanpur 11/12/99

¹¹⁴ Gangadhar Pradhan, Chadyapalli VFPC president 13/1/00

every day for the forest issues and then they discussed other issues as well, for example the school that is built with money from the forest so after a while the forest protection committee took over all the tasks of the village, including tasks of the hamlet committees. A reorganisation was required the summer of 1999 since the committee got problems with the economic documentation and to perform a good work, due to work overload. The VFPC had 42 members which was also difficult to get present too often. After four general assemblies (of all male villagers) over a period of ten days, a new construction was finalised with the separation in two all-village committees, one committee dealing with all non-forest issues, the so called High Power Committee and a separate committee only for protection, management and distribution of forest products.¹¹⁵ The HPC has eleven members and the forest committee 35 members, including two women. Some are members of both but are not allowed to have double chief functions. Generally, people had a good and coherent perception of the rules and villages institutions.

The VFPC as well as the High Power Committee are controlled by the dominant cast. The harijans have complained about their concerns being neglected, something they themselves explained with the ‘game of numbers’, they have only one representative in the forest committee, and no one in the others.¹¹⁶ The four hamlets are represented according to their size, thus smaller groups have less power (the harijans make up around 5% of the total population in Chadyapalli). The proportions from each group are decided at the general body meeting. For example, all men from Talapatna discussed in together at the meeting, somebody proposed four representatives and nobody opposed. Then the Talapatana village committee select the representatives. The major VFPC solve major conflicts. Regarding representation, the president and the secretary have changed three times during the last three years and last year only one member was left of the old committee.

The vivid women’s committee (Mahila suraksha bahini) was set up by in 1996 by Jogi and the BOJBP women’s coordinator Alaka Nanda. It was initiated as savings- and credits groups and for the whole village is also a women’s forest protection committee dealing with various family problems as well as cleaning ponds and other common interests. Despite its name, the forest issues seem to be only a small part. The women are well-educated about forest and environmental knowledge and they are managing a herbal garden. Other tasks are to clean the common ponds and streets and to solve conflicts as divorce cases. Since the forest and other village issues from school to irrigation are connected, the empowerment of the women has been valuable to the general peace and cooperation of the hamlets. The policy of BOJBP has at least been, to increase

¹¹⁵ Gangadhar Pradhan, Chadyapalli VFPC president 13/1/00, Chadyapalli harijans 23/12/99

¹¹⁶ Chadyapalli harijans 15/12/99

participation of women in forest decisions. For example, the cluster organisation with 14 villages has a female vice president from Talapatana, something which makes the hamlet very proud. The men in Talapatana are happy with their active women and perceive unity as both must be part. For example, the women plant and water the seedlings in the herbal garden and the men fenced the garden. Bubu (the translator) mentioned that if the women are to go away to meetings and to the garden, the men must take their share of guarding the house and children, something quite revolutionary here around. The women meet at least once a week.

When the field-workers came, the women said ‘we do not know anything’. One important thing contributing to the increased confidence among the women is their achievement of getting a road built to Talapatana. Since 40 years Talapatana became isolated during monsoon, since there was only a small path through the paddy fields leading to the hamlet. The owners of the field must give up some part to enable a broader road but refused. In 1997 the newly started women’s group approached the landowner with no result. So the women of all hamlets decided to go fasting in front of his house. They used traditionally protest methods as lying down on the village street, intending to stay there until he changed his mind. Eventually also the men helped out, impressed seeing the women lying down in the sun when they normally not show their face outside (purdha). As a result, the owners gave parts of their fields for the road. Alaka of BOJBP said the idea with the women’s action came from her¹¹⁷ but the women must have trusted in the idea and themselves enough to break the purdha rules. It is though difficult to clear out the consequence lines, if the unity facilitated tolerance towards organisation of the women, or if the women’s activities, including the famous road-protest, it contributed to the well-functioning and legitimacy of protection? Besides the vice-president in the cluster protection committee, there are no women in the decisive bodies. The men in Chadyapalli main village explains it with the differences in day schedule, the men meet in the evenings when the women are busy and to gather in the afternoon when the women are free, is not likely according to them.¹¹⁸

4.3.3 Peaceful interaction

To try to get some of the networking and interaction in the village and the hamlets and how it crossed borders of cast, gender, class, etc. For example how often the whole village interact, it is often related to religious festivals. In Telepatana they said they invite the others when they organise some special puja and marriages are often widely attended (by the men). The harijans said they go to the other sahis for shopping, festivals and committee meetings. The overall impression from the four hamlets of Chadyapalli, is that they are not concerned

¹¹⁷ Alaka Nanda 10/11/00

¹¹⁸ Chadyapalli men 25/1/00

on fractions within the village. Repeatedly they mentioned “it is not this and that hamlet, but all village”.¹¹⁹ They are satisfied with the village and want to see the unity and what is in common. The villagers identified themselves as belonging to Chadyapalli village and not their hamlet, also the harijans are also part of Chadyapalli. “We have good relations with all sahis.”¹²⁰ The harijans identify themselves as belonging to Chadyapalli and the Talapatans as both belonging to Talapatana and Chadyapalli. The Chadyapalli connection increases but not on the expense on Talapatana identity.

The tradition of peace and co-operation seems to have a old origin: “In my life time I’ve never seen any conflict in my village” said an 72 year old man in Talapatana,¹²¹ also in Chadyapalli main hamlet, a large group of men expressed they have not seen any major conflicts in their life time. I would say the dispute over the road to Talapatana is a conflict but what I hear is was never violent and it could be solved. ‘Chadyapalli is big but is united despite 15 castes. Even if they quarrel they solve it among themselves. It is a good village’. Or “Some may not co-operate, but you cannot be like that in this village”.¹²² In Abhimanpur the men said there are no sahi conflicts. There could be a quarrel between two families for example over cutting of pond water to the paddy or someone been taking money in advance and not returned in time. But nothing spills over to the street. The current village president, who has relatives in Chadyapalli but is born elsewhere, said: “People say one cannot forget one’s birthplace but I have done that”.¹²³ He further describes the village as good and always co-operation and never allowing tempers to run. People are peace loving and in case of conflicts they can sit down and discuss and solve it before any hard feelings will run. Neither there are any conflicts or fighting on the basis of political party affiliation. Three days before the election there are some noise but it is more enjoyable and for fun.¹²⁴ Political party elections are no big deal. “When the party workers come and paste posters and ask if we will vote, we say yes and then everyone make their own choice.”¹²⁵

Why is there no conflict? The men in Talapatana explain that ‘We are poor and belong to a particular caste and have no power vis-à-vis other who got time and money to fight.’¹²⁶ The threat comes from other bigger villages, giving a free-rider dilemma – Chadyapalli protects but are not sure to get the share of the benefits. In Talapatana the threat to their protection never came from the other Chadyapalli hamlets but the bigger market village Sarankul and if whole Chadyapalli united they would easier stand Sarankul. What destroys the village

¹¹⁹ Abhimanpur men 11/12/99

¹²⁰ Chadyapalli men 25/1/00

¹²¹ 72 year old man in Talapatana 15/12/99

¹²² Talapatana 15/12/99

¹²³ Gangadhar Pradhan, president of Chadyapalli VFPC 13/1/00

¹²⁴ Abhimanpur men 11/12/99

¹²⁵ Talapatana men 15/12/99

¹²⁶ Talapatana men 15/12/99

unity then? Again in the words of the men in Telepatana: “We are unsure, it may, may not be unity. Time is changing. Now we are enough satisfied with food and have the whole slice of the cake and if the future bring less cake, it might lead to problem.” Gangadhar Pradhan, president of Chadyapalli VFPC explains the active and functioning village with the rules and regulations, there are checks and balances and accountability and possibilities for people to ensure participation. “It is not that people are different here and leaders may try to take over too much power as they do in other villages but the forest and the school unite people and efforts to break the unity are not getting response from people.”¹²⁷ The treasurer of the cluster committee did also mention the importance of rules and norms that make the villagers to obey them. The protection has given many benefits; peace and unity and village development as the school, the road, and agricultural stability and wealth which helps people to stay in the village instead of selling the land and decreases the amount of men who are forced to become seasonal workers in other states. The few households that have migrated did not do it because of problems in the village and the few newcomers “pay the fees as the others and take parts in festivals”.¹²⁸

But there are also negative voices, from the poor: the harijans said they do not get much back from protection and most of the head loggers suffer from the protection rules. They complained of inequalities in distribution of other village common resources. All income of the soled fish go to the high school, but no harijan children goes to the high school. The harijans has one representative in the VFPC but in no other village committees and they perceive the high power committee lacking accountability. Also the treasurer of the cluster committee concurs that the poorest section suffered most of the protection; the harijans used to go to the forest everyday and after the new rules they only could go every third day and they were thus forced to go to far off forests and carry a heavier load. The treasurer admits that the harijans maybe did not gain so much but at least they did not loose anything.¹²⁹ A former functionary of the VFPC argues that the harijans are included and that they get an equal share of the common benefits.¹³⁰ Experience from Orissa is that poorer sections face more difficulties in the initial years but gain subsequently in terms of non timber forest products.¹³¹ Despite the eventual inequalities, the harijans are far from being only critical; ‘With the forest we all sit together in Chadyapalli, it has given some kind of unity and less division practised’.¹³² Thus they consider the untouchability becoming decreasingly important thanks to the forest committee interaction and thanks to general changes in education and exposure to outside practises. The caste based

¹²⁷ Gangadhar Pradhan, president of Chadyapalli VFPC 13/1/00

¹²⁸ Abhimanpur men 11/12/99

¹²⁹ Dhaniswar Pradhan, treasurer of the cluster committee, Chadyapalli 13/1/00

¹³⁰ Hadubandhu Senapati, former secretary of the VFPC, Chadyapalli 20/1/00

¹³¹ Conray 2000:53

¹³² Chadyapalli harijan women 15/1/00

feeling has declined – it is less ‘we and them’.¹³³ The harijan women take part in women’s activities, including the protest for the Talapatana road. The women said “If one sister is in distress, we discussed whether we should go and help her, and our conclusion was yes.”¹³⁴ Compared to the harijans in Khatia they are more expressive, less passive and maybe they have higher confidence in themselves. The hospitability they showed me was one of the most friendly, with easy going conversation with women and men. They do not trust all foreigners but anyone who is a guest they treat the best they can though they may not believe everything the guest says. In my case, I came with people they knew and already trusted and I was there several times, which might have given me some credits.

What does the government think about these local rule-making and charging fees for harvesting of trees, formally being state property? The treasurer of the cluster committee says that the FD has not been here and the Chadyapalli villagers are not going to them. He tells a story of a man who went with 100 pieces of bamboo from Chadyapalli when a FD officer stopped him and asked who had given him permission to cut. “I have got it from our committee”, he answered and “who are you to ask, when you yourself are unable to protect the forest, you cut the forest and put the money in your own pocket”. So the officer left, according to the story.¹³⁵ The limited resources of the FD would not make it possible to oversee and manage the large areas under their authority.¹³⁶

Can we say something of the in village-time short tradition of ten years? They claim the hamlets have always been peaceful and no need for conflict before and they were experienced from co-operation from the hamlet-committees. For example, the thengapalli system was already in use for the fish cultivation. The former forest-secretary meant that the unity was there also before the protection even if it was strengthened and now for example, are not only the elders involved in decisions.¹³⁷ But the present president of the VFPC and who has been member in various committees in the village said “It is only forest that brought unity among us”.¹³⁸ Whether the harmony is improved thanks to the increased communication and activity in the village was very hard to reveal and I have no other sources to find out if their history really is without conflicts. At this moment however, comparing Chadyapalli to other villages when it comes to unity and cooperation, the president concluded “Chadyapalli is the best”. The reason lies maybe in a tradition of communication and trust within the village, in the support of BOJBP and the viable and substantial benefits from the forest, which is reinforcing the cooperation process, at least so far.

¹³³ Chadyapalli harijans 16/1 /00

¹³⁴ Chadyapalli harijans 23/12/99

¹³⁵ Dhaniswar Pradhan, treasurer of the cluster committee, Chadyapalli 13/1/00

¹³⁶ Hadubandhu Senapati, ex-secretary in the VFPC, Chadyapalli 20/1/00

¹³⁷ Hadubandhu Senapati, ex-secretary in the VFPC, Chadyapalli 20/1/00

¹³⁸ Dhaniswar Pradhan, treasurer of the cluster committee, Chadyapalli 13/1/00

4.4 Khatia

4.4.1 From forest protection to party conflicts

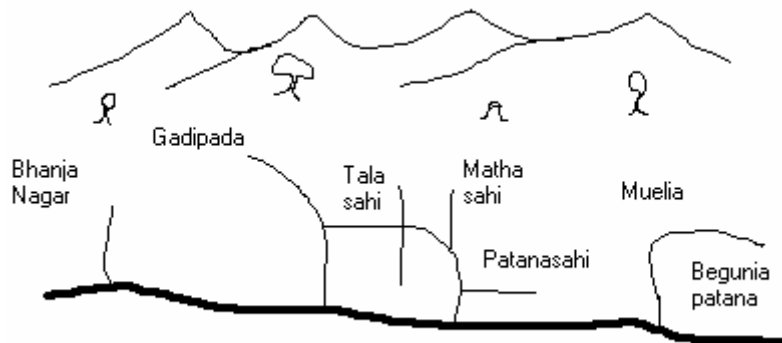


Figure 3. Khatia village, with hamlets

Khatia revenue village consists of the main village Khatia with several hamlets (see figure 4), some of them are more recently formed when population and migration rose and other hamlets have come up with the political division of the village. The main hamlets of Khatia, Talasahi, Mathasahi and Patanasahi, have a population of 450 households, of which more than 300 of them belong to the same farmers caste, chasa. The 25 harijan households live in a small street next to Patansahi, they are bamboo weavers and head loaders travelling 10km daily to get the material. Many of the men are also in 'foreign country', which means Calcutta, to work as cleaners etc. for long periods. The other castes can be counted on one's fingers. Gadipada hamlet, established in the 1920s, is now as big as some of the old core hamlets with 120 inhabitants and is still expanding. Some hundred meters down the main road lays the hamlet of Bhanja Nagar with only 40 households, originally coming from the other Khatia sahis. The smaller neighbouring village Beguniapatana including the hamlet Muelia with 200 households in total do also belong to the revenue village, though they have applied of formally leave Khatia because of the conflicts therein. The most striking feature of the Khatia hamlets is the division of household and hamlets according to political affiliation, which has a negative impact not only on the forest protection but on all village matters, as religion, development projects, common resources as ponds and mango grooves and it is affecting village interaction. Only the outskirts hamlets are united since a few years; Gadipada, Bhanja Nagar and Muelia-Beguniapatana. The most important division is between two political parties, All National India Congress(I) and Janata Dal, even if the lack of cooperation seems to originate from a power struggle between two families.

The forest of 700 ha consists or consisted of sal, a valuable species growing naturally monocultural (with no other species) and the condition is quite

degraded.¹³⁹ The development of the forest protection efforts by the villagers shows an unstable pattern and different groups have been contributing or resistant and the initial process was very long before the management became more established. Already in 1972 some young men in Mathasahi took the initiative to patrol and protect a part of the forest.¹⁴⁰ They were inspired of other nearby villages protecting their forest patch. Around this time, the Khatia hamlets united under the threat from a neighbouring village about a quarrel over the construction of an irrigation canal.¹⁴¹ Later all sahis joined the protection and 1976 they started with thengapalli and guards and forest protection became a responsibility for the village council even if the arrangement was not so formalized.

For more or less twelve years, from 1980 to 1992, were all the hamlets, including Bhanja Nagar and Beguniapatana/Muelia taking part in forest protection, with a formal VFPC (village forest protection committee) from 1984 to 1994. Khatia became the first sister organisation of the BOJBP villages (see chapter on forest protection in Orissa and Nayagarh). In 1984 Joginath Sahoo and others from BOJBP went to Khatia, Gadipada, Beguniapatana and Muelia with the purpose to strengthen the local effort, to formalise coordination in-between the four hamlets and to assist in resolving conflicts. A separate village forest protection committee was set up and efforts made to make it more representative with all sahis participating. The location of the forest ensure you have to pass the village from the road to get there and a hill, as in Chadyapalli and the most important rule was to not cut green parts if one wants to avoid a financial sanction. At this time, most problems occurred with outsiders so the BOJBP arranged foot marches to 10-15 neighbour villages in order to explain about forest protection. The villagers listened to the programmes for environmental awareness of Jogi who, besides being a teacher which is very respectable in Indian countryside, enjoyed a good reputation since his father had been a well known musician.

However, even from day one the constraints existed, according to Jogi. He visited Khatia at least twice a week for the first 2-3 years and he argues the protection only functioned because of this regularly support and conflict solving.¹⁴² The VFPC was not representative for all hamlets and rather inactive, meetings were only called for when BOJBP asked for it. Around 1986-87 party politics came into the picture and the traditional leaders went to different parties to ensure their power. As a result the forest committee started to break down 1992 and did finally disappear around 1994, after a last attempt with new VFPC with 3 villages since 6 months.¹⁴³ During the same years, the village council (VC) became dysfunctional and 1995 it was dissolved. Conflicts and common issues were since

¹³⁹ Joginath Sahoo BOJBP 16/12/99

¹⁴⁰ Mathasahi 10/12/99, Sarbarakar 19/1/00, Duryadhan Dalabhera Congress leader 20/1/00

¹⁴¹ Gadipada 27/12/99

¹⁴² Joginath Sahoo BOJBP 16/12/99

¹⁴³ Mathasahi men 10/12/99

then discussed only in the sahi committees. But the cooperation started to fall apart around 1986-87 when political affiliation increased importance, the committees crashed 1992 and were totally dissolved 1995, after the Orissa general assembly elections. "The ministry changed in Bhubaneswar and thus also here".¹⁴⁴ A new president, from Congress, was elected but the accounts and papers were never transferred. "He could not govern the village for a day and not control his fellow VC members" says the old president. Since he thought he would be re-elected, he never allowed the new VC to function.

One month after the elections in 1995, the turbulence in Khatia led to a collapse of the village ministry and no one was responsible, which led to a massive plunder of the forest. The anarchy of forest regulation only worsened when the Congress looters were left without any punishment even though the plunders among the Janata supporters were sanctioned.¹⁴⁵ At the time of my visits, there was a committee for each sahi. In Patansahi is Janata in majority, Talasahi and Mathasahi are both divided internally along party lines, and in the other hamlets the parties are able to cooperate. Experience from other community forest management groups in Orissa shows that disputes over other issues often spill over to forest protection. The majority of protection cases do experience conflicts that led to a temporary or permanent breakdown of protection.¹⁴⁶

The oldest dispute is about the construction of an irrigation dam, and it is seen as the most desired change in the village, rather than better forest condition, water supply is for example the first concern of the harijans. However, the issue has become infected by the party politics and the Janata leader said it would take three days to tell the whole story, since already his grandfather was dreaming about the dam. Not far from Khatia is another large dam constructed, far enough to not give them benefits but close enough to make them jealous. Several surveys have been conducted and even the foundation stone has been laid by a Janata politician in 1995 but in the meantime the government changed and nothing has been built since then. In some sense, which no-one could really clarify, the irrigation plans lead to massive cutting of trees. It might have been a rumour spread by the Congress supporters that the government imposed them to cut the sal if they want to get the dam. Someone said that the forest department changed the status of parts of the forest and handled it over to the revenue department, so the reasons to protect declined.¹⁴⁷ Everyone wants to get the credits for having realised the dam projects and they all accuse each other for being contra productive. No one so far wants to give up the political fight and thus, no dam is constructed and no forest protected.

¹⁴⁴ Patanashi Janata president Bhagadan Pradhan 20/12/99

¹⁴⁵ Talasahi 22/12/99, Gadipada 27/1/00

¹⁴⁶ Conray 2000:54

¹⁴⁷ Patanasahi men 20/12/99

Not having interviewed any FD officials or regional politicians, the actual governmental intentions about the irrigation project are unknown to me and the information from the village risks to be part of political tactics. Another example of the perception of and relation to the FD comes from an incident in the early 1980s, when the forester from the Forest Department set up a plantation of foreign species as teak and acacia.¹⁴⁸ The villagers preferred sal and said that the FD only planted it and then left it without management and thus the villagers cut some parts of the forest. The difficult relation to the FD affects and is affected by the internal disagreements in Khatia. Once all men were in the forest with axes, accusing each other for plunder and lack of responsibility. Instead of using the weapons they finally called for a forester from the government to solve the conflict, who, according to the Congress leader, only confiscated the plundered wood and never returned. The conclusion from this was deepened distrust in the FD capacity to assist in problem solving, especially since the Congress allies argued that the Janata bribed the FD official to not make the plunder a case¹⁴⁹ which all contributed to a feeling of ‘if the FD only will take what we have protected, why should we make an effort?’

4.4.2 Attempts to unite the village

BOJBP has assisted with conflict resolving over the years. They went from door to door with a leaflet, organised meetings, touched the feet of the thieves and gave positive speeches to make the Khatians “realise that all of us are at fault”. The last time was before the elections of 1995 when many villagers cut the trees. A few persons were sanctioned but the party fractions could not agree on what to do when it came out that also the president, from Janata, had been breaking the forest regulations. A meeting with almost all males from four sahis was arranged by Joginath Sahoo. The Congress allies, who maybe saw an opportunity to break down the president, requested Jogi to decide the punishment of the president but Jogi refused and said that all of them had been looting and must try to see the common responsibility. For leader of the Congress party understood it as Jogi was protecting the Janata headman and despite the great respect the Congressman hold for Jogi, justice was more important. “If the president is looting, what would the others learn?”¹⁵⁰ Joginath was offended by this reaction and disillusioned by the uncooperating leaders and never came back to the village. The Nayagarh Forest Protection (the Mahasangha) has made two efforts to solve the conflict, last time in June 1997 but it did not give any result.

After the breakdown of the forest protection committee in 1992, single hamlets continued to protect parts of the forests, as Mathasahi did until 1996. Sahi-wise protection is common in Orissa.¹⁵¹ The tiny hamlet Bhanja Nagar has been

¹⁴⁸ Beguniapatana men 14/12/99, Mathasahi men 10/12/99

¹⁴⁹ Gadipada women and men 24/1/00

¹⁵⁰ Duryadhan Dalabhera Congress leader 20/1/00

¹⁵¹ Sundar 2000:272, Johansson 1996:19

protecting a forest patch now and then. They said “We have two parties and different minds but forest management is one”.¹⁵² Muelia and Beguniapatana are taking care of the forest by today and the same attitude as in Bhanja Nagar and manage to patrol some of Khatia’s forest as well. If someone from Khatia would cut trees in the forest, Beguniapatana can impose fines from that person and no one in Khatia would defend their Khatia fellow. It would be better if the whole Khatia village also protected but “how and who will unite them?”, they say. The villagers in Beguniapatana are more worried about and even scared for the bigger village Lathipada. As in Chadyapalli, the close-by market village is a big threat to the efforts of forest protection.

The organisational structure of the village institutions in Muelia and Beguniapatana is only recently developed. Six months ago there was a conflict when someone had to pay a fine but a party supported this man not to pay. The 25 men who now constitute the VFPC took the initiative to solve the conflict since the VC could not do it. The other villagers then said, “if you are able to unite the village, you should take care of the forest”. The appropriation rules permits collection of fuel wood all days and they claim it is sufficient. Fallen trees after cyclones are distributed and for a pass of 20Rs, it is allowed to take out 100 pieces of bamboo. The forest is only 40-60 ha and species for all kinds of products are not available and there is not sufficient sal either so for agricultural needs they have to go further away, to a bigger forest area. Two guards from the village protect the entrance but in case of serious threats 10-100 men could go to the forest to protect it. There are not many other formal groups in Beguniapatana.

In Gadipada sahi, an alliance was created between the two parties last mango season. The last ten years had not given much mango until 1998, so it forced the village rules to be set in function again. Traditionally were only the three sahis Talipada, Mathasahi and Patanasahi sharing the mangos but now Gadipada wanted a part as well. First Gadipada was considered being too small and the Janata supporters were telling the migrates they would not be part of the community benefits since they have not contributed to plantation and management etc. The Congress argued that all should get a share, according to the men in Gadipada, which are mainly Congress supporters themselves.¹⁵³ After seven nights of meetings, the Gadipadas finally decided their sahi should unite for this village affair and thus be able to get the 30 more household that was needed to become as big as the other sahis. A respectable person helped to mitigate and the solution became a division of shares not based on party lines but on sahi size and the migrants donated labour to plant 10 mango trees and nurture them. According to the Janata leader, his Janata brothers in Gadipada did their part of the community labour but the Congress opposed the decision and told the

¹⁵² Bhanja Nagar men 24/1/00

¹⁵³ Gadipada men 27/12/99

migrants not to follow the arbitration. The migrants wanted to have power and did not want to do their part of community tasks as digging the pond and plant new trees, but when they were going to be punished some groups opposed it.¹⁵⁴ Whatever the truth is, Gadipada seems to be cooperating internally and they said they will not be part of that game again. They are proud and lucky that they can sit all together again. Another spirit is around in Gadipada, they do not trust that the leaders will do again what they have promised hundred times, they said and “Once we will boycott the election, they will realise”.

The most optimistic villagers were a group of young men. At one of my last visits in Khatia, a young man asked me to take part in their hunger strike against the lack of village unity. “If we protest no one will listen but if you are with us...” he said.¹⁵⁵ Eventually the protest never took place due to lack of planning of their part, instead some other groups had a fight resulting in one person getting badly injured. The following day (which was my last day there) I attended a secret meeting of the male youth from different sahis which resulted in a plan for talking to more interested youth and build up hope and trust among them again, for example though visiting Bhanja Nagar to hear how they became united.¹⁵⁶ One young man from Gadipada showed good negotiation skills and had hope in the desire of the youth to change the situation, even though he admitted that if they follow the leaders, they can easier get a job. What happened during the following three weeks when elections were supposed to take place is beyond this study. The conflict pattern in Khatia is similar to the Talajanga village, in an nearby district in Orissa.¹⁵⁷ Bishnu Mohapatra describes the oscillating levels of trust and communication within the village and sahis. After a murder case, spreading distrust within the whole village, the networks were slowly being rebuilt, through common festivals, a youth male association and arbitration meetings. The four sahis united and prospered but eventually the violence returned, undermined by the lack of trust in the older leaders which used power for personal benefits.

Everyone expressed dissatisfaction over the lack of unity even if most of them did not see anything they could do themselves to improve the situation but it was rather in the hands of god. It was only a few times that anyone could admit that their side had a responsibility for the outcome. The Congress leader and some men in Gadipada the used an expression from old epics that sometimes the gods behave bad and the demons do good things. “We have become the demons, we have looted the forest so who else to blame...”¹⁵⁸ In Talasahi, a woman thought that the village can be united if they forget the past and punishments. She

¹⁵⁴ Patanasahi men 19/1/00

¹⁵⁵ Subas Chandra Pradhan 21/1/00

¹⁵⁶ Khatia young men 24/1/00

¹⁵⁷ Mohapatra 1999

¹⁵⁸ Gadipada 27/12/99

suggested to gather the leaders, the president and members and all villagers in a street and bring some neutral people from other villages and then it could be solved.¹⁵⁹ Most people meant that the solution to the problems must come from outside the village and they asked me or my translator to help them. “To bring back unity, we need a neutral person from Nayagarh”, said the Janata president and his sahi brothers said “We are discussing about forest protection in our sahi but what can we do if no the whole village is protecting.”¹⁶⁰ However, the advices from outside mediators are seldom implemented even if both Janata and Congress had been part of the decision.

Besides the hopeful signs of possible unification in some of the hamlets and the networking efforts by some young men, what are the potentials for Khatia to change the vicious circles of egoism and fractionism? With a growing network in Nayagarh for forest protection at community level, a solution might be reached if the villagers of Khatia could move the conflict to be discussed at cluster level where the local leaders have less power and might get perspectives on their own attitude, and help to follow up the arbitration decisions. For the Nayagarh Forest Federation is the forest a key to unity, maybe since the forest is connected to strong cultural values. The BOJBP campaigner might use hard words about the Khatia leaders because of his disappointment over the ill-disciplined first sister organisation of BOJBP but he is also optimistic: “We have not lost hope in those areas as Khatia, the time will come, the future generations will take care of the forest more. The rootstocks are there so the trees can come back. We should use the bad experiences for moving forward.”¹⁶¹ My translator suggested that an external threat could make them come together, as the risk of losing the share of mangos made the Gadiapada sahi to overcome its internal divisions. Maybe the eventual separation of Muelia/Beguniapatana from the Khatia revenue village might make the leaders realise the costs of non-cooperation and what they already have suffered. They risk to lose the best land and already has 33 000Rs for the school been taken back by the government since no one could take care of it and it is a shame to pay fine to the smaller protecting hamlets.

4.4.3 Distrust and generational quarrel

In Gadipada the women and men perceived the conflict most serious and told me that for some time the quarrel went so far that relatives even did not visit each other if they belonged to another sahi or party. Now the women in Gadipada say they go to the houses of all political parties.¹⁶² In other sahis, men express that the relationship involving visiting marriages and death ceremonies were not damaged. “Everything can come, the sun might rise in the west, we will still

¹⁵⁹ Talasahia woman 22/12/99

¹⁶⁰ Patanasahi men 19/1/00

¹⁶¹ Joginath Sahoo BOJBP 15/1/00

¹⁶² Gadipada women 24/1/00

shave our heads at death”.¹⁶³ A former village committee president agrees: “Social relations have never been affected in the worst of situation like emergency and death rituals”¹⁶⁴. Two days after that interview was the harijan street partly destroyed by a fire and all groups from the other hamlets helped to stop the fire and gave food and clothes to the harijans. Other men in the same sahi confess that despite that they have quarrelled a lot, still no one has been beaten and the political fight has not spilled over to the street. At some festivals, the whole village will come to one sahi but for the most important, when celebrating the god of the temple in Muelia, each sahis has their feast. It is partly due to logistic problems since the increased population makes it impossible to sit and eat all (men) together and but it is also used as a weapon in the power struggle. Feasts can be seen “as a site of renewal of trust and connectedness among the members of the localities [sahis].”¹⁶⁵

The leaders are very antagonistic towards each other; they have a lot of pride built up over the years. “We don’t cross borders” said the leader of the Janata party and Jogi expressed it “Even cats and dogs are politically allied”¹⁶⁶. One elder man expressed his approach to the rivals: “I’ll talk to a person, he’ll listen and then he stays back in his house. I do the same to them”.¹⁶⁷ When I came to do interview them, I was most often met with suspicion and distrust: “Don’t come here and tell us to protect again.”¹⁶⁸ On the other hand, many people asked me to bring unity to them and invite Jogi to come again. The united hamlets of Gadipada and Bhanja Nagar were more open and approachable, maybe because they did not perceive us as a threat since they are not fighting among themselves. The women in Patanasahi and Mathasahi thought I came here to make friends and were less suspicious towards me, but it might be a sign of women’s lack of influence and distance from the power. Whatever is the causal direction, there are not many formal groups in the village: a rather passive savings- and credits group of the women, four registered youth clubs in the village ‘doing nothing’. To my surprise, the men in Patansahi did anyway identify themselves more as Khatians than belonging to their hamlet.¹⁶⁹

How do the Khatia inhabitants explain the lack of village unity? The dissolved VFPC is the fault of the party feeling. Nobody respected the rules, the forest became nobody’s property and no one got punishment, said the harijans. The lack of unity among supporters of Congress and Janata is repeatedly recognized as the cause to the troubles. Even if party politics existed also in 1972 when they started to protect, it later spilled over to almost all parts of life creating a situation when

¹⁶³ Gadipada men 27/12/99

¹⁶⁴ Patanasahi men 19/1/00

¹⁶⁵ Mohapatra 1999:9

¹⁶⁶ Joginath Sahoo, BOJBP 16/12/99

¹⁶⁷ Patanasahi men 19/1/00

¹⁶⁸ Mathasahi men 10/12/99

¹⁶⁹ Patanasahi men 19/1/00

one can count which household belongs to which party. In Khatia, the deeper conflict seems to be between two groups of leaders, which have used party politics as a new tool in their power struggle. Joginath Sahoo of BOJBP means that the problems arise due to the family tradition of thinking “we are the masters, we are supposed to decide in the village”. It becomes a generational conflict where the sons grow up and inherit the aversions, “like an Indian-Pakistan game”.¹⁷⁰ There is a strong social norm on children to follow the party affiliation of their father as long as he is alive. The leaders are suggested to behave in a very egoistic manner and taking all opportunities they can in order to demonstrate their strength. Also in Beguniapatana they think the protection in Khatia came to an end because “it is a big village and everyone wants to be a master”.

5. Comparative analysis of Chadyapalli and Khatia

5.1 Summary of the performance in the two villages

Let us now summarise the outcome in terms of efficiency and equity in the two villages before going through the specific attributes. Chadyapalli village has been very efficient in protection of trees and management of grown-up species, which is further enjoyed as valuable forest products and the benefits from more stable rainfall etc. Also the institution is efficient: sustainable, flexible and generating income to spend on common interests. Regarding equity, the different village committees are representative and perceived as accountable. The people of the four hamlets are satisfied, with the exception of the harijans, marginalized in numbers and in power and not enjoying the common benefits as much. However, forest cooperation has reduced the caste based divide. Compared to other villages in the area (besides tribal villages), women have some formal functions, strong committees and the men have learned to take care of the children when the wives go to meetings.

In Khatia, at the other hand, is the forest in a more destructed state and the institutions are instable. Even if the protection started in the early 1970s, it was most of the time very informal and thus were the rules not enough commonly agreed or understood or supported. A VFPC existed for 12 years but finally many looted the forest and the sanctioning system failed to punish the thieves and the conflict resolutions was not obeyed. The reason, stated by the villagers, is the political divide which destroyed all collective action within and between the sahis. The entrance of political competition worsened a conflict between traditional leaders, which can be interpreted as the underlying cause. Social capital was destroyed and thus increasing the costs of communication, monitoring and sanctioning. Internal conflicts, plus external threats from other villages and the insecure status of the forest derived from eventual plans for an irrigation dam, diminished the motivation for protection. However, some of the sahis have been

¹⁷⁰ Joginath Sahoo BOJBP 16/12/99

patrolling the forest more or less the whole period and today are half of the sahis internally united and cooperating for forest issues. Some young men are discussing across the segments and might challenge the old leaders. In terms of equity, non-functioning rules and party clientilism are not contributing to fair outcomes and women and harijans are less active here than in Chadyapalli. With help of the set of 11 explanatory variables (8 insitutional and 3 about the groups of users), I hope to give suggestions to why the villages did start up protection and why only one of them did manage to continue with the co-operation and to shed some light on the issues of establishment and robustness of institutions.

5.2 Analysis of institutional arrangements

Here are the differences and similarities regarding the analysed institutional rules, following the eight Ostrom design principles; clearly defined boundaries, congruence between appropriation and provision rules and local conditions, collective choice arrangements, monitoring, sanctions, conflict arena, minimal recognition of right to organise and finally nested enterprise.

Clear boundaries is one of the most important aspects when it comes to prevent an open access situation. The boundaries of the forest areas are quite clearly defined (the hill area behind the both villages) and there is only one or two roads leading to the forest which makes it easier to monitor and thus exclude non-members. Both villages have problems with neighbouring villages coming to cut their forest but in Chadyapalli they have now established a cluster committee (see nested enterprise) and cooperate with them. Chadyapalli has furthermore worked out a system of rights to all outsiders, if they pay a fee and preferable know someone in Chadyapalli to guarantee their trustworthiness. All members of the sahis within the revenue village, in Chadyapalli and in Khatia, are considered being legitimate forest users, but only the men have the right to take part in decision-making. In Khatia, where half of the hamlets are protecting although separately, the protecting sahis impose fines on looting non-protectors from other sahis. The undefined situation in the non-protecting hamlets on who are protecting what causes some confusion and diminished the compliance of rules.

Any eventual lack of **congruence** between rules and the local environment does not seem to be a problem in my cases, and it is often less problematic when the rules are established locally. The protection system does not break down or did break down because of rules badly adjusted to the ecological limits, as far as I could understand. Thanks to educational programmes of the BOJBP, the villagers of Khatia and Chadyapalli are well aware about ecological processes linked to the forest, as for example that forests contribute to water levels in streams and produces oxygen.

Moving further to the impact of **collective-choice arrangements**, the Chadyapalli inhabitants can easily take part in constructing rules for decision-

making and the general body did recently change the construction of village committees. Even if there are some villagers still protecting the forest in Khatia, there are no functioning arenas for collective decisions in the three main hamlets (which are not protecting) and when it comes to cooperation among all the sahis. When the party conflicts divided the village, the forest protection collapsed and rules established by the opposite group became less important to follow.

In Khatia, as well as in Chadyapalli, the harijans complained about their exclusion from decision-making because of the 'game of numbers', or the small size of their group compared to the rest of the villagers. However, the appropriation rules changed in Chadyapalli after complaints from the harijans and they are happy about the improved caste-relations, thanks to the participation in the forest committees. The greater openness of the VFPC in Chadyapalli do also apply when it comes to inclusion of female members. It is already mentioned that only the men are involved in formal decision-making but the lack of influence does not lead to more frequent obstruction of the rules by women, since the norms in society to follow decisions of the males are strong.

The forests are not far away and it seems easy to find out if someone has been cutting trees without permission; all eyes of the village are **monitoring** the compliance of appropriation rules. As common in Orissa, the two villages started to protect the degraded forest land through patrolling of all men on a rotating basis (thengapalli). After some years it was considered as a no longer necessary practise in Chadyapalli since everyone were following the rules and there is a guard at the forest entrance. The thengapalli protection in Kathia is limited to certain hamlets which is a pity since even if everyone would find out about non-compliance, the constant patrolling can prevent theft and if it is organised on an joint basis as thengapalli, it is less likely that the rules are broken.

Despite the Gandhi principles of non-cohesion in punishment, praised by the forest protection network BOJBP which supported both the villages, the **sanctions** are financial. The failure of delivering fair sanctions contributed to the breakdown of the all-Khatia VFPC. Now half the village have rules about sanctions, which apply for the whole village, i.e. all forest users, and they seem to be able to enforce the punishments. The hamlet, the village committee or the VFPC are the first arenas for emerging disagreements and **conflict-resolution mechanisms**. For forest issues, there is a higher instance in this area, the BOJBP network and more lately the Nayagarh Forest Protection Federation, which provides an outside mediator with broad experience and good reputation. Despite those mechanisms, the conflicts of Khatia has not been resolved, the arbitration of the mediators have not been followed.

The **recognition of rights to organise** becomes important in Orissa where the forest lands are under the authority of the government which is not giving any

legal rights to local communities for rule-making, punishment and enjoying of other benefits than minor forest products. Even if those rules are formally the same for both Chadyapalli and Khatia, they are under different local forest officials which seem to have an impact on the enforcement of the formal rules. The Chadyapalli inhabitants are not bothered by the Forest Department which is even tolerating the collection of fees for using the forest. The situation is different in Khatia though I do not have a perfectly clear perception of the relations with the FD. At least two projects, on the irrigation dam and tree plantation, have threatened the protection of the Khatia forest and several examples show the inability of FD to support the local management. Instead the corrupt foresters were used in the political power struggle and contributed to growing distrust and higher discount rate for the forest benefits.

The last attribute mentioned in Governing the commons, **nested enterprise**, refers to larger clusters of CPR regimes. As mentioned several times, both villages are more or less parts of the networks of BOJBP, the Nayagarh Forest Protection Federation and the Orissa Jungle Forum. BOJBP and certainly Joginath Sahoo were of great importance in starting up protection and ensuring formalisation of rules and inclusion of all sahis, harijans and in Chadyapalli, also the women. There might though be a difference in the treatment. Khatia was the first sister organisation of BOJBP and when they came to Chadyapalli six years later, they had more experiences and also more resources as paid fieldworkers. My conclusion is that it makes a marginal difference and the internal will and efforts of the village are anyway more crucial to the outcome than external influences; if Khatia had not been divided by party conflicts, they could have been active in the existing networks. But how it now is, they are not seeking cooperation with neighbouring villages or with larger networks. Chadyapalli is now one of 15 villages in a cluster of protecting villages and the office is also situated in Chadyapalli.

5.3 Analysis of the group of users

In Chadyapalli has the protection given many benefits; peace and unity and village development as the school and the road, agricultural stability and wealth and created situation of a **low discount rate**. The Forest Department is not bothering them and they cooperate with other villages. It is very clear that the inhabitants of Khatia use a high discount rate in relation to future benefits, which leads to a prisoners dilemma situation. The perceived discount rate is influenced by the village institutions (rules), degree of social capital (if you trust you neighbours to also have a low discount rate and not cut the forest immediately) and external threats. Kahtia people complained that their village fellows did not follow the rules and that outsiders were plundering their forest. Of importance is also the planned development project for irrigation and the relation to the Forest Department (see next chapter). Someone said that the Forest Department changed the status of parts of the forest and handled it over to the revenue department, so

the reasons to protect declined. The actual governmental intentions about the irrigation project are unknown to me and the information from the village risks to be part of political tactics (though higher governmental levels might be likely to also be divided by political affiliation). Whatever the truth is, the insecure status of the forest land, in case a dam will be built in the area, affects the cost and benefit analyses of forest protection. The discount rate for forests rises, which means that it is less value attributed if it might soon be cut anyway. Neither does the FD support their efforts to manage the forest, so why protect if it can be taken away?

I have operationalised the concept of **social capital** in numbers and activity level of formal networks, interaction with different groups and trust in foreigners. Those are chosen due to practical reasons, what was possible to get reliable answers about. My major difficulty is to say anything about the amount of social capital at the point in time of the set-up or break-down of co-operation. In Chadyapalli it only seemed to have increased and started a process of virtuous circles. Chadyapalli had several groups, for women, youth, village committee and sahis committees and the harijans could give examples how their participation in the VFPC had increased the tolerance and thus bridged over the separate caste groups. The same goes for the trust and interaction between women and men. The heterogeneity of caste affiliation in Chadyapalli did not hamper the cooperation. Interaction between sahis took place for shopping, festivals, marriages and committee meetings and the attitudes towards other sahis or any other group were relaxed. I do not know how much it says but it was very apparent the different ways I was treated in the different villages and sahis. Generally, the Chadyapallies were friendlier but I guess it is more attractive to talk about cooperation than conflicts and the translator was more well-known in Chadyapalli, where they also have been a researcher before me, though that impression can have been negative or positive.

In Khatia, the formal groups for village decisions were collapsed or most often newly established and no institution for all sahis together. The active youth clubs were inactive but a women's savings and credits group did exist in one hamlet. Also religious cooperation was infected by conflicts and one of the biggest feasts, was celebrated in separate sahis. The united hamlets in Khatia were also more open and less suspicious than the divided sahis. However, there had been both a village committee for all sahis and a joint VFPC and an active group of youth. The interaction within the village and even within sahis or families had been very affected by the conflicts and distrust but at the time of my visit, they said they also visited the houses of members in the opposite party and when the harijan sahi was threatened by a fire, all villagers came to help out. I was most often met with suspicion and distrust besides from some women and in the united hamlets of Gadipada and Bhanja Nagar, maybe because they did not perceive us as a threat since they are not fighting among themselves. Khatia is more homogenous

regarding caste, but totally divided along party affiliation. It is difficult to analyse the degree of informal interaction and social trust without deeper insight in Indian village sociology and culture. To some extent the groups are not totally separate and probably it would be impossible to live a rural life in total isolation from your nearby neighbours. Nevertheless, compared to Chadyapalli the community networking and positive expectations of fellow villagers are less evolved.

Concerning local **leadership**, Chadyapalli inhabitants seem to be very content with the functioning of the forest protection committee and to consider it being representative and legitimate. The leaders were often changed and for important decision they called for general assembly meetings of all men. Chadyapalli is so far developing its leadership and institutional responsibility and the process seems to be robust even if many protection groups enter difficulties after some more years than Chadyapalli has experienced, when benefits of larger trees are to be distributed. Even if Khatia once protected, although not in a particularly robust manner, the competing leaders and lack of inclusion of all sahis contributed to the breakdown of the all village VFPC. Khatia is now very instable with frequent shifts and collapses of committees and migrants sahis competing of shares and power. The greatest source of instability is the political competition, and in the largest democracy in the world, party politics are also an active part of village life (panchayat level). In Khatia, everyone I met agreed that the conflicts increased when party politics came around and the divide caused the collapse of the joint village institutions. Conflicts in other issues than forest spilled over to everything and became embedded in party conflicts. Village cooperation being destroyed by party politics is a common situation; the Nayagarh Forest Federation secretary said many protecting villages were lost where party politics came to rule¹⁷¹. Since it is the election that decides who controls development expenditure and then can divert the benefits of projects to their kin or allies, party politics becomes the root of the schism.¹⁷² However, many villages, as for example Chadyapalli, have succeed (so far) in not making parties ruin the village institutions and there are communities constrained by political fights which have managed to overcome the divide, but the conflict was just one generation old.¹⁷³

5.4 Key findings

During the time of three months when I visited the villages, there was no doubt that Chadyapalli was a village of success and Khatia one of failure. The discussed explanations are in a simplified way summarized in figure 4. There are no measurement for the degree of successful performance, thus ‘+’ and ‘-’ are only indicators of the tendency.

¹⁷¹ Laxmindhar Balia, secretary Mahasangha 19/12

¹⁷² Jayal 1999:25

¹⁷³ Jiginath Sahoo BOJBP 16/12

Attributes		Chadyapalli	Kathia
Outcomes	Efficiency	+	-
	Equity	+	-
Institutional	1. Clear boundaries	+	-
	2. Congruence	+	+
	3. Collective choice mechanisms	+	-
	4. Monitoring	+	-
	5. Sanctions	+	-
	6. Conflict arena	+	-
	7. Right to organise	+	-
	8. Nested enterprise	+	+
Appropriators	1. Low discount rate	+	-
	2. Social capital	+	-
	3. Leadership	+	-

Figure 4. Summary of attributes contributing to the outcome of CPR institution in Chadyapalli and Kathia, November 1999 – January 2000

Chadyapalli does fulfil all the institutional design principles, just as they are supposed to be signs of a successful CPR institution. The achievement of Chadyapalli can be explained with high amounts of beneficial social capital among different groups of the village during a long time. Their attempts to collective action for the forest were supported by external protection groups, giving advice, constituting a third part in conflict resolution, strengthening social capital and nested enterprise (contact with adjacent villages). Then positive circles made them continue with the effort, their rules enabled them to get income to spend on village commons, and maintain social capital and engagement for protection. The question is how the social capital came about in the first place but maybe there are sufficient explanations in the latent stock of trust and the positive networking and encouragement of BOJBP and OJM. Typically for Chadyapalli is also the relatively inclusive feature of the decision-making process – for women, harijans and all hamlets.

In Kathia there are no clear property rights defined and no appropriators' organisation. The rules for membership, monitoring, sanctions and collective-choice mechanisms are not functioning for the Kathia sahis, and thus neither the collective action for forest. Despite past and present try-outs to protect, Kathia's difficulties lay in the missing of an institution, inclusive enough to be accepted. With a more permanent arena to set rules, the much needed networking, interaction and trust-building would be improved and the discount rate could decline. The protection that existed broke down due to confusion regarding those rules, especially the collective-choice or the decision-making procedures that

were characterised by egoistic strategies and not satisfying norms of representation and accountability. The Khatia case is focused on the whole village and thus showing the lack of inter sahi cooperation and the instability in the united sahis. If comparing different sahis within Khatia, the result could be more positive. Some villagers are protecting but they are dependent on the cooperative attitude of the whole village. Two important explanations to the non-existing institution for forest protection, are the old conflicts with not so responsible leaders, and the external disturbance from the Forest Department and the dam construction.

Congruence to the ecological context and the nested enterprise variables are the only variables where Khatia is not so different from Chadyapalli, since they also are located within the same area. More research might show more complex result about these more external factors.

6. Concluding remarks

Garett Hardin would recognise the prisoners' dilemma situation in Kathia, and Elinor Ostrom would feel at home in the cooperating Chadyapalli. But Hardin should maybe not have noticed problems behind the prisoners' dilemma, as high discount rate and no clear defined appropriators. The ideal type villages show both some of the complexity of CPR and social capital theory, and simplify it with their extremeness. The need of multi dimensional explanations is evident; internal and external variables interact and social capital for example interferes with all other variables. How to weight the importance of single variables? Furthermore, the understanding of institutional establishment and maintenance is still missing.

The Chadyapalli case can help to answer what makes local communities cooperate; functioning rule making institutions and arenas for face-to-face communication – creating social capital. But how important for a successful outcome are the perception of fairness in institutions and the inclusion of a women and poor people? Experiences from Kathia shows what is making cooperation less likely; internal divisions and distrust because of political party divisions and weak external right to organise. What can explain this difference? What can help to clarify the shifts in levels of collective action? Are there other explanations than the variables in this study?

Kathia's story can first induce to explanations of path dependency – old relations of mistrust and conflict between the two powerful families of the village are continuing to disturb cooperation. Political affiliation became a new arena for the traditional leaders and it worsened the divide and antagonism though that does not mean that the parties initiated the conflict. The historical conflict in Kathia can explain why Chadyapalli was not affected negatively by the entering of party

politics, which also happened in that village. What speaks against the vicious circles of generational conflicts in Kathia is that first one hamlet and then the whole village actually did protect the forest during at least 10 years even if it was not without problems.

Reasons explaining the conflict might also be found on higher levels (*panchayats*, Nayagarh district) which I have not investigated. I would also like to know more about the influence of the Forest Department and other external actors. The right to organise for forest protection in Kathia is disturbed by a corrupt and inefficient Forest Department, which is contributing to higher incentives to cut the forest instead of protecting it for later benefits. The conflict with the Forest Department highlights the diverging perceptions of forest management as seen at many other cases. Chadyapalli did not encounter such problems with the Forest Department.

Another valuable explanation is the lack of clear definition of appropriators and thus the aspect of size and group composition. The increasing amount of new inhabitants in a newly established instability (and plundering neighbour villages) and uncertainty about how to share costs of monitoring and decision-making and benefits from the forests, as well as other commons resources of the village. Maybe it also constituted a threat to the old power centres, the leaders of the hamlets of Patanasahi and Talasahi. Issues of defining the people, of size, homogeneity and robustness in existing institutions are interesting topics for further studies.

The cooperation level in Khatia has been very dynamic and it seems likely to continue to fluctuate. How the situation is in the villages as of today is not known to me. The co-operation in Khatia is not stable but it means it is not totally hopeless either. Khatia was protecting more or less from 1972 and still partly does today and the young men were trying to break the rigid power-play. Local communities seem to have a potential in management of local natural resources, if they are given the opportunity. Whatever variables the researchers will emphasize in explaining successful CPR institutions, I hope the villagers continue to try to find their ways to cooperation.

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- 10/11 Participating in solving of divorce case. Women and men of Chadyapalli and Abhimanpur
- 10/11 Alaka Nanda, fieldworker women's groups, BOJBP
- 11/12 Abhimanpur, five men
- 15/12 Talapatana, women and men (seperate)
- 16/12 Talapatana, men
- 16/12 Telepada women
- 23/12 Harijan women and men
- 13/1 2000 Gangadhar Pradhan, president of Chadyapalli VFPC
- 13/1 Dhaniswar Pradhan, treasurer of the cluster committee, Chadyapalli
- 15/1 Harijan women
- 16/1 Harijan women and men
- 20/1 Hadubandhu Senapati, former secretary of the VFPC, Chadyapalli
- 25/1 Chadyapalli, 25 men

Khatia:

- 10/12 1999 Mathasahi men
- 14/12 Beguniapatana men
- 20/12 Harijan women and men
- 20/12 Patanasahi men (Janata)
- 22/12 Patanasahi, Mathasahi, 15 women
- 22/12 Talasahi men and women (seperate)
- 27/12 Gadipada, four men
- 19/1 2000 Raj Kishore Bhanja, headmaster, (Congress) Talasahi
- 19/1 Patanasahi, five young men
- 19/1 Patansahi, men
- 20/1 Duryadhan Delabehra (Congress) Mathashi,
- 21/1 Harijan women and men
- 21/1 Subas Chandra Pradhan, (young man) Patanasahi,
- 21/1 Bhagaban Pradhan (Janata) Patanasahi
- 24/1 Bhanja Nagar, men
- 24/1 Gadipada women,
- 24/1 Durga Charna Patra (Gadipada), Subas Chandra Pradhan and other young men

Others

- 16/12, 15/1 Joginath Sahoo, BOJBP
19/12, 19/1 Laxmindhar Balia, Nayagarh Forest Federation and OJM
19/12, 11/12 Barna Vaibha Panda, Nayagarh Forest Federation (and continuous conversations)
15/1 Narayan Hazary, professor political science Utkal University, Bhubaneswar, BOJBP

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Appendix 1. Wordlist and abbreviations

Adivasis	Indigenous population in India, so called tribals
AO	Appropriators Organisation
BOJBP	Friends of Trees and Living Beings, a local forest protection network
Brahmin	Priest, the highest caste
Chasa	Farmers jati
CFM	Community Forest Management
CPR	Common Pool Resource
Dalit	A person belonging to a low caste, ‘untouchable’
FAO	The Food and Agricultural Organization of United Nations
FD	Forest Department
Harijan	A person belonging to a low ranking caste, ‘untouchable’
Jati	Caste, or rather ‘sub caste’. Everyone belongs to a jati, also the harijans.
JFM	Joint Forest Management
Jungle	Forest
Mahasangha	Federation
Mahila mandal	Women’s group
OJM	Odisha Jungle Manch, Orissa Forest Federation
Paddies	Rice fields
Panchayat	Lowest governmental level (parish)
Purdha	Women have to be inside and cover their head/faces
Rs	Rupees, the Indian currency, 1 Rs is equivalent to approx. 0,25 SEK

Sahi	Hamlet, (part of a village)
Sal	A kind of tree (<i>Shorea robusta</i>)
Thengapalli	Stick rotation
VFPC	Village forest protection committee
VC	Village Council

Appendix 2. Village history timeline

Chadyapalli

- 1940** The forest started to decline which lead to an open access situation
- 1980** Bald forest, until 1990
- 1988-89 Two years of drought
- 1990** BOJBP and Jogi came to Chadyapalli. Talapatana started to protect the forest.
- 1991 Tengapalli started, until 1993. Establishment of Forest Protection Committee for the whole village
- 1995** Construction of new school
- 1996 Women's protection committee established
- 1997 New road to Talapatana
- 1999 High Power committee for non-forest issues

Khatia

- 1947 Independence. Suggestion irrigation project.
- 1972 Mathasahi young men starting to protect the forest
- 1973 United village due to canal
- 1976 Thengapalli and protection in VC
- 1980** All village meeting, all protecting
- 1984 BOJBP initiate VFPC with Muelia and Beguniapatana.
- 1987 Politics raised
- 1990** Janata in VC
- 1992 VC start to collapse. VFPC starts to break down but Mathasahi protects until 1996
- 1994 VFPC breakdown
- 1995** President cut trees. BOJBP conflict solving. Congress in VC but collapses. Division of ponds. No common feast.
- 1997 Nayagarh Forest Federation conflict solving.
- 1998 Gadipada united. Beguniapatana united and start to protect the forest.
- 2000** Beguniapatana and Muelia make application for separate village. Fire in harijan basti. Young men took initiative to unite

Appendix 3. Questions – Semi Structured Interview

The resources

What is the kind of tenure, ownership of the forest around the village?
 What is the size of different kind of forest around the village? How much is under community forest management?
 What other commons are there? Have those borders, ownership changed over time? Map.
 Which are the dominant, most important species (according to various users)?
 What are they used for? Are they available all seasons?
 When did the village start to protect the forest? Why? Who? How?
 What was the status of the forest before they started the protection? How is the forest now, how was it before degradation? Other reforestation projects or influences? Timeline
 What are the rules and practise for protection, sanctions, monitoring, distribution of benefits etc?

The village

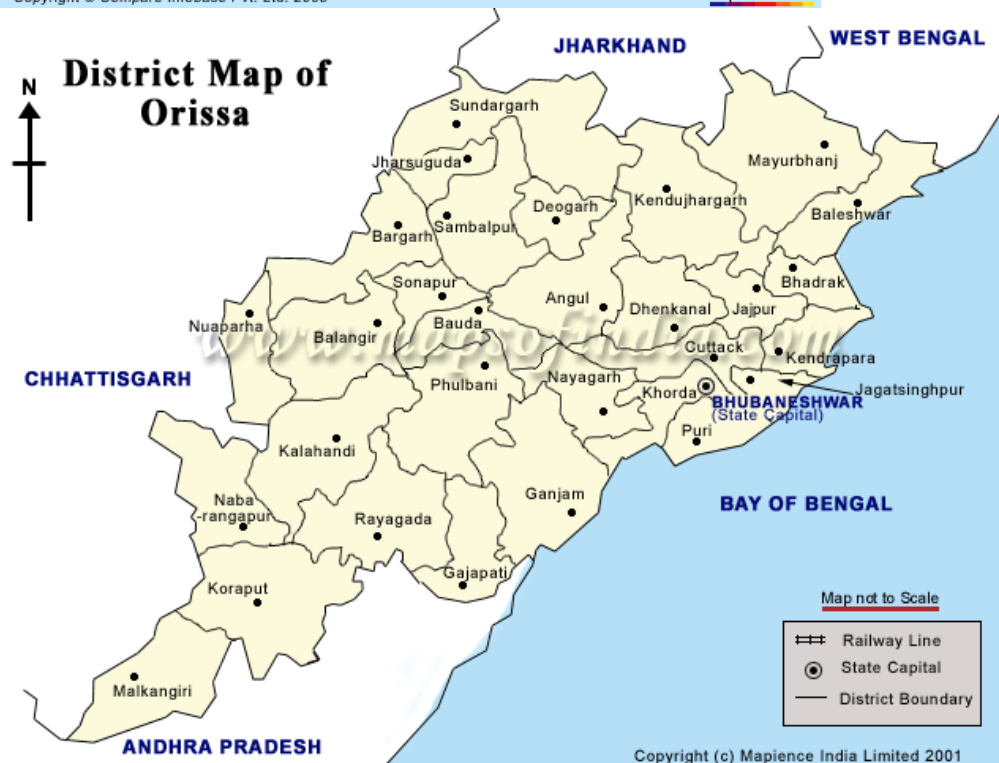
Composition: households, persons, caste, professions, age, landless, women headed households.
 Interests: use and dependency and benefits of forest products, seasonal, gender etc,
 Changes: population growth, migration, development, ownership, organisations, external influences, politics, Stability, new settlers and the village committee working.
 Interaction: organisations in the village, women's committee, youth clubs, panchayat, festivals, meeting place, school. Frequency. Communication. Level of trust.

The institutions – VFPC and VC

How it started: why, who, first rules, conflicts, when. Tradition of cooperation.
 Membership: how decided and who, temporary rights, composition. Structure: general body, executive committee. Representation Elections or kinship based?: how announce, frequency, right to vote, Meetings: frequency, presence, issues.
 Decision-making: how negotiate preferences.
 Rules (distribution, implementation and monitoring and punishment: Social norms- shame and guilt, unwritten the spiritual values, rules based on species, area, product, user, time, special occasion. Kind of fairness used.
 Conflict resolving: Problems: Future:
 What are the relations to agencies outside the village as BOJBP, OJM, FD

Appendix 4. Maps of India and Orissa

Source: www.mapsofindia.com



Minor Field Studies at the Department of Government, Uppsala University:

- 1 Sten B. Widmalm *Dowry Crimes and Law Implementation in India*, 1990.
- 2 Eyvind Reyes *Freedom of Expression in Nicaragua: A study of the Debate*, 1990.
- 3 Somers Fry *Social Forestry in the Indian Context*, 1991.
- 4 Karin Bergenfur *The Role and Function of the Ombudsman in Zimbabwe*, 1991.
- 5 Ingrid Widlund *The Political Relevance of Voluntary Organization in Development - An Indian Case Study*, 1991.
- 6 Kristina Karlsson *National Resistance in Uganda*, 1991.
- 7 Mattias Burell *The Social Base of Political Opposition in Taiwan: Is Class Analysis a Viable Method?*, 1991.
- 8 Per Strand *SWAPO and Nation Building in Namibia - Transfer of Power in a Post-Communist Era*, 1991.
- 9 Henrik Berglund *Promotional Groups in a Particularistic State - A Study of Women's Organizations in India*, 1991.
- 10 Ann-Marie Sundberg *Still the Century of Corporatism? An Empirical Study of the Position of Namibia National Student Organization*, 1991.
- 11 Karolina Andersson and Therese Borrman *Juntas de Vecinos - A Local Territorial Organization and its Contributions to Democracy*, 1991.
- 12 Lena Forsgren *Land Reforms contra Private Property Right - The Case of India*, 1991.
- 13 Staffan Smedby *Economic Development and Democracy in Chile*, 1991.
- 14 Anna Nyfjäll *Bharatiya Kisan Union - A Farmer's Movement in an Urban-Bias Environment*, 1992.
- 15 Katarina Fröberg and Kjell Å Sjöberg *Information as a Policy Instrument*, 1992.
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- 18 Johan Dahlin *The Land Question in Zimbabwe*, 1992.
- 19 Anna Lewin *Chieftaincy - An African Version of Corporatism*, 1992.
- 20 Richard Myrenberg *NAAM in Burkina Faso - A Study of the Relationship Between a Local NGO and the State*, 1992.
- 21 Karin Schultz *Political Hinduism - The Politicisation of Ethnic Identity by the BJP in India*, 1992.
- 22 Ingela Österberg *La Structure Décisionnelle dans une Communauté Rurale et un Village au Sénégal*, 1992.
- 23 Pereric Högberg *Autonomy of the Press in Zambia - A Study of Media Control in a Newborn Democracy*, 1993.
- 24 Anna Grauers *Cape Verde - a Democracy Study of MpD and PAICV*, 1993.

- 25 Mårten Henning and Göran Schill *Good Governance and Politics in Kenya*, 1993.
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- 30 Åsa Gerger *Paper Parks or Protected National Parks? A Case Study on the 'Protected Areas Resources Conservation' Project in Jamaica*, 1994.
- 31 Elisabeth Corell *Water and Security: The Case of the Cauvery River in South India*, 1994.
- 32 Peter van Gylswyk *The Democratic Process and the Inclusion of an Indigenous Minority - a case study of the Ju/'Hoansi in Namibia*, 1994.
- 33 Karolina Gustafsson *Does Aid Work - A case study of the sustainability of a former aid-project in Tanzania*, 1994.
- 34 Per Nordlund *Organizing Democratization - Politics and Power in Zambia*, 1994.
- 35 Fredrik Uggla *Pride, Prejudice, or Pragmatism - Negotiating Constitutional Changes during Chile's Transition to Democracy*, 1994.
- 36 Jean-Luc af Geijerstam *The 1991 Constitution of the Lao People's Democratic Republic; Constitutionalism in a One-Party State?*, 1994.
- 37 Joachim Beijmo *Mass Media and Democratization - A Case Study of Eritrea*, 1995.
- 38 Helena Grusell and Ingela Johansson *Unity Within Diversity? Mobilization of the Indigenous People in Ecuador, through CONAIE, to Reach Influence in National Politics*, 1995.
- 39 Malin Krook *Watchdog of the People - a Study of the Free Press in Botswana*, 1995.
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- 60 Fredrik Ridaeus *Habit or Choice? The Role of Associational Life in Promoting Interpersonal Trust in Cape Town*, 1998.
- 61 Jessica Blanck *Civil Society, Decentralization, and Democratic Development: The Case of Kerala, India*, 1998.
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