

# Resilience of Communities & Role of Social Capital: A Revisit to Two Forest Communities from Vidarbha Region in Central India

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## Abstract

Rural communities in the developing world depend heavily on natural resources. Ability of these communities to safeguard the resource would depend on their resilience which is nothing but their intentional action to build collective capacities of its citizens to face changes as well as developing community capitals to cope with a dynamic and changing environment. One of these is social capital which is tendency for mutually beneficial collective action that different communities possess to different extents. It is being considered an important development tool as it helps communities plan, coordinate and successfully manage their resources. But, what are the factors that help build and sustain this capital in communities in order to enable them to be resilient? This paper explores the change in social capital and thus their ability to be resilient in two forest-dependent communities from Gadchiroli and Chnadrapur districts of Vidarbha region in Maharashtra State. Data was collected over two points of time, spanning five years through IFRI protocol and household survey. Multi-Criteria Analysis was used for analysis of data. The case studies bring out the fact that despite a long history of exclusion from ownership and management of forests in India, there are communities can be resilient and social capital plays an important role in bringing the resilience in them. However, resilience is not a fixed quality within a community. Rather, it is a quality that can be developed and strengthened over time. Identifying and reviving the stock of social capital, and incorporating these in the Joint Forest Management institution will help in building forces of resilience and collective effort in traditional communities. For non-traditional communities that are struggling to maintain it need positive intervention and inputs from external agencies (like the forest department or local NGOs), as external agencies can play an important role by helping communities in utilizing the stock of social capital productively with positive returns.

**Keywords:** Forest Conservation, Resilience, Joint Forest Management, Revisit, Social Capital, Traditional & Non-Traditional Communities, Vidarbha Region

## I. INTRODUCTION

Rural communities in the developing world draw heavily from natural capital like grazing areas, forests, water resources, which are mostly properties with common access [18]. This nature makes the solutions to problems of natural resource management important for rural development [22]. It also raises the question about their sustainability as they face various threats which in turn are a threat to the survival of the communities. However, in face of adversities communities have shown resilience and protected their source of livelihood and subsistence [12] some have partially succeeded and some have failed [17].

Resilience has been considered by scholars both in terms of resilience of people and ecological resilience, where ecological resilience is the ability to recover and continue to function even after disturbance [Putam and Wratten 1984 as cited in [5]. On the other hand, “a resilient community is the one that takes intentional action to enhance the personal and collective capacity of its citizens and institutions to respond to, and influence the course of social and economic change” [7]. Thus, community resilience is developed through collective effort of people in a community and ecological resilience is assisted by community resilience. Culture and institutions of a community help build resilience of an ecosystem by preventing over-exploitation of the resource or even help it recover [5],[6].

Institutions are an important component of social capital [26] as they create habits of cooperation and solidarity in its members [21]. However, social capital also includes the quality of relationships between members of a community/institution determined by values like trust, reciprocity, and shared understanding, which supplement institutional rules. These values also contribute to making communities resilient. Thus an important factor in resilient communities is social capital [10], [15] which is tendency for mutually beneficial collective action that different communities possess to different extents. Like the conventional capitals, social capital also requires investment. It can erode or deplete if not used or is misused [24], [25], [19]. It also has a stock that can lead to a flow in the form of economic returns. It may not be possible to build this capital over a very short period of time as trust, reciprocity, and institutions take time to build effectively. But it is not necessary that social capital has to be a historically fixed endowment [22].

Ability of communities to be resilient through collective efforts has important implications in the developing world like India as a large part of the population depends on forests for various goods and services (Pretty 2003, Beck and Nesmith 2001) and forests being common property resources, they warrant collective action. Recognizing this, participatory forest management was introduced in 1990 in India through Joint Forest Management (JFM) program. There are 1,81,213 Joint Forest Management Committees (JFMCs) in 28 states of India managing over 2,29,38,814 ha. Of forest area [2]. With larger role to communities to manage a resource, it becomes important to identifying factors and abilities of local communities and building on them becomes pertinent. But over a century of exclusion of the local communities from forest management in India questions the wide-spread capability of local communities to be resilient to protect a resource which they once possessed, that is, is the historical stock of social capital still around? Many studies on social capital have concentrated on factors that affect social capital [14], [9]. However, there has been limited research on how changes in social capital occur in communities over a period of time. This paper explores the change in social capital in two forest-dependent communities over two points of time, spanning five years, and the factors that led to their resilience.

## II. METHODS & MATERIAL

### A. Study Sites

Two case studies were selected from Vidarbha region of Maharashtra State. Gond is the dominant tribe here. The region has over 54.11 percent [3] of the forest area of the State. However, it is also a poor region with a high percentage of population below poverty line (BPL). The two districts of this region (Gadchiroli and Chandrapur) from which the two case studies were selected remain one of the few districts of the state with good forest cover. Village Mendha from Gadchiroli district has 83 Gond households. Saigata from Chandrapur district has 98 households with diverse caste, tribal, and religious groups. Agriculture remains the dominant occupation. Villagers depend extensively on the forests for their subsistence needs as it contributes 33 percent of the average household income in Mendha and 31.16 percent in Saigata.

### B. Data Collection

Data was collected through secondary and primary sources mainly through International Forestry Resources and institutions (IFRI) protocol, which consists of a set of 10 research instruments to collect socio-economic, institutional, and forest data. Household survey was also conducted to substantiate as well as supplement the data collected through IFRI protocol. The third method was researcher's observations, which was based on the general observations of the researcher. In order to see the changes in social capital over the revisit period only IFRI data was used, as the household survey was not conducted during the first visit.

In order to measure social capital, the elements of social capital recognized by scholars were incorporated as indicators of social capital: (1) Existence and functioning of forest institution (2) Conflict resolving mechanism, (3) Infractions and penalties, (4) Trust, (5) Reciprocity, and (6) Shared understanding and clarity about purpose of collective action.

Since the indicators of social capital are qualitative in nature they are quantified using the qualitative data analysis tool known as 'Multi-criteria Analysis' (MCA). A standard feature and outcome of multi-criteria analysis is a 'performance matrix', or consequence table. MCA uses two techniques. These are scoring and weighting [1]. The scores of each question/verifier for each case study are aggregated under each indicator to arrive at a value under one indicator. Values of all the indicators are aggregated to arrive at the final performance of each case study.

## III. RESULTS & DISCUSSION

### A. Resilience & Social Capital in Case Studies

#### 1) Initiation of Social Capital In Saigata

Building process of social capital in forest conservation in the two villages has been different. In early 1970s the forest of Saigata faced extensive damage. It was the efforts of a dynamic resident of the village, Mr. Suryabhan Khobragade, which helped reverse the process of destruction. Mr. Khobragade and his group of colleagues began by adopting various ways and means to increase agricultural productivity, which bore fruit. This gave recognition and encouragement to the villagers that benefits can be achieved if people work collectively. Mr. Khobragade and his friends involved the villagers and started collective farming in the local village pond. Soon a forest association was set-up in 1979. In 1996, after JFM was introduced in Maharashtra State, the forest association of Saigata was registered under the JFM program.

#### 2) Revival of Social Capital in Mendha

The process of revival of collective and voluntary effort for forest protection began with growing discontent in Mendha over indiscriminate tree felling by forest contractors and neighbouring villagers. With a help of a local NGO the community recognized the need for forest protection for the survival of the community. Mendha's dynamic leader, Mr. Dewaji Tofa, understood the loss to tribal community if it gave up its traditional practices and rights over forests. He also knew that these practices and norms can bring the community together and thus decided to revive some of them consciously. This was the stock of social capital lying dormant. He organized village meetings. During these assemblies the community decided to continue with some traditional practices that were sustainable and relevant to their current needs like Gotul, a structure made of wood used by the Gond tribe in

this region for community gatherings. The extraction of wood for building the Gotul lead to a tussle in 1989 with the Forest Department. The community established their right over the forest which gave them the confidence and realization that they can handle issues successfully only if they worked collectively. Subsequently, an informal forest protection institution was set-up in 1989 and carried on with voluntary protection activities despite no legal rights over the forest. Eventually, in 1996 a Forest Protection Committee was step up under JFM. Since then the community has revived many of its traditional practices [16].

### 3) Social Capital over the Revisit Period

Perceived and felt scarcity of forest products and role of leadership were common factors that helped build resilience of the two communities to protect their resource. Collective action was a success in both the communities when they were visited first [11]. However, over the revisit period social capital has deteriorated in Saigata as compared to Mendha. This reflects in the comparative scores in table 1 on all the indicators of social capital, while table 2 presents the change in social capital in five years.

Table – 1  
Performance Matrix: Level of Social Capital in the Case Studies

| INDICATORS                                                                 | Maximum possible score | Saigata       | Mendha         |
|----------------------------------------------------------------------------|------------------------|---------------|----------------|
| <i>Existence and functioning of forest institution</i>                     | 240                    | 170.00        | 229.50         |
| <i>Conflict Resolution</i>                                                 | 240                    | 170.00        | 239.00         |
| <i>Infractions And Penalties</i>                                           | 240                    | 166.00        | 201.00         |
| <i>Trust</i>                                                               | 240                    | 132.00        | 169.00         |
| <i>Reciprocity</i>                                                         | 240                    | 155.00        | 168.00         |
| <i>Shared understanding and clarity about purpose of collective action</i> | 240                    | 200.00        | 209.00         |
| <b>Total</b>                                                               | <b>1440</b>            | <b>993.00</b> | <b>1215.50</b> |

Table – 2  
Performance Matrix: Change of Social Capital in the Case Studies

| INDICATOR                                                                  | Maximum possible score | Saigata               |                       | Mendha                |                       |
|----------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                                                            |                        | 1 <sup>st</sup> visit | 2 <sup>nd</sup> visit | 1 <sup>st</sup> visit | 2 <sup>nd</sup> visit |
| <i>Existence and functioning of forest institution</i>                     | 30                     | 24.5                  | 21                    | 25                    | 26.5                  |
| <i>Conflict Resolution</i>                                                 | 30                     | 30                    | 25                    | 30                    | 30                    |
| <i>Infractions And Penalties</i>                                           | 30                     | 28                    | 27                    | 30                    | 29                    |
| <i>Trust</i>                                                               | 30                     | 28                    | 20                    | 28                    | 28                    |
| <i>Reciprocity</i>                                                         | 30                     | 17                    | 11.5                  | 18                    | 21                    |
| <i>Shared understanding and clarity about purpose of collective action</i> | 30                     | 26                    | 26                    | 30                    | 30                    |

#### a) Indicator 1: Existence & Functioning Of Forest Institution

The JFMC of Mendha has performed better than that of Saigata, mainly because it is more active with better participation, and fair rules and cost-sharing mechanism. Mendha forest association is federated under Gram Sabha a traditional institution which is the main decision-making body of the village dealing with all the issues (forest and others). Saigata Forest Association is comparatively less active as there are no activities undertaken by it other than guarding the resource and fixing of rules. In Saigata 70% of the respondent households found the rules fair and equitable while 100% of the sample households in Mendha felt so. This perception is essential for sustainability of rules and their following. Active participation of people in all the activities of the forest association was found in Mendha. Unanimity in decision in the general body meetings, meetings being chaired in rotation between all the adults of the village, strong sense of ownership towards the resource, are some reasons for high level of participation of residents of Mendha. Comparatively participation in meetings in Saigata has become low. Women do not participate in the decision-making as they are not encouraged to speak.

Structural social capital in Mendha has improved as the local forest association has scored better than what it was five years ago in terms of increased activities of the association as well as incorporation of more restrictions in the rule structure. However, in Saigata change on this indicator has been negative due to irregularity of executive and general body meetings, drop in attendance in meetings, conflicts in the community and an ineffective conflict resolving mechanism, rules being perceived as unfair, specially the community level cost-sharing mechanism, are some of the reasons.

#### b) Indicator 2: Conflict Resolving Mechanism

Mendha scored more on this indicator as it has a well-developed and indigenous conflict-resolving system locally known as Nayay Panchayat. It is a traditional, democratic, and a three-tier system structured in the same manner as the court of law in India. It is well accepted as it is headed by the local priest who is also the police patil (local representative of the police). Thus, it is a blend of modern and traditional authority. In Mendha 100 percent households responded with pride that they do not depend on external authorities. Conflicts have erupted in the past five years in Mendha. But they have been resolved and are channeled in a positive way, thus showing no decline (see table-2)

In Saigata diverse mechanisms of conflict resolution exist. The village being heterogeneous in nature each caste/tribe group has its own head/elders to resolve conflicts that arise in that group. The whole community resolves conflicts when the conflict is between two caste/tribe groups. But, 90 percent of the sample households reported of intervention of external authorities in conflict resolution on certain occasions, thus indicating towards low effectiveness of internal conflict resolving mechanisms.

#### c) Indicator 3: Infractions & Penalties

In Mendha majority of the households (90 percent) responded that penalties are imposed on all those who break a rule irrespective of their position in the village and were thus considered fair. 80 percent in Saigata reported that whenever people are penalized, the penalties are imposed fairly. However, in Saigata people reported increased infractions as there is more illicit cutting and

encroachments due laxities in protection efforts. This is mainly because the forest guard has not been paid for the past 3 years. The conflict in the community has caused reduced contributions to pay the forest guard. This is the only indicator of social capital where Mendha has shown a negative change. Changes have been seen in the compliance of rules of forest use. There has been a fractional increase in infractions. This could be a downside of increased commercialization of minor forest products. But compliance to penalties imposed remains adhered to. In case of Saigata, infractions have increased and people are not penalized sincerely as before. There were many stories about the forest guard of Saigata taking a bribe.

*d) Indicator 4: Trust*

Unresolved conflicts have eaten into the trust that people of Saigata shared. People are irregular in attending meetings. The governing body of the forest association is not trusted, specially the President. However, people in Saigata are not divided on the basis of caste and tribe. Efforts made in the past by the leader to unite the community still exist. In case of Mendha there are high levels of trust not only in each other but in the forest association as well. 60 percent households responded that they trusted the fact that people in the village will not break rules and thus there was no need to keep a watch on them while harvesting. Others felt that occasional watch had to be kept. All the households trusted the forest association.

*e) Indicator 5: Reciprocity*

Trust and reciprocity go hand in hand and that is why it should be expected that villages that have higher levels of trust also have higher levels of reciprocity. The scores of the two villages prove this point. Only 30 percent of the households in Saigata reported that people help each other voluntarily in case there is a death in a family or a marriage. Unresolved conflicts are causing these issues. In Mendha collective activities are a common feature and form a part of the tribal tradition. These activities, according to the villagers, not only help in keeping the unity of the village but are also a means to teach tribal traditions to the younger generation [16]. All the households reported helping their fellow villagers in exchanging forest related or other duties in the village. People in these five years have developed more trust. As a result they are investing more in collective activities than before. The community has taken up collective sale of bamboo which has given them a profit of 64 lakhs since 2011 [8]. This constant investment is helping them maintain trust and reap returns.

*f) Indicator 6: Shared Understanding & Clarity about Purpose of Collective Action*

This indicator also included direct questions to people about existence of social capital and the benefits, if any. 90 percent people in Mendha can see the benefits of trust and reciprocity in terms of forest conservation, thus better subsistence and livelihood, peace of mind as less conflicts, self-sufficiency of the village in all aspects of life due to a reciprocal way of life, and a helpful community that provides safety net to each other specially the poor. In Saigata, people can see the benefits of social capital built in the village. They do feel that it is this capital, which has helped them protect the resource and provide benefits. The residents of Saigata still view the forest as a source of subsistence and livelihood, which in case of Mendha is a sacred resource along with being a source of subsistence and livelihood. People in Mendha still worship the forest guard and consider it as their protector. However, mistrust in the Saigata community seems to overpower their ability to take effective collective action and decisions despite a clear shared-understanding and clarity about the benefits of collective action.

#### **IV. CONCLUSION**

The case studies bring out the fact that despite a long history of exclusion from ownership and management of forests in India, there are communities that do possess capabilities to take collective efforts to safeguard forests. They can be resilient and social capital plays an important role in bringing the resilience in forest-dependent communities. However, resilience is not a fixed quality within a community. Rather, it is a quality that can be developed and strengthened over time [7]. This can happen when communities are able to maintain or strengthen forces like social capital to maintain resilience. Historical stock of social capital facilitates building and strengthening of social capital. Thus, there is higher probability of consistent growth of social capital in communities with a pre-existent historical/cultural stock of the capital than communities that have built the capital recently. However, mere existence of stock is not enough. Efforts have to be made to constantly invest in the existing stock. Internal (effective institutional rules and mechanisms especially conflict resolving and locally defined 'fair' cost-sharing mechanisms, and local leadership) and external (NGOs and government agencies like the Forest Department) factors have a major role to play in making communities resilient as well strengthen their resilience over time.

With growing role of communities in forest protection it should be understood that communities have different capabilities to organize themselves and maintain it over a period of time. In the current JFM set-up it is important to understand and treat these differences than following a blanket policy, because "the diversity among rural and remote community's means there is no single way to develop resilience and social capital. Each community needs to look at its particular issues, requirements and capacity and determine the best approach" [10]. Identifying and reviving the stock of social capital, and incorporating these in the Joint Forest Management institution will help in building forces of resilience and collective effort in traditional communities. For non-traditional communities that are struggling to maintain it need positive intervention and inputs from external agencies, as external agencies can play an important role by helping communities in utilizing the stock of social capital productively with positive returns [14].

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## REFERENCES

- [1] Anonymous, "Multi-criteria Analysis Manual", Department of Environment, Food and Rural Affairs, Government of UK, 2001.
- [2] Anonymous, "National Workshop on JFM, Dehradun: Proceedings", Dehradun, Forest Research Institute, 27-28 June 2011, Available: [http://frienviis.nic.in/Database/JFM-Committees-and-Forest-Area-Under-JFM\\_1994.aspx](http://frienviis.nic.in/Database/JFM-Committees-and-Forest-Area-Under-JFM_1994.aspx)
- [3] Anonymous. "A Statistical Outline: Current Salient Forest Statistics" 2013, <http://www.indiaenvironmentportal.org.in/files/file/maharashtra%20forest%20statistics%202013.pdf>
- [4] T. Beck and C. Nesmith, "Building on poor people's capacities: The case of common property resources in India and West Africa". *World Development*, 29/1: 119-133. 2001
- [5] A. Begossi, "Cultural and Ecological Resilience among Caicaxas of the Atlantic Forest Coast and Caboclos of the Amazon (Brazil)", to be presented at the Fifth Annual Common Property Conference, IASCP, "Reinventing the commons", May 24-28, Bodo, Norway, 1995. Available:[http://dlc.dlib.indiana.edu/archive/00004973/01/Cultural\\_and\\_Ecological\\_Resilience\\_among\\_Caicaraxas\\_of\\_the\\_Atlantic\\_Forest\\_Coast\\_and\\_Caboclos\\_of\\_the\\_Amazon.pdf](http://dlc.dlib.indiana.edu/archive/00004973/01/Cultural_and_Ecological_Resilience_among_Caicaraxas_of_the_Atlantic_Forest_Coast_and_Caboclos_of_the_Amazon.pdf)
- [6] K. Bingeman, F. Berkesand, and J.S. Gardner, "Institutional responses to development pressures: Resilience of social-ecological systems in Himachal Pradesh, India", *Int. Sustain. Dev. World Ecol.* 11, 99-115, 2004.
- [7] CCE (Center for Community Enterprise), "The Community Resilience Manual: A Resource for Rural recovery and Renewal" Center for Community Enterprise, Canada". 2000. Available: [http://www.cedworks.com/files/pdf/free/P200\\_Guide.pdf](http://www.cedworks.com/files/pdf/free/P200_Guide.pdf)
- [8] Center for Civil Society, "Forest-based bamboo trade in Mendha-Lekha and Jamguda", 2015 Available: <http://ccs.in/sites/default/files/research/research-forest-based-bamboo-trade.pdf>
- [9] E. D'silva and S. Pai, "Social Capital and Collective Action Development Outcomes in Forest Protection and Watershed Development", *Economic and political weekly*, 38/14: 1404-1415. 2003.
- [10] DrugInfo Clearinghouse "Building Resilience and Social capital in rural and remote communities" FACT SHEET, No. 5.15, February, Australian Drug Foundation, Department of Human Services, 2008. Available: [http://www.druginfo.adf.org.au/downloads/fact\\_sheets/FS\\_5.15\\_BuildResilience\\_workers.pdf](http://www.druginfo.adf.org.au/downloads/fact_sheets/FS_5.15_BuildResilience_workers.pdf)
- [11] R. Ghate, *Uncommons in the Commons: Community-initiated Forest resource management*, New Delhi: Concept Publishing Co. 2004.
- [12] R. Ghate, D. Mehra, and H. Nagendra, "Impact of market proximity on non-timber forest product extraction: Local institutions as mediators in central India", *Environmental Conservation*. vol. 30, issue: 1, pp: 51-61, (doi: 10.1017/S0376892909005311). 2009.
- [13] N.C. Jain and K. Jain, "Social capital in community-based institutions: trends and emerging lessons from Western India" Paper presented at the 5<sup>th</sup> International conference of the International Society of Third-sector Research, at Cape town, South Africa, 7<sup>th</sup> to 10<sup>th</sup> July 2002.
- [14] A. Krishna, "Understanding, Measuring, and utilizing social capital: Clarifying concepts and presenting a field application from India", paper presented at the Workshop on Methods for studying collective action. Sponsored by the program for Collective Action and Property Rights (CAPRI), Nyeri, Kenya, Feb 25<sup>th</sup> to March 1<sup>st</sup> 2002.
- [15] K. Magis, "Indicator 38 – Community Resilience Literature And Practice Review: Executive Summary", 2002, Available: <http://www.sustainableforests.net/docs/2007/0906%20Workshop%20Indicator%2038/RSF%20Indicator%2038%20Executive%20Summary%20070907.pdf>
- [16] D. Mehra, "Traditional ecological ethos and norms as an element of social capital and its role in forest management: A case study". Case study paper under 'Forestry Case Studies' grant, Winrock India International, New Delhi. 2006. Available: <http://www.rupfor.org/casestudies.asp>.
- [17] D. Mehra, "Social capital and its performance in forest conservation in traditional and non-traditional communities: a revisit to five communities from Vidarbha region in Central India" IFRI Working paper No. W01-08, Jan 2008, School of Natural Resources and Environment, University of Michigan, Ann Arbor, USA. 2008.
- [18] C.T.S. Nair, "Joint forest management in India, Tenth executive forest policy course revisiting the poverty reduction agenda in the context of SDGs: opportunities and challenges for Asia-pacific forestry", 15-25 May 2017 Colombo, Sri Lanka. Available: [http://www.fao.org/fileadmin/templates/rap/files/meetings/2017/49\\_Day9.pdf](http://www.fao.org/fileadmin/templates/rap/files/meetings/2017/49_Day9.pdf)
- [19] E. Ostrom and T.N. Ahn, "A Social Science Perspective On Social Capital: Social Capital And Collective Action", draft paper presented at the European Research Conference on "Social Capital: Interdisciplinary Perspectives," Exeter, United Kingdom, September 15-20, 2001.
- [20] J. Pretty, "Social Capital and collective management Resources", *Science*, 302. December: 1912-1914, 2003.
- [21] R.D. Putnam, 'Making Democracy Work: Civic traditions in Modern Italy', USA: Princeton University Press, 1993.
- [22] M. Schneider, P. Teske, M. Marschall, M. Mintrom, and C. Roch, "Institutional arrangements and the creation of social capital: the effects of public school choice", *American Political Science Review*, 91/1: 82-93. 1997
- [23] C. Sorensen, "Social Capital and rural development: A discussion on issues". Social capital Initiative Working paper no. 10. The World Bank, Social Development Department, Environmentally and Socially sustainable Development Network. 2000. Available: <http://www.siteresources.worldbank.org/INTSOCIALCAPITAL/Resources/Social-Capital-Initiatives-Working-Paper-Series/SCI-WPS-10.pdf>
- [24] D. Throsby, *Economics and Culture*, Cambridge: Cambridge University Press, 2000.
- [25] M. Woolcock, "Social capital and economic development: towards a theoretical synthesis and policy framework", *Theory and Society*, 27: 151-208. 1998.
- [26] M. Woolcock and D. Narayan, "Social Capital: Implications for Development theory, research and policy", *The World Bank Research Observer*, 15/2: 225-249, 2000.