

A Study of Livelihoods of Rural Households Living in and Around the Orchha Wildlife Sanctuary, Central India

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Abstract—This research uses SLF to analyze the way that ecotourism could contribute to livelihood improvement, community development and conservation of Orchha Wildlife Sanctuary (OWS) by incorporating economic incentives and other positive impacts into local livelihood strategies and the management of the areas. There are 28 villages located inside and within the five km periphery of the sanctuary. Two villages are located inside the sanctuary and 26 villages within the 5 km periphery of the sanctuary. The major findings include widespread poverty, fewer livelihood opportunities resulting in large scale seasonal migration to urban areas.

1. INTRODUCTION

Livelihoods consist of the capabilities, the assets both material and social resources and the activities required for a means of living. Livelihoods are sustainable when they can cope with and recover from stresses and shocks; maintain or enhance capabilities and assets (current standard of living) without undermining the natural resource base (DFID, 2000). Sustainable livelihood (SL) approach helps increase the conceptual understanding of poverty and its causes (Carney, 2003). Chambers and Conway (1991) defined sustainable livelihood as the capabilities, assets and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.

There are many factors that affect rural community livelihoods (capabilities, assets, and activities) and community enthusiasm to accept changes in their livelihoods, as well as the dynamic relationship between these. To response to this need, the Sustainable Livelihood Framework (SLF) has been adapted by an increasing number of researches as a tool for analyzing complex livelihoods of people (Scoone, 1998; DFID, 1999; Ellise, 2000). The SLF is seemingly parallel to the Sustainable Livelihood Approach (SLA), and is used as a holistic, structural approach to identify influential factors that are

centered on people and important in contributing to community livelihood diversification and livelihood sustainability supported by existing activities (Gardon, 1999). The DFID (1999) and Carney (1998) articulated that this framework could be used by researchers, planners and developers who deal with a complex human subject, especially in rural areas, where people live in pressing social and environmental conditions. This tool helps these stakeholders with a range of perspectives and capacities to participate in structured and coherent study and deliberate over the factors that influence community livelihoods, their relative significance and the way in which these factors interact. Thus, stakeholders are able to determine and suggest appropriate development mechanisms or tools to be applied in a rural context for the enhancement and diversification of community livelihoods. In addition, the SLF provides an in-depth reflection upon the community development schemes, which enable local residents to tackle their poverty and other socio-economic and ecological impediments from their own efforts.

2. MATERIAL AND METHODS

This research uses SLF to analyze the way that ecotourism could contribute to livelihood improvement, community development and conservation of Orchha Wildlife Sanctuary (OWS) by incorporating economic incentives and other positive impacts into local livelihood strategies and the management of the areas.

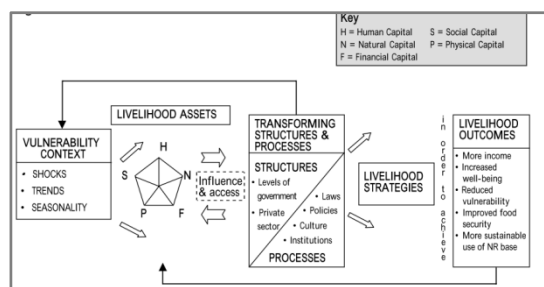


Fig. 1: Sustainable Livelihood Framework

The outset of the SLF analysis is the “vulnerability context” within which communities operate (Carney, 1998; Nicol, 2000). Normally, the vulnerability context comprises three main elements, each of which involves different indicators, for measurement (DFID, 1999; Carney, 1998; Ellis, 2000). These are known as:

Shocks: social conflict and disorder, natural disasters and problems, human health shocks, education economic shocks, and crop/livestock shocks; **Trends:** resource trends, population and migration trends, economic trends, and trends in governance; and **Seasonality:** production, price, and employment opportunities.

The second step of the SLF focuses on the livelihood components of local communities by using the household as the unit of analysis (Carney, 1998, 1999; Nicol, 2000). In SLF principles, community livelihoods are formed by a large number of different forces and factors that are changing over space and time. The analysis of community livelihoods embarks on the assessment of community assets which define the capabilities of each household to undertake different activities and livelihood strategies involved to realize their desires. Access to assets is often influenced by the internal system and external forces (e.g. institutions and policies) of the “Transforming Structures and Processes”.

3. RESULTS AND DISCUSSION

There are 28 villages located inside and within the five km periphery of the sanctuary. Two villages are located inside the sanctuary and 26 villages within the 5 km periphery of the sanctuary. Out of these 26 villages, last 3 are in U. P. and rests are in M. P. Two villages situated inside the Sanctuary are Lotna and Singpura. Lotna is a revenue village while Singpura is a forest village.

Villages in 5 KM periphery of the Sanctuary:

1. Orchha
2. Ganj
3. Gundrai
4. Kush Nagar
5. Radhapur
6. Ladpur
7. Mador
8. Majra
9. Madori
10. Chandravan
11. Taprian
12. Phutera
13. Mehanpur
14. Sujanpura
15. Baghpura
16. Sevari
17. Sersora

18. Dhorra
19. Nata
20. Koti
21. Gulenda
22. Azadpura
23. Ram Nagar
24. Thakurpura
25. Lahar
26. Khirkan

4. LIVELIHOOD OF LOCAL PEOPLE

Analysis of the Vulnerability Context It consists of three fundamental parts; livelihood shocks, trends and seasonality. Subsequently, the livelihood capital assets, which comprise human, social, natural, financial and physical capitals, of the local communities as well as the interaction between each element of these capitals are emphasized.

Shock There are five major shocks that affect livelihoods of the local people living in and around the Sanctuary. These shocks are analyzed as following:

1. **Decline in Forest Resources:** Forest resources (fuelwood, Non Timber Forest Products, fodder,(NTFPs)) which affect local people’s basic needs of fuelwood for cooking, livelihoods, and source of income from NTFPs sale. According to the local people, this decline is caused by problems of access to forest resources, ever declining forest resources due to illicit felling, hunting and poaching, increasing population pressure in the area. Lack of support to the people living in and around Orchha Sanctuary from the forest department and asking people to evacuate Sanctuary area and for resettlement is considered as a shock. Forest Department has low level of trust over local people due to incidences of illegal felling, hunting and poaching, and cattle grazing. Whereas local people perceive forest personnel as intimidating, institutions which have been mistreating the local people and are obstacle for their livelihood activities based on forests.
2. **Decline in water resources:** In last many years, Monsoon is not normal in the reason which resulted in inadequate rainfall and water scarcity for agriculture and households. The reason is considered water scarce and drought prone. The two rivers Betwa and Jamuni which were earlier perennial are now remain dry or with very low stream for most of the time in a year. The kharif crops are largely dependent on Monsoon and mostly sufficient water is not available for Ravi crops.

3. Decline in Agriculture production: Most of the farmers living in the area are marginal farmers with small land holdings. Decline in water availability for irrigation resulted low agriculture production. Two crops were sown in this region of Bundelkhand annually and since water is not available sufficiently for irrigation, currently many farmers are not able to harvest two crops annually. Beside cost of cultivation increasing due to higher inputs cost. This resulting people from farming communities leaving agriculture periodically and migrating to cities where they work as daily wage laborer in construction sector.
4. Decline in fodder availability and denial of access to grazing in the Sanctuary: Livestock rearing is a major practice in the villages. People living in two villages Singpura and Lotna belong to mainly Yadav community. This community professionally practices livestock rearing and selling of milk and milk products. About 2000 cattles were reared by these two villages alone inside the Sanctuary. Fodder for cattles is a major requirement of the villagers. According to villagers, fodder availability is decreasing due to water scarcity for agriculture, harvesting of field crops by combine, over grazing and increase in the number of animals. These people consider worrying the denial of access to grazing of domestic animals by forest department in the Sanctuary area. On the other hand forest department has a view that about 2000 cattles of two villages inside the Sanctuary and about 200 feral cattles has a significant negative effect on floral and faunal diversity of the Sanctuary. Besides, the cattle herd of 26 other villages in the periphery of the Sanctuary adds to this threat. These domestic animals not only reduce the fodder availability for wild animals but also potential hazards to wild animals' health by spreading diseases.
5. Low level of education: Another factor which makes the communities in vulnerable is the low level of education of the people and lack of access to schooling and higher education. Education remains one of the major current distresses for the people in area. According to the locals, children do not have much access to education in the areas. This is due to poverty and lack of schools and teachers. People believe that that their children are required to go to school in order to improve their knowledge and understanding which could make them able to earn their livings. However, it is still not possible for them since the opportunity for villagers, especially children, to access to schooling is rare, and school dropout rate is very high.
6. Fewer opportunities for livelihood activities: one livelihood shock to the people in the area is caused by lack of opportunity to increase other livelihood activities in the areas. The people are poor, the land is not very productive, frequent drought, and the financial capital of individual household have prevented local people in the region, especially small and marginal farmers, from having other economic opportunities to increase their income. This resulted large scale migration of farmers in cities like Delhi and working there as daily wage laborer.

5. TRENDS

Adopting mixed livelihood options and leaving cultivation:

the declining of the agriculture production and other natural resources in OES areas have made the people suffer constant livelihood loss. According to the semi- structured interviews with the local households in OES area, the average crop production decreasing year to year since last five year. Most of the people depend on agriculture - an agriculture that operates with small landholdings, with a fixed crop mix of wheat, paddy, pulses and some oilseeds, dependent on Minimum Support Prices (MSP) of the Government. The input prices for agriculture are becoming more expensive than the corresponding increase in MSP or in market prices. The lower agriculture productivity is due to various reasons viz. mechanization in agriculture is low, land holdings are small (average of two acres or so), inequality exists in land holdings, strong feudal land relations keep a stranglehold on farm labour etc. All these factors put together contribute to the low output in agriculture. Many people are leaving cultivation for labour. Small farms are unsustainable and as a consequence more and more people turn to casual labour. The recent years of drought, with an ineffective drought mitigation system, with increasing debt burden have contributed to large-scale migration, which even though declining in recent years, has had an impact on the region. Families across the region have developed their own survival and growth strategies, which have involved mixed livelihood options, migration and dependency on local feudatories.

Seasonality: The seasonal changes of climate and water hydrology have a big influence on livelihoods, food security, and health condition of local communities as well as on the selection of their livelihood strategies in OWS. Agriculture in the area is rain fed, diverse, complex, under-invested, risky and vulnerable. In addition, extreme weather conditions, like droughts, short-term rain and flooding in fields add to the uncertainties and seasonal migrations. The scarcity of water in the semi-arid region, with poor soil and low productivity further aggravates the problem of food security. Around 60 % of main workers in the area are engaged in agriculture as cultivators or labourers, showing a higher reliance on agricultural land compared to other parts of rural India.

Industrialization has been sporadic and this in turn has led to low levels of urbanization.

6. ANALYSIS OF LIVELIHOOD CAPITAL ASSETS

Human Capital Understanding human capital provides a comprehensive analysis of livelihood assets of people living in OWS areas. It portrays influences on the people's abilities to take part in diverse approaches in order to cope with current pressing livelihoods and to accomplish their livelihood goals in a sustainable manner. The people living in and around OWS area is weighed down by low human development achievements. The people of the area face the dual burden of a poor economic environment combined with the lack of proper school education and health facilities. This prevents them from breaking out of the confines of geography, caste, assetlessness and lack of local opportunities, a poor health status and an inadequate preventive and curative setup.

Education: Basic literacy is low, languishing in the low seventies, and though school education has achieved universal access to primary education, there is much to be done for the universalisation of secondary and higher education. The quality of actual learning is low, with children not able to comprehend, understand and absorb what they are being taught. The advantages that education brings to a population have not been achieved in the area, although the level of student learning is of the same quality as in the rest of the parent states..

Health Infant mortality rates are very high. High child and infant mortality have seen some improvement over the last decade, but immunization is not universal, and while most mothers now deliver under trained care (mostly institutional), followup and post-natal care is un-satisfactory. Insufficient supplementary nutrition for mothers, poor hygiene and lack of access to timely care in emergencies keeps maternal mortality rates amongst the highest. There is a shortage in health delivery facilities – health centres are about 20 to 30 percent less than what is required, along with shortage of doctors. Speciality care is restricted to urban hospitals.

Social Capital The cultural heritage of Orchha is rooted in Vaishnavite mythology and its re-enactment in the daily life of its residents. Pilgrims visit the Orchha temples in large numbers on religious festivals. The temple activities include the devotee obtaining darshan, giving their offerings to the gods, singing bhajans (sacred chants), and performing life cycle related ceremonies. Outside the temples, pilgrim activities include bathing in Betwa and participating in the ritual processions that culminate in the immersion of idols in the river. Fairs (melas) on festivals in the public spaces draw huge crowds from Jhansi, Tikamgarh and nearby towns and villages. These ritual enactments in Orchha's public spaces are demonstrations of living traditions inherited from the past. Panchkroshiparikrama (circumambulation) on Orchha streets occurs every month. The ritual procession is a meaningful use of public spaces, an aspect of intangible heritage that should

be conserved by addressing its spatial requirements. The parikrama begins at the cenotaphs and covers 12 kilometers in two days.

Natural Capital Most of the people agreed that the existing natural resources and all ecological conditions in the area are essential for the socio-economic development of their families and communities. These massive assets are natural settings, wildlife, forests, and bird species, and especially fish and other aquatic resources. They mentioned that these resources provide livelihoods, staple and continual food security, and are vital for enhancing their quality of life both at present and in the future. A decline in these resources will make the local people suffer from a misfortune, unknowing how to survive in the areas with complete livelihood loss, what to settle on and where to move for new livelihood strategies.

Financial Capital Bundelkhand is an income poor region compared to India. The per capita incomes (PCI) in the region are much lower, being consistently between 50 to 55 percent of the national average. The economy of the region is certainly backward compared to the national situation and PCI has remained consistently at about half the nation's average. The national PCI is low, and needs to be doubled at the minimum to ensure a decent standard of living for the people. Incomes in Bundelkh and then will need to be quadrupled, to bring the region at par with the rest of the country. Populations is highly agriculture-dependent; over 60 percent of the population survives on PCI below Rs 10,000 per month. While agriculture incomes are poor, people are engaged in the bidi making and they find employment in the services and small manufacturing secondary sector in nearby city Jhansi, due to the presence of a large urban area. The region's economy is dependent on agriculture and due to the low productive base of agriculture; farming output is very low in terms of productivity.

Physical Capital Basic infrastructure is essential to an enabled and better life, for example, good roads ensure that people can travel safely, that they can transport their goods to the market or access markets for themselves. The availability of electricity helps to light up people's homes, to make their businesses more productive, allows access to the many technologies that modern science has made available to make their lives better, to be able to communicate with each other, or to access information. The availability of drinking water and sanitation facilities, help to lead healthy and quality lives and are the very basis of human development. Overall the condition of the roads is poor throughout the region. Travelling through some of the regions, especially in the interior parts, connectivity is a problem. Half completed works, heavy encroachment, damaged road shoulders creeping onto the central portions, etc. are a common sight. The quality of the roads is poor.

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