

Odisha Economy Discussion Series 6

Markets, Finance and Economic Development:

An exploratory analysis of a tribal area in South Odisha



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Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar
(an ICSSR institute in collaboration with Government of Odisha)

September 2020

Odisha Economy Discussion Series

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Citation:

P.V. Viswanath (2020), "Markets, Finance and Economic Development: An exploratory analysis of a tribal area in South Odisha", Odisha Economy Discussion Series 6, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, September 2020

Markets, Finance and Economic Development: An exploratory analysis of a tribal area in South Odisha¹

P.V. Viswanath²

Abstract

Purpose: The importance of financial and product markets has been underestimated and underemphasized in the literature on economic development.

Approach: In this paper, I seek to highlight markets through a field study of five different villages in the vicinity of Muniguda, Raygada district, in South Odisha, where 48-58% of the population are below the poverty line. I advocate that access to product markets and financial services, including credit should be the driving forces of the effort to reduce poverty.

Findings: My results are the product of an exploratory study of the economic circumstances of the inhabitants of this region, in particular their use of markets and the use of financial services.

Value: My study does not conclusively establish that access to markets and financial services are better than other approaches; neither does it measure the impact of such access on the poverty of the inhabitants. However, I argue that the actions of the inhabitants themselves suggest the usefulness of these two resources as important tools in the struggle for livelihood. Studies of tribals are few and far-between; furthermore, what studies there are, fail to provide a broad picture of the social and economic environment. I provide a relatively rich qualitative description of the economic life of these individuals and families, which makes it easier to directly envision the economic and cultural forces underlying their decisions and to suggest credible solutions to their plight.

JEL Codes: G51, O15, O16, O18, Q13, R29

¹ The Author acknowledged his thanks to Mr. Gautam Pradhan, without whose help, this study could not have been executed. Comments from an anonymous reviewer at the Nabakrushna Choudhury Centre for Development Studies were helpful.

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I. Introduction

The most important concept in economics, arguably, is that of markets. Every introductory economics course introduces supply and demand curves fairly early on; obviously such curves and the ensuing equilibrium analysis presuppose the notion of markets. While markets in a simple sense almost always exist, the usual price and welfare analysis requires the existence of well-functioning and relatively liquid markets. In the absence of such markets, not only is welfare analysis meaningless, but even well-intentioned efforts to help inhabitants of underdeveloped areas can end up being ineffective. Markets are valuable in two ways – one, in the functioning of the invisible hand, which allows decentralization and division of labor; and two, in the information generated regarding the relative profitability of different activity choices. Without the information-providing characteristic of markets, it is often difficult to work out exactly what aid is most effective; and without the decentralization permitted by markets, aid recipients are not able to rely on synergistic responses from other market participants.

Hence, it makes sense that a reasonable way to proceed for anybody interested in the economic development of economically backward regions is to ask if access to financial services and to product markets exist and, if not, to consider to investigate the reasons why they do not, with a view to removing these obstacles. It is surprising that studies of economic development often ignore this approach. A point-of-view is often implicitly espoused, that tribals and other low-income economic agents are not sufficiently sophisticated to operate according to the assumptions of neo-classical economics. Karl Polanyi (1944) and Moses I. Finley (1985) are often associated with this point of view as applied to primitive and ancient economies.³ Studies of the economic development of rural and tribal areas often ignore the ability of market participants in these areas to react to economic stimuli and often attribute economic behavior such as low savings rates to ignorance rather than the absence of market infrastructure that would make higher savings worthwhile. Cheema et al. (2018), for example, look at the empirical savings behavior of urban and rural Pakistanis, note that the level of savings is low, and come to the conclusion that the key to increased savings is increased income. A sophisticated model of the optimal amount of savings in the Pakistani environment may well conclude that the amount of savings is not excessively low, especially given the well-documented costs for low-income individuals of saving in traditional financial institutions (Armendariz and Morduch, 2010; Graham, 2018).

Similarly, studies of occupational choice in agricultural economies in the third world decry the excessive dependence on agriculture. Reddy (2013) notes that the “(v)ast majority of labour force in rural areas are concentrated in agriculture and other low productive activities.” Although he notes the problems with credit availability, he ignores the problems with product markets and concludes that the solution lies in “strengthening the capabilities of the rural household through capacity building.” Davis et al. (2017) discuss the high reliance of Africans on agriculture and prescribe increased investment in the agricultural sector without any discussion of the role of markets. As Dorward et al. (2003) note, there has been a lack of emphasis on markets and their roles in livelihood development and poverty reduction. In their opinion, this “can lead to failure to identify and act on a wider range of market, institutional and technological opportunities and

³ Polanyi (1944, 1957) was more sensitive to the existence of market characteristics even in more primitive economies (Mayhew, undated); however, Polanyi’s ideas were used as fodder for more uncompromising stances on both sides of the discussion. See, for example, Hart and Hann (2011, p. 57 and all of chapter 4).

constraints.” An example of the effect of high transactions costs leading to a lack of formal markets is found in van Rooyen and Tui’s (2009) study of goat markets in Zimbabwe, which emphasizes various strategies to reduce transaction costs along the value chain. Chamberlin and Jayne (2013) discuss various aspects of market access, noting that this often goes beyond physical infrastructure. Similarly, Viswanath (2018) looks at the importance of a market-oriented approach in the context of Kenyan microfinance and makes specific suggestions how microfinance institutions can help reduce transactions costs and access to larger trans-local markets.

Although some researchers do look for explanations of such phenomenon in the context of a rational actor framework,⁴ it is also necessary to provide a systemic analysis of why stronger markets do not exist and then to provide suggestions to strengthen such markets. However, the first step is to investigate the extent to which economic actors in underdeveloped areas and in areas where tribal populations are large, appreciate the importance of access to financial services and to product markets. If they are, in fact, ignorant of how markets work or do not respond to market-based incentives, they should either be educated regarding markets, or, alternatively, non-market solutions consistent with their world-view could be developed to improve their welfare. On the other hand, if they do recognize the importance of financial services and markets, our approach would be quite different. In this article, I provide an analysis of attitudes towards markets among a tribal population in South Odisha, which suggests that the latter scenario is more valid. Based on field visits to five villages in Raygada district, I suggest that the way forward is through strengthening markets and providing access to financial services and I show that the actions of the local population is consistent with such a conclusion.

Odisha is the fifth poorest state in India, with 33% of the population (36% of the rural population) below the poverty line in 2012 (World Bank, 2016). The district of Raygada in South Odisha, where this study was conducted, has 48-58% of the population below the poverty line. The situation has improved tremendously, since the percent of the rural population below the poverty line was as high as 61% in 2005. The situation was even worse for tribals. According to one publication,⁵ the incidence of poverty among rural tribals in South Odisha was as high as 78.7% in 2009-10, though much reduced from 89.3% in 2004-5. While there are many NGOs working in South Odisha to improve welfare and the Odisha government itself has taken steps to improve the situation,⁶ the numbers cited above make it clear that the job is not an easy one. This paper

⁴ Chen (2017), for example, looks at lack of title to land to explain the lack of mobility from agricultural to non-agricultural occupations.

⁵ Dayal et al. (2014), Chapter 6, Table 6.3.

⁶ The website of the Odisha Tribal Empowerment & Livelihoods Programme (OTELP) describes this effort as follows (slightly modified for legibility): “For an alternative source of livelihood, Odisha Tribal Empowerment & Livelihoods Programme has intervened in January 2009 in 176 villages in five blocks, i.e., Kashipur, Gudari, Chandrapur, B. Katat & Muniguda of Raygada district in the Phase-II on the basis of the existing guidelines of MORD (Ministry of Rural Development) & GoI (Government of India). Its programme aims at improving the livelihood security of poor households by promoting efficient, self-managed and sustainable exploitation and conservation of natural resources and development of non-farm enterprises.” (<http://otelp.org/Gunupur/Introduction.asp>)

advocates one particular approach: that access to markets and financial services should be the driving forces of the effort to reduce poverty.⁷

I present below the results of an exploratory study of one tribal area of South Odisha, undertaken in May 2016, which is used to provide a brief description of the economic circumstances of the inhabitants of this region, in particular their use of markets and the use of financial services. Because of the limited nature of my study, it does not establish conclusively that access to markets and financial services are better than other approaches; neither does it measure the impact of such access on the poverty of the inhabitants. Rather, what I do is to look at the availability of markets in the area and how the inhabitants make use of these markets in their attempts to make a living, as well as the extent to which the use of the available financial services has affected their livelihood strategies. I document the willingness of the villagers to use agricultural markets where it is convenient to them and to adjust their production strategies towards cash crops. Similarly, they are quite open to the use of borrowing and savings opportunities in the form of self-help groups (SHGs) linked to local banks; at the same time, they are careful in restricting entrée to microfinance institutions whose motives they suspect. I would argue, in sum, that the actions of the inhabitants themselves suggest the usefulness of product markets and financial services as tools in the struggle for livelihood.

There are few studies of the economic behavior of tribals. My study is one of the few that seeks to provide evidence from direct interviews with tribal men and women. In contrast to a narrow study of a few variables, I provide a relatively rich qualitative description of the economic life of these individuals and families. While purely quantitative analyses often fail to give the reader a feel for the specific environment in which economic actors take their decisions, my approach provides greater specifics about the individuals, their occupations and their financial circumstances. This makes it easier to directly envision the economic and cultural forces underlying their decisions and to suggest credible solutions to their plight.

Section II provides some background on the circumstances under which the data for this study were collected. Section III describes the livelihoods used by the tribals, section IV discusses the relevance of market access for livelihood strategies, section V provides information on some of the financial services available to and employed by villagers. Section VI provides a brief overall analysis and conclusion.

II. Methodology

The original purpose of this study was to study livelihood strategies and opportunities in an environment where migrant labor was supposedly sending back funds to their villages of origin. As such, I intended to look at how villagers earned their livelihood and the potential for improving livelihood opportunities; furthermore, given the supposed availability of funding from migrant remittances, the idea was to investigate the availability of financial services that could help the optimal deployment of those resources.

⁷ According to Samantaraya et al (2014), Odisha has become less poor in the prior decade because good irrigation facilities, road connectivity, and proximity to vibrant economic activities, such as mining and industry, facilitate more earning and a better standard of living. The evidence presented in our paper is consistent with such research. Greater connectivity to the broader economy can result in positive outcomes. See also Viswanath (2020) for other positive outcomes from better connectivity.

My description is based on a field visit to five different villages in the vicinity of Muniguda, a small town about 400 kms southwest of Bhubaneshwar and a night's journey by train. These five villages are Bashtam Bahal, Boda Kandulpada, Naringpanga, Daragadia and Bada Gothiguda. All of these villages are within a radius of 50 kms from Muniguda and the neighboring town of Bisham-Katek, but require a 4-wheel vehicle through somewhat difficult terrain. The visit was facilitated by the Harsha Trust, which has varying levels of presence in all the villages described here. Harsha Trust, founded by Bismaya Mohapatra, is a not-for-profit organization that works with the tribal and the poor in remote locations of Odisha, aiming to bring in human development in challenging conditions, with the objective of helping the tribals become self-sufficient, self-sustaining and economically stable and secure. Established in 2002, it works with SHGs (self-help groups) and cooperatives and is involved with poultry and agricultural cooperatives that grow Amrapali mango, cashew, ragi, paddy, tomatoes, chillies, brinjals, tomatoes, sunflowers, millets etc. It works with Kui tribes, with Kutuya Kandh tribes in South Odisha and Deshiya Kandh tribes in Western Odisha.

The choice of the specific five villages for my visit was dictated by the involvement of the Harsha Trust with these villages, which implied a high degree of poverty and also by the ease of access, given that I only had two full days at my disposal. Consequently, it was not possible to visit a random sample of villages in different parts of Odisha. As mentioned above, all the villages were within a 50 km. radius of Munigusa and Bisham-Katek.⁸ These villages were not specifically selected for their involvement with microfinance or for their economic sophistication. On the other hand, Harsha Trust has been working in the area for a few years; consequently, these villages may be more knowledgeable regarding possibilities compared to other more remote villages without intervention. Still, as will be seen from the description below, Harsha Trust simply makes certain outcomes possible; in the ultimate analysis, it is the villagers who make their own decisions as to what to do. As such, I suggest that my findings can be used as an indicator of the willingness of tribals to use markets and financial services where they find them useful.

The method of data collection was basically a group discussion motivated by specific questions from me. Given the limited amount of time available, it was not possible to use survey methods to collect the data; rather, on our arrival in a particular village, we met the village headman or other responsible individual and asked him to collect the villagers in a central location. Once all the villagers who were likely to come had arrived, I started asking questions. These questions were translated by Mr. Pradhan into Odiya and, if necessary, further translated into Kui. The responses were similarly translated back to me into English and I made notes on the spot, which I used as the basis for this article. My questions were primarily the following: how did the individuals earn their living; the extent of their education; how many individuals in the village had migrated elsewhere for work, and the activities of their SHGs, if any. Usually the questions elicited some conversation amongst the villagers and different individuals provided their own information and comments.

⁸ We left Bhubaneshwar by train for Koraput on the night of May 16, 2016 and departed from Koraput on the return journey on the evening of May 18th.

Finally, a note regarding the nature of our analysis, which is based on limited observations. While other studies rely upon large datasets to tease out patterns in the data, this is more difficult in less accessible tribal areas, such as ours. On the other hand, while numerical-data focused analyses often fail to give the reader a feel for the specific environment in which economic actors take their decisions, my approach provides greater specifics about the individuals, their occupations and their financial circumstances; I believe this makes it easier to directly envision the economic and cultural forces underlying decisions.

III. Livelihoods

Agriculture is the main source of income for these tribals, supplemented by collection of non-timber products, such as tendu leaves, from the nearby forests. Most of the inhabitants have land, often due to the Forest Rights Act (FRA)⁹, but the land is not always arable, with the result that some villages continue to use traditional methods of cultivation that involve the use of commonly-held land, burning the forest to clear it, cultivating for a couple of years and then moving on only to come back to the original plot after a few years.

In Bashtam Bahal, each family has two acres of land, as also in Boda Kandulpada.¹⁰ However, only about twenty of the sixty households in Naringpanga have patta land,¹¹ for which they have ownership documents; none of them have FRA land, although they have applied for it. This is similar to the situation in Daragadia, where about half (34 out of 54) of the households have land, though not FRA land. The delay in obtaining FRA land seems to be due to the process that has to be followed, which involves a village committee being formed to identify suitable plots.¹² Almost all the households in Bada Gothiguda have land as well, to the exclusion of three or four households.

Much of the land, though, is covered with rocks and stones and needs to be levelled and cleared before it can be used for cultivation. Some villagers have rented backhoes to do this job, using loans to fund the large expense (as in Boda Kandulpada); others have obtained from NGOs, such as Harsha Trust (Naringpanga). Still others in Bada Kandulpada, where some of the land is owned in common, use traditional shifting and burning methods to prepare the land for cultivation.

⁹ According to the Forest Rights Act 2006, anybody depending on forests and forest land for a livelihood can apply for title to up to four hectares (1.6 acres approximately) of land, provided he or she had been occupying/cultivating that land prior to the commencement of validity of the Act (section 4(6)). See Sarap, Sarangi and Naik (2013) and Satpathy (2017) for a discussion of how successful the FRA has been in redressing previous injustices towards tribal peoples.

¹⁰ The information provided below was obtained mostly from interviews with villagers.

¹¹ A patta is a revenue record issued by the Government in the name of the actual owner of a particular plot or land. It is a legal document that establishes lawful ownership of the land.

¹² This is what I was told. However, according to the Act, it would seem that the land that is allocated is land that was occupied by the claimant previously, so there would be no issue of identification of *suitable* plots. Hence the procedure referred to here may be the establishment of prior occupancy.

Villagers in Naringpanga, Daragadia and Bada Gothiguda use the land to grow a variety of crops, such as paddy, maize and millets such as kusula, koddho, koltong and ragi.¹³ In addition, a variety of lentils such as pigeon peas, cowpeas and black gram are also grown. In addition, Boda Kandulpada and Naringpanga villagers grow turmeric and vegetables, while Daragadia villagers grow oil seeds. Farming seems to be, by far, the most important source of income for villagers.¹⁴

Government programs, based on the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), are an important source of income for most villages here.¹⁵ The scheme is supposed to provide at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled work. Unfortunately, this is not always available to the villagers, and even when it is, the contractors often take as much as half of the government allocation.¹⁶ In Boda Kandulpada, the government provision is Rs. 210 a day, but the government contractor only pays Rs. 100; but this is still larger than the Rs. 50 that private contractors pay. In other locations, private contractors seem to pay higher wages for labor, around Rs. 150 for agricultural work to Rs. 200 for construction work for men and about fifty to sixty percent of that, for women.

Migration

Many tribals from Orissa migrate to Andhra Pradesh (brick laying), Kerala and Tamil Nadu (construction).¹⁷ In addition, some contract/bonded laborers go to work on farms in Kerala, with the length of the contract sometime being up to 10-12 years with provision for education of children, as well. Tribals who migrate to Andhra go in the off-season (after the harvest, around December) and come back in June-September to cultivate millet. Nevertheless, in this part of Orissa, migration does not seem to be very common. There are no migrants from Bashtam Bahal and villagers in Daragadia and Bada Gothiguda did not mention it as a source of income. Villagers in Naringpanga do not go farther than five kilometres away to work, to Bissamcuttack and Muniguda. Boda Kandulpada was the only village that used migration as a major source of income – in fact, seven of the nine males in this village had travelled to Kerala for work at some point or the other. They migrate to Kerala seasonally for 4, 5 or 12 months at a time. In Kerala, they can make Rs. 5,000/- a month, whereas locally they can only make Rs. 7000/- or Rs. 8000/- a year.

¹³ Millets are not a single type of grain; rather they are a group of highly variable small-seeded grasses, widely grown around the world as cereal crops. The names given here were those used by informants.

¹⁴ Some evidence of this is provided in Table 1 in the discussion of finance in section V.

¹⁵ The schemes are often referred to as MNREGA, after the name of the Act which engendered the schemes, Mahatma Gandhi National Rural Employment Guarantee Act.

¹⁶ According to the Act, the minimum wage fixed by the State Government under section 3 of the Minimum Wages Act, 1948 for agricultural laborers, is the wage that will apply for work done under MNREGA. The minimum wage for an unskilled laborer was raised in 2015 from Rs. 150 per day to Rs. 200, semi-skilled workers will get Rs. 220 each instead of Rs. 170 a day and skilled workers will get Rs. 240 each instead of Rs. 190 a day (<http://www.ndtv.com/india-news/odisha-government-announces-raise-in-minimum-wages-of-labourers-759803>, viewed November 7, 2016). Informants quoted different wage levels that they would get or were entitled to get under MNREGA. This might be due to the fact that the minimum wage level had just been changed within the year or because they had been wrongly informed by the contractor about the correct wage.

¹⁷ See Parida (2016) for more background on MGNREGS and migration from Odisha. He shows that MGNREGS has provided a check on out-migration during lean seasons.

Nevertheless, the other villages had not taken up migration as an option. Villagers expressed an unwillingness to uproot the family from the ancestral village and move away.

IV. Markets

Although some of the crops grown by the tribals are for their own consumption, they have over time, moved from a subsistence culture supplemented by gift and barter to a market economy.¹⁸ They are gradually switching to cash crops, such as cashews, mangoes and potatoes. Some of them are replacing traditional millets in their diet with government-subsided rice, which is a more common staple of the plains and the lowlands (e.g. tribals in Bashtam Bahal, Daragadia and Boda Gothiguda). Rice does not grow well in the hilly regions where they live, and hence must be purchased elsewhere. They also need access to markets to buy additional vegetables, oil, meat (for festivals), salt and chillies, and onions. Their growing reliance on selling their labor (using MNREGA employment) also means that they now have money, which must be spent in markets. What these changes mean is that access to markets to buy consumption goods, as well as markets to sell cash crops is becoming more and more important. We will now discuss the relevance of markets for the livelihood strategies of the tribals.

The Importance of Market Access

The forests were previously used to obtain products that were consumed directly – now the forest is used for NTFP products, which are sold to outsiders to obtain cash.¹⁹ For example, in Bashtam Bahal, the villagers collect siyali leaves and sell them. Siyali leaves are used to make cups and (disposable) plates.²⁰ The men also collect firewood from the forests for sale. They also collect mahua leaves, which are either sold or bartered for salt. Mahua leaves are used for making liquor and also for oil (for cooking and for massage).²¹ The Bashtam Bahal villagers take the mahua seeds to be milled to a miller, who is 10 kms away. This relationship is an example of the asymmetry of market relationships in rural areas.²² Although the miller charges the villagers Re. 1 per kg for the milling, he also keeps the waste matter, which can be used for fertilizer. Tamarind trees are harvested for tamarind, which is sold to a merchant in Jagdalpur, a nearby town, where there is a Saturday *hat* (market). In Daragadia, landless villagers collect firewood from the forest and sell them in Sahada, 1 km away to the hotels. The women sell brinjals, tomatoes, pulses, bananas, cowpeas, drumsticks, papayas and mahua leaves in the market in Dukum, a town about 7 kms away.

Some villages are close to small towns, where their products can be sold and where they can buy their necessities. For example, Boda Kandulpada is close to Shardapur, which has shops where

¹⁸ See Oraon (2012) for a discussion of the increasing incorporation of the Oraon tribal peoples in northern Odisha into the market economy and its effect on their culture.

¹⁹ See Mahapatra, Albers and Robinson (2005) for a discussion of the importance of NTFP as a component of cash incomes of rural households in Jharkand and Odisha.

²⁰ The scientific name for siyali or siali is *Bauhinia vahili*. See <https://www.downtoearth.org.in/coverage/sal-and-siali-leaves-sustaining-tribal-orissa-4243> for a description of the importance of this leaf in the tribal Odisha economy.

²¹ The scientific name for mahua is *madhuca longifolia*. See Satpathy (2018) for a description of the importance of this leaf in the livelihood strategies of Odisha tribals.

²² See Mishra (2004) for an analysis of market linkages in Odisha agriculture, including the hierarchical and caste-related aspects of the agrarian economy.

daily necessities can be purchased, as well as a medical store. In addition, traders come there to buy produce – grains and vegetables – from the local farmers. It is worth going to Shardapur to sell crops because the traders give 10% more if they do not have to visit the individual hamlets, but this still produces a 50% to 70% margin over the price of the same produce in Muniguda. However, the tribals rarely travel beyond Shardapur and so do not have much information about prices elsewhere. This highlights the issue of access to markets. Cutting out the middleman, perhaps through the creation of cooperatives would increase the villagers' share of the value added from bringing NTFP and grains to the towns. The situation may be compared to that of small dairy farmers. In many parts of India and the world, dairy cooperatives (or large firms reacting to the threat of dairy cooperatives) have been able to increase the price that the dairy farmers obtain for their milk (see, e.g. Rajendran and Mohanty, 2004). The situation should be even better for forest products, since they are much less perishable than milk.

The Bashtam Bahal villagers have two acres of land per family, given to them under the Forest Rights Act. They use this land mainly to raise millets, which they use for themselves and to raise cows for milk, which is also consumed in the village. However, they also participate in the market economy: they sell goats, poultry, mahua, tamarind and cowpeas and they buy, in return, salt, turmeric, potatoes, some rice, oil and onions at Ambatula (about 15 kms away). The Boda Kandulpada villagers also use some of their FRA land to grow vegetables, turmeric and other crops, some of which they consume and some of which, they sell in the market. They also grow cowpeas, ragi, maize, black gram, kosla (minor millet), and other grains called *koddho* and *kolting* for their own consumption; but this is supplemented by the purchase of subsidized rice.

Market Access and Land Exploitation Strategies

South Odisha tribals use markets to sell traditional crops like mahua and millets as described above, but they have also altered their use of the land in order to exploit their access to markets. In particular, they have switched to cash crops, which can be sold at higher prices in the towns. This raises the gains from agriculture, but at the same time, it has the potential to increase the risks to which villagers are exposed, since market prices respond to state-wide, nationwide and even global demand and supply conditions.

A good example of the possibilities for change can be seen in Naringpanga. Here, the Harsha Trust has enabled thirty-eight farmers, in two stages, to adopt cultivation of a cash crop, viz. cashew. They have also taken up an additional cash crop, i.e. mangoes, but the mango trees are very recent and have yet to bear fruit. While expansion into these cash crops is likely to improve the well-being of the farmers, there is also an element of risk. The trick is to diversify across crops in an intelligent manner. For example, while paddy and other such crops are very dependent on rainfall, cashews can withstand high temperatures and do not require much water. For farmers in this region, then, expansion into cashew makes sense. This can be seen by the stories of two of the farmers in Naringpanga. One of the men, Jairam Pidikakal, inherited 3.33 acres of irrigated and fertile land from his father. In 2016, he sowed paddy, millet and kusula (a jowar-type maize) but lost most of it because there had not been sufficient rain, even though his land is irrigated. On the other hand, he was able to earn Rs. 20,000 from the cashew crop grown on one acre because there was some rain – sufficient for cashew growing, but not for paddy. In contrast, another farmer, Raimanji Hikkoge, has thirteen acres of land, of which five are cultivable. All of this land is

rained and not irrigated. He also sowed paddy, millets and kusula, but lost his entire crop due to the drought.

Although such strategies make sense, innovations are often seen as inherently risky, especially if the rationale for them is not supported by traditional knowledge that is accessible to the local farmer. Thus, Harsha Trust in 2008-09, in conjunction with NABARD, through the provision of seedlings, pesticides and fertilizers and assistance with intercropping, enabled the initial investment necessary to plant cashew trees on Jairam's land. Following the tremendous success of the cashew investment in 2012, Harsha Trust advised the cashew farmers to extend the cashew plantings beyond one acre, but many of them didn't follow this advice. Another reason why locals are not always quick to jump on the cash crop bandwagon is the occasional failure of such strategies. For example, in Bada Gothiguda, women in self-help groups took loans to expand into potato cultivation. Unfortunately, because of the drought, the potato crop was disastrous. Still, the women intend to continue to expand into potatoes in order to be able to pay back their loan. While this sounds like a double-or-nothing strategy, it may well be the realization that these investments come with risks, but that they are on the whole, worthwhile.

This is consistent with the findings of Achterbosch et al. (2014), who conclude that cash crops are an integral part of strategies to improve food security. As they say (p. 7), "Cash crops bring substantial wage and employment opportunities to the rural economy, even if these are characterised by rather strong income fluctuations. Over time, cash crops provide a stimulus to agricultural innovation, by raising capital for agricultural investment and accelerating the build-up of institutions that enable further commercialisation. An important caveat is, however, that for cash crops to be successful, economic and environmental risks linked to cash crops have to be prevented or limited." In South Odisha, we see both the positive and the negative aspects of a move to cash crops. At the same time, there is also evidence that households take actions to protect themselves against negative outcomes. Even if net outcomes are bad in the short run, households soon learn. (Fafchamps, 2010; Portner, 2008).

On the other hand, notwithstanding the fact that the reasons for rural adoption of risky investments and risk-mitigating insurance are complex (Fafchamps, 2010), it does seem to be the case that crop insurance take up is moderate in Odisha (Rajeev and Nagendran; 2019), compared to other states. Bad outcomes resulting from excessive dependence on market-based cash crops could be disastrous under these circumstances for low-income families. A case could still be made that the solution to this problem is not avoidance of the market, but rather addressing the causes that keep farmers from buying crop insurance or engaging in other risk-reducing strategies.

V. Finance

From the description of the livelihood strategies of tribals in South Odisha, we can see the increasing importance for them of access to credit – whether to rent equipment to clear land, or to buy high-quality seedlings, pesticides and fertilizers. In addition, the growing monetization of the tribal economy increases the need for access to savings products, as well. Finally, access to banks

and mobile money are also relevant for the resolution of issues of corruption and theft.²³ Mobile financial services such as MPesa, Idea, Airtel Money and other such services exist and individuals do use them, but they are not yet as common as in East Africa. Harsha Trust, does not use them yet, either. Aadhar cards have also been touted as helping ensure that government funds reach the people that they are destined for, and are not diverted.²⁴ Still, nobody in Daragadia or Bada Gothiguda has Aadhar cards (though women in the latter village have applied for them), and it is not clear if the inhabitants of any of the other villages have them, either. I will now describe the development and use of savings vehicles and credit in these villages.

Savings:

Self Help Groups (SHGs) are popularly employed in these areas to facilitate saving.²⁵ The villagers in Bishtam Bahal have recently, in March 2016, started an SHG, with each family saving Rs. 100 a month. The amount of money currently with the SHG is Rs. 2000. This money is currently held in cash, although there are plans to put it in a bank account. However there are problems with the use of the local bank (State Bank of India): one, the bank is a bit far away, about 15 kilometres from the village; and two, the bank employees are not very friendly to the villagers, probably because they are tribals and also because they don't have very much money.²⁶ Even though the primary purpose of the SHG is to promote saving, the SHG also takes care of firewood collection and sale.

Naringpanga has four different SHGs run by women with the first ones established more than fourteen years ago. They have been in operation for fourteen years already. There are a total of sixty-three members in the SHGs which makes for a greater than 100% membership rate, since there are only sixty households in the village – either some of the households have more than one member or there are more households in the village than the sixty that was reported. As can be seen from the numbers in Table 1, the SHGs have been fairly successful in promoting savings.

²³ For example, embezzlement has been a major problem for the Harsha Trust in the operation of some of the cooperatives that they have helped set up. Easy access to cash led to the loss of about 12 lakh rupees in the past five years. However, now Harsha Trust requires that all transactions occur using bank accounts, either personal bank accounts or SHG (Self Help Groups, see below) bank accounts, which makes it much more difficult to steal funds owned in common.

²⁴ An Aadhaar card contains a 12-digit random number issued by the UIDAI (“Authority”) to the residents of India after satisfying the verification process laid down by the Authority. See “Aadhaar Enabled Service Delivery,” published by the Unique Identification Authority of India, February 2012.

²⁵ An SHG is a kind of savings cooperative, which also has the ability to borrow from a microfinance institution or a bank and then to relend these funds to individuals in the SHG.

²⁶ This is based on information volunteered by one respondent. Specific questions about the friendliness of bank employees was not posed to all interviewees. However, this observation is consistent with other research. See, for example, Jones et al (2003) who look at the attitudes of bank managers in rural branches commercial as well as rural regional banks in Betul, Datia and Indore districts of Madhya Pradesh.

Table 1: Membership and Current Cash Balance in SHGs in Naringpanga

SHG	Membership	Current balance (in Rs.)
1	18	80,000
2	18	75,000
3	12	54,000
4	15	71,000
Total	63	280,000

We can get a broad idea of the sources of annual income for tribals and their relative importance by looking at the data for three individuals in Naringpanga (Table 2). This can then be used to make tentative inferences about the savings rate.

Table 2: Annual Income in Rupees for three individuals in Naringpanga village

	Sarab Pidikakka	Dipa Pidikakka	Unnamed
Cultivation	30000	10000	42000
Non-Timber Forest Products (NTFP) ²⁷	1250	1000	5000
Labor (earned over two months in the year)	9000	1500	5000

Looking at the savings numbers in Table 1 and comparing them to the income numbers in Table 2 (assuming that the figures in both tables are per family), we see that the ratio of accumulated SHG savings to annual income is about 12.72%. While this is not very large, it must be kept in mind that the average income in these villages is very low. Again, using the admittedly small sample of three individuals/families from Table 2, we obtain an estimate of household income of Rs. 95/day.

There are three SHGs in Daragadia, one with seventeen members, one with eleven members and one with ten, for a total of thirty-eight. Considering that the village has 54 households, this works out to a participation rate of about 70%. The requirement for participation is to save Rs. 20 per month. These savings come from daily labour earnings and from vegetable trading. The Daragadia SHG provides internal loans, with the rate of interest on the internal loans being 3% per month. In Bada Gothiguda, there are eight SHGs, established around 2009, with the help of Axis Bank and the Office of Tribal Empowerment Projects (OTEP). The frequency of the SHG meetings is 2 or 3 per month. Members started with savings of Rs. 20/- per household per month. However, three of the SHGs have now increased this to Rs. 50/- per month and one has increased it to Rs. 100 per month per household. The women have individual bank accounts and the SHGs have their own accounts, as well. The SHG also gives internal loans at rates of 3% per month.

In spite of the ubiquity of SHGs, there is also resistance to saving. According to Gautam Pradhan of the Harsha Trust, people often consume disposable earnings by purchasing better mobile phones, televisions and the like, rather than save, though this may be partly due to mistrust of financial institutions. As an example, Mr. Pradhan mentioned the case of two workers, who had gone to work in the Kerala plantations of K. Anil Kumar (a manager with Axis Foundation). These

²⁷ Non-timber forest products (NTFPs) are any product or service other than timber that is produced in forests. They include fruits and nuts, vegetables, fish and game, medicinal plants, resins, essences and a range of barks and fibres such as bamboo, rattans, and a host of other palms and grasses (Center for International Forestry Research site: <http://www.cifor.org/publications/corporate/factSheet/NTFP.htm>).

workers were offered Rs. 10000 per month plus free lodging and education for their children. Mr. Anil Kumar wanted to keep Rs. 2000 of their earnings in a bank to be accessed by the workers at the end of their stay in Kerala, so that they would have a nest-egg to bring back to Odisha. However, the workers were not interested in saving any part of their income in this fashion and wanted their entire promised amount, each month. Another disincentive to saving is the rampant alcoholism in these villages. In fact, during one of my visits to the village of Bada Gothiguda, we were not able to reach the village itself because at that time there was a lot of unruly drinking in the context of a festival, going on in the village, and it would have been dangerous to go there; consequently, we had to meet the women in another location, outside the village.

Credit

As mentioned earlier, SHGs not only promote savings, they also are able to tap into bank credit under the under the National Bank for Agriculture and Rural Development (NABARD) bank linkage schemes.²⁸ For example, in Boda Kandulpada, the SHG was able to obtain a loan for Rs. 30,000 from the local State Bank of India in Muniguda,. With this loan, they have rented a plough, a pumpset (a lifting motor for irrigation purposes) and seeds. They have planted cabbages and cowpeas, which are presumably sold on the market. Two of the Daragadia SHGs have also taken bank loans, one to the extent of four lakh rupees and the other three lakh rupees, to date. They have used 4.2 lakhs of this money to jointly buy seven acres of land and cultivate them for paddy. These loans have been repaid using the proceeds from the sales of the paddy.²⁹ At the same time, the more traditional borrowing from moneylenders also goes on concurrently with these more cooperative ventures. For example, villagers in Bashtam Bahal, who need money for any purpose, have recourse to a sahucar (merchant/landlord) in Ambatula, who gives loans at an interest rate of 5% per month. Repayment is in kind, mainly cowpeas at harvest time. Such flexibility is usually the reason why traditional moneylending still continues to flourish.

Naringpanga's SHGs bank with the Utkal Grameen Bank in Bissamcuttack, which is 17 kms away. SHG #1 (see Table 1) has taken a loan of Rs. 150,000 (distributed among the 18 women members) and has repaid Rs. 100,000 to date; the interest rate on the loan is 2% per month, which is a lot lower than the 5% charged by the sahucar in Bashtam Bahal. This money was put to various purposes. One woman used her loan for seeds, fertilizers and for renting a plough. Another women used it for books and other school supplies for her children, as well as for hostel fees for one child to stay in a hostel in Dukum. A third one used it for marriage expenses for her daughter, such as for ornaments; she undertook a total of Rs. 60,000 in wedding expenditures, of which Rs. 8000 came from the SHG loan. A fourth woman used a loan of Rs. 17,000 for her son's education.

The SHGs in Bada Gothiguda have taken also bank loans. A first loan of Rs. 35,000 was repaid, then a second loan of Rs. 70,000 was taken. Of this, half of the amount has been repaid. Unfortunately, the SHGs have run into difficulties and are likely to default on the latest loan. The reason is that all the SHGs used their loans to expand potato cultivation, but because of the drought, potato product has been disastrous. The women are thinking of putting in their own money to grow more potatoes in the next season, so that they can repay the loan with the profits.

²⁸ See Siebel (2006) for a discussion of bank linkages to SHGs in general and the NABARD program in particular.

²⁹ The third SHG consisting of seventeen members was formed later and did not participate in the land purchase.

Other individuals have obtained loans in more traditional fashion, i.e. by using land as collateral. For example, in Boda Kandulpada, one villager took out a loan of Rs. 30,000 using his land as collateral and sold five of his goats for Rs. 10,000 apiece in order to borrow Rs. 90,000 to rent a JCB excavator to clear his plot of land for agriculture.

While these anecdotal examples provide some evidence of the value of credit, credit is not automatically a panacea. In many parts of the world, the availability of loans through for-profit microfinance institutions has led to over-indebtedness (Guerin and Villareal, 2013; Ray, Mahapatra and Nath, 2019). Viswanath (2015) suggests that investment in skill development is important and supports a broader microfinance-plus approach that includes human development services along with financial services, based upon synergies between financial services and human development services. It is worthwhile noting, however, that our villagers use credit primarily from SHGs with which they have close ties. In fact, a glaring omission from the financial marketplace in this area is the microfinance institution. In Bada Gothiguda, when asked if (microfinance institutions) had come to the village offering loans, the response was that they had, but had been turned away by the villagers.³⁰ Apparently, there was a lack of trust. Similarly, villagers in Daragadia did not want to deal with MFIs either.

VI. Conclusions

As I noted in my introduction, the level of poverty in South Odisha is high, even though it is lower now than previously. However, the reduction in poverty here and in Odisha, overall, is likely related to the high rate of migration to other states. As we have seen above, in my study, four of the five villages in my study did not report migration, although we did not explore this issue in depth.³¹ Thus, there seem to be pockets in the South Odisha tribal areas that have not benefited from migration. Whereas in other parts of South Odisha, migrant remittances may potentially be used as a resource for development, in this part of South Odisha, this is not feasible in this area because of lower rates of migration. It is necessary, therefore, to approach the issue independent of the problems and solutions presented by migration.

What, then, can be done to ameliorate the situation? From the work that the Harsha Trust has been doing, it may be suggested that access to improved methods of agriculture and diversification across crops, including switching to cash crops can help. However, the description above suggests that this will require access both to savings vehicles and to credit. While the existing situation is better than nothing, access to financial services is currently minimal and can be improved. Microfinance institutions have zero presence in the area; if the lack of trust can be overcome, they can provide much more sophisticated financial products that can help the transition to a more market-responsive livelihood scheme.³² Mitra and Pradhan (2016) support the idea that

³⁰ This was Annapurna Microfinance.

³¹ Mitra and Pradhan (2016) look at the determinants of migration in Western Odisha. Areas dependent on agriculture tend to have fewer migrants especially during the agricultural season. Agasty and Patra (2014) show that migration of agricultural labor from Odisha has had an effect on agricultural wages.

³² See Sahoo, Pradhan and Sahu (2017), who document the very low access of Odisha tribals to financial services. In their survey of tribals in Bolangir and Mayurbhanj in Central and Northern Odisha, respectively, they find that 71.7 per cent of households had no savings bank accounts and that 70.7 per cent were not involved in self-help group activities.

remittances are utilized directly for consumption purposes; to the extent that remittances are available, microfinance can also be used to channel remittances and savings more productively.

At the same time, we see in the description above, the importance of improved access to markets, particularly for the sale of cash crops, such as NTFP, cashews and mangoes. The Harsha Trust has worked to develop cooperatives in other parts of Odisha. Development of cooperatives in this area, as well, is likely to increase the rewards from switching to cash crops so as to be able to reduce dependence on intermediaries. Improved infrastructure and improved transportation is certainly part of the equation, as well. Microfinance can help at least with respect to the transportation part, although improved roads may need to be addressed by the government. On the other hand, the existing MGNREGS expenditures could well be channeled towards improving roads that would be specifically used for transportation of crops to market.

Although we have not discussed health, sanitation, literacy and other issues, these are all linked with livelihood issues, as well. For example, optimal utilization of the financial products depends on understanding their importance. Similarly, the benefits of markets will be fully appreciated only when participants understand their value, as well as the power structures inherent in existing markets. Both these points presuppose literacy and financial literacy. Similarly, attempts to improve the economic well-being of the region's inhabitants will not bear fruit as long as they are subject to malnutrition and ill-health (Viswanath, 2015). Still, it cannot be denied that the local inhabitants understand their environment better than outsiders; as such, their own use of markets and financial services suggests that increased microfinance and improved access to markets are key to the development of the region. Of course, this does not mean that villagers are to be thought of as sophisticated economists; markets have shortcomings especially when there is information asymmetry and concentration of market power. The particular way in which markets and credit are employed as part of a strategy of economic development will depend upon local circumstances and will vary from place to place. For example, Viswanath (2018) provides a conceptual analysis of how credit can be used in isolated rural areas as a way to connect with larger markets. Certainly, a more thorough study is warranted that would examine the specific ways in which product market access can be facilitated and financial services introduced in a manner acceptable to the tribal population, along with possible misuses.

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