Tribal Agriculture in Paderu Region, Visakhapatnam: Some Observations*

P. Purushotham
Brajaraja Mishra
CESS

Hyderabad 50016

Tribal households in Paderu region earn about half of their incomes from agriculture which is facing a number of challenges. The important among these include high incidence of land alienation, poor access to institutional credit, lower levels of investment, absence of efficient market environment for competitive price discovery, and a lack of an effective extension system. Innovative strategies are needed to gain leverage from the organic trait of their farm produce. Similarly, proactive initiatives are required to build the farmers' institutions and pool their collective strength so that they can deal with markets, institutions, and development functionaries. Farmers should be imparted domain knowledge and managerial skills so that they could contribute to, and benefit from, the value addition to their produce. These measures should give them a voice so that they can have their say in the formulation and implementation of agricultural development policies and programmes.

Introduction

The Paderu Tribal Agency consists of 11 fully scheduled mandals and 2 partially scheduled mandals of Visakhapatnam district. For administrative convenience, it is divided into three sub-divisions i.e. Paderu, Chintapalli and Araku Valley. The agency covers 2,312 revenue villages and 3,574 tribal habitations (1,093 PTGs and 2,481 Non-PTGs habitations) of 244 Gram Panchayats (Table 1). To understand the state of agriculture in this region, a quick study was carried out in twenty six hamlets in Paderu division, Vsiakhapatnam district (Annexure-1). The study was taken up during February and March 2016.

Hamlets located in interior areas lack minimum need supporting facilities/services. These villagers lack access to basic health and drinking water. Due to unavailability of protected water, households are forced to drink canal water. The problem is more acute during the rainy season. The households' repeated representations to the MPDO, Sarapanch and MLA to install bore well have borne no fruit. Similarly, villages have no access to basic health facilities. The health workers, including the ANMs, seldom visit the villages on a regular basis. For any health problem they have to approach hospitals located in far away cities. Primary schools are located at about 2-5 kms from the villages and functioning in a perfunctory manner. Higher education is a dream for them as many higher educational institutions are located in cities. There is a high degree of absenteeism among development functionaries.

* *This paper is based on a study undertaken by Center for Economic and Social Studies (CESS), Hyderabad for the Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh (Chairman: Prof. R Radhakrishna). The authors would like to thank Prof. R Radhakrishna for suggesting them to take up this work. They gratefully acknowledge the encouragement given by Prof. S. Galab, Director, CESS.*

The average rainfall of the district is about 1,200 mm which is higher than the state average (940 mm) and also that of coastal areas (1,078 mm). But due to the absence of an effective irrigation system, farmers lack assured irrigation facility. Although 591 minor irrigation projects have been constructed to service 40,672 acres in all 11 agency mandals, many of these projects are in disservice for want of proper maintenance. In spite of allocation of huge investments for maintenance of these projects, they are not properly utilized. Thus, the farmers lack access to assured irrigation. The region is more suitable for growing horticulture crops such as turmeric, pipla, coffee, pepper and cashew.

About 70 to 80 per cent of the tribal farm holdings in these villages fall in the categories of small and marginal holdings, the average farm size being about two-thirds of an acre. The main crop was paddy, followed by other cereals and millets (Table 2). Barely one-fourth of the cropped area was irrigated. The proportion of marketed surplus has either remained stagnant or become less for most crops.

Farm income and income from wages under MGNREGS account for over 80% of the household income. Income from non-timber minor forest produce (NTFPs) was found to be less significant, accounting for not more than 15 % of household income.

Land Alienation

The common issue faced by the tribal farmers is land alienation. The incidence of land alienation in the study region has ranged from five percent to 35 per cent. In fact, only about five percent of the land alienation cases are taken to the notice of the concerned level in the revenue department. Even these are not resolved quickly. If the land records administration takes up these seriously, most often, the cases could be disposed in favour of the tribals. According to the administrative report (2010) of the Commissioner of Tribal Welfare, Hyderabad, in Visakhapatnam district, 5,708 cases involving 22,731 acres were examined by the authorities of which 4,359 cases (76 per cent) involving 17,721 acres (78 per cent) were disposed in favour of tribals. But what is noteworthy is that the tribals are seldom successful in taking the land alienation cases to the notice of the senior level administration authorities.

Tribals have also been facing the denial of land rights. There are ambiguities in the demarcation of resource use boundary. In some areas, the lack of clear forest boundaries has made the tribal people vulnerable to exploitation by the forest department. Some of the villages were not fully enumerated in the forest surveys. Due to such omissions, some tribal households do not possess titles to the forest land under cultivation. Since access to institutional credit and government schemes is linked to the possession of title to land, these households are deprived of these benefits.

Lack of Proper Extension Services

Various schemes, such as soil health testing, distribution of soil cards, Chandranna Rythu Kshethralu, supply of farm equipments, Polam Pilusthondi campaign, organic certification, etc, have also been initiated but are not effectively implemented. This explains low level of agricultural productivity. The average yield of

paddy per acre in the study region was observed to be 450 kg, as against 645 kg in the district ie per cent lower. In case of Bengal gram, the yield gap is even more striking, 75 kg in the study region as against 247 kg in the district. Similar is the case with block gram (75 kg in Paderu as against 299 kg in the district, see Table 3).

Crucial role of moneylender-cum-trader:

Due to the lack of access to institutional credit, the local traders/commission agents give loans to tribal farmers at exorbitant interest rates which range from 24 per cent to 60 per cent per annum. These loan amounts ranged from Rs 3,000 to Rs 8,000 per farmer. The tribals are forced to depend on the traders though the former are well aware that they are being exploited and have to resort to distress sale of agriculture produce. There is a clear case of inter-locking of credit and produce markets.

Dependence on traders is high because of: a) high transportation costs and lack of storage facilities, and b) malfunctioning of the formal procurement system. The shandies (markets) are unreachable for several farmers. These conditions often lead to distress sale of many tribal produce, particularly perishable commodities such as fruits (pine apple, jack fruit etc). Once the farmers take their produce to the shandies, they are left with no choice except to sell at whatever the price. This is because of absence of any mechanism to store the produce in the market place. The other option of taking the produce back home is impracticable and makes no economic sense. All the farmers in all the twenty six villages the team studied have reported this compulsion.

“The money lender-cum-trader is like an ATM and we cannot and should not complain against him, whatever may be the cause”, most tribal-farmers opined. The tribal farmers are more concerned about the manipulations in weighing the produce rather than on high interest rates. They were found to prefer local money lender-cum-trader over the Girija Cooperative Corporation (GCC) , the state sponsored organisation to procure tribal produce, including coffee, to transact their market activities. Easy access to traders and their willingness to lend multiple times (although small loans) offering to buy the produce at the farmers’ doorstep are the reasons behind such preference. The GCC has to walk great lengths and refurbish its style of functioning to win the tribal’s confidence.

Cashew kernels are sold to the local money lender-cum-traders. These traders periodically visit the villages to assess the crop prospects and maintain a continuous rapport with the tribal farmers. They also lend the needy farmers small amounts which seldom exceed 10% of the crop value. The size of the loan advance depends on a host of factors such as health of the trees, the intensity of flowering, the health of the pods, last year yield, last year price, the level of competition, and the trust the moneylender-cum-trader sees in the farmer. The terms of the loans are: 24 per cent – 60 per cent rate of interest or the commitment to sell the produce to the money lender-cum-trader. The produce is weighed and stored at the farmer’s residence, to be picked up as and when an optimum transport- route schedule is worked out. Since there is no alternative channel, the tribal has no way to compare the price offered by the trader. If he is very particular of this, he has to travel a whole day to nearby markets. But that is not always feasible. Tribals’ reticence to respond to the outside world is exploited by the moneylender-cum-trader who also employs myriad tactics to keep off the potential competitors.

In case of cashew, as with any other produce, the tribal farmers are completely unaware of the prices prevailing in referral markets. For that matter, even the aggregators (moneylender-cum-trader) do not have much knowledge about the prices prevailing in Palaasa and similar referral markets. They merely rely on hearsay. Thus, both the tribal farmers as well as the aggregators (moneylenders-cum-buyers) are vulnerable to price risk.

Crop insurance

It is common to see that agriculture, horticulture and livestock are not covered by insurance. As a result, farmers incur huge losses in the event of any natural calamity or disease. These problems have arisen due to the lack of proper verification in carrying out the estimation of the extent of crop loss and identification of beneficiaries. The official machinery is hardly trained and motivated to carry out this task. The extent of crop loss is usually estimated by sitting at the *mandal* headquarters. Due to this practice, many households are excluded from the beneficiary list. The compensation amount is also less than the actual crop loss. Farmers are asked to collect the compensation from the *mandal* headquarters. Most often, the transportation cost incurred by the villagers located in many places is more than the compensation amount released for them and hence the farmers are reluctant to visit the mandal headquarters to collect the payment. After disasters like the *Hudhud* cyclone, the tribal farmers desire that compensation should not be entirely in cash but also include a part payment in kind. For instance, adequate gap filling/ replanting is required in damaged coffee plantation areas which requires the provision of more coffee and silver oak seedlings.

Convergence with various schemes

The ITDA is required to identify scope for utilizing MGNREGS funds for supporting horticulture. Towards this, it has to identify beneficiaries, quantify the labour requirement for various activities such as bush clearing, land levelling, demarcation of boundaries, pit digging raising of nurseries, land preparation and planting, and maintenance of plants for three to four years, and planting of seedling.

Although the guidelines permit the use of MGNREGS funds for the maintenance of horticulture crops and plantations during the gestation period, in practice this is not happening in many villages. This is due to lack of coordination among the ITDA officials, the agriculture, horticulture and revenue departments. This is despite the built-in provision for convergence through dovetailing MGNREGS with the above departments.

The region is suitable for growing pineapple, mango, custard-apple, jackfruit, and guava. This horticulture system can generate an income of Rs. 10,000-20,000 per acre. However, for want of proper extension service, many farmers are not able to leverage on this count. The experience in encouraging tribals under “Manthota” programme suggests for availing any government subsidies and extension services, the farmers should have clear titles to their land. Nearly 40 per cent of the farmers lack these facilities.

Poor logistics

Low level of logistic-linkage of tribals with mainstream society and high information gaps are responsible for their limited access to inputs, technology and

extension services, efficient marketing arrangements, and government schemes. For want of transport facilities, about forty per cent of the fruits such as pineapple and jack fruit never reach markets. Households prefer to visit towns only in times of acute need. Consequently, they are unable to access development information and to tap the opportunities. The tribal areas being remote, the government staffs who are expected to provide basic services including technical guidance areas usually bypass them. There is a conspicuous tendency to avoid postings to the agency areas. Tribal households are vulnerable to such governance deficit. For instance, the high mortality rate among livestock is attributed to the absence of veterinary doctors. Because of this, livestock is not serviced by regular health check-ups, vaccination and medicines. Similarly, tribal households in some areas could not take up coffee plantations due to lack of extension services from horticulture officials. Households prefer to sell their output to traders at a lower price because of the high transportation costs to outside markets.

What needs to be done?

1. Sincere and effective implementation of the Panchayats (Extension) to Scheduled Areas (PESA) and the Forest Rights Act (FRA) will address the problems of land alienation and denial of land rights. The conflicts arising out of the ambiguity with regard to the land titles of tribal farm holdings can be resolved through effective and well coordinated joint surveys and demarcation of boundaries by revenue and forest departments. There is a clear need for making special efforts to enforce the Resumption of Tribal Alienation (I/70 of Act).

2. Producer organisations or collectives such as cooperatives, producer companies, and SHG federations help these farmers to realise scale economies and to participate in modern competitive markets. The State should take the initiative to promote cluster based agriculture and the Farmer Producers' Companies can take a lead and, wherever necessary, opt for Community-Public-Private partnerships. The producers' companies should be managed by professionals hired by the farmer federations along the lines of the National Dairy Development Board (NDDB).

3. A state level agency such as Society for Elimination of Rural Poverty should be created to provide development support to tribal farmers. The Andhra Pradesh Agriculture Commission has recommended an organisation called Andhra Pradesh Society for Agriculture and Farmers Empowerment (APSAFE). It should be complementary to the ITDA which has turned out to be too rigid, hierarchical and out of reach for the tribal households. It should hire the services of professionals, or, create an internal nodal division to prepare project proposals for the commodity clusters, to start with, for the farmers' federations to promote Farmer Producers' Organisation (FPOs). It should also monitor progress and provide policy and technical support to these FPOs during the transition period. Handholding support to the FPOs should be supported during the gestation period. It should also play a proactive role in the implementation of Panchayats (Extension to) Scheduled Areas (PESA) and Forest Rights Act (FRA) to help improve the livelihoods of tribal households (Report of the Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh, page 15).

4. For building the capacity of small farmers to manage their institutions, such as collective markets, the State may adopt models similar to that of Marginal Farmers' Markets of Kerala (Vegetable and Fruit Promotion Council of Kerala). Such collectives will enable small and tribal farmers to benefit from value chain in respect of coffee, cashew, and similar other crop and produce systems. Thus, tribal farmers' SHGs federations and FPOs should be groomed to be alternative channels for providing efficient marketing services (Report of the Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh, page 112).

5. Since agriculture alone cannot ensure secured livelihoods, the focus should be shifted to market oriented skill development for moving to self or wage employment in allied agricultural activities or in the non-farm sector. Students staying in *Ashram* and *Gurukulam* schools should be provided vocational training and the State, through a comprehensive tribal development plan, should create opportunities for deploying these skills in various self-employment enterprises (Report of the Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh, page 107).

6. The MGNREGS guidelines, which do permit the utilization of MGNREGS funds for the maintenance of horticulture crops and plantations during the gestation period, should be followed in spirit. Any constraints that challenge this should be identified and sorted out so that the tribal farmers get the benefit of MGNREGS works during the gestation period of horticulture crops.

7. The labour market is a major source of income for ST families. It is recommended that 150 days of employment under MGNREGS should be ensured to persons in need.

8. SHGs of farmers and women should be formed and enabled to take up value addition measures e.g. making of turmeric powder, pickles, cashew kernels, fruit juice/jam, mango candies etc. Subsidies can be given for the establishment of processing and packaging machinery. Technical knowledge can be given to maintain quality, and better packaging and marketing. There must be periodic training/capacity building initiatives, demonstrations, and the proposed APSAFE with the support of professionals should assess the efficiency or sustainability of these initiatives in terms of accessing subsidies, receipt of remunerative price, credit linkage, profitability, etc.

9. Capacity building and awareness generation among the tribal farmers about the organic trait of their produce is necessary to leverage from the premium price it commands in the retail market. This has to be undertaken on a mission mode. In fact, some private traders are earning disproportionally huge profits from this leverage. There is a strong case for equipping the tribal farmers with such skills and knowledge to exploit this potential. Professional expertise should be provided to them for this purpose.

10. To enable tribal farmers gain easy access to quality seed, fertiliser, pesticide, and farm machinery due to isolation and high transport costs, the State should establish farmers' facilitation centres (FFC) for clusters of villages to ensure the availability of all required services and facilities at one place. The logistics provided in the FFC should ensure both backward and forward linkages covering

financial, technical and marketing support. The FFC should house suppliers of inputs such as seed, fertilizers and pesticides and provide farm machinery on a custom hiring basis (Report of the Commission on Inclusive and Sustainable Agricultural Development of Andhra Pradesh, page 112).

11. Warehouse facility: Storage/ godowns should be established on the basis of a detailed viability study of the shandy market so that farmers can store their produce and based on the warehouse receipts realize a part of the market price and can sell the same as and when the market price is favourable.

12. The Gram Sabha's powers enshrined under PESA have to be appreciated by the State. All development activities should be taken up in accordance with the spirit of PESA. The traditional community councils have to be strengthened and the State should encourage the tribal gram panchayats to adopt successful models of local self-governance.

Table 1: Basic Profile of ITDA, Paderu

• Geographic area of Visakhapatnam District	:	11,167 Sq. Kms
• Area of the I.T.D.A.	:	6,293 Sq. Kms.
• % Agency area to the total district area	:	56.38 %
• District Population	:	42,90,589
• Population of Paderu division	:	604,047
• Population of Scheduled Tribes	:	547,951
• Tribal Households	:	134,233
• % of Agency Population to the Dist. Population	:	14.08%
• Population Density in the District (per Sq. Km.)	:	384
• Population Density in Agency Area (per Sq. Km.)	:	96
• PTGs Tribes	:	Khond, Gadaba, Poorja
• Non-PTGs Tribes	:	Bhagatha, Valmiki, Kondadora, Kotia, Kammara, Nookadora
• No. of Schedule Mandals	:	10 (Full) + 2 (Partial)
• Gram Panchayats	:	244
• No. of revenue villages	:	2,312
• Tribal habitations	:	3,574
• No. of PTG Habitations	:	1,093
• No. of Non-PTG habitations	:	2,481

Source: ITDA, Paderu

Table 2: Extent of total Crop Area in Paderu Agency Area, 2013-14

Sl. No.	Name of the crop	Coverage of area (Hectares)
1.	Paddy	43,123
2.	Ragi	27,909
3.	Sama	20,834
4.	Maize	6,614
5.	Rajamah	4,810
6.	Red Gram	1,693
7.	Other pulses	864
8.	Black Gram	275
9.	Ground Nut	263
10.	Korra	247
11.	Others	13,520
	Total	120,152

Source: ITDA, Paderu

Table 3
Yield Gap of important crops in Paderu

Crops	Paderu Yield (kg/acre)	Visakhapatnam (kg/acre)
Paddy	450	645
Bengal gram	200	719
Green gram	75	247
Black gram	75	299

Source: field enquiry

References

1. Rao, PT (2014) “Tribal Land Alienation in Andhra Pradesh”, Journal of Rural Development, Vol 33, number 3, pp 329-342
2. CESS (2016) “Commission on Inclusive and Sustainable Agricultural Development in Andhra Pradesh”, submitted to Government of Andhra Pradesh.
3. www.samataindia.org.in/documents/**tribal**landproblems
4. Srinivasa Rao, Ch and Venkateswarlu, B and Wani, S P and Sahrawat, K L and Dixit, S and Kundu, S and Devi, K G and Rajesh, C and Pardasaradhi, G (2010) *Productivity enhancement and improved livelihoods through participatory soil fertility management in Tribal Districts of Andhra Pradesh.* Indian Journal of Dryland Agriculture Research and Development, 25 (2). pp. 23-32. ISSN 0971-2062

Annexure 1: Sample Hamlets

Sno	Mandal	Village	Hamlet	Tribe	Population	ST population
Araku Valley Subdivision						
1	Dumbriguda	Kithalangi	Pothuguida	Kotia	935	930 (99.5%)
2	Dumbriguda	Kinchumanda	Kinchumanda	Kondadora	1592	1368 (85.9%)
3	Hukumpeta	Sembi	Bangarumetta	Kodhu	88	88 (100%)
4	Hukumpeta	Pathakota	Gonagummi	Kodhu	68	68 (100%)
5	Ananthagiri		Tattavalasa	Gadaba	135	130 (96.3%)
Chintapali Subdivision						
6	Chinthapalli	Baddimetta	Chikkudupalli	Bhagata	267	265 (93.3%)
7	Chinthapalli	Kikkasala Banda	Kikkasala Banda	Kodhu	106	106 (100%)
8	G.K.Veedhi	Dokuluru	Dokuluru	Gadaba	204	204 (100%)
9	G.K.Veedhi	Rinthada	Rinthada	Bhagata	1429	1302 (91.1%)
10	Gudem Kotha Veedh		Ginjangi	Kodhu	854	845 (98.9)
11	Koyyuru	Kommika	Revallu	Gadaba	116	111 (95.7%)
12	Koyyuru	Gamkonda	Gamkonda	Bhagata	68	68 (100%)
Paderu Subdivision						
13	G.Madugula	Pinalochili	Sakirevu	Kammara	48	48 (100%)
14	G. Madugula		Regadi		42	42 (100)
15	Munchingput	Padalaputtu	Padalaputtu	Poorja	172	172 (100%)
16	Munchingput	Jodiputtu	Sangauralasa	Bhagata	667	592 (88.8%)
17	Munchingput	Dimisamalli	Dimisamalli	Poorja	19	19 (100%)
18	Munchingput	Gadela Burugu	Gadela Burugu	Poorja	103	103 (100%)
19	Munchingput		Kotturu (Chilakagadda panchayat),		28	28 (100%)
20	Paderu	Modapalli	Modapalli	Kodhu	80	74 (92.5%)
21	Paderu		Cheedimetla	Kodhu	183	182 (99.5%)
22	Pedabayalu	Manga Banda	Manga Banda	Kodhu	55	55 (100%)
23	Pedabayalu	Lakyu Puttu	Lakyu Puttu	Kodhu	157	157 (100%)
24	Pedabayalu	Vanabangi	Vanabangi	Valmiki	556	537 (96.6%)
25	Pedabayalu	Luvvasingi	Luvvasingi	Valmiki	398	264 (66.3%)
26	Golugonda		Gadapalem		870	129 (14.8)