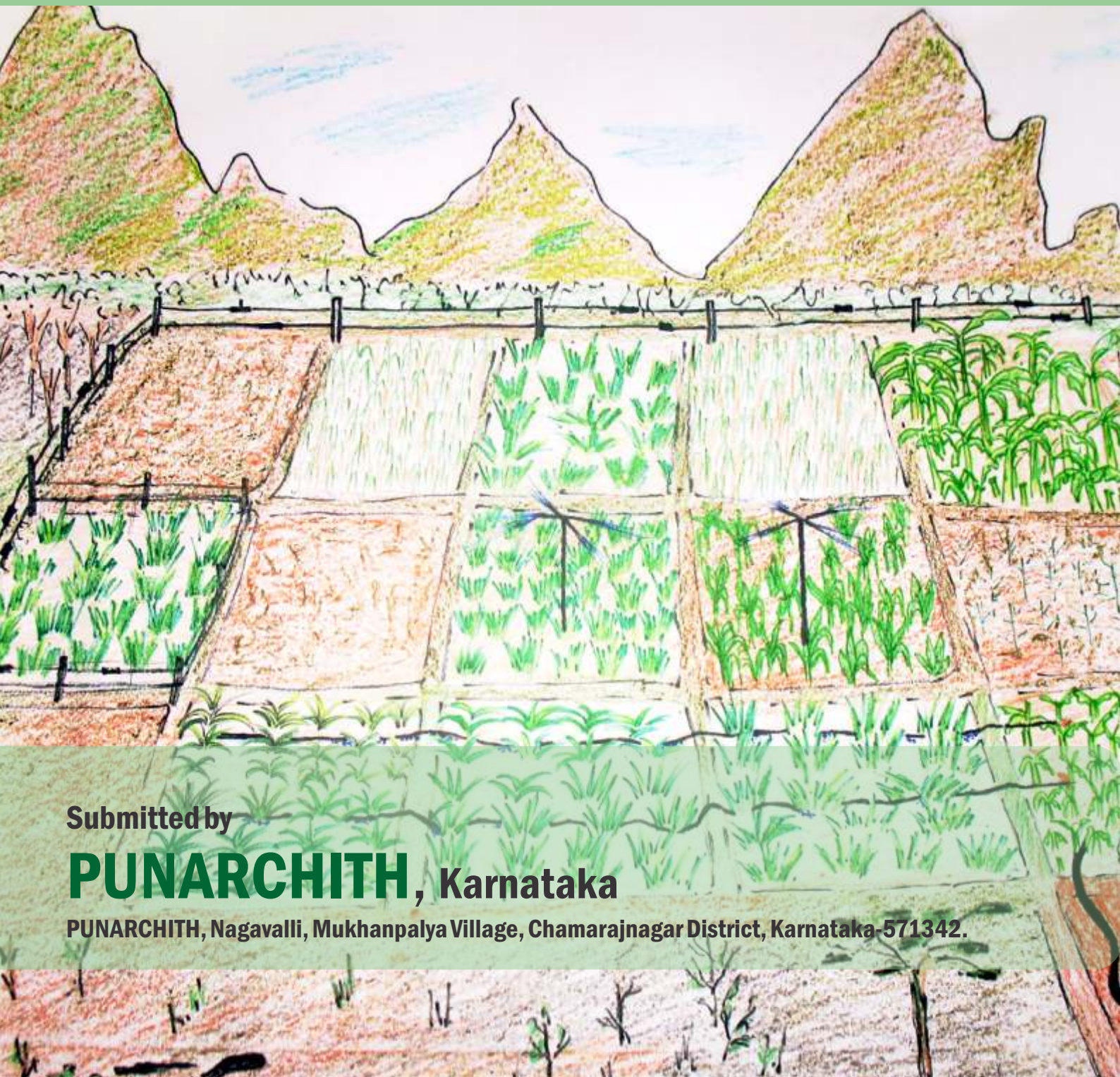
‘LEASE AGRICULTURE’

AND ITS IMPLICATIONS

A CASE STUDY OF A HILLY, RAIN-SHADOW REGION IN KARNATAKA



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SUMMARY

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'LEASE AGRICULTURE' AND ITS IMPLICATIONS

CASE STUDY OF A HILLY, RAIN-SHADOW REGION IN KARNATAKA

Focusing on the spread of 'lease agriculture' in a rain-shadow area of Karnataka, this case study (along with photo-documentation) is an attempt to document the changing land-use practices in the area. Issues of agricultural disruption, ecological degradation (and counter conservation) and increasing complexity of the agrarian structures are highlighted. More specifically, the implications of lease agriculture on the Soligas, an Adivasi/tribal group,and the further marginalization and pauperization of this group are raised. The need to bring such agri-entrepreneurialism or investor cultivation into the ambit of governmental regulation and for an inter-departmental perspective on such trends is flagged.

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How do different forms of commercial agriculture impact the production practices and lives of marginal or petty commodity producers? And when the case is of adivasi/tribal households living in a rain shadow area, what implications do these new forms of commercial and capital-based agriculture have for the linkages between economic and social conditions and future ecological trends? Paying attention to how a new form of agricultural production called 'lease agriculture', representing the spread of entrepreneurial agri-capitalism, is impacting a marginal and rainfed area will enable us to understand a host of factors and trends. This includes not only questions of the viability of agricultural practices but also the ecological and social implications for the people and the region. In addition, the study represents a case of increasing complexity of the agrarian structure among a marginalized community. This paper draws on observations from two-years (2011 to 2013) and an indepth study (Nov 2013 to January 2014 made possible by financial support from RRA), of a dry, hill region in Karnataka and attempts to answer some of these questions.

Fenced Ginger fields

Fenced Turmeric fields

STUDY SITE

Lying on the leeward or rain-shadow belt of the Nilgiris, Punanjur panchayat is part of the buffer zone of the Biligirirangaswamy Temple Wildlife Sanctuary (BRTWF) and is also a border area (between Tamil Nadu and Karnataka). With a fast altering physical and social landscape, the area and its settlements exhibit problems of being caught between: transformation of a once forest zone into commercial cultivation; depleting natural resources and new external opportunities; tensions between conservation vs livelihood opportunities; the demands of tradition and the call of consumerism; a declining collective sense of belonging to the locale and the individualized angst of upward economic and social mobility. As an uphill dry area that is rain-dependent, the agriculture and agrarian structure of this region need to be documented and may be representative of trends in many of the tribal and hill regions. The promotion of commercial agriculture and the simultaneous efforts by the forest department to reclaim agricultural lands and to initiate projects such as the Tiger Project and the Elephant Corridor are key issues that may encapsulate trends that are relevant for other regions also.

Located between Chamarajanagar town and the Satyamanagalam forest range, Punanjur panchayat (Chamarajnagar district, Karnataka) is composed primarily of 26 scattered hamlets most of which are primarily single communities (either Soligas, Lambani etc) and only a few have mixed caste and or tribals groups. Most of the population consists of Soligas who have been displaced from the surrounding reserve forests, Lambanis (or Banjara) who have settled there since the 1950s, and some households consisting of Madigas(leather workers), Muslims, and a small number of Badaga and Lingayat families. As a new agricultural belt (where forest areas have been settled and converted into agricultural land), there are certain specificities of the area which mark it as different from typical Indian villages. Devoid of the dominance of upper caste and large landed families, the recently settled habitations consist primarily of Soliga (ST), Lambani (SC) households that are primarily labouring households. The economy consists of agricultural production that is fast shifting from a single seasonal cropping system (August to January) towards that of perennial cultivation with the aid of capital, tube-wells and other new technologies and external inputs. Cultivation patterns also indicate shifts from mixed cropping of millets and pulses to that of commercial crops of turmeric, ginger, and bananas. While owner cultivation is predominant, new production arrangements include 'lease agriculture' with out of state, migrant 'investor cultivators' cultivating the land for a fixed annual sum. This is in addition to the entry of contract farming with agri-business groups, with their agents advising and supervising cultivation and choice of crops, which marks a dramatic shift in the agricultural practices of the areas and highlights

the potential ecological changes in the area and in the socio-economic conditions of the people. A combination of these, of the introduction of lease agriculture and the increasing commercialization-financialisation of agriculture, has led to making and representing local forms of agriculture as out-dated and redundant.

The slack season (February to July) sees a large number of youth migrate to the neighbouring states of Kerala and Tamil Nadu to work in the factories, mills, and in the urban low-end service economy (as drivers, salespersons, mechanics etc). Some Lambani households are relatively well-off with large plots of irrigated land (ranging from 10 acres to 40 acres), and additional income supplemented by non-agricultural sources. Their classification as Scheduled Caste in the state has enabled some to access higher education and employment in the urban areas and in the government sectors. The Lambanis are fast emerging as the dominant caste in the area. The Soligas (literally meaning 'people of the bamboo') are the only original dwellers but are largely displaced from the interiors of the BRTWS forest and are yet to find their feet either as agriculturists or as a successful labouring class (which the Madigas are). Still retaining relationships with the forest (access to which is increasingly difficult for them [i]) but with subordinate positions in the political-economy of the region, their households are the poorest and are marked by low income, high malnutrition, and poor living conditions. The Muslims as traders are a relatively well-off group and are also supplementing their income with new economic activities such as establishment of stores, and renting of heavy machinery (tractors, tillers and vehicles). Relationships between the castes seems to be on an even keel but the subordinate position of the Soligas to all the other caste groups is evident and there are subtle tensions between the Soligas and the Lambanis, especially among the youth.

Linked to the spread of commercial agriculture is the rise of a new rural service economy. Large cultivators (mostly Lambani) and lease cultivators (as investor cultivators) also act as agricultural traders and purchase local crops to sell and trade in external markets. Others have set up shop as retailers of agricultural goods and inputs or have invested in agricultural equipment (such as tractors, tillers, JCBs etc) which is then rented out. Other new rural service persons include electricians, plumbers, water specialists, drivers etc., who cater to the new commercial agricultural economy. All this in addition to the proliferating grocery stores, hotels, mobile and motor repair shops which are mostly lined on the highway (national highway 209) which cuts across the panchayat belt, and which increasingly absorb a large proportion of the wages of the workers. Most of these shops are owned by Lambani and Muslim families who as relatively better-off landed and or trading households and see the new service economy as an increasingly better economic opportunity than that of just agriculture.

Terms of sales within these shops continue to draw on agrestic ties and a system of deferred payment or credit including pawning of ration cards are practiced. As predominantly clients and customers, the SC (the Madigas) and the Soligas do not have much leverage and the mushrooming of these shops and services have increased their indebtedness to the Lambani and Muslims. Employment opportunities for Soligas and Madigas in these shops are also limited and in addition to being customers they also sell some of their produce to these shops at rates that are far below that in the towns and trading centres. Although wages have increased since 2011 (where daily wages for men are about 200-240 per day and Rs 150-180 for women), much of this increased wages are also absorbed into and by the new service and retail economy. For example, consumption of snacks (biscuits, sweets etc by children) and new grocery items such as processed wheat flour, oils, and a range of household cleaners and toiletries (including sale of 'fairness' creams) absorb a large percent of the income of laboring households. This also accounts for one of the reasons as to why only a few households[ii] out of the 55 who were surveyed had bank accounts in the local co-operative bank.

In such a context, the introduction of "lease agriculture" into these areas, and the absorption of adivasi/tribal lands into the circuits of capitalist production require us to understand both the reasons for such land alienation and the significance of such production forms. Since Karnataka's agricultural policies do not permit the sale of agricultural land owned by SC and STs to others and since non-agriculturalists are also not legally permitted to purchase land, many capital-based cultivators from within the state and those from outside prefer to get into lease agreements. Such cultivators who can be identified as 'investor cultivators' are primarily those who have additional capital from either urban, manufacturing, real-estate or agribusiness sources and are seeking to make investing in both agriculture and or in rural land for potential and long-term profits. Currently, lease-cultivators as investor cultivators are primarily from Kerala's Wyanad belt although investors from Andhra Pradesh and Tamil Nadu as also business persons from Bangalore have also engaged in lease cultivation in other parts of the district.

Acting through intermediaries and agents who may or may not be from the region itself, such investor cultivators do not cultivate the land themselves but deploy hired farm managers or overseers to conduct the actual and day to day cultivation. These managers or supervisors/overseers in turn draw on local labour to cultivate the land and are accountable to the investors for profits and losses.

Although this form of lease agriculture, especially for the cultivation of crops such as ginger and turmeric, has been observed in the wet regions of the state, the implications of lease

agriculture in a dry belt and among a marginal group needs to be documented. An overview of one hamlet and its details (socio-economic profile and land-use practices) will provide a purview of trends in the belt.

BANAWADI HAMLET

A settlement consisting of 65 houses, Banawadi is a re-settlement colony or 'podu' of only Soligas, who were resettled here in 1974, as they were displaced from the Biligirirangaswamy temple (BRT) sanctuary belt when it was declared a reserved sanctuary in 1974. Details from a household survey of fifty-five households[iii], indicate that the hamlet has a total population of 217 persons, with a larger proportion (70 percent) of population who are under 35 years of age. Yet, literacy and education levels are low with no adult member having completed undergraduate education and with only twelve adults having completed their 10th standard. While annual and monthly income estimates were not reliable, we noted that about 52 percent of them borrowed money from various sources for both household expenditure and for production. In addition to these expenses, money was borrowed for festivals and health expenses but none for education[iv]. Although most of the households have accounts in the co-operative bank (at Punanjur hamlet), only four families have regular transactions and savings in the bank. Most of the families (47/55) have 'antyodaya' cards (identifying them as the poorest) and they receive a range of benefits from the Department of Social and Tribal Welfare. This includes, since mid 2012, a supplementary monthly ration of nutritious food supplies[v] in addition to the PDS supplied monthly rations.


Banawadi residents

Details on land ownership and use indicate that 28 out of the 55 households do not own any land, while the rest 27 households own some parcels of land. Much of this owned land was allocated to them when they were relocated in 1974 and two of the families have purchased additional land to add to their allocated land. Of those who own land, only 6 families have more than two hectares, while 12 families have between 1 to 2 hectares and the rest (9)

families have less than one hectare. While 8 households (out of 27 who own land) leased out land, the numbers have increased over the years (in Banawadi only 1 person leased out land in 2010-11, 3 in 2011-12 and 8 in the 2013-14 agricultural season) and trends indicate that more may lease out their lands. Families who do not own any land at all (28/55) are primarily agricultural wage workers and both men and women commute between the various hamlets for work. Four of these families also rely on remittance money sent by their sons who work in low-end urban service economies (bakeries, garages, construction etc) in Tamil Nadu towns and who visit the families a couple of times a year. Increasingly, we observed some of these landless Soliga families also working as hired/wage labourers in the land that their community members had leased out to the lease cultivators.

In order to understand what accounts for the spread of this form of cultivation, we need to understand details of 'lease agriculture' and the reasons why the people of Banawadi are engaging in this form of cultivation.

Lease cultivation of marigolds abutting forest

AGRICULTURAL PATTERNS and the INTRODUCTION of 'LEASE AGRICULTURE'

Since 2010-11, a form of cultivation called 'lease agriculture' (*guttige vyavasaya*) has been spreading in the area. Although reports indicate that such lease agriculture had spread in the wet or malnad belts of Karnataka, their presence in the dry, uphill areas of the BRT range has been noted only since 2010. First initiated in the neighbouring hamlets where Lambani settlers were leasing their lands to external cultivators, the practice has now spread to the Soliga settlements and the people of Banawadi hamlet have also started leasing their lands.

The persons who lease-in these lands are all men from Kerala, who form groups of four to five persons and pool in their capital and search for arable land in various states[vi]. They indicate that land in Kerala is exhausted and land and labour are expensive compared to the neighbouring states of Tamil Nadu and Karnataka. Having honed their skills in cultivating high-value commercial crops, such as bananas, ginger, turmeric and vegetables (beans, cauliflower, watermelon, potatoes etc), and with a surplus of capital these 'investor cultivators' seek out new lands and have a support network through which these lease lands are identified, cultivated, and the crops sold. Paying about Rs. 10 to Rs 20 thousand per acre to the owners of the land (depending on their assessment of the fertility and value of the soil), leases are undertaken (most of the lease deeds are often on plain paper) for about 18 months. Investments on land clearance, flattening, laying drip irrigation, construction of tube-well/s, fencing etc are undertaken by the Lessee and costs may amount to between Rs. 2 to 3 lakhs per acre. In the initial years (2010-11) the crops that were grown were mostly ginger and or turmeric and over the past three years they have expanded to introduce bananas, corn/maize, and some vegetables such as watermelons and flowers such as marigolds—all agricultural commodities that fetch high prices in the market. Depending on the price of crops and the market the Lessee gets about Rs. 7-8 lakhs per acre. Supervisors (all men) take turns to live in the area (on shacks built over the leased plot or in its vicinity) and grow their own vegetables of tapioca, etc for their own consumption. Actual cultivation is undertaken by local hired labour many of who are the owners of the land. On completion of the lease, they remove all the investments such as fencing, pipes, drip irrigation etc and leave the plot. During the production period, they hire local workers, including the land owners if they are willing to come as workers. Currently rates for daily wages are Rs. 250 per adult man and Rs. 150 per adult woman. Children (including school-going children during the weekends and holidays) come in

at seasonal times and are paid about Rs.100 to 120 for putting urea etc. Supervision of work is fairly tight and the lessees use local middle men who speak the language as mediators. While tea may be served as a midday break, no supplementary agricultural produce (vegetables or whatever is cultivated, greens for fodder etc) is shared or given to the workers.

The production patterns on these leased plots are of near industrial forms with lands flattened with pitch forks, neatly demarcated by fences with barbed wire and or solar electrification. Using hybrid varieties of seeds the crops are subject to periodic and high doses of inorganic fertilizers and a range of pesticides and weedicides are used to manage the outbreak of pests and diseases. At the end of the harvest, trucks are brought to the field site itself where the produce is loaded and sent to the markets in either Tamil Nadu (where the largest market for vegetables is) and or Kerala.

Local Ginger pickers

Reasons for Submitting to Lease Agriculture

Based on interviews and discussions, the people of Banawadi indicate that they lease-out their lands for various reasons. Our discussions among all the eight households in Banawadi hamlet and among others in the area indicate a range of reasons. Most indicated that they leased out their plots as they are unable to either develop the lands themselves as they lack both capital and know-how or that the sums that they get from leasing will be more than what they would receive from independent cultivation. What is evident here is the extent to which land cultivation has become synonymous with commercial cultivation including the use of high technology (pitchforks to clear the land, mechanized machinery to plough and harvest, and hybrid seeds etc), capital and the access to markets. Many of the household members also cite reasons of increasing costs and risks as key factors as to why they are unable to cultivate the lands on their own or have their lands leased out to others.

Family prepares land for Sowing

In Kollur hamlet, about four kilometers from Banawadi and also consisting primarily of Soliga households, the inability of the Soliga to develop their lands into commercial cultivation plots was cited as the key reason. Cultivators spoke about how they lack the capital and the know-how to set up tube-wells, fence the land, and also cultivate the new crops of ginger, turmeric or other vegetables. One other factor that is not explicitly stated by people but which we consider to be key, relates to the availability of food grains from the government to these households. The fact that they do not have to rely on their fields for their subsistence needs is also one of the factors for deciding to lease-out their lands. Recent improvements in the PDS system, the distribution of supplementary foods by the Department of Tribal welfare, and the increases in real wages are also factors. Since the basic food needs are met through these sources, the need for extra money (especially for education and health purposes) is a compelling factor among most of the lessors. As they explicated, there is now need for money to purchase a range of services and goods. These include not only for sending children to college (education upto high school is available in the area itself), construction of new homes, and growing medical costs. Among some households (4 out of the 8 in Banawadi) the lack of interest among youth to remain in

agriculture and the new opportunities through migrant labour (especially of the younger generation) are factors that compel people to lease-out their lands.

IMPACT OF LEASE AGRICULTURE

If lease agriculture represents a form of capital-based, entrepreneurial and commercial agriculture, what impact and significance does it have for both the local economy and society and for our understanding of trends in agrarian and rural India? Our observations indicate both immediate and long-term impacts and include the following

I. Changes in Agric-ecological Patterns and Practices

The first impact that strikes one is the dramatic shift in agricultural practices that lease agriculture has introduced. Such shifts reinforce and intensify the separation of agriculture from ecological conditions that had been induced by the displacement of the Soliga from the core regions of the forest. The earlier cultivation patterns and methods that the Soliga of the region practiced were based on the local agro-ecological cycles and consisted of 'forest-garden/agriculture' or what is referred to as 'forest-agricultural ecotone[vii]' where a symbiotic relationship between the forest and the field was strong[viii]. Knowledge of local seeds, crops and animals were integral to their survival and sustenance patterns. In addition to shifting agriculture, canopy harvesting enabled them to get resources such as lichens, honey, gooseberry etc and to also cultivate ragi (finger millet) and a range of beans, tubers etc., through shifting cultivation. The Soliga had detailed knowledge of the area which they demarcated through cultural forms[ix]. For example, the yelle referred to the bounded territories where the Soliga lived and in which their agriculture, rituals, and social life were undertaken. This was in contrast to the abbi which consisted of streams and springs. They related to the larger forest itself as not only their abode but marked it as a sacred landscape which contained a range of resources (both flora and fauna) which they used and related to in cultural terms that embedded conservation measures.

While much of these local knowledge forms were lost when the Soligas were displaced from the forests in 1974 and relocated to the peripheries of the forest, the Soligas were undertaking sedentary, dry agriculture in which atleast some elements of their earlier practices were retained.

For those who were cultivating their parcels of dry land (allocated to some as compensation for displacement), agriculture was based primarily on the annual and single-season cultivation of multiple crops (such as finger millet, beans, gourds, and some pulses) which were typically not high yielding. But, the use of organic manure (cattle or goats), the absence of tube-wells, and cultivation of bunded plots had meant that agriculture was predominantly organic albeit low-yielding.

But the introduction of lease agriculture has further distanced the Soliga from their local knowledge forms and current trends of introducing them to the circuits of capital, mechanized technology and external knowledge forms is further buttressing such knowledge loss.


Pesticides used in one Plot

Since many do not cultivate their lands, they are also selling their organic manure to external purchasers. Observing the use of urea among commercial cultivators, many Soliga now also purchase urea (called uppu or literally salt) and liberally sprinkle this over their production plots. In addition, the use of artificial fertilizers and pesticides has also been introduced and it is now not unusal to come across Soliga plots that are littered with used and discarded bags, bottles and sachets of pesticides and more recently even that of herbicides such as 'round-up'.

Since lease agriculture focuses on maximum output or productivity aided by external inputs (chemical fertilizers, hybrid seeds, and high technology), there are significant changes in the local ecological conditions.

While large quantities of water are pumped out through bore-wells, the contour bunds of the fields are destroyed and the soil is fast depleting. Ginger cultivation, as many note, with its excessive use of fertilizers and pesticides leaches the soil and makes it unfit for cultivating food grains such as ragi (finger millet) and a number of other course grains and pulses. Clearing the fields and flattening them to make them amenable to the use of pitchforks (called JCBs and associated with the JCB brand of pitchforks) and tractors, and the use of sprinklers and drip-irrigation has led to the erasures of contour bunds and to the cessation of water


Pumpsets and Plastic Nursery beds

collection in the fields. Existing trees and shrubs have been cleared leading to a loss of local biodiversitySee comparative photos and illustrative diagram used to explain the differences to the residents of Banawadi hamlet). Their landscape once considered sacred and which had lent itself to being a repository of biodiversity and to culturally embedded practices of ecological conservation is now doubly subject to degradation. While this sharp shift was initiated by the displacement of the Soligas from the core forest belt itself, lease agriculture is now enhancing forms of biodiversity loss and ecological degradation. In addition, the spread of lantana (Lantana Camara) in the area (which has resulted from its spread through agriculture and from the forest itself) is a serious threat to local biodiversity and has led to the loss of medicinal plants, grasses, and wild tubers and has been documented as a major concern[x].

II. Erosion of Food cultures and sovereignty


Traditional mixed cropping

A combination of factors has lead to alterations in the food culture and diets of the Soligas. A key reason is their lack of access to the forests to collect resources that recognized as seasonal foods and medicinal resources. While for some years since their displacement in 1974 they were permitted to collect minor forest produce for their personal use and for some resources to be collected for sale, there is increasingly a closure against their entry and access to the forest. Subsequently, many of the greens, tubers, moss, roots, honey and meat which were part of their earlier diet are now largely absent from their

current diet. In addition, the steady supply of PDS grains (primarily only rice and referred by the Soligas as 'coupon rice') has led them to start eating rice regularly.

In addition there is the loss of supplementing their food with wild uncultivated foods (especially the variety of greens and honey) and the lack of availability of game as meat (since they are prohibited from hunting or gathering in the forests). In such a context, the introduction of lease agriculture has induced further changes. Since the cultivation of corn/maize has picked up momentum and many of the leased plots cultivate corn, some of the households have taken to consuming corn/maize on a regular basis. The nutritional value of maize is much less than that of finger millet (ragi) and is probably one of the reasons for the poor nutritional levels of the people[xi]. The use of a variety of pesticides and weedicides has led to the loss of the local forms of uncultivated foods such as the wide variety of edible greens that grew in the fields. Monocrop cultivation of commercial crops also does not make place for the cultivation of local varieties of supplementary food crops such as beans, tubers, and gourds. Such a loss is also evident in the increasingly poor diet of the Soliga which consists primarily of PDS grains or of store bought grains. A summative assessment of the impact on these dietary changes on the nutrition levels and conditions of the Soliga has not been possible in this study. However, anecdotal evidence and frequent assertions by the Soligas about the loss of their immunity, the frequent illnesses that they fall prey to and their continued high mortality levels and low longevity (there are very few elderly persons in the hamlets) indicate that more attention needs to be paid to the impact of the altered diets on the Soligas. In addition, the availability of higher wages means that there is money available to purchase store-bought foods such as sugar and a range of condiments and snacks. All this in addition to what the people indicate as higher amounts spent on alcohol[xii].

III. Increasing Complexity of Agrarian Social Structure

What is discernable is the extent to which lease agriculture is adding to the already complex agrarian social structure of the region. Currently, the following are the varied agrarian social structures:

1. **Landless labourers** Those who do not own any land but who work primarily as labourers on others' fields. Some combine off-seasonal construction and other work with that of working as agricultural labourers. This category also consists of a majority of households who have never owned any land and a proportion of those who have

opted not to cultivate their land (as the parcels are too small or they cannot afford to cultivate it).

2. Land Owners who have leased out land These are families who have leased out their land for an annual payment. They may and may not work on their own land as labourers. The numbers of those who are leasing out their land is increasing since 2011.

3. Owner cultivators Those who cultivate their own land using primarily family labour and some occasional paid labour for specific tasks. Some of the families hire tractors and tillers for specific work and also draw on paid labour during sowing, harvesting and threshing.

4. Non-Cultivating Owners Those who do not cultivate their own land and who either rent it out on a share-basis (and not leased out) or allow it to lie fallow.

5. Tenant Cultivators Those who do not own land but who rent-in land from others using primarily their own family labour and occasional some amount of hired labour. Tenancy here is different from leased agriculture as the tenants are mostly local persons and may or may not engage in commercial cultivation. Tenancy arrangements are either on sharing the crops/produce and or the bases of payment of a fixed amount of money.

6.Land owners cum Labourers Those who own land but also work on others' land for daily wages. These are people who supplement their own agricultural work and produce (more than income) with income from agricultural wage-work.

7. Owners cum Non-farm Income Earners Those who own land and supplement their income from non-agricultural work/income: Includes those families that have a member or members who migrate out during the local non-agricultural season and who work on construction sites or in urban areas or who have a member or members of the family working in the urban informal economy or are employed in the urban service sector. They either cultivate their land, rent it out or even lease it out.

8.Owners cum Renters Those who cultivate their own land and combine it with renting in of land from others. These are typically families that have additional male labour (sons) and who are seeking to expand their units and increase their annual income.

9.Share-cropping Owners Those who own land and cultivate it on the basis of share-cropping with others. Again these are families that are seeking to optimize the availability of labour in their households and also have specific arrangement with the share-cropping family.

Such a diverse and complex agrarian structure has significance at multiple levels. For one, the diversification of the agricultural structure stands as a contrast to the uniformity of cultivated practices. In addition, such a diverse and complex agrarian social structure fragments social relationships among the people. While earlier (prior to 1974) the community lived as an integral whole with none of them owning land, their resettlement (as a result of their displacement from the forest) has led some of them to own land and through the years the differences between those who own land versus those who do not has increased. Lease agriculture further widens this difference among them and induces some of the members of the hamlet into the circuits of capital and distances them from those who do not have access to capital or who use capital to initiate activities such as usury. Such changes are representative of what is identified as 'stunted structural[xiii]' transformation of agrarian social structure and has several implications. A fragmented agrarian structure is closely reflected in the social structure and the inability of the Banawadi Soligas to collectively seek their rights is one of them. Although there is some talk about new Acts such as the Forest Rights Act of 2005, they have not taken the initiative to access this via the Forest Department or the Dept of Tribal Welfare[xiv]. Further, they have not as a collective group accessed the Dept of Agriculture to seek benefits that are supposed to accrue to them or those from the Forest Department. Another case is the inability of the Soligas of these hamlets to collectively face and address the many issues of corruption that racks the local panchayat. Despite their narratives and observations of the extent to which several of the schemes and projects do not reach them, the Soligas are unable to assert themselves. While a long history of their subordinate position is one reason, the social fragmentation among them is another. For example, Banawadi's residents (as also many of the other hamlets where Soligas are residents) require work in the slack dry and non-production periods. Yet, they have not been

Ginger being loaded at field sites

able to get the panchayat to initiate the NREGA (rural employment programme) for themselves. Many cite that although their job cards have been made and they have been recruited for work only once, currently it is the JCBs (pitchforks) and the tractors that are doing the panchayat works. Local Soliga leaders or representatives are themselves larger land holders (one of who owns nine acres and was a representative in the earlier periods of the Panchayat) and those with a long history of political mobilization are now co-opted into the realms of illegal and corrupt panchayat networks and practices. Banawadi's leaders are lease agriculturists and see their access to increased money as ways in which they are competitive with the other local commercial cultivators. Largely indifferent to the needs of the others, they act more as political entrepreneurs and middle-persons rather than as true representatives of their community.

IV. Disruption of Shared Labour Relations and Intensification of Wage Labour.

In addition to the growing complexity of the agrarian social structure, lease agriculture leads to the disruption of forms of shared labour. Earlier, many of the plots were worked on a system of shared labour called 'vara'. Here, cultivators provided labour (free of cost) on an exchange bases by working on specific days and on specific tasks on each other's fields. Since the introduction of lease agriculture such a form of shared labour has been halted and only two families are currently resorting to such a form of labour exchange.

V. Induction of Petty Commodity production / Producers into circuits of capital.

Since lease agriculture entails payments for the lease and for labour (on daily wage bases), it induces cultivators into the circuits of capital. Calculations of the worth of agriculture and its viability are now conducted primarily on the income it will generate. In locating the cultivators into the ambit of capital, forms of usury, decisions on utilization of land, assessments and decisions related to allocation of labour etc are all linked to the possibility of quick and easy access to capital. Yet, such capital is transitory and unreliable and by privileging it many are trapped into circuits of dependency and loss. As one of the Lessor cultivators indicated to us, the possibility of getting additional money for a year blinds the landholders. Unable to see the future of the land and of their well-being there is an additional expectation that this form of

agriculture is the only and best form of agricultural production. That lease agriculture is not really profitable or beneficial to them is indicated in the cases of families who had leased out their land but were also not able to either invest or save the money from it nor were they able to

Sale of Cowdung manure

have sufficient staple grains (ragi and pulses) to tide them over the year. Although they were not subject to any sharp decline in food intake or to starvation (as they also had access to the supplementary food program), their vulnerability to decline in quality and quantity of food was evident. As the other Soligas (who had not leased out their land) indicated, growing food grains for their annual consumption requirement assured them of both quality and quantity[xv].

VI. Increases vulnerability of Disadvantaged Households.

For households that are already fragile and lack both adequate capital and social capital, lease agriculture further disadvantages them. At the end of the lease cycle (either 18 months or 36 months), most cultivators find that their land is eroded, the money has fast vanished and their stock of food supply has diminished or that they are primarily dependent on the PDS for their supply of grains. Since delivery and continuation of the PDS services and the nutrition supplementary programme are not assured, these families face high risks of food insecurity. With little access to the earlier food basket that had both diverse and nutritious foods, there are several health issues that many of the families

face. Cases of diabetes, blood pressure, chronic anaemia (including sickle cell anaemic which afflicts Soligas) etc have increased. Although it is anecdotal, the people of Banawadi hamlet observe that they are less healthy now than they were even a decade ago, although access to basic and regular food has improved.

The implications of lease agriculture for a marginal community such as the Soligas are very clear. Over the coming years, lease agriculture will lead to their further alienation from land and its produce and to their integration into the labour economy. Since education levels are low and the possibility of them being integrated into the new service economy (either urban or rural) or gaining other secure employment is minimal, there is a potential of these households to lose their lands. Or, as is already evident, the land that exists will be degraded and unfit to sustain them.

As lease agriculture renders even owners of land into conditions of wage labour, the Soligas are further pauperized and disenfranchised. In seeking to imitate their neighbours, the Lambanis, who are entering into lease agriculture, but who have higher social and cultural capital to cut better bargains and also play the agricultural trading games, the Soligas are on a fast track to further impoverishment. A rough calculation by us indicates that the ecological cost of retrieving their lands and its fertility after a period of 'lease cultivation' will cost the owner/lessor more than what s/he will gain by the amount paid for the leased period. In addition to the depletion of soil and water and the loss of biodiversity, the costs of rebunding and the possibility of low or no production will burden most of the owners. That this is so is recognized by a few who rue what lease agriculture is doing to their lands and to their fellow community members. Other studies of Adivasi/tribal agricultural units have indicated the fragility of commercial production units[xvi] and have recommended more integrated farming practices that will ensure the sustainability of the lands.

CONCLUSION

The implications of lease agriculture for this belt and the region are significant. A region already fragile and rain-dependent is now witness to the erosion of its soils, the lowering of its water table and the loss of its biodiversity. Further, since the most affected are the already vulnerable Soliga people, there is a possibility of further disenfranchising them. The absence of legislation or directives to monitor and supervise such lease agriculture and the degradation of soils and water sources have long-term implications for both the region and its people.

In fact, what lease agriculture portends (despite the rhetoric of conserving the forests) is a

form of counter conservation. While major conservation programmes such as the 'Tiger Project' and the possibility of developing an 'Elephant Corridor' are sought to be promoted in the area as agendas of and for conservation of natural resources and fauna, the everyday degradation of the landscape is ignored. This highlights how myopic and misplaced official conservation strategies are. Recent studies indicate that the displacement of tribals/adivasis from forests may not have led to the protection of forests or to the conservation of natural resources. The case of the Soligas also seconds this and indicates how lease agriculture will only buttress these pre-existing 'counter conservation' programmes. Trends such as lease agriculture will only exacerbate and intensify further ecological and livelihood degradation. What is emerging in this case study of a marginal group is the extent to which there are clear interlinkages between the triangular relationships between the capabilities of communities/groups, livelihood models, and ecological conditions. The promotion of economic models that overlook implications at the social and ecological conditions become counter to the very goal of economic agendas; that of generating livelihoods, income or in this case of increasing agricultural productivity. Such issues warrant that programmes and policies be based on an inter-sectoral view and include the different departments that oversee such programmes. In the case of Punanjur panchayat where the Dept of Forests and the Department of Tribal and Social Welfare have a presence (with a much less presence of the Department of Agriculture), it is important that they review policies to ensure the well-being of the people and the forests and the natural resources which they are supposed to be serving.

Further negligence or the continuation of such trends indicate that there is a high chance of this belt turning into a 'dust bowl' and rendering agriculture unviable. Although there is talk of the integration of this belt into the 'core' zone of the BRTWS forest (and the further displacement of the Soligas from these settlements) , the oversight of such trends indicate the divorce of forest and natural resources management from that of agricultural development. The implications of this for the local residents are also significant since they will not be able to find alternative sustenance or employment on a sound or secure bases. As a marginalized group, the Soliga require support to retain their agro-forestry practices and land use, and also protection from predatory capitalists including new investor cultivators. While 'lease agriculture' is seen as a form of agricultural development, its implications for local cultivators, who are predominantly marginalized persons, and for the ecological condition of the region and the viability of agro-forestry systems need immediate attention.

NOTE: Field work for this study was conducted by members of the PUNARCHITH as part of documenting trends in the Punanjur panchayat belt (Chamarajnagar district, Karnataka). The lead researcher for this was P. Veerabhadranaika who has a doctorate in Sociology from the University of Mysore and has worked in the Chamarajanagar area since 2003. R. Rajappa provided additional field research support. A.R.Vasavi helped consolidate the analyses and in writing this essay in English (an earlier version was in Kannada), Sunita Rao provided inputs on land use and horticultural practices, and K. Abhisheka helped with the drawings and in developing the illustrations and charts with which the findings were shared with the residents of Banawadi hamlet. Thanks are to Muthatha and Nitin Rai for comments and suggestions and to Amita Baviskar, who, as reviewer for RRA, provided several pertinent points. PUNARCHITH acknowledges with gratitude the support provided by the Revitalising Rainfed Agriculture (RRA) for conducting this study and the photo documentation. The key findings of this study were shared with the people of Banawadi hamlet and a small booklet in Kannada containing the summary and photographs of the people, the area, and agriculture will be presented to the people. This study should be understoodd as only a case study and it does not seek to draw generalizations at a broader level.

END NOTES:

[i] For details on the loss of forest access and increasing marginalisation of the Soligas in the BRTWS belt see the essay by Rai and Shetty (2013).

[ii] None of the households that were surveyed maintained detailed accounts of their daily or monthly expenditure. However, many of the respondents noted that they spent considerable amounts on the new items including consumer items and that some of them were even in debts to the new shops for purchase of their groceries etc.

[iii] The household survey was conducted between December 2013 and January 2014. Details for ten households were not available. Five households had migrated out and the houses were locked. Another five had members who were not heads of households and were not able to respond to the queries.

[iv] A reason for the lack of investment in education could be that the network of schools for Soligas in the area is fairly good as there are two Ashramshalas and one government high school in the area. Since food and lodging are free for the Soligas in the Ashramshalas and there are hostel facilities and scholarships available for the few who do make it to college, none of the families so far aspire towards private or English-medium schools and there seems to be no extra debt burden related to education.

[v] The nutrition scheme was initiated as a way to address problems of malnutrition among the poor in the state. The package consisted of 15 kgs of ragi (finger millet), 2 kgs of tur (red gram), 1 kg of hurali (horsegram), 1 litre of cooking oil, and 30 eggs. This was supplied directly to the settlement by the Dept of Social and Tribal Welfare and all households in the hamlet have been receiving this since June 2012.

[vi] Daniel Munster of the University of Heidelberg (Germany) has been conducting research on the 'Ginger Cultivators' of Wayanad district, Kerala, from where all these leessors originate. His research (in progress) highlights the socio-economic bases of such agri-expansionism and the logic by which it is undertaken.

[vii] For details on the pre-existing form of forest resources and their uses see the essay by Bawa et al (2007).

[viii] Essays by scholars from ATREE, Bangalore have detailed the forest-agricultural eco-types of the region.

[ix] For details see Mondal, Rai and Madegowda (2010).

[x] See Mondal, Rai and Madegowda (2010) for details.

[xi] We were unable to do a thorough review of the nutritional status of the people in Banawadi. However, responses to our questions indicated that a significant proportion of households (72 percent) cited ill-health and medical expenses as key reasons for indebtedness and also as reasons for requiring more finances. We noted that there were three persons with tuberculosis, one person with severe mental retardation, six persons with physical disabilities, and four were severely malnourished. All this in addition to the fact that the Soligas have sickle cell anaemia as a genetic trait, which therefore requires them to pay close attention to their health condition. That the overall health status of the people in Banawadi, and elsewhere among the Soliga, is not good is indicated in the fact that longevity levels are quite low. Very few of the people live to more than 60 years. In Banawadi, there were only 11 persons (8 women and 3 men) who were more than 56

years old.

[xii] Our household survey attempted to cover this issue but there was serious underreporting of alcohol use and expenditure on alcohol. Hence, our figures are not reliable but our observations indicate that alcoholism among men is widespread and a large proportion of their earnings are absorbed by this expenditure.

[xiii] See Binswanger-Mkinze (2013) for an explication of such forms of transformation in India's agrarian social structure.

[xiv] Only two families out the 65 households had accessed the FRA for land rights and had received dry plots in a area about 4 kms from the settlement. Most of the other families, including those who had no land, were not familiar with the Forest Rights Act and were not aware of the possibility of getting legal rights to land.

[xv] A detailed study of nutritional levels including food intake, food culture, malnutrition cases and illness etc was not possible in the short-time period of this study. But, this is an issue that requires further study and details will enable studies to make the linkages between agricultural practices and nutritional levels.

[xvi] See the essay by Seema Purushothaman (2006) on the differences in cultivating practices among tribal groups and their implications.

REFERENCES:

Bawa, Kamaljit, Gladwin Joseph, Siddappa Setty. 2007. ' Poverty, biodiversity and institutions in forest-agriculture ecotones in the Western Ghats and Eastern Himalaya ranges of India'. *Agriculture, Ecosystems and Environment. Vol 121.*

Binswanger-Mkhize, Hans, 2013. 'The Stunted Structural Transformation of the Indian Economy Agriculture, Manufacturing and the Rural Non-Farm Sector, *Economic & Political Weekly* ,Vol XIVII (nos 26 & 27). June.

Mandal, Sushmita, Nitin D. Rai and C. Made Gowda. 2010. 'Culture, Conservation and Co-management: Strengthening Soliga Stake in Biodiversity Conservation in Biligiri Rangaswamy Temple Wildlife Sanctuary, India'. In *In* Sacred Natural Sites: Conservation of Nature and Culture. Verschuuren, B., Wild, R. McNeely, J., and Oviedo, G. (eds.) Earthscan. London.

Panneerselvam, P, John Erik Hermansen, and Niels Halberg. 2011. 'Food Security of Small Holding Farmers:Comparing Organic and Conventional Systems in India. *Journal of Sustainable Agriculture*, 35:48–68.

Purushothaman, Seema. 2006. 'Land-Use Strategies for Tribals: A Socio-Economic Analysis', *Economic and Political Weekly,* Vol XLI (2). Jan.

Rai, Nitin D. and Siddappa Shetty. 2013. 'Just Harvest: Ecology and Politics of Forest Canopy Product Use in Protected Areas'. In M. Lowman et al. (eds.), *Treetops at Risk: Challenges of Global Canopy Ecology and Conservation*, Springer: New York.

‘LEASE AGRICULTURE’

and its IMPLICATIONS

A CASE STUDY OF A HILLY, RAIN-SHADOW REGION IN KARNATAKA

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