Report of a visit to AGRAGAMEE on

Grain banks for food security in tribal areas of Orissa

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1 Purpose of case studies and methods used

1.1 Purpose of the case study

Case studies of various decentralised food security models in different parts of India are carried out by the project to get further insights into the factors responsible for success and failure of these models. Grain banks are often an element of decentralised food security, because they enable people to locally store the food grain produced in the village for consumption during the lean season. Therefore they fulfil an important buffer function by matching local grain supply to grain demand.

Agragamee has worked with tribal communities on decentralised food security for almost two decades and has collected a lot of experiences. Even though it is recognised that the socio-economic circumstance of tribal villages are rather different from multi-caste villages in Telangana or Rayalseema areas of Andhra Pradesh, studying these experiences in detail helps in understanding some of the underlying concepts and management principles, which are likely to be relevant for various circumstances.

1.2 Method used

A checklist was used (Annex 1) for discussions with villagers and NGO staff, and this information was supplemented with documents provided by Agragamee (see Annex 3) and with own observations.

2 NGO intervention

2.1 Agragamee – some background information

Agragamee is a voluntary organisation formally established in 1987, which is currently working in eight blocks of seven districts in Orissa (Agragamee Annul report 2001-2002). The organisation is committed to the development of tribal people through education, training, advocacy, watershed management, health care, and food security. The philosophy of Agragamee is to strengthen peoples' resilience in order to be able to manage their own resources and their own lives, and to defend them against harmful outside influences (such a large scale Bauxite mining and other forms of environmental destruction, as well as exploitation and domination by non-tribal sections of society).

The original concerns about food security stems back to June 1980, when Achyut Das undertook a survey in the Kashipur area on food security and peoples' livelihood strategies. He found that people were saving the mango kernels from mangoes consumed during the summer months, soaked them for 24 hours in running water, and then ground the seed into a flour to make porridge. This was one of their coping strategies to survive the lean season, during which they did not have any food grain to eat. Tribal people in the Kashipur area were at that time heavily dependant on money lenders from other parts of Orissa and even from faraway places such as Rajasthan. The money lenders used to charge 200 % interest on any food grain borrowed. As a result, most farmers were completely indebted to these moneylenders, and never had any surplus after harvesting to save for the lean season. They also had to borrow grain from the moneylender during the various festivals.

Das learnt that a traditional grain bank system called *kutumb panthi* in the local language Oriya (meaning: community fund), had been in place, but had become defunct long before 1980. The traditional system was not geared towards providing the village community with grain in times of crisis (such as drought or crop failure), but provided a grain store to be used for festivals and to pay taxes to the king. In the traditional grain bank system, each family had to contribute a certain amount of grain (not clear how exactly it worked). Not every village had a grain bank, but only those that had good agricultural land and produced a surplus (mostly valley bottom land, not areas under shifting cultivation). Apparently in those days there wasn't much of a food crisis, because population density was low and there were large undisturbed forest areas. Deforestation lead to more food crises, because people always used NTFPs as emergency foods during the lean season (fruit, tubers, mushrooms, etc.).

The question that Das was asking in 1980 was whether these traditional grain banks could be revived for the benefit of the community. In 1981 he started discussing with people what could be done in order to reduce dependency on money lenders and increase self-sufficiency. As a result of these discussions, the grain bank concept was developed, and was actively promoted by Agragamee ever since, with support from various governmental and non-governmental funding sources (including some overseas donors). For the first time in 1981 community grains were started in 5 villages with a matching grant from Agragamee.

2.2 Agragamee's role in grain bank establishment and management

Agragamee plays a role at various crucial stages during the grain bank development. Besides the development of the original concept, the NGO is providing specific support to communities that are interested in starting a grain bank:

1. Training of mobilisers from the community (not just in grain bank management, but in a range of development-related issues);
2. Facilitation of discussions about grain bank establishment through the mobilisers, who organise a range of meetings in the village to inform people about the basic principles of a grain bank;
3. Training of villagers (generally one man and one women) in grain bank management, especially record keeping and interest calculation;
4. Provision of a matching grant (to match the villagers' own contribution) of grain to form the initial stock of the grain bank;
5. Advice on grain storage, once the quantity of the grain bank has reached a certain size and stability (experimentation with ferro-cement bins);
6. Initial monitoring and support (several months to years – with decreasing intensity).

Even though Agragamee has established several hundreds of grain banks (xxx copy table from Agragamee paper - by 1985 / 88: 150 villages were covered, now there are 420 operating), the grain banks are considered to be only one component in assuring food security. Other issues the organisation is concerned with include production levels (how to sustain agricultural productivity, in the light of declining levels of soil fertility and environmental degradation?), processing and storage of other food grains (especially pulses, so that producers can process and store all major components of their diet), and social mobilisation. At a time when tribal areas in Orissa are

threatened by a complete destruction of their livelihood base through mining companies and vested interests of a few, the latter appears to be at least as important as food security.

3 Grain bank establishment and management

3.1 Institutional issues

All grain banks are managed by a group of people who belong to the same village. If the villages are small and homogenous, one grain bank will serve the whole village and all villagers may be members (in fact, this seems to be the most common case). If the village is large and / or consists of communities / people with different socio-economic status, separate grain banks can be established for each group. The largest grain bank we visited covered 54 households.

The immediate management responsibility lies with the grain bank committee. In some cases, this committee is only concerned with the management of the grain bank, and in other cases it also deals with other matters related to village development (e.g. watershed works, village fund, etc.). The committee calls village meetings to decide how much grain will be given to each person, and how much interest should be charged. The committee is also responsible for record keeping. Generally those two people trained by Agragamee are member of the committee. The general aim is to have around 7 members, out of whom 4 should be women, but in practice committees are sometimes large and include less women. Committee members are elected by the community, who also decides about the spacing of elections.

After the initial matching grant of grain has been handed over to the community, the role of the NGO is purely supportive (through training of grain bank committee members and monitoring visits), and the community does not generally receive any further financial or other benefit from the NGO. If defaulters are endangering the continuation of the grain bank, it is up to the villagers to find a solution.

3.2 Management issues

Management of the grain bank involves the following steps:

1. Collection of grain from individual households. This is done after harvesting the kharif crop in December or January. Initially, the same amount was collected from each household (first collection). After some time, with the grain bank getting established, people started borrowing varying amounts, and thus have to pay back varying amounts.
   Generally a woman (the one trained by Agragamee) is responsible for walking from house to house to collect the grain. She also checks the quality (moisture, stones, etc.). Another committee member will keep the record book and will fill and seal the bins. Generally both work without any remuneration. In some cases, literate village youth keep the records voluntarily.
2. The grain is then stored either in the community hall, or in members' houses. As the quantities are not that large, this is normally not a problem. In some cases, people said that they would prefer one place to store all the grain, rather than

distributing it between different houses (especially as houses tend to be very small).

3. Distribution of grain is decided by the committee, in consultation with the whole community. Initially every member received the same amount of grain during the lean season. Later on, as the grain bank is increasing its stock, most groups modified this system and lend to households based on their needs and their capacity to repay. As members are relatively few and they all know each other, it is easy to assess the repayment capacity and "seriousness" of each borrower. Initially, lending took place only during the lean season. However, in some communities where the grain stock is large, people have started to give loans also during festivals and for special occasions / emergencies (such as funerals, weddings, etc.)
4. Interest is calculated per year and is 25% (not clear what happens if someone borrows in August and repays in December – does he still have to pay 25%, or only 12,5%?). Initially interest rates were in some villages as high as those paid to the money lender – the reason being that the grain bank will increase faster with high interest. Later on, as the stock increased, most communities decided to decrease to 50 or 25% per annum. Repayment is done after the harvest in December / January.
5. Defaulting is common, and it is recognised that some people are unable to pay back after a poor harvest. They are expected to pay the following year and are charged double interest (for two years). This does not appear to be a problem and most farmers re-pay after 2 or 3 years with full interest. If the grain bank can afford it, villagers might agree not to charge interest from anyone after a particularly poor harvest. In many cases, villagers agree not to charge interest from very poor households. The whole system is based on trust and compassion, and as tribal hamlets are almost like a big family, people try to accommodate each others needs.

The crucial issue is that every community developed their own system of management, and formed their own rules and regulations. This flexibility is essential in order to maintain community ownership of the grain bank, and to make sure that the process of empowerment is not hindered. This is also the reason why there is concern about "up-scaling" the grain bank model through government agencies – they are likely to be tempted to use a blueprint approach, without giving the community the chance to develop their own system. As Mr Das stressed frequently, this is a process and needs to be managed as such.

3.3 Technical issues

There don't seem to be any serious pest or disease problems in the grain stores. Most grain banks will be emptied during the lean season, so grain is stored only for 8 to 10 months (December to September). The traditional bamboo structures used appear to be very appropriate, because once plastered with cow dung, they preserve an almost airtight environment.

Villagers never faced pests, rodents or diseases / fungus as a problem. This might be because the most commonly stored grain is local *ragi* (finger millet), which is highly resistant to storage pests and diseases. Paddy is more prone to pests, but again people

did not report any serious damage. In one case paddy was attacked by termites, which were killed with pesticides.

At the same time the villagers pointed out that water poses a main threat to the grain stored in the grain bank. If the grain is kept away from water/moisture effectively, it will solve one of the main problems faced in grain storage.

Discussions with staff of Agragamee and the members of the GBs in the villages showed that they see the need for separate storage structures to store the grain belonging to the GBs, once the stocks exceed a certain quantity. In the case of one GB, the stock exceeded 100 quintals, and in the case of many others it exceeds 50 quintals. Except in a few cases, where ferro-cement storage bins were installed, the grain is stored in the houses of the GB members or in the community hall. As the houses of these families are small, this grain is occupying a considerable portion of their living space. The already existing ferro-cement bins' maximum storage capacity is 20 quintals only. Hence there is need to consider setting up bins with larger capacity in community with large grain stocks.

Also, these storage bins need to be designed to store different types of grain at the same time. The grain produced, consumed and stored by these communities include *ragi*, paddy/rice, maize, and minor millets like *suam* and *kosalu*.

3.4 Impact of grain banks

Farmers told us again and again how the grain bank has changed their life. While they used to go hungry for several days in a row during the lean season, they can now eat three meals per day. This is obviously in villages where the grain banks are working – if there is nothing in the bin, there is nothing to distribute. In the villages where the grain banks are operating, people generally eat three meals per day throughout the year.

Villagers were especially pleased about not depending on money lenders any more. While the obvious reason for this is the high interest charged by them, there is also a degree of pride in having ones own grain stored safely nearby. Many villagers had to travel to Kashipur to find a money lender or pawn broker willing to give them grain or cash, and this process involved not only loss of dignity (having to beg for a loan), but also time and money for travelling back and forth.

Obviously not everyone is happy with these developments – the moneylenders and pawn brokers are losing clients, and landlords find it more difficult to pressure tribals to accept unfair terms and conditions of employment. In many GB villages, bonded labour has completely disappeared. These developments have often triggered a more or less systematic crusade against the grain bank from influential individuals or groups, either buy defaulting large quantities of grain borrowed, or by spreading rumours about the grain bank (such as "Agragamee is going to take all the grain"), or by intimidating and threatening committee members. A number of grain banks failed due to such interferences.

4 Summary and conclusions

The GBs as an institution has come as a great relief to the communities in this predominantly tribal area who are hard pressed for food during lean seasons year after year and were forced into a vicious debt trap. This has been well documented by Agragamee in their various project reports.

While GBs are functioning successfully in hundreds of villages where they were initiated, in some villages they failed to continue after some time. Still there are many villages in this region which do not have a GB of their own, even though their neighbouring villages have successful ones. Apparently experiences from neighbouring villages do not automatically induce villagers into starting their own GB, instead of being trapped by money lenders. This leads to the question of what makes successful grain banks work.

One of the important elements is the role of external agencies like NGOs, Agragamee in the present case, and the animators/motivators appointed by them to work among the village communities. Among the four villages visited, only in one village, Siriguda, the GB was started through the initiative of the local community. In the case of the other three villages, motivators of Agragamee played a crucial role in starting the GBs. The matching grant of grain made available by Agragamee might be an important motivating factor for villagers to decide whether or not to start a grain bank. Later, grain contribution under the OHHFS (Orissa Household Food Security) project has been added to this for most grain banks. The Siriguda village GB also received some grain contribution from Agragamee at a later stage.

Once a GB is started, the simplicity of its operation is likely to help sustain it over a longer period. Transactions are in grain only - members of the GB borrow grain and return grain after harvest. This operation is not tied to any other activity in the village. A committee is there to look after the affairs of this GB.

Along with simplicity, transparency in the operations of the GB has contributed to its success. All the important decisions (like distribution of grain during lean season and recovery after harvest) are taken involving the whole community. Everyone in the community knows how much grain others have taken and at what terms of repayment. While an elected committee looks after day-to-day operations of the GB, the rules governing it are formulated in the presence of the whole community, thus paving the way for its transparent operation. Even when some relaxation is allowed in repayment during bad years, the decision will be taken involving the while community.

Apart from being transparent, rules so framed should be logical and there should be some checks and balances to cope with serious defaults. This is the experience of Nallachuan, where a handful of people borrowed substantial portion of the grain from GB and then defaulted resulting in its collapse.

Homogeneity of the communities where the GBs are set up also helped in their success. This homogeneity leads to absence of any friction in its operation. Even if there are any differences, the closely knit communities help to find a way of compromising. In fact these communities are more like extended families. The staff of Agragamee explained that if there are more than one community/caste in a village, they aimed at developing more than one GB in one village. Members of the GBs also

pointed out that understanding among the members is very important for the success of the GB and differences among the members in terms of community/caste and economic status will make this understanding difficult. Well-off members of the village have a vested interest in the failure of the GB, because they often act as money lenders. Villagers also pointed out that even if different communities/castes exist, the wealth differentials among them should be minimal.

Grain from the GB is distributed to the beneficiaries on the basis of the beneficiary's need and capacity to repay. In many cases these two criteria remain contradictory. While a person may have need for grain, he or she may not have immediate capacity to repay. This inability to repay deters potential beneficiaries from accessing grain from the GB. This appears to be the case when we looked at the information collected from GB of Kodikitunda (Table 6). In the year 2000, 3.20 quintals of grain was distributed. This declined to 1.31 quintals in 2001 and 1.13 quintals in 2002. At present, the total outstanding dues are 6.32 quintals. The last two years were bad years in terms of crop yields and the potential beneficiaries are most likely in need of grain, but the actual yearly withdrawal from the GB declined. This shows that it is the capacity to repay that is influencing the withdrawal of grain from GB. At the time of our visit to the GB, it had nearly 15 quintals of grain stocks. These stocks could possibly have met the food needs of some households in the village.

Agriculture in this area is dependent on rainfall. As a result of this, performance of agriculture is very uneven and unpredictable. If the grain stocks in the GB are withdrawn completely and the subsequent crop fails, it will become difficult to replenish the stocks. This points to the need to contemplate on fallback options, for example an entity like a mother bank, which could come to the rescue of community level GBs through providing new stocks. Panchayat level GB proposed by Agragamee could be one such mother bank.

Table 1 Factors in favour of successful grain bank establishment and functioning (and factors hindering it)

Criteria	Favourable	Non-favourable	Evidence
Role of moneylenders and level of interest rates	• High dependency on money lenders for grain purchases • High interest rate (Rayagada: 200 – 300% per annum for grain)	• Well-developed, competitive markets for grain and credit • Patron-client relationships between landlords and workers, ensuring grain supply at nominal interest	• Both in Agragamee's project area and in Darfal, the dependency was high prior to the grain bank establishment • Mirjapur: Many farmers buy grain
Size and composition of community	• Small group (maximum 60 households?) • Homogenous community (e.g. caste group) • All households socially and economically similar (even if different castes)	• Large village with many different factions • Economically heterogeneous groups	• Grain banks appear to work best in tribal areas with small, homogenous communities
Presence or absence of other development activities	• Linking grain banks to other programs that aim at enhancing agricultural productivity (WSM, lease and fallow land cultivation) • Presence of other programmes that aim at enhancing people's knowledge, self-sufficiency and self confidence (building of social and human capital)	• Under dryland farming conditions, the risk of crop failure is high. If GB activities are not supplemented by initiatives aiming to stabilise or increase grain production, and to preserve the natural resource base, no grain might be there to store.	• Seems to work in Agragamee and CEC (increased grain production through WSM and fallow land programme)
Transparency	• High transparency is a motivating factors for farmers to join the grain bank, because the risk of misuse is minimised	• Lack of transparency can lead to disinterest of community members in the grain bank, and eventual withdrawal of members.	• Agragamee: Transparency appears to be a main motivating factor. All villagers we talked to knew how the grain bank works.
Simplicity of transactions	• Simple transactions (grain for grain) are easy to understand and rules are easy to follow.	• Complicated transactions, linking the grain bank to other activities and using cash for repayment can result in a level of complexity that excludes most group members.	• Mirjapur (CEC): Only Bayamma (the group leader) really understands what is going on. • Agragamee: As a result of transparency and simplicity, all group members appear to understand operations.

Criteria	Favourable	Non-favourable	Evidence
Role of women in GB management	• Women are mostly responsible for food provision and preparation. Involving them in the management of the GB appears to be beneficial, because they have a vested interested in making it work.	• Men in tribal areas often spend money on drink and other, non-food related expenses. Giving management responsibilities to mostly / only men could result in poor repayment and eventual collapse of the grain bank.	• In Mirjapur (CEC) and Orissa (AGRAGAMEE), women are the driving force behind the grain banks.
Level of agricultural productivity / surplus production	• Surplus production (at least in some years) is required to build up a grain reserve. Linking GBs to production enhancing / stabilising measures therefore makes sense.	• If an area regularly suffers from food shortages due to low production levels and / or frequent calamities (drought, floods, pests), it is impossible to build up a buffer stock without external support (grain to be brought in from outside)	• AGRAGAMEE
Appropriate storage technology	• Grain needs to be stored for almost a year. If storage practices are low cost and effective, and can be managed by the community on its own, the GB is more likely to sustain.	• If storage losses are high, or storage costs are high, it is less likely that the community can sustain the GB without external support.	• CEC: High costs of grain store and maintenance => requires external support (but still in experimental stage) • AGRAGAMEE: Traditional storage technology works well for small quantities of grain, but structures required for 50+ quintals.
Facilitation / support from outside	• Grain banks are a new concept in most areas. Appropriate initial support in setting up a grain bank, including training in record keeping, grain storage, and conflict resolution, can enable people to eventually manage the GB on their own.	• If support is either non-existent, or is too domineering, it is more likely that the GB will not take off, or will sustain only with outside support.	• AGRAGAMEE: Some grain banks discontinued due to conflicts - but what is the role of the NGO then? Should they intervene or not? • CEC: External support is strong and GB depends on it.

Annex 1 Checklist used for case studies and fieldwork villages

Notes

a) Purpose of the case studies:

The case studies will feed directly into project output 3 ("Policy guidelines concerning decentralised, community-based approaches to the provision of village-level food security prepared". They will enable the project team to develop recommendations based on a wider range of agro-ecological and socio-economic conditions in semi-arid India, beyond those villages in which the project is directly testing decentralised food security models (Mirjapur, Togapur and Kollur).

b) Checklist:

Essential topics to be explored in the **case studies** are marked in **bold** - obviously there will be less detail than for the field work villages because there will be less time to collect this information. It is recognised that all the topics of the checklist are important, but some might be difficult or even impossible to explore during a short visit of 4 to 5 days. Therefore, try to get secondary data on the background of the area from project offices and other sources - e.g. any project reports from BAIF in Southern Gujarat.

c) Unit of observation:

Some of the background questions would apply to the area (taluk / mandal or even district) in which the grain storage system is operating. Other questions, in particular those referring to the actual management system of the grain store, would apply to the particular community / village / group that is operating the system. I suggest that you select one or two communities in which the grain storage system is operational for closer interactions related to the management of the store. You might want to select one community where the store is operating satisfactorily, and another one where it is defunct. But this depends of course on the availability of such communities. If you feel time is too short, select only one community and spend more time there to get some in-depth understanding how the system is operating and what the associated problems and constraints are.

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1. Background information for village / project area:

1.1 Bio-physical environment

- Rainfall (amount and pattern, recent droughts)
- Soils (main soil types, soil fertility status)
- Current land use (proportion of land under irrigation, source of irrigation, proportion of fallow land / waste land, any schemes)
- Tenure systems and holding sizes
- **Cropping pattern (main crops grown and approximate proportions, cropping practices) and changes in cropping pattern over time**
- Yields of main crops
- **Food surplus or food deficit area? If food deficit area: Where do people purchase food from and (if possible) at what rate? Seasonal differences?**

1.2 Economic environment and infrastructure

- Accessibility (road network and its condition, distance from next town)
- Infrastructure (schools, clinics, water supply, etc.)
- **Markets for food grain (demand structure and changes in demand, access to market information and prices, marketing systems / networks operating in the area)**
- **Prices (of sorghum, other grains, and inputs, including MSP - Minimum support price) and price fluctuations over the year**
- **Food grain supply from outside the area**
- Public policy affecting the community (including subsidies for rice)
- Sources of credit and credit markets (including prevalent interest rates from money lenders and financial institutions)
- Employment and income generation opportunities (over the year) and resulting purchasing power
- **Any programmes or projects operating in the village (what and by whom)**

1.3 Socio-cultural environment

- **Population (total population of village, caste composition)**
- Proportion of landless people
- **Food consumption patterns over the year (proportion of rice and coarse grains in the diet)**
- Migration pattern (who migrates when to where)
- **Local organisations (Panchayati Raj, SHGs, CBOs, co-operative societies, DWCRA, etc.)**
- Relations between people / castes, social cohesion
- Conflicts and conflict mitigation

2. Institutional issues related to grain storage

- **Who manages the grain bank - specific group or whole village?**

If group:

- **Membership (by socio-economic category, gender, caste, proportion of households in the village, number of members)**
- **Access to membership (who can become a member, any limitations? membership fees?)**
- **Group history (when formed, how, by whom, activities up to now)**

For both group and whole village:

- **Initiation: Grain bank initiated by villagers or as reaction to outside intervention? How much and what type of intervention/facilitation from outside?** Who started discussion / proposed options, and how? What incentives given from outside, any exposure trips / training activities)
- **What is the aim of the grain storage? Is it being achieved? Any monitoring system in place? If aim not achieved, why not?**
- **Rules and regulations (Who puts grain in and who takes out, how do they decide that, financial / transactional issues: Who has access, who keeps records; how have these systems emerged over time from the farmers' perception)**
- **Financial issues: Who paid for setting up the system (construction of bin etc.)**
- **Source of grain: Own fields, jointly cultivated fields, grain bought from outside, grain from PDS, etc.**

- **Leadership (how selected / elected,** domination by leader or democratic / joint decision making; **social position of leader, changes in leadership over time**)
- **Conflicts and conflict mitigation mechanisms (any conflicts the group faced so far, were they resolved, and how)**
- **Other group activities besides grain storage (thrift and credit, income generation activities, watershed activities, etc.)**
- **Changes in the village as a result of the grain bank: Food security / food consumption changes, other indirect impacts of the grain bank (e.g. changes in infrastructure - AFARM)**
- How does the food security situation in this village compare to the situation of villages nearby without grain store?

3. Technical issues

- **Expectations from a storage system: What is it trying to achieve?**
- **What is or was the community based storage system (type of structure, size, pest control methods)**
- **Type of grain being stored (sorghum, millets, paddy, rice, pulses... in what proportions and amounts)**
- **Kharif and / or rabi crop and what amounts**
- **Source of grain (farmers' own fields, bought from market, etc.)**
- **Sale and consumption (stock turn-over over time)**
- **Peoples' perception / evaluation of the grain management system (in terms of grain quality, structure, and management system), and problems experienced**
- Potential community-based solutions to problems / peoples' suggestions
- **What are prevalent storage systems in individual households?**
- **How is the grain storage system managed (including pest control methods)**
- Selection of location of storage structure in the village (how selected?)
- **Objective evidence of grain quality change with time**
- Existing warning system and need for warning system
- Assess need for training to community in monitoring and quality control
- **Cost of structure and storage and who paid / is paying for (1) structure and (2) running costs (e.g. fumigation?)**

(There is some overlap between the institutional and technical issues, e.g. the management of the grain bank. This being the key issue of the study, it should be ensured that grain management is looked at both from the technical / quality control side and from the transaction / economic / institutional side.)

Annex 2 Itinerary of case study team

Date and time		Activity
10-09-02	p.m.	Travel Rayagada – Kashipur
11-09-02	a.m.	Briefing by and discussions with Ms and Mr Das
	p.m.	Visit to Kodkitunda village with Mr Pani (Agragamee)
12-09-02	a.m.	Visit to Ranjiguda village with Mr Man Mohan (Agragamee) and Ms Somini
	p.m.	Visit to Siriguda village with Mr Man Mohan
13-09-02	a.m.	Visit to Kodkitunda village with Mr Man Mohan and Mr Pani (Agragamee)
	p.m.	Discussions with Ms and Mr Das, writing up of notes
14-09-02	a.m.	Visit to Nallachuan village
	p.m.	Travel to Rayagada

Annex 3 Reports and articles about the Agragamee experience

Agragamee (ed) 20002. Annual Report 2001-2002. Kashipur: Agragamee

Das, Achyut. 1990. Grain banks: The first step towards self-sustainable development. Unpublished paper.

Das, Achyut and Das, Vidhya. 2001. A strategy for freedom from hunger. *In:* Community grain banks. An instrument for local food security. pp 124-137. Madras: MS Swaminathan Research Foundation.

... 2002. Grain banks and food security: Agragamee's experience in underdeveloped tribal pockets. Unpublished paper.

Other materials:

Manual on grain bank establishment and management (in Oriya), published by Agragamee

Annex 4 Case study of Kodkitunda village (Kashipur Block, Rayagada District, Orissa)

1. Background information for village / project area:

1.1 Bio-physical environment

- Rainfall: average 1500 mm, unimodal with one rainy season
- Soils: red soils, mostly no use of chemical fertilisers, except on 20 acres of land where HYVs of paddy are grown. Soil fertility maintenance through FYM application and green manuring with leguminous trees (not clear what species). Table 2 shows the area of village land in different land capability classes.

Table 2 Land of different land quality classes in Kodkitunda village

Land capability class	Area in ha
Class II	7.16
Class III	33.35
Class IV	39.81
Class V	13.57
Class VI	40.71
Class VII	68.00
Total	202.6

Source: Agragamee

- Current land use: Some forest is there, but villagers don't rely on the forest for livelihoods. There is some common land that is used for trees / cashew and fodder. Valley bottom is used for paddy cultivation during rabi season; stream is used to irrigate 20 acres of paddy land and 5 acres of vegetables. Uplands are used for ragi and minor millets. Traditional fruits are lemon and mango; the project introduced litchie and banana. No fallow land (there is very little land in the village, so no one can afford to leave land fallow). Watershed project was implemented from 1994 to 1998 with aid from German Agro-Action (Welthungerhilfe). Since then production has increased (not clear how much – but is probably somewhere in Agragamees documents for the WS project).
- The livestock population as of 2001 is shown in Table 3.

Table 3 Livestock population of Kodkitunda village

Buffaloe	Cattle	Sheep / goat	Poultry
10	188	149	303

Source: Agragamee

- Tenure systems and holding sizes: Mostly owner operated, plot size on average 2-3 acres, only a few farmers own more than that, largest farmer is joint family with 12 members and 16 acres; no one leases out land, some farmers who have only uplands / pattas share-cropped land from neighbouring village
- Cropping pattern and changes in cropping pattern over time: Main crops grown are ragi, paddy, and minor millets. Also sweet potato, mustard, red gram, black gram, niger, castor, vegetables, maize.

- Average yields of main crops: paddy (upland): 600 kg / acre, paddy (valley bottom): 1000 kg / acre, ragi and minor millet: 300 kg / acre
- Food surplus or food deficit area? In a good year, the village is self sufficient. Farmers only buy rice through PDS. In a bad year, they have to purchase grain from outside the village through money lender. Since the grain bank started, no one from the village has gone to the moneylender to get grain.

1.2 Economic environment and infrastructure

- Accessibility: The village is along a mud-road, about 3 km from the main metal road and 25 km from the block headquarter Kashipur.
- Infrastructure: There are two schools in the village: One government school (class 1-5) and one school run by the NGO up to class 3 (evening school). The next health centre is in Dongasil village, 7 km away. Water supply is through hand pumps and water is collected from the stream. There are one tube well and one dug well for drinking water. There is no electricity or phone in the village.
- Markets for food grain: Most farmers produce their own grain and only buy from PDS and from GB. There is also a cash fund in the village (not quite clear how it works), and the women's SHG has a cash fund with 10,000 Rs, which is used to give loans to members. All women are members of the SHG. The group never got any support from outside and is not involved in any programmes, except giving credit to members.

Table 4 Activities under the watershed management project in Kodkitunda

Activity	Extent of work
Contour earth bunds	22.25 ha
Contour stone bunds	32 ha
Crop demonstration	8 ha
Mixed horticulture	8 ha
Silvi-pastoral plantation	10 ha
Agroforestry	35 ha
Farm forestry	80 ha
Backyard plantation	53 beneficiaries
Cross-drainage works	33 nos.
Subsidy for bio-fertiliser	35 nos.
Miscellaneous multiplier plantation	12 ha
Rejuvenation of depleted forest	10 ha
Avenue plantation	2 km
Vegetative checkdam	12 nos.
Vegetative-cum-mechanical checkdam	64 nos.
Mechanical checkdam	1 nos.
Farm ponds	1 nos
NADEP compost pit	45 nos.
Nursery	1 nos.
Sericulture	1 ha
Apiculture	1 beneficiary
Poultry	12 beneficiaries

Source: Board on community hall in Kodkitunda

- Prices (of sorghum, other grains, and inputs, including MSP - Minimum support price) and price fluctuations over the year: We did not check prices – need to contact Agragamee by email to find out)
- Food grain supply from outside the area: Only PDS. There is a ration shop in the next village and 50 families out of 60 have BPL card, the remaining 10 families have APL card.)
- Sources of credit and credit markets (including prevalent interest rates from money lenders and financial institutions): Money lenders charge 200 % interest on grain (not clear whether they are still doing this – some said 5% per month). Bank loans for crops: one farmer got a loan from the bank to purchase a bullock (2000 Rs).
- Employment and income generation opportunities (over the year) and resulting purchasing power: Fishing in pond. The fish is given partly to villagers for home consumption, and the surplus is sold. Last year they earned 5000 Rs through this and used the money to buy a plot of land to dig another pond. WS project provided employment.
- Any programmes or projects operating in the village: WS project (see Table 4 for details), IFAD project (infrastructure development et al.).

1.3 Socio-cultural environment

- Population: 60 families (50 in 1992), 297 people (150 men and 147 women), all from same tribal group (Kond)
- Proportion of landless people: No landless, all have at least a patta in the uplands (15 families). Previously they only encroached this land, but during the IFAD project they got the papers for the land.
- Food consumption patterns: According to the village women, half of the grain consumed by people in this village is ragi, and around 30% rice. The remaining 20% are millet and maize (both are ground and mixed to prepare gruel). These proportions have not changed much during the past 20 years. From the market people buy chillies, kerosene, dried fish and clothes, for which they pay with the income earned from wage labour.
- Migration pattern (who migrates when to where): Last year, 10 to 12 people from the village migrated to Damanjody a mining area because of the crop failure. Before that, for the last time in 1988 25 people migrated to a place called Tikiri for a railway project.
- Local organisations (Panchayati Raj, SHGs, CBOs, co-operative societies, DWCRA, etc.): Village development committee comprising 12 members, out of whom are 4 women. Two years back there was a change in the members and 7 new members were inducted into the committee. They generally meet at the time of collection and at the time of distribution. There is a women's SHGs, and all women from the village are members.
- Relations between people / castes, social cohesion: Same caste, apparently no problems.
- Conflicts and conflict mitigation: Committee puts pressure on grain borrowers to pay back. Seems to be working.

2.2 Management of the grain bank

The grain bank is managed by the VDC on behalf of the whole community (all families are members). Anyone in the village can be a member. Each member had to contribute 3 manna (9 kg) in the beginning.

The GB started in 1992. At that time, many villagers were depending on money lenders for food during the lean season and had to work for these moneylenders and got 2 kg of grain per day. The moneylenders are from SC castes and live in other villagers. Some villagers were even bonded labourers and got only 100 Rs per year. Since the grain bank has been operating, no one from the village borrows money from a money lender any more.

In 1992, one village person was trained by Agragamee as a teacher and community mobiliser. He called a gram sabha meeting and told the villagers about the GB concept. They agreed to contribute 3 kg per family in December 1992. Some families (4-5) did not want to join, because they felt they could manage on their own. However, the other villagers persuaded them to join, because otherwise they would be excluded from any future benefits. They were hoping to overcome the food shortage period between July and September by storing grain in the village.

It was easy for all 50 households to raise the 3 kg, even for the landless, who were cultivating some hilly areas. However, at that time no one knew how to run a grain bank. They were trained by Agragamee and in 1993 the NGO contributed 1200 kg of grain to the GB. When the villagers contributed the 9 kg per household, they did not know for sure whether and how much the NGO would contribute. But some villagers had visited Agragamee and had heard about the grain bank concept. No one had actually seen a GB.

The management system developed gradually, after the received training from the NGO. Initially the interest rate was 50% and it was later (after a few years) reduced to 25 %. The rules are as follows:

- Everyone has to pay back after one year in grain only. If he cannot pay, he can take the loan for another year and then has to pay two year's interest.
- If someone has no grain to pay back, he has to buy grain and then give the grain to the GB – no money is accepted.
- People do not have to pay back in the same kind of cereal that they took (e.g. if they took ragi, they can pay back in paddy – there is some conversion key)
- Every member is entitled to take a maximum of 3 to 3.5 quintals per year (at the start it was a maximum of 2 quintals). This will be decided based on the capacity of the household. The committee decides jointly with the villagers during meetings, mostly during the distribution period.
- Every member is issued a card.
- Members can take out grain for three purposes: (1) food security during lean season, (2) festivals, and (3) emergencies (funerals and marriages).

The records are kept by the literate village youth on a voluntary basis (no payment).

One family has not paid back since 1993. This is not because they are poor, but because they are not managing their land well. The owner gave one piece of land as

lease to the community as a mortgage to pay for his outstanding debt. He has no bullocks, but has more land. The community will cultivate this land until the surplus produced covers the amount of grain taken from the GB. This is the only case where someone has not paid back despite having the capacity to do so. The committee members would put pressure on anyone trying to cheat and not to pay back despite being able to do so. They would go to his house and take some possessions (or so they say – apparently this never happened).

Normally the maximum stock in the grain store is 60 quintals. Currently there are 15 quintals remaining in the grain bank, after 8 quintals had been distributed this year. Last year 42 quintals were distributed, which should have been paid back with 10 quintals interest in December 2001. However, because the harvest was poor last year, only 8 quintals were collected. Villagers are expecting to collect around 60 quintals after the 2002 harvest (last year's 42 quintals plus 21 quintals interest minus 8 paid back, plus this year's 8 quintals plus 2 quintals interest). The villagers are planning to store any grain currently remaining in the grain bank until the next harvest.

We asked some of those present how much grain they produced last season, and how much they took from the grain bank. The result is shown in Table 5.

Table 5 Some examples of grain bank contribution to household food supplies

Case number	Number of family members	Grain produced in 2001 kharif	Grain taken from GB in 2002	Rice from PDS in 2001/2002
1	6	1140 kg	None	80 kg
2	2	3500 kg	20 kg	125 kg
3	5	1100 kg	36 kg	160 kg
4	6	360 kg	40 kg	150 kg

More cases need to be studied to make any meaningful statement, but it is surprising that the proportion of grain coming from the GB is not that high, ranging from 0.6 to 11 %. When we visited the village for the second time, we were able to take down the records from individual farmers for the years 2000 to 2002. Table 6 summarises the results.

Table 6 Grain bank turnover in Kodkitunda, 2000 to 2002 (all amounts in kilogram)

	Grain taken in 2000	Amount due from 2000 grain loan	Grain returnt in 2000	Remaining debt from 2000	Grain taken in 2001	Amount due from 2001 grain loan	Amount due from 2000 & 2001 grain loans	Grain returnt in 2001	Remaining debt from 2000 & 2001	Grain taken in 2002	Remaining debt from 2000 to 2002
Average	5.4	-6.8	1.2	-5.6	2.2	-2.8	-9.8	2.8	-7.0	1.9	-10.7
Minimum	0.0	-25.0	0.0	-25.0	0.0	-33.3	-33.3	0.0	-27.1	0.0	-33.9
Maximum	20.0	0.0	8.3	0.1	26.7	0.0	0.0	13.3	0.1	11.7	0.0
Sum	320.3	-400.4	70.0	-330.4	131.0	-163.8	-576.8	162.5	-414.3	113.7	-631.5

Source: Grain bank records of Kodkitunda village

Notes:

- The harvests of 2000 and 2001 were way below average (crop failure due to drought). Therefore, repayments have been very low during these years. Nevertheless, villagers are not worried about defaulting – they are confident to recover all the 6+ quintals of outstanding grain loans after the harvest of the 2002 crop.
- The data record used for these calculations are included in the Excel spreadsheet “KodkitundaGrainBank.xls” that will be distributed together with this report.

There is also a women's rice bank. It complements the grain bank by providing instant food (rice that is ready for cooking) in small quantities for immediate use. It is run similar to the grain bank, whereby member contribute initially 1 kg of rice, which is then lent to members at a certain interest rate, and paid back at harvest time. Currently the rice bank has a stock of 2 quintals; they have not yet distributed any rice this season, because no one needed any. The rice is stored in a room in the community hall.

We asked the villagers about the food security situation in neighbouring villages. They told us that there people are still relying on moneylenders for part of their grain needs. Sometimes people from nearby villages come to Kodkitunda to borrow grain from the grain bank. People feel that those villages are unable to start a grain bank, because they are not united. When asked what could be done about that / what support these villages would need, people replied that one could go and talk to them to encourage them, but that there was no guarantee that it would work.

3. Technical issues

- Expectations from a storage system: The main purpose of the grain storage is to store grain from harvest time (December) until the end of the lean season (September / October).
- What is or was the community based storage system (type of structure, size, pest control methods): The grain is stored in "dudi", traditional baskets made of bamboo mats and sealed from the inside with cow dung. The dudis are stored in a room in the community hall.
- Type of grain being stored: Ragi, minor millets (*suam* and *kosalu),* paddy, altogether not exceeding 60 quintals. All is kharif crop.
- Source of grain: All grain comes from the farmers' own fields, with the exception of the grain given at the beginning by Agragamee.
- Sale and consumption (stock turn-over over time): We tried to find out about this from the record book, but unfortunately record keeping was not done systematically and we were only able to get information for the past 2 seasons. This is included in Table 6 and in the spreadsheet KodkitundaGrainBank.xls.
- Peoples' perception / evaluation of the grain management system (in terms of grain quality, structure, and management system), and problems experienced: Those people to whom we talked seemed quite happy with the system, but there were only 9 young men who are not representative for the whole community. There don't appear to be any problems.
- What are prevalent storage systems in individual households? People use the same bamboo bins for their household storage as for the grain bank. No one seems to use gunny bags or clay pots. The women said they can store grain without pest problems in the bin for 2 to 3 years.
- How is the grain storage system managed (including pest control methods): The grain is put into baskets after harvesting. The committee expects everyone to provide clean and dry grain and nothing else is accepted.
- Selection of location of storage structure in the village: The grain is stored in the community hall in a separate room. Before 1997, when the CH was completed, it was stored in the houses of several members. In 1991 a ferro-cement bin with a

capacity of 20 quintals was erected with the help of Agragamee but it was not sufficient to store the GB's grain.

- Objective evidence of grain quality change with time: The grain looked clean and no evidence for pests or fungus were found. Villagers said that pests, diseases and rodents are not a problem. Only once termites attacked the grain and villagers used Gamaxin to control the insects.
- Assess need for training to community in monitoring and quality control: Farmers are not trained in grain storage – they rely on their own indigenous knowledge.
- Cost of structure and storage and who paid / is paying for (1) structure and (2) running costs (e.g. fumigation?): The storage baskets were paid for by the village committee. They cost 100 Rs for a smaller structure (approximately 10 quintal), a bigger one 150 Rs. The baskets are replace once every 3-4 years. Bamboo is locally available, and therefore the cost is low. In other villages, where there is no bamboo, these baskets are much more expensive and this is why people started looking for alternative storage structures.
- Is there still bonded labour?
- Why is lean season July to September, and not July to December, if grain is harvested only in December?

Annex 5 Case study of Ranjiguda village (Kashipur Block, Rayagada District, Orissa)

People present:

Village headman, Mrs. Sumoni Jhodia who used to be advisor to the Orissa govt, Mr Man Mohan from Agragamee, man who is keeping the record of the grain store, around 30 other villagers (left one by one). Duration of discussion: 10 to 12.30 (2 ½ hours).

1. Background information for village

Ranjiguda is a small tribal hamlet, consisting of 37 households, all belonging to the Kond tribe. The village houses are build in two rows to either side of a central village passage, with a well at one end. Crops grown include ragi and minor millets on the uplands, paddy in the valley bottoms, maize near the village, and a range of other crops and vegetables.

There is only one cropping season (kharif), except for vegetables that can be grown during other times of the year whenever stream irrigation is available. All households in the village cultivate land – most own a small plot, but 4 households are cultivating encroached forest and hill land. The villagers said that they have never experienced 2 or 3 poor harvests in a row. This might be due to the fact that they cultivate only local, drought and pest resistant crop varieties.

Most people rely entirely on agriculture for their livelihood, but some work occasionally as labourers, whenever there is some work (construction etc.). Vegetables are an important source of cash income and are sold in Kasipur market. Nowadays there is not much forest left in the vicinity of the village, and therefore dependency on NTFP is negligible.

2. Institutional and managerial issues related to grain storage

The grain bank started in 1986. 2 or 3 people from the village had been trained by Agragamee and these people (called motivators or animators) introduced the grain bank concept to villagers. Agragamee promised to give 9 kg of grain per family for the grain bank, provided that villagers were able to raise the same quantity of grain themselves. The villagers agreed to this and most households raised the 9 kg immediately. As some households did not have enough grain to spare, it was agreed that these households should contribute the grain within the first two years of the grain bank. Some few households were allowed to contribute even after that (those were the very poor families). All village households are member in the grain bank.

Before the grain bank started, two villagers (one man and one woman) were trained by Agragamee in principles of grain banks. The man who was trained that time is still the record keeper of the village. The woman is still going from house to house to house at harvest time to collect the grain at harvest time. Both were not trained in storage methods – they use their own knowledge to decide whether the grain is good enough to put into the storage container.

Since the grain bank started, the village only once received external assistance. This was in 1996 under the Orissa Household Food Security Project – the village was given 8 quintals of ragi, even though they had at that time 21 putti (1 putti = 60 kg) in store. Overall the grain stocks have increased since the grain bank started, but there have been fluctuations, depending on the production levels. However, at no time has the store been completely depleted.

Ragi, paddy and minor millets are stored in the grain bank. The stock as of December 2001 was 78.4 putti or 47 quintals. Out of this, 39.4 putti have been distributed, and 7 putti have been sold to nearby villages at a rate of 4 Rs per kg. The money has been deposited in the community fund. The remaining 32 putti will remain in the store until the next harvest in December – after that the village will decide whether or not to sell it. We tried to get figures for grain stocks, grain distributed, and grain sold for the past couple of years, but no totals had been calculated and it would have taken a long time to sum up the different types of grain taken out by every household in the village to arrive at the total amount distributed.

The grain is borrowed at an interest rate of 33%. It used to be 60% earlier, but after 4 years the villagers decided to reduce the interest, because the stocks were sufficient. There is no set maximum of grain that can be taken by any one household – it depends on the household's needs and ability to return the grain. Everyone in the village knows each other, and so no family takes more grain than they can afford. This year one family has taken 60 kg paddy, but this does not mean they could not have taken more if they wanted to. Before the distribution of the grain starts, the villagers hold a meeting, where every family is represented with one member, and decide who can take how much.

So far no one has defaulted for more than one season. Often people cannot return the grain after one year, and then they will repay after two years with two years interest. If the quantity of grain taken is very large, and a family is unable to pay back the whole amount with interest, it is sometimes allowed that they only pay back the

original loan without interest. So far only once the whole village paid back without interest, but this was not because of drought, but because the grain bank was very full already.

When asked whether they can recommend this system, the villagers said that they are very happy with it. As compared to before, they now have enough to eat and don't depend on the moneylender any more. Previously they had to mortgage their land and their livestock, but now they are independent. When asked whether they could recommend any improvements or modifications to the system, they replied that the lack of storage facilities is a problem and they would rather keep all the grain in one place. They feel the determining factor for the success of a grain bank is that people have a good understanding among themselves. In some villages the GB failed because of a lack of understanding and because of large differences between them in terms of socio-economic status.

We also asked them how a grain bank might work in a large, heterogeneous village in Andhra Pradesh, where most villages are multi-caste and wealth differences can be quite considerate. They advised to classify people according to their economic status and then form separate groups for each of these categories. They feel that the economic status is more important than caste or community. They also advised to exclude "bad" people who only want to enrich themselves.

They attribute the success of the grain bank in their village also to the fact that alcohol consumption here is less and people are working hard.

3. Technical issues

The grain is stored in traditional cane mat containers which are sealed with cow dung. Once opened, the bins are covered with lids made of leaves. The different containers are kept in three different houses – this is inconvenient, and the villagers would prefer to have one place or container for all the grain.

When collecting the grain from the households after harvesting, they are not very strict with the quality requirements, but the grain must be mature and well dried. Insect infestation is not an issue, because the grain is collected shortly after harvesting. Generally paddy and millets do not suffer much from insect infestation; this might be due to the fact that only traditional varieties are grown. Only paddy sometimes gets a pest problem, but the grain bins are kept close to the kitchens and the smoke usually deters insects.

Storage duration is generally 7 to 10 months, but can be longer. Often the grain from the previous year is kept until the new harvest is in (in order to be sure whether or not the new crop will be sufficient). Only then is the old grain sold (= after 12 months of storage). However, in some cases they have kept grain for up to three years in the storage without any quality deterioration.

Annex 6 Case study of Siriguda village (Kashipur Block, Rayagada District, Orissa)

People present:

Ms Sumoni Jhodia who used to be advisor to the Orissa govt, Mr Man Mohan and Mr Shiv Das from Agragamee, some few men and youth (left after some time). Duration of discussion: 17.00 to 18.00.

1. Background information for village

Siriguda is a small tribal hamlet, consisting of 45 households, all belonging to the Kond tribe. The village houses are build in two rows to either side of a central village passage, with a well at one end. Crops grown include ragi and minor millets on the uplands, paddy in the valley bottoms, maize near the village, and a range of other crops and vegetables.

Other than the grain bank, there are no other projects or programmes going on in the village. The government paid for the construction of the community hall and the drainage line treatment (canal going through the village).

The villagers migrated to this area around 80 years ago, but not all of them got land. Only those who were serving the king in Kashipur got land. Another villager said that the reason for the landlessness of 20 families is that they had to mortgage land to the money lender. The Agragamee staff believes that most villagers have some land under land ceiling act, but do not consider it to be their own land.

Grain consumed in the village consists of paddy, ragi, millet, and small quantities of maize. The proportions of each are 3:3:2 for paddy, ragi and millet, respectively. Apparently this pattern has not changed over the past 20 years, and is similar for all households.

Sources of grain are their own production, PDS rice, food-for-work grain, and grain purchased from outside. Out of 45 households, 35 have a BPL ration card and get 16 kg of rice per household per month at 5 Rs / kg. The household of Sumoni produces 5 putti (300 kg) of paddy and around 15 kg millets; this is enough to feed the family for 4-6 months. During the remaining period, they manage with wage labour, mostly in Kashipur and in neighbouring villages. Wage rates are 30 Rs per day and are the same for men and women. Only 2 to 3 households in the village produce enough grain to last them throughout the year – all other households have to purchase grain and pay with income from wage labour. Several families rely on sharecropping of land belonging to farmers in Kashipur, and can thus contribute to the grain bank.

During the past year there was a lot of wage labour available due to canal construction and some other works. People got good wages and did not have to borrow grain from the grain bank.

Storage in the houses is in clay pots (mostly for seed and small quantities of grain), gunny bangs, and bamboo baskets. The method chosen depends on the amount of grain to be stored – small quantities are more easily stored in gunny bags. Gunny bags have to be purchased, but so do mats for making bamboo baskets.

As a result of the grain bank, all the people in the village now eat three meals per day, because now they have the grain right there with them in the village. Previously they had to spend 3 to 8 days to get grain from the moneylender (time to go there, to request grain, get the grain, and come back). In those days they often did not have any food for two to three days in a row.

2. Institutional and managerial issues related to grain storage

The present grain bank started 14 years ago in 1988. It is managed by a grain bank committee, which is different from the overall village development committee.

Even before the present grain bank, more than 25 years back, there was a grain bank in this village. The village headman used to administer this grain bank. They don't know at which terms people used to borrow grain from this grain bank, but they know that no one took grain from the money lender. 25 years back, the whole hamlet burnt down in a fire accident. Along with the huts, even the grain store was burnt down. After that for a long time the grain bank was not revived.

In the absence of the grain bank, the villagers used to borrow grain from the money lenders staying in Kashipur. Given the high interest rate and the uneven agricultural production, in many cases villagers were not in a position to repay the grain loans on time. En lieu of the loans, moneylenders used to take away the lands belonging to the villagers. Because of this, some villagers ended up as bonded labourers.

After some time, the villagers got land from the government under the land ceiling. Following this, the villagers revived the grain bank again, because now everyone in the village was producing at least some grain. In 1987, there were about 25 households in the village. Each family contributed 9 kg of grain. They got 500 Rs from Agragamee and used this money to purchase some grain. Agragamee also trained 2 villagers in management of the grain bank (1 man and 1 woman). The main role of the woman member is to help in the recovery of the grain loans. She goes from house to house to collect the grain. The role of the male members is to measure the grain and to make sure that it is stored property. The educated youth from the village volunteered to maintain the records of the grain bank without taking any salaries.

The grain bank committee, which decides how much grain to give to each family, has 7 members and membership changed last time in 1998. The decision is based on the repayment capacity of the family, their assets, how hard they work, and for what purpose they are using the grain loan. So far there has been only one defaulter; he borrowed one putti in 1991. Even until 2001 he could not repay. Gradually the loan increased to 7 putti because of interest. The committee decided to reduce his loan by 50%. They expect him to pay back at least part of the loan with the 2002 harvest.

At present, apart from being used for regular food consumption, the grain bank is also used for marriages and festivals.

At present there are 78 putti in the grain store. 9 putti have been distributed this season. The reason for the low demand is that villagers got three contracts this year and have enough wage labour. Each family got a profit of 2500 Rs from this contract. Besides this, as a result of the recent starvation death in Orissa, villagers got free rice

from the state government (they don't remember exactly how much the village as a whole received).

According to Sumoni, the main factor determining the success of a grain bank is the unity of the villagers – without unity they cannot succeed. Otherwise it could be done anywhere, if people are mobilised, or so she thinks. The level of production is not so important.

3. Technical issues

The village has a ferro-cement storage bin constructed by CAPART in 1991 with a capacity of 2 tons. It is located in the middle of the village, easily visible for everyone. Paddy is stored in the bin; in the neighbouring community hall, built in 1995, ragi and millets are stored in bamboo containers.

Annex 7 Case study of Nallachuan village (Kashipur Block, Rayagada District, Orissa)

People present:

Mr Man Mohan and two other staff from Agragamee, man who is in charge of the red gram processing plant in the agricultural services centre, around 5 to 8 farmers. Duration of discussion: 11.00 to 12.30 (1 ½ hours).

1. Background information for village

The village consists of 54 households, out of which 2 belong to the SC of Naik, and 52 to the ST of Dombo. The two SC families have been living in the village for a long time. Only around 25 families have their own homestead land and agricultural land; the other live on and cultivate encroached lands. 5 to 6 families own 3 to 4 acres, the remaining land owners own 0.5 to 2 acres. Those who cultivate encroached lands on the hills cultivate 2 to 4 acres, and some of them practice shifting cultivation (*podu*). No one is sharecropping land.

The reason for the high proportion of families without land titles is that originally the village was small, but the many years ago (during forefathers' time) migrants came to the village. At that time all the valley land already belonged to someone. 3 to 4 families only migrated recently. Those families who migrate are usually landless people who are in search of wage work on someone else's land. If there are any conflicts in the villages, they move on to other areas.

Crops grown include ragi, paddy, minor millets, paddy, black gram, red gram, green gram, and various vegetables (okra, beans, pumpkin, eggplant, chillies). No one in the village, not even those owning 3-4 acres, produces enough grain to last the family through the year. Only 8 to 10 families somehow manage within what they produce, without getting grain from elsewhere. The other families only eat their own grain for 2 to 8 months in the year, depending on family and holding size.

During the months of June and July, they cultivate the uplands (*podu*), and after that, in August and September, they work as wage labourers for other farmers. Wages are 3 kg of grain per person per day, when working for farmers from the same village, and

25 Rs / person, when working in other villagers. They also depend on the forest during these 2 to 4 months, collecting tubers, mango kernels, bamboo, leaves, and shoots.

Another source of grain is the PDS, and with the exception of 5 households, all have BPL ration cards. However, even though rice is available in the panchayat headquarters, they are not always able to buy their share due to lack of cash. In the ration shop they can also get sugar and kerosene. The angandwadi centre in the village gives maize flour and oil to mothers and children. This year the food situation is a bit better, because the state government sent rice to the Panchayats in areas that experienced starvation deaths last year. This rice is given out to people in food-for-work programmes. The villagers here got contract work to build the power line, and so got sufficient rice to eat.

Moneylenders are there in nearby villagers, but they generally do not lend money to the very poor, because they cannot give any collateral. Nevertheless, more than half of the households have outstanding loans, ranging from 50 to 1500 Rs. These loans were generally taken for consumption purposes. They get these loans from moneylenders in Kashipur, who take people's gold and land as collateral. So far no on from the village has lost his land to a moneylender, but several people lost their gold ornaments, because they were unable to pay back the loan. Interest rates are 5% per month (60% per year). 2-3 people also got loans from the bank to by buy bullocks.

2. Institutional and managerial issues related to grain storage

A grain bank was started in the village 6 to 7 years ago. They collected 6 kg of grain per family, and this was matched by Agragamee with 200 kg. During the first 4-5 years the bank ran smoothly, but for the last 2 years people have not paid back the grain and the bin (ferro-cement bin) is now empty. This happened because a few powerful people (4-6) took more than half of the GB stock (1 to 2 putti), but did not pay back for two years. As a result, everyone else is also not paying back and the GB has become defunct.

When the grain bank was closed down, there were 25 to 30 putti in the bin. The defaulters took more than half of it.

These people have contacts with politicians / party members in Kashipur or are even related to them. They are not interested in the grain bank being revived, because then they would have to pay back the grain loan that they have taken. Whenever someone tries to revive the grain bank and make the defaulters pay, they try to intimidate this person by threatening to use their influence against him.

Two of the defaulters were actually members of the grain bank committee and had even been trained by Agragamee. This is why they managed to take such a large share of the grain stock. When they were elected as committee members, no one thought that they would turn out to be such bad people.

We asked whether the rest of the community cannot keep these 4-5 people under control – after all they are not rich landlords. Farmers replied that these people are not very powerful, but still they can do some harm to those challenging them. Therefore people have so far avoided an open conflict and kept more or less quiet about the

whole issue. So far they have not even elected a new committee, excluding the defaulters, because some people don't want to disturb their relationship with the defaulters (they think that they might get some benefits or assistance from them at some point). The villagers have not requested any support from the panchayat, from Agragamee, or from anyone else.

However, they have not yet given up and still hope to re-launch the grain bank. They are expecting a good crop this year, and then everyone would be able to pay back. They feel that the grain bank has been beneficial for them, and therefore they would like it to operate again. If the defaulters are not paying back at least a part of their loan, they would be excluded from the new grain bank. The defaulters are economically not strong enough to repay the whole amount at once, but they would be able to pay back in instalments. They are discussing whether to vote for a new GB committee, excluding the defaulters.

Annex 8 Names and addresses of organisations involved

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