CHAPTER-III

AGRICULTURE
AGRICULTURAL CYCLE

The Kisan dominated region contains a number of other tribes and castes. Among these the most important caste is the Agariā. It is a rich and flourishing agriculturist caste. Hardly any tribal individually or collectively can match the Agariās in terms of land or any other material possession. The occupational mobility of the Kisan from earth digging to farming, had been due to certain local forces discussed earlier. Their folk tales indicate that the Kisan were induced by the Gangpur King from nomadism to settled agriculture. Agriculture is the mainstay of these people. 98% Kisan are found to be dependent on agriculture either as owner-cultivators or as agricultural labourers (Table 5). The tools and techniques of agriculture in the area continue to be primitive and do not differ from community to community.

Agriculture, in an Indian village, is not an exclusive occupation. It is supplemented by many others,
like animal husbandry, forest collection and certain village crafts. A farmer remains busy for the entire year with activities directly or indirectly associated with agriculture (Appendix-VIII). A seasonal activity like building or repairing the house is not entirely non-agricultural, as a good house ensures better storage of seeds and food grain, a good cow-shed keeps cattle fit and provides facilities for stall feeding, which increases manure. Collection of bamboo and wood are used to make farming implements, etc. All these activities, though not strictly agricultural, revolve round agriculture. We have termed these as allied activities of agriculture.

The land (Sambalpur and Sundargarh districts), where the Kisans mainly live, is an uneven stretch of land with narrow plateaus having only a few patches of plain land. The soil of the region, where the study has been conducted (Kuchinda Block), in general, is lateritic which comes under brown forest soil. The soil around the village, however, is loamy. It is situated on small hill slope of Lambduṅguri, surrounded by a small stream, Siānjor, and Kelo-Kunjar reserve forest. The land along the hill slope (āṭ and māl) are of brown forest category and low lands berṇā and bāhāl on the bank of the stream which receive loamy silt denuded from the hill and the forest containing various organic materials, are reasonably fertile.
The climate is characterised by hot dry summer and rain by South-West monsoon. On average there are 70 rainy days in the district and the average annual rainfall is around 1500 mm. (Orissa District Gazetteer, Sambalpur 36).

II

The lands under cultivation are broadly divided into four categories based on its level: Āṭ, Māl, Berṇā and Bāhāl (in order of their location from higher to lower levels).

Āṭ or guḍā is situated at a higher level. The soil is normally coarse and less fertile. But in hilly and wooded villages like Turei-Niktimal, it is comparatively more fertile. Dry land crops like oil seeds (til and groundnut), pulses (blackgram, greengram and horsegram) and millet (kudo) which require less moisture are grown here. The small and marginal farmers grow guḍā dhān, (a short term coarse paddy) in it. It is sown in July and August and harvested during September-October. For small and marginal farmers these paddy crops are most useful during the periods of food shortage (Śrāvaṇa and Bhādrava), popularly known as anāṭan din (days of want).

Below at land along the slope lies mal. It is of two types: ṭikrā māl (upper māl) and samān māl (levelled māl). The samān māl is deeper and more fertile than ṭikrā māl. It is better drained and water can be kept by raising embankments. They are also distinguished by the types of
crops grown in them. In the samāṇa mal, normally long-term crops are sown. These crops cannot be grown in the tikra because of comparatively more dry soil conditions. Wheat, as a second crop, is often grown here.

Berna denotes land towards the bottom of the slope but above the bahal. Only paddy of medium term is grown here.

Land at the bottom of the slope is termed as bahal. Here plots are wider and more levelled than what they are in other types. The soil is comparatively rich having received decomposed organic material from the upper layers. Water flowing down the hill is arrested here and is made to stand to make the decomposed organic material settled down and increase the soil fertility. In the local classification this is the best type of land.

Some of these types are: kharipani and bari. Kharipani is the most sought after land, it is located close to the village settlement and receives its domestic wastes.

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Bāri is the plot of land normally attached to the homestead and is used in cultivating kitchen vegetables. When the homestead land is spacious in addition to kitchen vegetables certain crops like maize and grams etc., are also grown. In most household compounds a plot is reserved for the threshing floor (khalā).

Bāri also refers to plots closer to water sources on the bank of a stream or a pond or a kaṭā. In these plots vegetables, like pōtato, tomato, chili, brinjal and wheat, etc., are grown. It is invariably aṭ type land, but because of its proximity to the water source and guarantee of farming return, such land is rated high. Some own a number of such small plots at different places, and such multiplot owners reserve a plot each for one particular crop. Those who have only one or two plots use them for more than one crop simultaneously. Such plots contain watch-huts and are watched throughout the day.

III

There are four kinds of paddy seeds, each suited to a particular type of land and named after the land (aṭ, māl, bernā and bāhāl) in which they are grown.

The rice grown on uplands are normally coarse and those from the lower levels are finer. The colour of the paddy from former (guḍā and māl dhān) are mostly black or red, whereas those from bernā and bāhāl are yellowish white.
Paddy is, often, referred to as bad dhan and sän dhan. The former takes longer time for ripening and is normally grown in bähāl and bernā. The latter takes less time and is grown in māl and āṭ (Appendix-V).

IV

Land is also classified as irrigated and non-irrigated. Irrigation connotes a systematic water management to protect the crop from drought, facilitating crop rotation and ensuring the quality and the quantity of production.

The water sources of the village - the katā or muṇḍā, bandha and kuan are not meant primarily for irrigation. They are multi-purpose sources of water supply, and irrigation is only one of the purposes.

A katā or muṇḍā refers to an indigenous water harvesting device. It consists of arresting rain water flowing down a slopy land by a single earthen ridge. Water thus stored is used, often, for irrigation for the land immediately below it. Such land is the bähāl land. A katā is flanked by māl and bernā land. In the upper reaches of a katā if suitable land is available, it is made into bāris. A letout (fera) for surplus water is made by cutting channels on one or both sides for water to spread out from plot to plot along the māl, bernā and bähāl. Only on dire necessity the main embankment is slit to irrigate the land below. A katā or muṇḍā serves many other purposes, like bathing, drinking (for men and animals), etc. A katā is larger than a muṇḍā.
The sample village, however, has a Minor Irrigation Project, in addition to three mundās and a pond. (Table 15).

THE PODPADA MINOR IRRIGATION PROJECT (M.I.P.)

It was constructed by the State Government in 1964 at Podpādā (a nearby village) which irrigates 1,763.78 acres. Turei-Niktimal gets a share of 93.31 acres. The entire irrigated patch belongs to the Kisans of Khatkurbahal. The irrigation channels are kept alive normally up to the middle of January. In a year of scanty rainfall they may go dry even earlier. However, people have got the benefit of growing larger areas of wheat, chilli and vegetables consequent upon this facility extended by the government.

MĀULIMUNDĀ

It is made by one Tima, Fa. Fa. Fa. Br. of one Judhistir Bar (41), a Kisan of the village. Hence, it is called Kisan mundā. It is the largest munda situated to the north of the village. To its north and south lie a number of bāris. There is a small pond at its bottom used mostly for bathing and drinking purposes. It irrigates 106.98 acres of land (Table 15).

UPARPARA MUNDĀ

Made by the government around 1978, it is situated to the east of the village, nearer the Uparpara. It irrigates about 30 acres. This mundā too, has a pond at its bottom
used for similar purposes like that of near Maulimunda, by the Uparpara inhabitants. A Gond, a Sundhi and two Kisans have their bāris using water from this munḍā. Three others are in the process of levelling the land close by.

MAGARMUNḌĀ

It is situated to the west of the village along the Bankey road. In addition to the kharif irrigation, an Agariā (Gopal Patel) grows chilli, mustard, wheat, etc., by lifting water with a motor pump from this munḍā. A few Kisans, too, have made barīs to which water from this munḍā is lifted by a device called ṭenda.

TĀLA BANDHA

Bandha means pond or tank. There are two ponds side by side to the south of the village. They were made by one Dharamsing Patel, a former Agariā Gauntiā of the village. The pond is used to irrigate 7.61 acres of Agariā land. Inhabitants of Vallukpara and Talipara, however, are allowed to use them for bathing.

All these mundas and bandhas are rain-fed. Hence, during mid-summer till the onset of rains, people face the scarcity of water even for bathing.

WELLS

In addition to these sources, there are twenty wells in the village. Three are tube wells dug by the
government for public use, three ring wells located on the public premises, like the school, the weekly market, etc., five wells dug in baris are used primarily for agriculture, and nine are located in the private homestead compounds (ghara-bāri) for domestic use and irrigating kitchen garden.

The Agariās have more irrigated land benefitted by Tāla bandha (which is their own), Magarmūndā and Māulimūndā; whereas most Kiṣāns have benefitted by the Podpada minor irrigation project, the Māulimūndā, the Uparpara mūndā. Tribals in general and the Kiṣāns, in particular, seem to have more irrigated land. The per capita land holding is however less among them than the Agariās (Table 15).

V

Rice, the staple food of the people of Orissa, is the principal crop. Consequently, each farmer puts in a continuous effort to increase the area of his paddy land. He tries to convert other types of land into paddy land and takes extra care for paddy production.

In the past the Kiṣāns, like most other tribals of the area, were mostly millet growers. At the moment however millet is grown in a very limited quantity. Other crops are maize, kāngu, gunji, māṇḍiā, suān and jañḍalā.

The cash crops grown in the village by the Kiṣāns are pulses (black-gram, green-gram, horse-gram and harhar),
oil seeds (mustard, til and castor), wheat, chilli and a variety of vegetables (Appendix-IX).

Paddy, the dominant crop, has a number of varieties suited to different types of land (discussed earlier in this section, Appendix-V). Next to paddy in importance are the pulses grown on āt land. Some are kharif crops and the others are the rabi. Harhar, a type of black-gram known as tulā-mug are grown with the kharif crops. The other types are raised during winter season. Til is rarely grown by the Kiṣāns. Castor is grown along with vegetable. Chilli, a cash crop, is grown extensively. On the other hand, wheat is not popular among the Kiṣāns, except a few from Khatkurbahal.

Among the vegetables, tomato and brinjals are very popular. Potato, onion, cabbage, etc., are raised in moderate quantity. Vegetables, like pumpkin, snake-guard, ribbed-guard, runner bean, bean and sāg, etc., are grown in ghara bāris. These are taken care of by the females and grown in bāris having easy availability of water.

Rotation of crops depends upon water resources. With the limited irrigation facilities the village has no intensive rotation of crops. The second crops are grown in bāris and māls or bernās of Khatkurbahal which receives irrigation facilities at least up to January by Podpada Minor Irrigation Project.
Sometimes during Baisākh, every year an astrologer (Jyotiś) comes to the village to read the Pāṇji (almanac). The villagers are soon informed of his arrival by the Dākuā. People gather at one place, usually, in the Dharamsala of the village. People bring with them a kilogram or two of paddy, or black-gram, or horse-gram, or til, or such other stuffs as one can afford as presents. One of the Agariās, usually, the Gauntiā, arranges other ritual items. The Jyotiś worships the planets and asteroids (Nakṣatras), and reads out the Pāṇji. He forecasts the general conditions of agriculture, such as number of rainy days, general wind conditions, production level of different seeds of different colours, etc.. He also foretells the condition of general life of the people, like income and expenditure, flood or drought situations, normal effects of diseases, etc.. People, by and large, believe in these predictions and prepare themselves accordingly for the rest of the year.

The Hindu Calendar divides a year into twelve lunar months and into three broad seasons; Kharā, Barṣā and Sita (summer, rains and winter). Summer spreads from Chaitra (mid March) to the end of Jyeṣṭha (mid June). Rains commence from Āṣaḍha (mid June) and continue till Bhādrava (mid September). Āświna to Fālguna (mid September to mid March) are the winter months. The rains and the winter are the agricultural seasons during which the main agricultural activities are organised. For an agricultural
labourer (labourer on yearly contract or guti), however, the year ends on Pauṣa Purnima (full moon day of Pauṣa-January) and starts from the very next day.

The Kīṣāns follow the Hindu asteroids. There are 27 asteroids, each is responsible for certain natural phenomena in general, and for agricultural operation in particular. Though the Kīṣāns are not aware of all of them, but some of the prominent ones such as, Swāti, Chitrā, Maghā, Bhadrā, Rohini, etc. are often referred to by the elders (Appendix-VI).

VII

A cultivator asserts "Āmar bala hala" (our strength are our draught animals). Cattle is the index of the cultivator's strength and thus, are status symbols.

Cattle used in agriculture are either bullocks or buffaloes. Buffaloes are expensive, hence, are maintained by rich farmers only. Bullocks are maintained by average farmers. Buffaloes need to be stall-fed whereas one can afford to let loose the bullocks which fend for themselves during non-cropping seasons. Such a period is referred to as ḍhilā-din or as ḍhilā-milā din (ḍhilā = loose or letting loose the cattle). The buffaloes are to be washed at least twice daily and are to be kept in the shadow during noon hours, particularly, in summer months. A male member or servant has to follow them grazing in the forest.
A brief account of the cattle wealth in the village is given in Chapter two (Table 13). 86 pairs of bullocks and 9 buffaloes, 97 cows, 215 goats, 10 pigs and 776 hens are owned by the Kisans. Cows are domesticated mainly for manure and calves to be used later in agriculture. To make the calves stronger the Kisans do not milk their cows having male calves. The only manure applied to paddy is buffaloe and cow-dung, whereas, the excreta of goats, and hens are used in vegetable garden.

The average cost of a pair of bullocks ranges from Rs.1000/- to Rs.1500/- and buffaloes ranges from Rs.1500/- to Rs.2500/-.

The straw collected from the paddy land is the normal feed for the cattle during winter and summer. From July onwards till December-January grass is collected from the embankments of the paddy field, specially for the draught animals. The bullocks and the buffaloes are regularly fed straw (puñā) husk (kuñjā) rice gruel (thira) and mahua (mahul). No cow or any other animal is fed. On heavy working days the draught animals are extra fed. The average consumption of a buffaloe is more than a bullock.

The life span of bullocks and buffaloes are more or less the same i.e. 15 to 20 years. But, they can be used in agriculture for a period of 10 to 12 years only. A calf (bachhā) is used in agriculture only after castration. Castration is normally done after 3 years when it sheds
Buffaloes, even before castration are employed and referred to as pāṇḍā. But they, too, are employed after teething. From the new teeth the age is assessed and after getting all the teeth they are supposed to be of full strength. After getting total new teeth a calf or bachhā is called a bullock or balad and a pāṇḍā as poḍh (buffalo).

Any loss caused due to death or disability to halas during cultivation brings in disaster to a cultivator. Either he has to purchase a new one, which is almost impossible for an average peasant or borrow on bakā (yearly contract for a particular amount to be paid in cash or kind) from one who is having an extra to spare.

VIII

The tools and implements used in the village for agricultural production (Appendix-VII) are traditional. Among these, the plough is of greatest importance. It has a number of accessories: the ploughshare, the beam and the yoke. It is the tool for major parts of farming operation. When used in sandy and loamy soil it lasts longer. A plough lasts for 6 months to one year depending upon the soil type.

Mai, (leveler) another implement is used in transplantation and achharā buṇā for making the paddle plain in large scale cultivation. It is normally, possessed by big farmers. Bārsi, bindhen are carpenter's tools.
A cart is a status symbol. It is the costliest tool in the village context. It is used for transportation of crop, manure, firewood and other forest collections and occasionally, for travelling. These are owned and maintained by the rich.

The other transporting devices are genđūā-bhār, carried by men (taboo for women). The device used by the female is genđūā and ṭupā. They are carried on the head. People refer genđūā-bhār as composit unit. The genđūās are tied with ropes whereas the ṭupā is carried by a sīkā with the carrying-rod. Though the carrying-rod and sīkā seem to be similar in structure, their functions are different. The sīkā is used in carrying kalei or bundles.

Khurpi and kudel are digging tools used in small scale gardening. Dā, the sickle is the harvesting tool. Šābal, the crow-bar is basically a digging tool for large scale digging. It is not very commonly owned by poor cultivators. It consists of a solid iron bar and comparatively costlier. The other digging tool is the gainti or pick-axe commonly owned by the Kisans.

The poor borrow tools which they cannot afford to possess from their rich neighbours or relatives. Similarly, the extra piece of such articles, like, genđūā, carrying-rod, bamboo baskets, sickle, hoe, spade, crow-bar, are found only in rich households, though, in a smaller scale these are owned by almost every household (Appendix-VII records the approximate price of the tools).
The practice of borrowing tools bring several families into reciprocal and obligatory social relationships. The rich peasants borrow humbler implements like, mattock, sickle, hoe, carrying-rod, etc., from their poor counterparts when they need extra pieces.

Four Agariā households use tractors and one of them own a set of motor pumps.
AGRICULTURAL OPERATIONS

Agricultural operations begin with land preparation and end with storage of the food grains and seeds. It includes many other allied activities too. But the dominant activities are three, viz., preparation of land or ploughing, sowing and transplantation, and harvesting.

I

Land preparation includes reclamation, tilling or ploughing, levelling, breaking of clods, etc.

LAND RECLAMATION

Land reclamation may be the routine annual repair or the occasional land reclamation. The latter consists of bringing a barren piece of land under cultivation. A farmer always tries to convert a piece of 'upland' already under cultivation into 'low land' for better production. Kisans cannot afford to complete such a work
They undertake it usually with the help of the family labour and occasionally through borrowed labour. Depending upon the nature of land, it may take 2-3 years of intermittent labour for full reclamation of a plot of land of around 0.5 acres. Though this does not come under regular agricultural cycle, it cannot be ignored since the marginal and small farmers always look for opportunities to expand and intensify their farming.

The former, on the other hand, is the routine annual repair of embankments, fencing, etc., that need immediate attention of the farmer. The village under study is situated on a hill slope on the bank of a stream. Its cultivated lands are constantly threatened by soil erosion requiring annual repair on the eve of the agricultural cycle.

The normal post-harvest activities are generally festivities. Serious agricultural activities begin only after the month of Chaitra (March-April). Land repair is taken up during pre-monsoon summer months, though some are able to complete it immediately after the harvest.

Land repair is needed to strengthen the embankments and level the fields by manually lifting earth from a higher level to a lower by using a gendua-bhār (a device to carry earth) and/or a kurda (a levelling device) drawn by a pair of draught animals. The latter is rarely used as it requires very healthy animals. It is suitable only when the soil is
soft and light. Kurda, however, is an essential device for levelling after the field is thoroughly ploughed and the soil is rendered soft.

The other minor implements used in land levelling are spade, pick-axe and crow-bar. Each Kisan family possesses these implements. Crow-bar and pick-axe are used for digging; spade is used to load soil into the genduas which are lifted with the help of carrying-rod. The females carry the genduas on heads.

Digging is a masculine job and transferring the soil is bi-sexual. Males carry two genduas with a carrying-rod which is a taboo to the female. A female needs another to help her to lift a loaded gendua to her head. Hence, with a group of 10-12 female workers, a male or a female is engaged for this purpose. Besides, two more males are engaged to fill up the genduas. If the soil is hard digging may engage 4-5 males.

Thus, an average working-group in land repair consists of 10 females for carrying soil; 1 (male or female) for helping to lift the loaded genduas on to heads; 2 males for loading soil into the genduas; and 4 males to dig soil if the soil is hard or only one male if the soil is soft.

An early completion of the process requires hard work of the labourers. Hence, the strong and able-bodied adults are employed in this job. Though employment of child-workers in this job is not very uncommon, they are mostly seen working in their own land with the family units.
During the field work, 17 Kisan families repaired their fields. Among these, ten acquired additional plots after reclamation of encroached government land. The other seven repaired their fields damaged by heavy rain.

Land repair or reclamation is a bi-sexual job, though males are often preferred (69.57% male including boys) because of the hard nature of the job. During the field study it was noticed that workers in it belong to the age-group of 16 to 55 years. A few children (2.47% boys + 3.77% girls = 6.24%) between 12 and 15 years are seen (helping their parents) mostly in the self employed family units (Table 18).

Self employed family units dominate the labour scene constituting about 40% of the entire labour pool engaged in this operation (Diagram 1). Reciprocal borrowing of the family units contribute another 30.01%. Thus, marketable labour in the village stands at about 30% (diagram 1). 73.07% of the hired labour come from the Kisan community itself. It is to be noted that reciprocal borrowing of family labour is confined exclusively to the Kisans (Table 19). The other communities providing hired labour (26.92%) are the Pana, the Gauja, the Gon, the Luhuras and the Keutas (Table 20). The Pana are traditionally regarded as untouchables. As females always work in a group, an exclusively Pana female group is not always available, Pana and Gauja females are excluded from mixed labour groups.
Pāṇṭhi, an exclusively masculine voluntary labour group, plays an important role in labour organisation of the village. 56% of labourers employed in mutual borrowing and 36.32% of hired labourers come from the pāṇṭhi (Table 19). Bāds, the voluntary jāti organisation in the village, supply 25.86% labour in borrowing and 23.93% in hiring (Table 19). Thus, these two voluntary groups play very significant roles in meeting the labour demands of the Kiṣāns. Labour recruited on mutual borrowing is preferred to all other forms of recruitment (Table 19).

TILLING OR PLOUGHING

Chāṣ: is the generic term for agriculture, farming and ploughing. Therefore, a farmer is a Chāṣi. Chāṣ: also connotes the entire process of agriculture. In local parlance ploughing is termed haladhara. Hala means a pair. In the context of agriculture it connotes a pair of bullocks, and haladhara refers tilling the land with the hala and the langala (plough). A hala thus, includes a pair of draught animals, a plough and other accessories, like the yoke, ploughshare, etc., necessary for the operation including the man who controls it.

Tilling is one of the principal activities of agriculture in general and of land preparation in particular. Like all other farming activities it is a time-bound activity and should be completed as per the seasonal requirement.
Climate, here, refers to rain only, since the intensity of tilling depends upon the intensity of rain. Therefore immediately after harvest, a farmer avails himself of every opportunity to plough most of his land, as at least two rounds of ploughing are essential before the land is ready for sowing or transplantation. A farmer tries to complete a round of ploughing following every pre-monsoon shower. Depending on the intensity of the shower, he chooses the type of land to be ploughed. However, preference is normally for bāhāl or low lands.

Two types of crops, namely, kharif and rabi are raised. Two types of seeds, early ripening and late ripening are used. Three types of broadcasting and transplanting are in vogue in this area.

All these variables combinedly determine the nature and intensity of tilling. Following occasional light showers after the harvest (November to May), khardi-buŋā lands are ploughed. The lands under transplantation are ploughed following heavy out-pours during June and July. Āṭs are ploughed after the commencement of the monsoon. The early ripening paddy in different types of land grown except āṭ, are preferred for khardi-buŋā and the lands are prepared accordingly, following pre-monsoon rain. The khālī and chiktā (locally called baḏmāṭiā) type soils are ploughed following the heavy outpours in the rainy season.

Since rain is scanty and sporadic in the pre-monsoon period, every opportunity is availed to plough
the paddy lands at least for two rounds. Those who do not take it seriously, expecting many such showers during next six months (November to May), often repent. However towards the end of May, every one utilises the effect of a shower to complete a round of ploughing to finish khardi-bunā and make the seedling beds ready.

The interdependency of ploughing with these variables can be understood better when we describe the day to day activities associated with the agricultural operations.

We have noted earlier that the Kisans, along with other people of the region, practise the traditional method and use traditional tools and implements of agriculture. The only implement used for tilling land is a wooden plough drawn by a pair of draught animals, bullocks or buffaloes.

Rounds of ploughing in local parlance is termed as sir. The first sir is called chirā (literally means parting), the second duhurā (meaning repetition). In case there is a shower after the duhurā and the land surface settles down it needs another round of ploughing before sowing. This third round is termed as usukā (literally means loosening).

The normal practice of tilling for duhurā cuts at right angle to chirā, and usukā to that of the duhurā and so on. By doing so the ridges left out during the previous tilling are removed.
An old plough, which in the meantime has got seasoned, is usually used in the chirā.

After first and second round of tilling, land is exposed to the sun. The duration of this exposure is subject to the climatic condition (rain) and the time available to complete the process of sowing in the stipulated period. Thus the duration is neither fixed nor uniform. Such an exposure helps destroy the weeds and harmful underground pests.

With the coming of the monsoon, water is retained in the paddy plot that had undergone the chirā and duharā operations. After sufficient water is stored another round of ploughing is done to make the soil pulpy to facilitate transplantation of paddy.

Seedling beds need extra care. The most fertile plot in the possession of the farmer is chosen for the seedling bed. It is tilled for 4 to 5 times to make the land very soft. With the first showers of the monsoon, seeds are sown in close proximity and lightly ploughed, so that the seeds are covered under a layer of soil, usually one to two inches thick. Seedling can be grown through the batri or achharā method.

Pulses are grown in āt land. Seeds are broadcast towards the end of the monsoon, i.e., around the month of Bhādrav. By this time soil becomes soft enough for easy ploughing. After two rounds of ploughing, seeds are sown,
followed by another round of ploughing. This ploughing is locally termed buna sir. For wheat, when at land is used for cultivation, 5 to 7 rounds of ploughing is resorted to before sowing. The vegetable gardens need more ploughing than even the wheat field.

May it be noted that successive ploughings not only dig the soil deeper and deeper, but also soften and loosen it and destroy the weeds and harmful pests and dry the surface moisture (locally known as oul).

The normal tilling begins in the morning before sun rise and continues till the noon and only occasionally lingers onto the afternoon.

The duration and extent of a single stretch tilling differs in different seasons. Duration during mid summer (March-May) it is for about 3 hours (5 or 5.30 A.M. to 8 or 8.30 A.M.). This is the time when tilling is done for kharif paddy. In the rainy season (July to September) duration increases when sowing and transplantation are done. It again comes down in winter (September-February) when land is prepared for winter crops, like pulses, vegetables and wheat. The area of these crops, however, is limited in the sample village. After the pulses are sown, the vegetable gardens are ploughed every day from about 7 A.M. for an hour or two for about a week completing several rounds in the process. During this period a number of crops namely, chilli, wheat, castor, mustard and vegetables, are grown. This season may, therefore, be called a 'multi-crop' season.
Paddy engages the entire attention of the farmer during the rainy season. This 'one-crop' season is the busiest period for the farmer.

The draught animals used in agriculture in this region are bullocks and buffaloes. The Kisans of the sample village, at the time of study, had 95 pairs belonging to 84 families. 9 of these pairs are buffaloes, belonging to 9 families, one pair each.

The capacity of a pair of animals is counted in terms of its ability to render certain areas of land suitable for sowing. This capacity is subject to the type of soil, rounds of ploughing and the season. However, people taking all these variables into consideration find out the average and term it the sowing capacity. A pair of bullocks should be able to sow 1.5 khaṇḍi\(^7\) of paddy in a day (day means tilling time of a day, approximately 6 hours), and a pair of buffaloes should sow 2 khaṇḍis. In other words, tilling capacity of a pair of bullocks and buffaloes in the rainy season, in the third round of tilling of any type of land is about 0.75 acres and 1.25 acres respectively. The general estimation of the people is that one can comfortably manage 5 acres of land by a pair of bullocks.

Draught animals play an important role in agriculture in general and ploughing in particular. A good pair of draught animals assures the smooth functioning of agricultural activities. On the other hand, their loss or inability brings disaster for the poor cultivators.
Land tilling is a complex procedure. It continues round the year and is subject to the combination of three factors, viz., man, animal and environment. It varies according to the soil types, rain, the number of rounds of tilling and the purpose of tilling (Diagram 2). There is no proper time budgeting for it.

Under such circumstances it is difficult to estimate the tilling capacity of an individual, and the labour spent on it for the whole year cannot be accounted for.

As a result family-wise labour input could not be collected for the whole year during field work. Only the help received or extended for tilling by a family has been recorded.

Out of 43 families 32 have employed labourer on exchange basis and rest 11 have employed casual labourers for sowing, transplantation, transculture and foddering (Table 21 and 22).

In addition 23 families have employed 30 pairs of animal with the man (the full unit of ploughing) and 4 families have borrowed 8 labourers on reciprocity (Table 21). Thus 38 individuals have been borrowed for tilling, 23 have been employed on wage by 11 families (Table 21). The sources of recruitment of these labourers are noted (Table 21).

It was difficult to estimate the total family labour. To have an over all understanding, the general
experience of the people of the locality have been considered and an account of labour absorption in land tilling has been made.

In average favourable conditions, it is estimated that an individual can plough about half an acre of land in an average tilling hour of a day. Thus, one acre of land can be ploughed by two plough-men.

According to the above estimation, the 502.17 acres of total cultivated Kisan land require $502.17 \times 2 = 1004.43$ labourers. Normally, a plot of land is ploughed thrice till it is sown or transplanted and require $(1004.43 \times 3 = 3013.02$ or) $3013$ labourers. Thus 3013 male workers have been engaged in tilling.

II

Buṇā (sowing) and ruā (transplantation) are terms associated only with paddy cultivation in the local parlance. Buṇā, though generically mean any type of sowing the unqualified use of the term connotes only paddy sowing. Broadly paddy is cultivated through two methods - sowing and transplanting. The latter needs elaborate care. Therefore, farmers with limited resources, always, resort to sowing. Both the processes are directly dependent on the soil and the climate (rain).

Certain soil types, like the khaliā chikṭā soil of the bāhāl land, are unsuitable for sowing whereas transplantation can be made in any type, subject to the availability of water.
Light to medium intermittent showers spread over a prolonged period is very favourable for sowing whereas heavy and continuous rain at the onset of the monsoon makes people go in for transplantation or wet sowing (achharā). Wet sowing is the alternative to transplantation when land is rendered unsuitable for sowing owing to heavy rain. The bāhāl and bernā of khāliā chikṭā soil lose their buṇā pāga following heavy rain.

Transplantation takes place during July and August whereas sowing begins from May and lasts till July. If there is a delay in transplantation, the early ripening variety of paddy, grown in māl and bernā, has to be substituted by a late variety. Thus, the harvest of paddy follows the type and time of sowing or transplantation.

Transplantation gives a higher yield per unit of land than sowing. In spite of it, the poor Kiṇāns prefer sowing to transplantation because;

(a) it is a lengthy complex process of operation and very expensive;

(b) the farmer has to wait too long for harvesting;

(c) it is expensive to cover a large area within a short time available during July and August.
SOWING

Baiśākha Śukla Trutiā (the third day of the light half of the month of Baiśākha) is popularly known as Aksaya Trutiā. On this day a handful of paddy is sown by the farmer to mark a ritual beginning of the sowing operations and the actual operation follows a few days later. This in local parlance is called Muṭhi Anukula (Muṭhi = a fistful, Anukula = ritual beginning). Sowing is of three types, viz., Khardi, batri and achharā.

Khardi buṇā may be termed 'dry sowing' as dry paddy is sown in the ploughed and sun-parched soil. All types of land except baḍmāṭiā bāhāl are suitable for this type of sowing.

As discussed earlier, land preparation for sowing is complete by April and it begins in May and continues till the onset of the monsoon. The plot is ploughed following the broadcasting to give the seeds a soil cover. The seeds lie for several weeks before they germinate with the beginning of monsoon. In case there is an unexpected shower and the seeds germinate, they do not survive until the monsoon and the field may need resowing. In case the monsoon begins with heavy downpour and continues for 3 to 4 days the sowing is rendered useless. Experience, however, has taught the farmer the right time of sowing and to reap the maximum benefit of his in-put.

The word batri is derived from bat'r, meaning suitable soil condition for sowing. It connotes the presence
of adequate moisture in the soil for easy germination. The usual rain at the onset of the monsoon makes the soil moist enough for germination. On the other hand, excess rain may render the soil muddy and unsuitable.

Often land for the batri būṇā, is prepared much before the advent of the monsoon. Sometimes, they are tilled at the onset of the monsoon depending on the soil type. The seeds germinate within a week of the break of the monsoon. In batri būṇā, the loss of seeds is minimum.

Land preparation for achharā būṇā is similar to that needed for transplantation. The field ploughed before the monsoon is kept submerged with the onset of monsoon for 3 to 4 days. Again it is ploughed rendering the soil pulpy. Seeds soaked in water for a day is kept in a basket for another day. On the third day they begin to sprout. The sprouted seeds are sown on the pulpy surface. This method is least preferred because the tiny plants are more prone to diseases, yielding is poor and the chances of loss of seeds are maximum. This method is associated, normally, with the low lying berna and bahal fields and never with mal and at types. Only the long-term paddy is sown by this method.

BIHUḌĀ

After about six weeks of sowing (batri or kharḍi or achharā), when the plants are about a foot long, 3 to 10 inches of water is retained in the field and a round of
ploughing is resorted to. During the operation, the plants are spaced (bāṭīā khelā) and the weeds are removed. This operation is termed as bihuḍā or transculture.

Transculture is mostly carried out by the family labour, though at times animals and man power are availed on reciprocal borrowing from friends and relatives (Table 22). There is one instance of employing on wage (Case VII).

TRANSPLANTATION

Transplantation, locally called ruā, is broadly organised at two stages: raising seedling (palhā pakā) and transplantation (palhā ruā).

The method of sowing to raise seedling is similar to any sowing. In the context of raising seedlings for transplantation, the operation is locally termed palhā pakā and not buṇā. A fertile plot (palhā ghāri) is selected for the purpose and is manured. Soil is prepared during pre-monsoon weeks. It is ploughed several times and exposed to sun and air for several days alternatively for 7 to 8 times to make the soil soft, loose and weedless. At the advent of the monsoon, seeds are thickly cast. The auspicious day for it is the Mahālaxmā buḍa (the third day of the solar month of Āśhāḍha). Palhā pakā can either be in batri or achharā way.

Proper transplantation begins with the uprooting of seedlings locally known as palhā marā, a day before the actual transplantation.
Uprooting the seedling and tying them into suitable bundles is a feminine job and washing them is normally a male job. Transplanting proper is purely feminine.

A day before uprooting the seedlings, water is filled into the seedling plot rendering the plot soft for easy removal of the plants. The seedlings adequate enough for transplantation are uprooted and bundled in the forenoon for about 2 hours and are to be transplanted in the afternoon on the day following. The working unit for uprooting and transplantation remains the same.

After uprooting, the roots of the seedlings are washed. It is an essential operation known as palhā dhuā. It is a masculine job. It is done by lifting a bundle at the tip of a bamboo stick and dipping its root in water briskly for four to five times. After washing they are kept aside in heaps and are then lifted and stacked on the ridge of the seedling plot. This process of lifting from the palhā ghāri to the ridge is called palhā chhaṇā. Palhā dhuā and chhaṇā are completed by the evening, or occasionally continues till the next morning. Seedlings are transported in the same evening or the next noon. Transplantation is done with bhār and sikā or geṇḍuā or kāunri by males. Big farmers use bullock-carts if the distance is considerable. On reaching the destination, the seedling bundles are kept spread out on the ridges of the transplantation plot.
The plot to be transplanted remains under water after duhurā to make the soil pulpy. The water is let out in the previous evening or early morning of the day of transplantation. After the water is drained out, the plot is ploughed once for rendering the soil puddled. Puddling, locally called kād karā, is completed by the noon. Usually women range in a line side by side and fix the plants in the mud in front of them in a forward bending posture. They gradually advance on their backs. The area, a single woman covers is called a pāhi. A distance of 6 to 9 inches is maintained between two transplanted seedlings.

Before the women enter, the seedling bundles are spread over the plot at suitable distance so that one can easily pick up a bundle after one completes. Experience counts much in correct placement of the seedling bundles. This is done by male workers. The transplanting team consists of one male worker to supply the seedling bundles when it is beyond the reach of the transplantor; and to remove them from a surplus area to a deficit area leaving the main transplantor undisturbed. Transplantation, in a small scale, is normally carried out by the family labour or by workers availed on reciprocal exchange. In the latter situation a female may also do the work of the lone male worker described above.

9.36% (47 acres) of land (19 acres bernā and 28 acres bāhāl) are covered under transplantation (Diagram 3) with the help of 1228 labourers belonging to both the sexes of adult and children (Table 24).
Uprooting and transplantation, as such, are feminine jobs. Washing, transportation and distribution of seedling involve male workers only. In the entire process of transplantation the latter participation is, however, marginal, i.e. 4.97% only and the ratio of male to female is 1:16 (Table 24). It is found that an acre of land can be transplanted by 24 adult workers (Table 24). The participation of children is significant constituting 4.56% of the total workers, the majority of whom (14 out of 17 boys and 15 out of 39 girls) work in their family farm (Table 24). Except the 9 girls, rest of them have been employed on exchange (Table 25). The 9 girls employed on wage are from the upper age group i.e. from 12 to 15 years. However, children are not preferred on wage. Their services are normally utilized to help parents and relatives.

Transplantation, thus, is performed mostly through family labour. Out of the six sources, family contributes 62.62% of labourers. Next to family is the bāḍ and pāṇṭhi which contribute 58.82% and 69.23% respectively. Hired labourers are also recruited from within the community (Table 25).

III

Weeding is known as ghās bachhā or laṭā bachhā or laṭā ghichā. It is taken up a month after bihuḍā or ruā and continues for about two and half months, i.e. from mid-August to the end of October. It is believed that more
rounds of tilling in short intervals and longer duration of standing water in the plot controls the growth of weeds, and minimises weeding requirements.

A day earlier to weeding, water standing in the plot is let out for easy and effective weeding and to protect the labourer from ketra (candidiasis) contacted from long exposure to water.

Conventionally, females are employed for weeding. The area covered by a labourer is called a pahi. Each worker picks up the weeds by the right hand and holds on in the left till the fist is full before dumping in a heap (gadā). A handful of weed is called a kerā⁹. Such heaps are later cleared, normally, by a male labourer. In the family farms, however, females also do this job.

Weeding is normally preferred in the forenoon to avail a longer working duration, that is from 7 A.M. to 12 noon. The normal afternoon working hours are from 2.30 P.M. to 5.30 P.M. Labourers are not usually employed in the afternoon.

It is not possible to record the area of the field weeded per hour per labour, as the entire paddy field is not weeded and often, patches of the plot is weeded depending upon the intensity and the growth of the weeds. At times people pick up weeds during batlā khelā and such plots get less weeds after interculture.
Weeding is conventionally feminine and mostly done with family (81.13%) and with borrowed labour (12.34%) shown in Table 26. The Kisans meet the demand of this kind of labour usually from among themselves (Table 27).

IV

The manure used by the Kisans, in particular, and the people of this region, in general, is cow-dung (khat) and the excreta of other domestic animals and birds mixed with other domestic refuse.

Cow-dung, excreta of other domestic animals and birds and the daily domestic garbage are collected in a pit called khat gada over the year. The depth and diameter of the pit varies according to the quantity of cow-dung, etc., estimated to be collected. The excreta of domestic goats (chhel leṇḍi) is kept separately because of its higher potency for special use in particular crops discussed later. The collection begins in June-July and continues till April-May. During May and June the pit is cleared and the manure is exposed to sun for 2/3 days and then powdered by hammering by a suitable piece of wood or axe head before it is applied to the field.

The excreta of goats collected separately is used in the vegetable cultivation only. The quantity that each household collects is moderate and is gathered in a heap near the homestead. It is thoroughly hammered with a heavy
piece of wood and reduced to powder before putting to use. It is applied close to the roots and is not spread over the field like the common khat.

The manure is carried to the field during May and June, prior to the commencement of monsoon. Transplantation of it is called khat-kaḍhā or khat-duhurā refers to transplantation by cart and the latter by carrying-rod. Transplantation by carrying-rod is (a male job) resorted to by those who have accumulated only 2 to 3 ludars or gādis. When female workers are engaged they carry the stuff in chidi or ṭupā (bamboo baskets) on their heads. Manual transportation is taken up leisurely, i.e., by carrying 3 to 4 times (kheps) either in the morning or evening hours, and is completed over a week or so.

When large quantities are accumulated transportation by bullock cart is resorted to. Once the process begins it continues until the entire quantity is transported. Many people borrow carts from others and return as early as possible. The job is purely masculine.

The manure thus transported is kept in small heaps at suitable distances spread over the entire plot (if it is to be used for sowing) or in a single big heap at one place of the plot (if it is to be used for transplantation). In the latter case it is spread during poddling and in former at the time of sowing. Excreta of goat is used in vegetable
cultivation, particularly after weeding and at the time of interculture. The manure is spread over the plot with the help of spades by both male and female workers.

The use of chemical fertilizer is minimum. Their use is mainly for chilli and vegetable (Table 17). The common types used in the area are Urea, Potash and Gromor (potash + nitrogen).

Cleaning the animal shed and carrying the excreta into the pit is a feminine job except on rare occasions. On the other hand collecting from the pit, breaking the clods and its application are masculine jobs where persons of all age groups are involved.

Manuring is done exclusively by family labour only. No case of labour recruitment either on wage or reciprocal borrowing has been noticed. Bullocks and carts, however, are borrowed when necessary.

V

The sources of water in Turei-Niktimal as indicated in the earlier section are tanks, wells, and a government managed Minor Irrigation Project. The latter irrigates only Khatkurbahal, a hamlet of the village. Water lifted with a tendā from the adjoining streams is also used for gardening.
After transplantation and interculture till harvesting, farmers are often seen moving round the paddy fields with a spade. The purpose is to prevent loss of water from their paddy fields. Often snakes and crabs bore holes in the ridges rendering it leaky. These are to be plugged before it is too late. The farmer is expected to be vigilant and has to regularly supervise the water retaining devices.

Paddy needs standing water, keeping the plants submerged up to a height between 6 inches to one foot from the bottom till it ripens. Often due to scanty rains, different water sources are used to maintain the required water level. Crops like wheat, chilli and vegetables need periodic watering. Water from wells and chuāns (water holes dug in the sandy bed of the stream or pits dug in irrigation tanks close to the bank) are lifted by the tenḍā.

Lifting water by tenḍā (pāen tenḍā) is mostly a masculine job, though females do participate occasionally. Channelling water (pāen kaṭā), as tenḍā in progress, is mostly done by females and grown up children of both the sexes.

Watering chilli and vegetable plants is a regular affair. These crops need water more frequently than wheat. Wheat requires water five times (bol) during the entire cropping period whereas vegetables need every week.
The task of water management is performed solely by the members of the farmer's family. As it is a very responsible job, it is not entrusted to hired labour.

There is no separate channel to let water into the plots. Water is taken from one plot to the other by sliting the boundary ridge. Therefore, good neighbourliness is crucial for proper and timely water management. However, quarrel by the owners of neighbouring plots are not quite uncommon.

During my field work I came across seven cases of dispute centering round water management.

1) Ranjit Lakra Vs Bipin Majhi (Affines)
2) Madhu Balua Vs Mistri Balua (Agnates)
3) Nata Dhan Vs Pandu Dhan (Lineage members)
4) Banmali Bar Vs Bila Bar (Lineage members)
5) Shyama Makar Vs Kumar Makar (Lineage members)
6) Rajkishore Dhan Vs Lalu Dhan (Lineage members)
7) Ude Luha Vs Bisi Luha (Lineage members)

VI

Harvesting includes reaping, threshing and storing.

REAPING

Reaping paddy, in local parlance, is known as dhān-duā or dhān-kaṭā, literally meaning cutting paddy (duā = from the word dā meaning a sickle, hence cutting
with a sickle). The term used to harvest chilli, castor, black-gram, vegetables, etc., is referred to as tula (meaning picking or lifting). Crops whose harvest necessitates uprooting namely, horsegram, greengram, etc., the term used is ghichā (pulling).

The crop after reaping is carried to the threshing floor. Gathering the reaped crops and carrying them to the threshing floor is called buhā in the local parlance.

Different types of paddy ripen at different times. Consequentially, they are harvested at different times. The earliest variety is guḍā dhān. It is harvested during September. Māl dhān is harvested in October. The bāhāl varieties are harvested during November. Thus, harvesting of paddy begins in September and ends in November. The other crops like grams, chilli, vegetable, wheat, etc., continue till February-March.

After cutting paddy, stalks are left in the field for drying under sun for 3 to 4 days before they are carried to the threshing floor. Other crops, however, are carried to the threshing ground immediately and are spread there for drying.

Transportation of crops from the field to the threshing floor is performed by the same labourers engaged for reaping. Depending on the quantity, transportation is done by bullock carts, carrying-rod used by the male or carried on headloads (by females).
Reaping, though bi-sexual, is female dominated, who constitute about 64% (including girls) of the total labour force in this area (Table 28). In one year it is noted that 811 labourers were engaged in reaping to cover approximately 385 acres of paddy. Of these 126 (50 boys and 76 girls) were children whose average working capacity is calculated to be equivalent to 63 adults (25 males and 38 females) at the prevailing wage rate. The average capacity of an adult worker in 'cutting' paddy is 0.52 acres per working day (Table 28).

The farmer's families contribute around 60% of the required labour, around 34% is acquired by exchange and only 6% are hired (Table 28). The latter are recruited mainly from the pāṇṭhi and the bāḍ (Table 30). During the harvest season pāṇṭhi is mostly engaged in reaping.

Among the children, girls participate more (76 or 9.37%) than the boys (50 or 6.16%) and they mostly work in the family farm or in those of other community members on exchange basis.

THRESHING

Threshing is referred to as maḍā. The prefix to the term indicates the crop, such as, dhān maḍā, gaham maḍā, kuluth maḍā, etc. Threshing floor, called khalā, is a small dry, elevated area, cleaned and pested with cow-dung for the purpose. It is usually and not necessarily close
to the homestead. A wooden post (called merhi) of about 6 feet in length and about 3 inches in diameter is fixed vertically at the centre of the threshing floor. To this post the animals used to assist threshing, are tied in such a way that they can be driven round and round the pole to accomplish the task.

Scraping of gram on the threshing floor (khalā chanchhā) is ritually initiated on the day of Daśaharā (tenth day of the light half of Āświna). Paddy brought from the field are staked (dhān gadā) around the threshing floor. The distance between the wooden post and heaps of paddy is maintained in such a way so as to facilitate the spreading of paddy stalks for threshing and allow air passage into the threshing ground for subsequent winnowing (uḍā). Pulses are, normally, spread around the merhi for drying for 3 to 4 days before threshing. They are not staked like paddy.

The functional area of the threshing floor is circular around the merhi to which as mentioned, the animals are tied with a rope of required length and chain. Merhi is the indicator of it. The animals go round and round trampling the crop under their feet to separate the seeds from the straw. About 5 to 7 number of draught animals are used. The animal nearest to the merhi is called merhiā and the farthest is called leñjriā or leñjra. The merhiā should be strong and steady (maṭhuā) and the leñjra be active and
mobile (chālti). A man (haliā) drives the animals with a stick in hand to make them walk continuously.

Paddy takes longer time for threshing than other crops. Paddy spread for threshing is called beňglā. The average time of a beňglā to be threshed is 6 to 8 hours, subject to the quality of paddy and the number of animals used. Quality refers to jhaḍti and chembri. For example, magrā dhān takes longer time. For such types, more number of animals are used for early processing. Unlike paddy, pulses take around 2 hours and wheat takes, roughly, three hours for threshing. Paddy is, normally, threshed in the afternoon and continues till midnight. Pulses are threshed in the noon after being spread under the sun for drying. They cannot be threshed properly because of the moisture they absorb during the night. Hence, they need to be spread for drying before threshing.

During threshing, the crops, particularly, paddy, are turned up and down for at least three times. It is locally called beňglā jharā. This process allows the separated grains go below the stalks still attached with paddy. This is a skilled job.

Straws devoid of grains are separated from the beňglā (called puāl ghichā) and kept in heaps (puāl gadā).

The next act is called uḍā (winnowing). The small pieces of straw (kuṭā) and dust (guṇḍ) are flown away by winnowing fans (kulā). Before this (kuṭāsi) a preliminary
cleaning is performed by hand to separate the larger *kutās* from the grains. After cleaning the paddy grains are heaped at the bottom of the merhi.

For winnowing, half a *kulā* of grains is lifted above the head on the left palm. The person in standing position slowly throws the grains down by shaking the *kulā*, placing the right hand on the right corner of it and slowly moves back. The *kutās* are blown away by the air and the heavy grains fall vertically on the ground and the line they fall is called *beni*. After the grains fall on the *beni*, they are again fanned by the *kulā* by a brisk to and fro motion over the *beni*. The remaining *kutās* dropped on the *beni* along with grains are, thus, blown away. This process is similar for all crops. Then the grains are collected and carried home by the male as well as female carriers.

It was noticed that 923 *puḍug* of paddy had been threshed in 438 *beṅglās* or *maṅāns* by 470 individuals, (including 28 boys and 422 adult males as in Table 31). The average paddy threshed in a *beṅglā* comes to 2.11 *puḍug*, and the average threshing capacity of a labourer is 2.02 (or 2) *puḍug*.

Threshing, as a whole is masculine except carrying and cementing the threshing floor. The latter is purely feminine, whereas carrying is bi-sexual.

Threshing is mostly performed by the family labour (89.79%). 10.21% of the total labourers needed for the purpose
have been recruited on exchange (Table 31), mostly from bāḍ and pāṇthī (Table 32). Those households who have single working male and children below 6 years of age (24) have to depend on labourers on exchange or wage. I did not, however, come across wage labourer being employed for the purpose during our study.

Animals are also borrowed for threshing. The Kisans mostly have single or in rare cases, two pairs of draught animals. Normally, 5 or 7 animals are used in beṅglā. Hence, almost all the households (91) have to borrow animals. During our study 1126 animals (both bullocks and buffaloes) are in use in 395 beṅglās (Table 33).

The average yearly production of paddy of a household is 9 puḍug which can be threshed in 4 beṅglās. People often cannot manage single handed when the quantity is more. Specifically, beṅglā jharā, puāl ghichā and hal khedā cannot be done simultaneously. A helping hand is required during such times.

STORING

Storing refers to the preservation of food grains and seeds. The Kisans, though at the subsistence level do preserve whatever little is possible for the next year's cultivation.

Grains and seeds are dried thoroughly under the sun. For large scale storing paddy, normally, is put in
ludar (made up of bamboo) and in the purā or puḍug (made up of straw-rope). For small storings such containers prove to be costly. Only 7 households use them. Rest use small bamboo baskets (ṭupā) and jute bags (bastā).

However, whatever quantity of pulses and oil seeds are produced, people preserve a small quantity for the next year's sowing. The quantity ranges from 2 kgs. to 5 kgs. They are kept in ṭhenki or māṭhiā (earthen pot) with a straw lid sealed by cow-dung and mud paste.

The seeds are mixed with dried neem or kuṭā bāduri, or kusuma, or nirgundi, or karanja leaves, or a small packet of red chilli and salt before storing them. Now-a-days some use gamaxin and DDT as preservatives.

Storing however, is the duty of the females when the amount is small. In case of large scale storing the females are helped by the male members. The ludars and purās are made by male. Winnowing and drying of seeds are feminine jobs.

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