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OVERVIEW OF THE AREA UNDER STUDY

Saklana lies in a south-facing valley, its boundaries extending from an elevation of 10,000 feet at Surkunda in the north, along the Mussoorie-Chamba ridge and down to Maldevta abutting Dehra Dun district in the south. Approximately fifty kilometers away from the large city of Dehra Dun in the south, it is easily accessible by road (see attached Map).

Located in the outer hills and in the catchment of the Song river, Saklana receives abundant rainfall and has well-endowed water resources which are the basis for its dynamic agricultural base. Despite some thinning of forest cover, encroachment on to grasslands, and diminishing of water resources, in recent years, the region's rich and varied natural resources make it stand out in striking contrast to more depleted agro-ecological zones a few kilometers away, on the other side of the ridge in the rain shadow.

Climatically, the valley conforms to the pattern typical of the middle hills. There are four distinct seasons: the monsoon months from the end of June to early September, which bring heavy rains; a cool and dry autumn from September until November; the cold months from December to February, with some rain and occasional snowfall; and the warm summer beginning at the end of March and continuing until the onset of the rainy season.

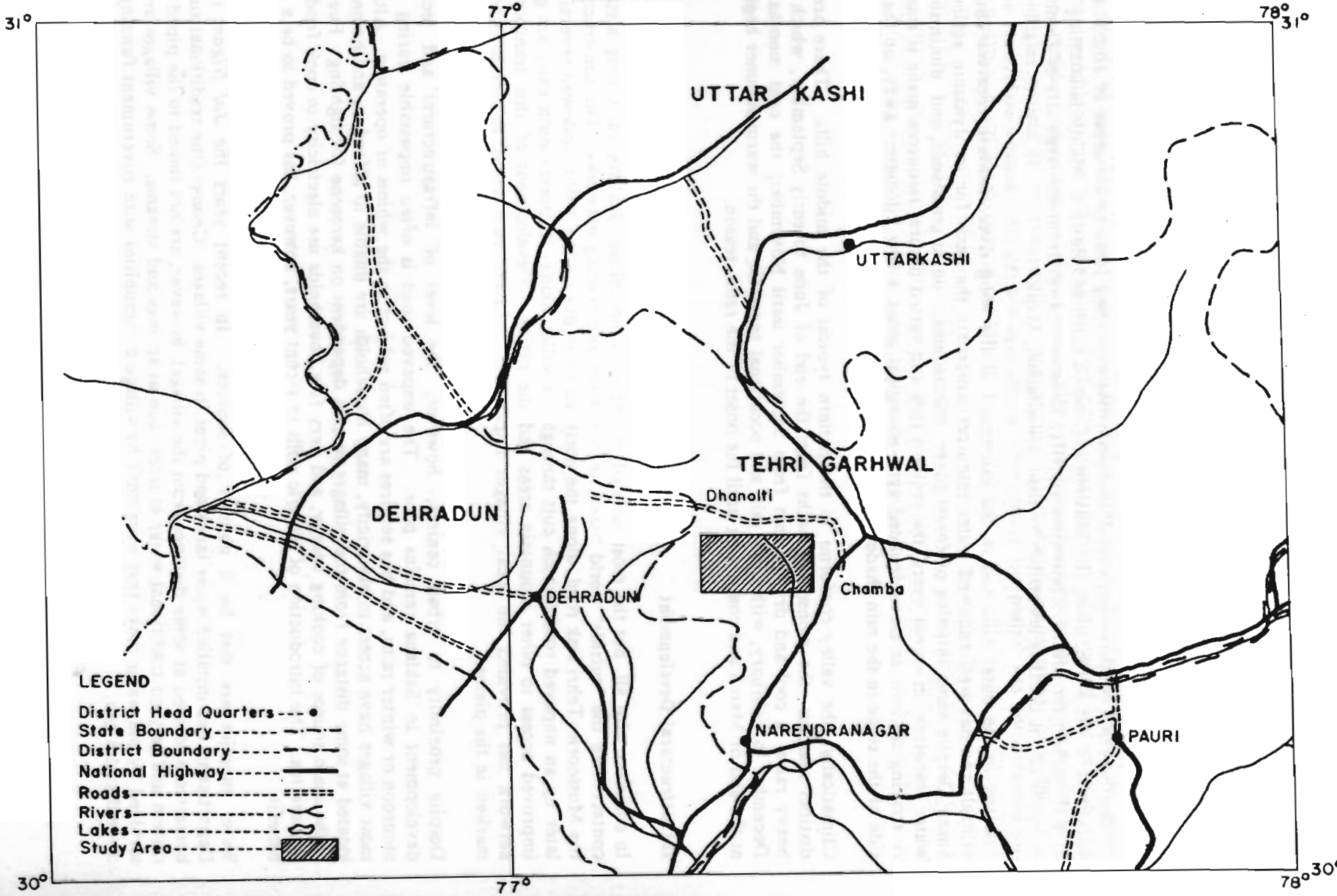
Infrastructural Development

In common with all, but the most isolated mountain communities, Saklana has a long history of contact with the "outside" world based on migration and trading networks. The construction of the Mussoorie-Tehri link road, along the northern ridge during the 1960s, followed several years later by an unpaved road (which cuts through the valley along its north-south axis) has greatly improved access to other mountain areas and the plains. Development of this transportation network has provided the local villages impetus to cultivate cash crops to sell to wholesale markets in the plains.

Despite proximity to urban centres, however, the level of infrastructural and technical development in Saklana remains poor. The unpaved road is often impassable during heavy monsoon or winter rains, and bus services are often subject to the whims of operators. Although most villages have access to electricity, many households are unable to afford it, and homesteads located at some distance from the villages remain dependent on kerosene for lighting. Fuelwood is the main source of cooking energy, and very few households use electricity to cook food or to prepare tea. The introduction of electric mills in recent years, however, has proved to be a major benefit.

Water supplies are met by a number of sources. In recent years the *Jal Nigam* (Water Department) has installed water tanks and pipes in some villages. *Chaans* (the traditional summer homesteads located at some distance from the village), however, are not linked to the piped water system and rely on traditional water sources such as springs and streams. Some villages are still serviced by old water tanks that were built by village communities with government funding over three decades ago.

THE SAKLANA AREA
HILL REGION OF UTTAR PRADESH



Sorce:- Taken from RS Tripathi (1987) Investment, Income & Employment Pattern of Hill Farming in Tehri Garhwal Himalaya

Although piped water has facilitated certain aspects of daily work, particularly for women, poor construction and inadequate maintenance are resulting in periodic and seasonal water shortages. In recent years, there has been a decline in the availability of water during the hot season which is attributed to less reliable winter and monsoon rains.

Commercial Centres

The growth of commercial centres in this area, underscores both the extent of communities' dependence on markets and their enhanced purchasing power. Two commercial centres serve the villages of Upper Saklana. The main one, Satyon, is located in what was once a forested bowl. Two decades ago, there was only one all-purpose shop here. Today, there are over thirty commercial enterprises, including two ration shops which sell essential commodities such as kerosene, sugar, rice, and wheat at controlled prices, and a number of open-market shops stocked with a wide array of items ranging from clothing, toiletries, biscuits, and powdered milk, to fabrics, umbrellas, and school books. Apart from the larger shops, there are a number of smaller enterprises which sell tea, and stock a few items of dubious vintage and quality. There are in addition several tailors, a goldsmith, and several small eating places.

Other services include a primary school and an inter-college which services a wide area, a post office, bank, an agricultural extension office, and two allopathic health centres. These two centres (one private, the other government-run) provide only limited services, and those requiring more specialised care have to be taken to Dehra Dun, Mussoorie, or Chamba where medical facilities are better. An allopathic nurse from Chamba is also based in Satyon. However, women in childbirth are generally attended to by *dais* (traditional midwives) who live in various villages.

Natural Resources

The local agricultural economy is intricately related to and dependent on the natural resource base. A variety of strategies are used to exploit all its available components. Key components of the biomass system are forests, grasslands, agricultural lands, private orchards, and water resources. There is tremendous micro-regional variation in natural resource endowment, and within short distances, the landscape changes from dense oak forest to sparsely-covered rocky hillsides.

Forests

Forests play a major role in supplementing agricultural strategies, by providing fodder grasses and leaves for the maintenance of livestock, fuelwood for domestic needs, timber for construction and ritual purposes, compost, food and other minor forest products. There is considerable variation in the type and condition of forests. The composition, condition, and distribution of forests are influenced by aspect, slope, and proximity to villages and roads. The condition of forests is generally good, although those on the periphery of villages show sign of over-utilisation and poor lopping practices.

The main forest stocks consist of coniferous chir pine (*R. roxburgii* and oak (*Q. incanna*), locally known as *bani* (which is the favoured species for fodder and fuelwood). At higher levels, this is interspersed with other broad-leafed species such as morru (*Q. dilatata*), rhododendron (*R. arboreum*), locally known as *buras*, and other species. The lower-lying west-facing slopes are dominated by large tracts of monocrop; natural chir pine forests. Above these are thick stands of

oak which, because of their distance from areas of habitation, remain untouched. Forests on east-facing slopes in the middle level lands are less dense, reflecting heavy utilisation by villagers. Areas closest to the roadhead on south-facing slopes below the ridge consist primarily of open grasslands and agricultural fields with very sparse tree cover. In this area, large tracts of forests were felled during road construction. Subsequently, improved access to markets has provided a further impetus to clear land for cultivation.

Administration of Forest Lands

There are several categories of forest land: those that come under the jurisdiction of the Forest Department *(Junglaat)* and the Uttar Pradesh State Government, civil/soyam (earlier known as Revenue) lands, and *gram samaj* (village or *panchayat*) lands. Though nominally under the control of the Revenue Department, civil/soyam lands are managed on a de facto basis by local communities. These are often the most degraded and can be taken over by the Forest Department for afforestation purposes. Villages have the right to fell trees on these and *panchayat* lands, whilst user rights to other forest resources is based on special permits issued by the Forest Department. Households claim de facto rights to trees planted on civil/soyam lands, which lie adjacent to their homesteads.

Household fodder and fuelwood requirements are met largely from the Forest Department and U.P. State Government-owned lands. Farm trees, located near *chaans* or on the fringes of agricultural lands, provide some, but not a significant amount of household needs. Few households own orchards (acquired and/or planted with government assistance over 20 years ago), most of which are neglected due to lack of adequate household labour. Fruit is grown mainly for household consumption although some apples and apricots are sold locally.

Pressures on Forest Resources

So far, outside demands for fuelwood and timber are relatively small, catering primarily to a few non-local residents in Satyon (school teachers and other government and private employees). Growing pressure on forests also comes from agricultural expansion, although this is still not very obvious. Most encroachments take place on civil/soyam lands. In recent years, some agricultural extension has taken place with new fields cut out of steep slopes *(khuds)* just below the road. This has contributed to erosion of soil and manure during heavy rainfall and has resulted in increasing instability of roads. Some commercial felling (by the *Van Nigam*) is also taking place in heavily forested areas along the ridge.

Grazing Lands

The traditional common grazing areas *(gochar)* are located on the edge of forests, adjacent to and above the villages. Earlier, lands along the contours of irrigation channels in the valley were also used to pasture livestock, but these have been encroached upon to expand landholdings. Some fallow fields in the valley are also used as common grazing land. Unregulated lands kept permanently open are in poor condition due to heavy utilisation. Others are closed during the monsoons and are exploited only for grasses, which supplement those from private orchards.

Resource Management

Most subsistence communities have traditionally drawn on institutionalised or informal systems to regulate access and in doing so have contributed to the sustainable use of forest, water, and pasture resources. In resource-rich areas such as Saklana, there are typically fewer imperatives

for ecological consciousness and hence, the need for formal communal regulatory structures. Whilst there is little documentary evidence of earlier management systems in the valley, oral histories provide some insight into how common property resources were utilised and managed.[11]

Conditions of abundance, rather than of scarcity, define the context of resource management in the valley. There were no formal boundaries that demarcated village forests and grazing lands. Nor were formal sanctions employed against trespassers. A village elder arbitrated over disputes when the need arose, a practice which ended over four decades ago "when people began to have more money".

A *chowkidar*i system was organised by each *gram sabha* to protect agricultural fields from damage by wild animals and from theft (mainly of fodder grasses) by villagers. The guard was employed for the duration of the agricultural season from June until October and was paid for his services in grain. This system has died out quite recently--within the past twenty years. Villagers say trespassing is less common since there is a much stronger sense of personal property now. In addition, tending to the fields, when only two crops were cultivated (coarse millet and paddy) was much easier than it is today. In present times during the summer months, five different crops are grown, apart from millet, potatoes, peas, and beans.

Access to water resources in the past was also loosely structured. Irrigation channels *(guhls)* were constructed annually. This was a collective task performed by men, whose fields lay adjacent to the *guhls*. In recent years, the *Jal Nigam* has built permanent irrigation channels in some mid-level villages and in the flatlands. A tax is levied on the latter according to landholding size. This has effectively ended one important aspect of men's collective work.

These informal regulatory systems have virtually ceased to exist. There are two exceptions. First is the closing of common grazing lands on the periphery of villages from June-end to early October. This is when grassland production is at its peak, and only grasses are allowed to be cut. Second, is a practice in which one mid-level village observes an enclosure system for regulating access to forest resources. The decision to close certain parts of the forests surrounding the village, was taken by the *panchayat,* about 40 years ago. It is enforced by informal sanctions. Households are permitted to collect deadwood, twigs and litter, and even to bring their animals to graze in certain areas. A recently formed *yuvak mandal dal* (youth group) ensures that trespassing is kept at a minimum, and that sanctions are observed.

Women's Role in Resource Management

Women have traditionally not been involved in *panchayat* activities. The forest enclosure initiative discussed above, is controlled by men since, according to the *Pradhan*, women are considered "irresponsible". This attitude continues today, and recent afforestation efforts have made little attempt to include women. The absence of informal women's groups, which could serve as the basis for mobilising around these and related issues, only further accentuates their marginal position within the community. The problem, however, is a general one. The absence of organisational base for developing community participation is reflected in developmental changes that effect traditional practices. New agricultural imperatives based on intensive and extensive landuse, for example, are beginning to transform the physical landscape. These, along with the emergence of centralised systems of control over local water and forest resources, are altering community relationship and responsibility for the environment.

The few attempts at environmental conservation and/or regeneration are conducted on an individual basis. These are generally restricted to planting trees on private *chaan* lands. One striking exception is an afforestation/conservation initiative in an area of the mid-level forests. Although large in scale and vision, this too is an individual effort which has failed to develop community participation. This will jeopardise the longer-term viability of the initiative because fellow villagers are becoming hostile to the individual.

Other efforts reveal the oft-noted problem of over-bureaucratisation and lack of communication, between the funding agency (the Block Development Office), the Forest Department and the villagers. Conflict of interest, between immediate grazing rights and longer term concerns of afforestation, coupled with lack of community support and involvement, have also proved to be major stumbling blocks.

Agrarian Relations

Caste configurations, based on the numerically dominant land-owning and cultivating *Brahmins* and *Rajputs*, on the one hand, and the traditional service castes (scheduled castes or *Harijans*), on the other, provides the basis for contemporary social and labour relations in Saklana. Most villages are multi-caste, while a few are single caste villages. The majority of villagers are owner cultivators, operating small holdings which rarely exceed 5 acres and are typically between 1-3 acres.[12]

Caste Relations

Traditionally, social and labour relations between castes were based on mutually-recognised forms of reciprocity and redistribution, in which the higher castes were obliged to provide payments in kind, for services rendered by the outcastes. This tradition is still observed, though it is beginning to erode. At the same time, interlocking structural and socio-cultural biases limit the extent to which scheduled castes have been able to either develop their traditional skills, or to find a foothold within the emerging market economy. Thus, the "attenuated" form of hill caste notwithstanding, there is a noticeable air of impoverishment amongst the scheduled caste communities. Their lack of independent access to productive resources, which has historically defined their dependence on the higher castes, continues to be expressed in social interactions and economic relationships even today.[13] In the past, the service castes did not own land, although it was possible to acquire land by entering into sharecropping arrangements with higher caste households. This system, which continues to be observed, was based on *aadhi* which enabled the lessee to cultivate land in return for half the produce. Today, more typically, the lessee keeps the entire produce, in return for providing assistance to the leaser at labour-intensive periods in the agricultural cycle. Although it is generally the scheduled castes who enter into such arrangements, other castes also do so.

Since independence and particularly in the mid-1970s, the U.P. Government has sponsored land distribution schemes which has ensured that all scheduled households now own some land. It is not entirely a coincidence, however, that despite the absence of glaring disparities in landholdings, scheduled castes tend to have the smallest, most marginal and least productive holdings, whilst the larger landowners are generally *Brahmins* and *Rajputs*.[14]

Apart from traditional caste prejudices, there is tremendous resentment towards the scheduled castes, who have been recipients of government welfare programmes. These schemes included granting freeholds, draught animals, pack animals, and Rs. 10,000 for construction of houses. According to members of the high castes, the scheduled caste has not been able to pull itself out of poverty, mainly because members don't work and because they drink away their earnings.

Relatively few men in the latter caste category are employed in well-paying and secured jobs, a pattern which is reinforced and perpetuated by low levels of education.[15] Traditional work like tailoring and wood and leatherwork (much of which is home-based, since renting shop space in Satyon is expensive) is becoming financially unviable, as cash needs increase, and the local markets are flooded with cheap consumer items. Most scheduled caste men, thus, have to depend on local wage labour (road and house construction) and on agricultural work (land clearance to build new fields, ploughing, and terracing) to a greater extent, than do higher caste men. The latter also participate in local wage labour, but have greater access to external (and more secure) labour markets. High caste men are also found to engage in trading as a primary occupation, or to supplement agricultural and off-farm incomes.

Organisation of Production

The domestic unit, in its nuclear or extended from, is the primary unit of production, and all family members, in varying degrees, assist in domestic and agricultural work. Ploughing is the only activity which is strictly gender structured. Households in which males are either too old, infirm or young, or where members are all-female, are compelled to hire labour to initiate the agricultural cycle. In this sense, widows without sons (who are often estranged from their in-laws) are the least enviable. They do not have *bahus* (daughters-in-law) to work for them, and have no access to financial resource to hire labour for ploughing the land. Their participation in agricultural production is thus limited. This underscores the extent to which women are dependent on men to initiate the agricultural cycle. Apart from this, the sexual division of labour is relatively flexible, based on individual households' specific needs and constraints. Nonetheless, in most instances, women and girls carry more of the work burden, than do men and boys. This will be discussed in greater detail in the following Chapter.

Inter-household reciprocal labour exchanges (*padiyaal*) though not as common now, are still observed. The specific organisation of agricultural work is determined by cropping patterns. In the highly labour-intensive paddy-growing areas of the lowlands for example, *padiyaal* is still practiced. Elsewhere, these labour exchanges are less frequent, particularly in the case of cashcrops.

The extent to which women have absorbed greater work burdens is indicated in the remarkably low incidence of hired agricultural labour (which is provided by the scheduled castes). Payments used to be made in kind (in grain) and, though still observed, is gradually declining, as labour hiring becomes more contractual.[16] Most households which have access to outside help draw on sharecropping relationships, which entitles them to labour assistance.

In recent years, a new component to the existing socio-economic hierarchy has been introduced, in the form of Nepali migrant labourers. These migrants, either alone or with their families, live along the ridge (there are none in the middle level villages), clearing and cultivating upland fields on an *aadhi* basis, or even for the full produce. They work on the land for two or three years, before it reaches its maximum productivity when the owners reclaim it. These labourers are exploited, often underpaid and occasionally not paid at all. Their presence causes some resentment amongst the locals, as it is said they take away jobs and encourage a flourishing illicit alcohol trade. Nonetheless, most villagers agree that Nepalese are hard workers, whilst *paharis* (hill people) are *kaam chores* (lazy). Nepalese are more receptive to local employment opportunities, such as those within the horticultural schemes along the fruit belt zone, where they constitute the largest labour force in fruit and vegetable harvesting. They are also engaged in clearing and tilling agricultural lands. *Garhwalis*, on the other hand, prefer contracting for packing and transporting the produce.

A smaller, more transient population of workers comes from Delhi and Bihar. Brought in by labour contractors for specific jobs such as house construction along the ridge, these workers are readily engaged. Local labour on the other hand is considered unreliable, and skilled labour is scarce. As a result, there has been very little generation of local employment in the area despite the claim that much of the development and infrastructural work is being carried out, in order to create employment opportunities for local villagers.

The Agrarian Economy

Agriculture and animal husbandry constitute primary economic activities in Saklana. Hill farming is highly labour-intensive and with the exception of ploughing, for which bullocks provide traction, all activities are performed manually, with the use of very basic wooden implements (*dharanti*: a sickle used for cutting grasses and wood; and *kuddaal*: a small pick used for weeding and turning the soil).

Animal husbandry

Traditionally, when livestock was an indicator of status and wealth, most households owned large numbers of cows, sheep, and goats. Ecological and socio-economic transformations over the course of the years, in the form of declining availability of forest and field fodders, and changing household composition, have brought about changes in the nature of animal holdings. These have had important implications for sexual division of labour. The transition from cows to buffaloes has impacted labour allocation amongst household members. Unlike cows, buffaloes are unable to negotiate steep mountain paths and must be stall-fed. Thus, the decline of cow holdings has meant that the predominantly male task of grazing has been replaced by fodder collecting, a female activity which is becoming an increasingly arduous aspect of women's daily activities.[17]

Today buffaloes and bullocks are the main animal stock. The former are maintained primarily for manure, and secondarily for milk; whilst the latter are used for ploughing and threshing. Farmyard manure (dung mixed with crop residues, forest leaves, and pine needles) is still the main form of fertiliser, despite the increasing use of chemical fertilisers in recent years. Although buffaloes are superior milch animals as compared to cows, milk production is low and animals rarely produce more than a kilo per day (the average is 2 litres). This is used mainly for domestic consumption, although a small amount is sold within the village, or to tea shops, in the commercial area.[18] In addition to buffaloes and bullocks, a few households own mules and the occasional sheep and goats.[19]

Agriculture

Traditional agriculture was based on the cultivation of coarse millet *(mandua* and *jhangora)*, wheat, paddy (both irrigated and rain-fed), potatoes, and a variety of legumes. The area being generally cold, agricultural productivity was low, and subsistence production often had to be supplemented by grain purchased from warmer hill areas and markets in the plains. Often this was done by selling animals. Few households actually produced a surplus, or had the means to transport the produce to marketing centres in the hills and plains.

Over the last decade, the cultivation of peas and beans, along with new varieties of potato (the *pahari* variety is no longer grown to the same extent) has resulted in a decline in acreage for traditional foodgrains. These are now often grown in smaller quantities and/or relegated to more marginal lands which, in turn, has affected productivity. Apart from the main crops, most households also have small kitchen gardens and grow cucumber, pumpkins, radish, coriander,

garlic, and chilli. These vegetables are mainly for household consumption, although some homesteads near the road are also engaged in selling small amounts.

There are three types of land: irrigated fields in the valley bottom; terraced rain-fed *ukhar* and some irrigated fields near villages; and *ukhar* lands near *chaans* on the periphery of forests in the higher levels. Fields are small and fragmented. It is not unusual for households to cultivate as many as between 15-25 individual plots of land, located in various locations and elevations. Each area of land has a specific name which is recognised by fellow villagers and indicates, amongst other things, the quality of soil. Scattered holdings make many aspects of agriculture even more labour-intensive. For instance, simply moving animals between fields, during the ploughing season can take up a lot of time. Nonetheless, they offer some security against localised crop loss.[20]

Cropping Cycles

The traditional cropping cycle was based on two annual harvests which conformed to the *kharif* (monsoon) and *rabi* (winter) seasons, characteristic of plains agriculture. The main season was the *Kharif*, when paddy, millet, and various minor legumes were planted in May and early June, and harvested from the end of September through October. This was followed by *rabi* wheat crop which was planted in October and harvested in June. Four varieties of wheat were cultivated in the valley. Each type adapted to a specific altitude, highly suited to rain-fed conditions and the low availability of FYM. Today, only one variety, *lal mesri*, is cultivated, mixed with new seed varieties. This is being extensively practiced so that most villagers now only distinguish between *ghar ka* (home grown) and purchased seeds. Wheat used to be grown in smaller quantities than coarse millet and was kept only for special occasions. Some mixed cropping was (and still is) practiced using *mandua* as primary, and a variety of legumes, as secondary crops.[21]

Agricultural work came to an end after the wheat had been sowed and, for the duration of the winter months animal husbandry was the main activity. Households with large herds often migrated into the lower lands in the south to pasture their animals, returning to their villages in the early spring. This practice began to die out some fifty years ago. The festival of *Basant Panchami* which is celebrated according to the lunar calendar, towards the end of February or early March, designated the end of this lull period and ushered in the new agricultural season.

The introduction of new cropping patterns has changed traditional agricultural patterns and *Basant Panchami* has lost all, but its symbolic and ritual value. Land is used intensively for four annual harvests, and there are now three intensive periods of agricultural work.

- End March - May, when *kharif* crops; millet and paddy are planted, and the *rabi* crop; wheat, is harvested;
- Mid June - early September, during which time the millet is weeded and paddy transplanted; potatoes and beans are harvested; and the main pea crop is planted; and
- September - early November, when paddy, *mandua*, and *jhangra* are harvested and wheat is sown.

The winter months are still less busy than other times of the year. Nevertheless, agricultural work does not actually stop since preparations have to be made at this time, for planting of the main potato crop, beginning at the end of January and continuing through March.

Cropping Variations

Rotation patterns vary, reflecting micro-regional features such as access to irrigation and differences in altitude and aspect. In the well-watered flatlands, the main rotation is between rice, potatoes and peas. Wheat is cultivated primarily on rain-fed *chaan* lands and coarse millet, (when grown at all) is grown in the most inferior lands. In mid-level villages wheat and coarse grain continue to be grown (in smaller amounts), along with cash crops. In these areas, potatoes and peas are often cultivated on *chaan* lands, which are often more productive. One reason why these lands are more productive than village and unirrigated valley lands, is that these lands are consolidated around the homestead (rather than scattered), which facilitates manuring and, if necessary, watering.

An important change that has occurred in the mid-level villages in the past few years, is that irrigated paddy is no longer cultivated, though a very small amount of the rain-fed variety continues to be grown. The abandonment of paddy is commonly attributed to a decline in irrigation, and to the poor monsoons of 1986-87. However, this interpretation has to be weighed against economic imperatives and labour allocation strategies. The main consideration, was perhaps the potential profitability of peas.

Agricultural Dynamism

At a glance, the transition from subsistence to market-oriented production in Saklana has been successful. Despite the inevitable insecurities brought about by this new mode of integration into the market economy (e.g. fluctuations in market prices of inputs and produce, the credit trap, etc), household incomes have increased. Nonetheless, this agricultural dynamism has not been without cost. The displacement of traditional food grains by cash crops is but one of the more discernible aspects of this development. Related to this has been:

- an increase in agricultural workloads;
- a perceptible decline in the availability of agricultural fodder;
- an increasing dependence on and vulnerability to markets; and
- settlement dispersal.

How have these developments affected local agricultural strategies. And what are some of the longer-term implications?

Agricultural Workloads. Two key features of the new market-oriented agriculture is that it has not initiated changes in traditional sexual divisions of labour; nor is it based on new techniques of crop husbandry. Agriculture remains highly labour-intensive. Increased levels of productivity are less a function of inputs (improved seeds and chemical fertilisers) than of intensive use of land and labour. Since sexual division of labour remains untouched, women are being forced to absorb increased labour requirements. This trend, discussed in greater depth in the following Chapter, is reinforced by the migration of men out of the area.

Impact of Fodder Production. Agricultural residues derived from traditional foodgrains formerly served as important sources of fodder; whereas the new crops do not. Changes in cropping patterns consequently have important implications on animal husbandry, as well as agricultural strategies. Shortfalls in field fodder has placed greater pressure on forest-based grasses and leaves. According to villagers, the quality of fodder has deteriorated over the years, affecting

manure production and milk output. This coincides with the rising demand for farmyard manure (FYM), in order to ensure a minimum level of productivity. Although chemical fertilisers are used, they are applied in a haphazard way.

There is considerable variation in individual household access to agricultural residues, depending on acreage under fodder producing crops, and the size of animal holdings. Estimates for how long agricultural residues contribute to household fodder supplies, vary from a few weeks to, more commonly, six months. Those with access to secure off-farm income are less dependent on the sale of cash crops and have greater flexibility to plant fodder-producing crops. This choice is, ironically, denied to the less well-off, for whom the sale of cash crops remains a key income-earning strategy.

New Dependencies. Successful agricultural production is no longer a function of landholding quality, but is increasingly tied to externalities. Over the past few years, fluctuations in market prices of inputs has increased, whilst sale prices have dropped, particularly for potatoes.[22] In addition, the absence of a marketing infrastructure (along with a regularised credit system) forces producers to often sell at prices disadvantageous to them.

The new crops are tying communities into new dependencies on external markets for agricultural inputs. The purchase of seeds and chemical fertilisers requires cash which is frequently not available at critical junctures in the planting cycle. Most households, as a result, have little choice but to acquire production inputs on credit *(udhar)* and subsequently find themselves bound to local seed merchants. Once the crop is harvested, they are required first, to repay these loans at unfavourable prices. The credit trap could mean that little, if any, of the money from the sale of vegetables, is realised as profit.

One consequence of growing less subsistence foodgrains is that a greater proportion of consumption needs need to be purchased. This trend has been further exacerbated by changes in dietary habits and tastes which no longer favour the old foods. *Mandua* and *Jhangora*, major components of the traditional diet, are now considered unproductive and dismissed as low status food. Young people, in particular, often refuse to eat them. These are now commonly grown for fodder and, for due payments in kind, *Mandua* is usually combined with *atta* (whole wheat), except in very poor scheduled caste households, where it is eaten unmixed. Although household wheat and (in certain areas) rice production can cover a considerable portion of consumption needs, most households have to supplement their requirements by buying in the market. Tea and sugar, rarely consumed forty years ago, today constitute a major drain on household expenses.

Who Benefits, Who Loses? Participation in the cash crop economy has increased household incomes; and even modest households recently command a purchasing power unheard of a decade ago. Villagers, irrespective of caste or socio-economic status, agree that in many respects this new-found access to cash has made life considerably easier.

The nature of hill agriculture limits avenues for substantial productive investment. Small, scattered holdings and limited irrigation preclude the use of mechanisation. Although there is scope for investing in the construction of private water tanks in the water-vulnerable upper and mid-levels, this has not been tapped. Investments which could take the form of better quality, seeds, improved livestock quality and application of correct amounts of chemical fertilisers to crops, have not been made.

Households with surplus cash invest in trade and employment rather than in agriculture. Local traders, who also function as seed merchants and marketing middlemen, have been able to expand their roles by investing in lorries to transport goods and local produce. On a more modest level, investment also takes place in small commercial enterprises.

Prosperity, of a sort, is also evident in conspicuous consumption and investment in social ceremonies. There has been a tremendous spurt in the construction of houses (built on the "plains" model with flat roofs and reinforced concrete and cement), in recent years. The introduction of dowry, first observed by wealthy traders in the area and subsequently adopted by everybody, has also contributed to a high level of consumerism. Dowries now include television sets, radios, furniture, and other consumer items that represent a tremendous drain on household resources.

Settlement Dispersal. A significant trend that has emerged from recent market-oriented agricultural production, is settlement dispersal.[23] In the past, seasonal migration to upland *chaans* (during the warm months), and into the lowlands (in the cold months) was linked to the pastoral cycle. Over the years, this pattern has become more closely linked to the agricultural cycle. Temporary migration back and forth, to cultivate valley, village, and upland fields, is quite common.

Taking up semi or even permanent residence in *chaan* homesteads was noticeable as far back as 30-40 years ago. It has increased in recent years, and now a large number of households only return to the village for 2-4 months in the year. Others continue to maintain homes in the village, but use them only for storage. *Chaans* are attractive for various seasons. The quality of life in villages has deteriorated, and proximity to forests and water resources facilitate certain basic subsistence activities. A more compelling reason, cited earlier, is that the conditions for agricultural work in these upland fields is often much easier. This pattern of permanent settlement is particularly evident in areas close to the road, where accessibility to transportation and markets, enables households to market their produce more directly, thus dispensing with the need for middlemen.[24]

The fragmentation of village communities, both literally, in terms of settlement dispersal, and figuratively, through the erosion of traditional collective institutions and values, has important implications for social organisation. The emergence of a more individualistic ethic began in the post-independence period, with the introduction of education on a mass scale, higher levels of male migration, and more employment opportunities. The village therefore, no longer serves as the focal point of interaction as it once used to, though, this is temporarily renewed during the winter months, when those who still maintain their village houses return for a few months. The emphasis on cash crops has placed great emphasis on money through increased opportunities for cash income. One comment, heard with unfailing regularity, by both women and men is the decline of unity amongst people. Today, "*alu muttar sub ko kha rahe hain*" and "*aaj kal sub paise ke peeche bhag rahe hain*" (literally meaning that people have been consumed by the desire to earn more money).