# PERCEPTION, APPROACHES AND PRACTICES OF LOCAL FARMING AND **DEVELOPMENT: AN ANTHROPOLOGICAL APPROACH**

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ABSTRACT:- The study focused on recognizing the local approaches of farming in designing and implementation of development projects. These approaches are representative of a particular ecological, social, economical, and political system, shaped by the constraints and opportunities associated to the area. Effective and successful development projects must include the local perceptions, their approaches and practices, as the locals are the ones most representative of their issues and have the most workable solution to them. The traditional agriculture has completely been clutched into the nexus of modern farming methods, due to which they are being abandoned by the farmers. Modern farming which is representative of development has increased the competition, transitioning, breaking the community into people experimenting on modern technology and those who are still finding means to adapt their traditional agriculture to the fast changing needs of the societies. The research was carried out in the villages of Ghora Gali and Aruka through qualitative and quantitative methods. Sustainable development in Pakistan thus needs to be reinvented in the local perspective considering approaches and practices and, eradicating the alien chains of development completely.

Key Words: Farming Practices; Agriculture Methods; Local Approaches; Indigenous Knowledge; Development; Traditional Method; Pakistan.

#### INTRODUCTION

Pakistan has always been under foreign policies, doctrines, and philosophies. Development projects focused only over economic growth and trickle down models, with local approaches, perceptions and practices treated as obsolete and valueless. The marginalization and denigration of indigenous knowledge has been and continues to be one of the major tools of colonization (Walker, 2004). It was observed that in spite of various development programs, funds and foreign aids, the people remained at the bottom. The ones who should have been the recipients of the development advantages were left impoverished. The traditional top-down approach of many developing and developed countries failed to reach and benefit the rural poor (FAO, 1991).

Agriculture has suffered much amongst the rest, as Chaudhry and Chaudhry (2012) critically states that the development in Pakistan is only,

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west-bound which is merely another face of neocolonialism and that the traditional agriculture is now most grievingly believed to be redundant and obsolete. Therefore the argument of the paper is that the western visions of development be replaced by the rich resource of local knowledge.

# **Local Approaches**

The word local in Longman dictionary (2010) contextualizes as relating to the particular area you live in, while Collins dictionary (2007) delineates it as locals are the people who live in a particular area. Approach is a way of thinking and dealing with a situation or a problem. Thus local approaches include the self developed practices and methods to handle and adapt with the social, economic and ecological conditions of the particular area they are related to.

The term local has been used synonymously as native and indigenous, Longman dictionary (2010), describes indigenous as people or things that always have been in the place where they are, rather than being brought there from somewhere else. Gilpin (1997) also supports the definition and defines it as native to a particular region or country; not introduced from outside. The local approaches are indigenous comprehensions that are shaped and evolve according to the socio-economic and ecological factors is further supported by Battiste and Henderson (2002), that indigenous knowledge is the expression of the vibrant relationship between the people, their ecosystems, and the other living beings and spirits that share their lands.

The term local knowledge cannot however, always be taken of indigenous knowledge as Ellen et al. (2000)

cites that local knowledge need not be identical with indigenous knowledge but rather entails a dialogue of indigenous knowledge interlocked with exogenous knowledge. It can be apprehended that local knowledge is inclusive of experiences gathered by constant trials and adaptations to the changing environment.

It entails not only the practical application but also the perceptions and understandings. The argument is strengthened by Geertz (1983), local not just as to place, time, class, and variety of issues. On the other hand to accentvernacular characterizations of what happens connected to vernacular imagings of what can. Thus the local adaptive strategies or local knowledge emerge, according to McKenzie and Morrissette (2003) by people's close relationship with the environment which are conditioned by the perceptions, world views and cognition that are developed by Hart (2010) as socialization and social interaction.

Internationally the importance of utilization of local and indigenous knowledge has increasingly been recognized to develop conservatory and development projects. Ellen et al. (2000) states that there has been a clear philosophical shift from implementing top-down management to community-based participation.

#### **Development**

It is patterns of change and progress in every human activity (Hulse, 2007; Chaudhry and Chaudhry, 2012). However, it was not until the late 1940s, (after the World War II) with the advent of international banks, development agencies and aid agencies that the concept of international development truly took hold. The agenda was to offer techni-

cal, social and economic assistance to poorer nations in Africa, Asia, Latin America and the Middle East (Hulse, 2007).

Development projects work to bring about changes in the technological sphere by initiating new innovations with institutions. Much research is done to study purely people and their degree of innovativeness and their role in the failure or success of a project. Conversely, this paper is directed towards the analyses of innovation itself and the differences that can make them more acceptable and successful in a given area. Sustainable development according to World Commission on Environment and Development (1987) is the kind of development that meets the needs of the present without compromising the ability of future generation to meet their own needs. It includes the provision of long term economic, social, and environmental benefits.

Development however sustainable or not if only focuses over the economic growth marginalizing the poor giving least heed to the social equality is unacceptable. McCann and McCloskey (2003) stated that societies which have developed materially, but have lost touch with the traditional spiritual or cultural values, have mal-developed. UNDP (1994) strengthens the argument by stating that sustainable human development should generate not only economic growth but distribute its benefits equitably and empower people rather than marginalizing them by allowing them participate in decisions affecting them.

Rising inequality, especially between groups can lead to social instability, undermining long-term human developing progress (UNDP, 2013). The unequal distribution of development project assets raises various conflicts, widening the gap between the rich and the poor, leading to a social unrest. Development constitutes from two main key components as technical and institutional (Dhesi and Singh, 2008). The technical change is induced by adapting to the social, economic and ecological changes to better evolve and improve the livelihood conditions. The institutions bring about this change by reducing uncertainty and risk by the provision of a framework for human interaction. Thus, lag between the two would thwart the development process. It is, therefore a policy imperative that these changes occur with minimum lag. Marshall and Jhon (2005) register cultural lag as a common phenomenon. It is when development of culture falls out of step with developments in technology, politics or economics. The recognition of participation of locals in development endeavor has long been recognized, but not practiced. During midseventies after the World Conference on Agrarian Reform and Rural Development (WCARRD) the idea of participatory development started. Van Heck (2003) recognizes development efforts cannot be successful without the active participation of the people, particularly small and landless farmers, fishermen and other rural poor.

The development efforts still follow the top to down approach compelling the people to flow with globalization, limiting and reforming their adaptability methods. Vernooy (2003) states globalization forces are imposing limits on the way people

shape and reshape socioeconomic, cultural, and political diversity leading to 'genetic erosion'. The foundation to transform the traditional agriculture into modern farming was laid down by the green revolution. According to Saeed (2007) include inputs like high yielding varieties (HYV), seed fertilizers, pesticides accompanied by agricultural mechanization mainly in terms of tube-wells and tractors.

There is no denial that the modern farming is more productive and rewarding however it must also be recognized that it benefitted only the rich, the 'bourgeois', the financially fit landlords, excluding the small scale farmers. The top-down approach hence does not identify the on-ground and local constraints and simply grades this non-adoption. Saeed, (2007) and Chaudhry and Ahmed (2012) called it 'conservatism' and 'laggardness'. This approach is criticized by Van Willigen (1993) as being socially uncontextualized with expensive inputs and complex agricultural innovation rejected by the farmers as it was largely unsuitable technology. Thus the small scale farmers with minimum resources and a web of constraints require a blend of farming technologies that are indicative of their local knowledge and easily adoptable. Indigenous knowledge and local practices have repeatedly been condemned and treated as a barrier to the development process. According to Barua and Wilson (2005) it is that indigenous knowledge that is neither static nor frozen. Chaudhry and Ahmed (2012) reported that agricultural development is only possible through allowing the modern and commercial agriculture which is not the fact.

The ILO Report (2003) on poverty comments that the world's poorest countries are those most dependent upon agriculture, with the least productive land, the seasonal nature of farming and the high risk of crop failures. It causes large fluctuations in the generally low incomes of rural populations particularly in areas with unreliable rainfall and poor soils. Moreover, IFAD (2001) comments that most of the poor are rural and will be so for several decades. The share of international aid and attention devoted to agriculture, rural development and the rural poor has been small and declining.

With rural poverty increasing and international aids supporting development projects that exclude local knowledge and practices the development scenario in Pakistan is agonizing. Chaudhry and Ahmed (2012) explained that agricultural development in Pakistan is the one-sided propaganda against traditional farming practices held by the farmers especially the small scale and subsistence level farmers.

Thus with the growing gap between the traditional and modern farming techniques there is an apparent unrest among the community members. The modern technology is in many ways unacceptable leading unrest among the small scale farmers. UNDP (2013) agrees that persistence of inequality often results in a lack of integrational social mobility which can also lead to social unrest. Chaudhry et al. (2011) further elaborated that the situation is more alarming as farming practices are neither fully traditional nor modern further leading to a social chaos. Thus the development model of Pakistan requires blending the local farmer's

perceptions, approaches and practices with the modern and present day's requirement.

#### **Theoretical Paradigms**

There is a close liaison between the natural environment and the socio-cultural system of a community. The environmental conditions and resource availability constitutes and shapes the survival strategies of the locales of a particular area. The 'cultural core' according to Steward cited by Scupin and DeCourse (2008) environmental influences (part of the cultural core) affect the cultural developments in a socio-cultural system. The local approaches of farming are thus the strategies that have been learned and naturally selected after continuous trials and experimentation. The local approaches are emblematic of local knowledge, inclusive of information regarding natural assets and environmental constraints. As Layton (1997) cites Steward that lateral transmission transpires and successful strategies will spread through a population which contribute to the individual's reproductive success. The effectiveness of a development project thus is contingent on the extent to which the local knowledge of a particular area was acknowledged and the degree of participation of the locales in developing and implementation of the change agenda.

Scupin and DeCourse (2008) cite Radcliffe-Brown, that different institutions of a society function to perpetuate the survival of the society as a whole to reduce hostility and uphold order. It was observed that the project initiated, introduced techniques for water management and modern farming that focused individ-

uals rather than the whole community. The community's natural assets were scarce. Water being the major commodity and a constraint led to conflicts and disputes. The project distributed assets (seeds, fertilizers, plastic water tanks, tunnels, sprinkle irrigation pipes, dug well, and ground water tank) fulfilled the needs of the individuals but not resolving the problems for the whole community. The community even though in the beginning did compete opportunistically to survive as individuals as to 'cost-benefit options' however, it had consequences over their social interactions (Harris, 1979).

Dependency theory and World-Systems theory revealed that through globalization and development goals the peripheral agricultural countries are involved in the global economy by transference of modern technology and increasing their dependence upon the core societies. The progress inevitably leads to the demise of the native, indigenous knowledge. Scupin and DeCourse (2008) cited indigenous peoples should be able to make free and informed choices regarding their destiny, instead of being assimilated (Hitchcock, 1988; 2004).

#### **MATERIALS AND METHOD**

The study was conducted in Ghora Gali, and Arukas. During April, 2014. Data was assembled through a detailed socio-economic census form and interview guides from 200 respondents.

#### **RESULTS AND DISCUSSION**

Data revealed that 35% respondents earned through wage labor, 16% were government employees

(drivers, lab attendants, peons), while 11.5% had self owned small scale business, 9.5% were living abroad (labor, drivers), and 21% of the respondents earned through other means i.e., retirement pensions, zakat, rented out houses and shops (Table 1). While only 2% of the respondents was purely agriculturists, and earned solely from their lands. The rest of the respondents even though did parti-cipate in farming but they did not make it their occupation or sole income outlet. The respondents when inquired regarding the basis for abandoning agriculture as the major income source, informed that since there were severe constraints with regard to natural resources (water, fertile land) and access to modern technology that will be culturally adaptable, the 'risk factor' in agriculture is too high while the productivity was insufficient to provide basic necessities of life. Alderman et al. (2001) also states that the rural poor commonly possess multiple sources of income from agriculture, rural nonfarm employment and transfer (private and public).

Table 1. Distribution of respondents by profession

Category	Frequ- ency	%
Wage Labor	70	35.0
Government Employee	32	16.0
Self Owned Business	23	11.5
Living abroad	19	9.5
Agriculturist	4	2.0
Drivers	10	5.0
Others	42	21.0
Total	200	100.0

The 69.0% of the respondents stated that no study was conducted to understand the indigenous techniques (Table 2) while 3.5% of the respondents held that they were inquired about the local knowledge; these were the few respondents that were directly approached by the project. About 27.5% of the population did not know about the project and thus did not respond. The local knowledge defines peoples cultural identities (ILO, 2003) which are often ignored and thus as Van Heck (2003) in FAO report recognized that without the participation of people the development efforts cannot be effective.

Further, strengthening the fact that the project followed completely top-down approach is the result that 96.5% of the respondents were not involved in the project design, while 3.5% stated that they were asked about the local practices but were not inquired about the local constraints, their environmental constraints and the local workable solutions to them. Thus as AWARD (2008) states that it can be assumed that if the local people were involved, the success rate of the projects would have been high.

The data revealed that 40.5% respondents stated that the project initiated the program to diffuse the modern farming techniques within the community, without recognizing the local practices while 11.0% believed that the local farming practices were asked from them, whereas 48.5 % of the respondents did not know about the project (Table 2).

The project does not focus on bringing about agricultural mechanization, giving least regard to the locally devised practices and knowledge. About 42.0% respondents who knew about the project stated that the techniques introduced were completely new, alien and not similar to the local practices. While, 10.5% of the respondents believed that even though the techniques were different but were not completely alien. The reason to their positive response was that these respondents were interacting closely with the project and were gaining material assets thus any negative response could cost them a strained relation with them. However 47.5% of the respondents were either entirely unaware about the project, or did not have clear view about the project techniques.

The 48% respondents revealed that the solutions given by the community were persistently rejected and that the techniques were not designed by identifying the local constraints which reasonably led to their rejection or only a partial

Table 2. Project based responses

Questions	Responses	%
Pilot study conducted	Yes	3.5
	No No	69.0
	Don't know	27.5
Local people involved in designing	∫ Yes	3.5
	<b>€</b> No	96.5
Local approaches identified	Yes	11.0
	No No	40.5
	Don't know	48.5
Project techniques reflected local practices	Yes	10.5
	No No	42.0
	Don't know	47.5
Tech reflected local constraints/local solutions	Yes	9.0
	No	48.0
	Don't know	43.0

adoption. While, 43.0% of the respondents were unaware about the project and only 9% agreed that project introduced techniques reflected the local constraints

The data shows that the suggestions of 18% of the respondents for making the farming and water management techniques more local were plainly rejected, (Table 3) while 82% of the respondents were oblivious that their suggestions were integral to the development process. The suggestions of the people of Ghora Gali, were relatively rejected more than Arukas. The suggestions included making of a water reservoir tank in front of the Chashma to reserve the excess water in the winters, instead of giving plastic water tanks. The most grieving part is that even though we cooperated with them to the extent that our assets allowed, we were not returned the favor and were simply announced as laggards who are too lazy to adopt the new technology.

UNDP (1994) states that development should give priority to the poor, enlarges their choices and opportunities. Mortifying the locals for their choices of adoption and adaptability practices must be brought to an end by involving them and integrating their knowledge into the projects and bringing effective change. Chaudhry and Chaudhry (2011) states that the fruits of modern technology cannot be denied but as already stated the rural people need to be involved in a locally evolved and integrated strategy for sustainable rural development.

The study summarizes that only 22.5% respondents both from Ghora Gali and Arukas actively participated in the project and adopted techniques while 74.0% respondents did not

participate or adopt any technology. Whereas 3.5% participants worked with the project and then left it. They openly disclosed that they stopped working with the project as they were not supportive, and were not catering their needs in terms of accepting their suggestions and providing assets.

# Local Approaches in Farming

The agricultural cropping seasons in Pakistan include the *rabi* and the *kharif*. The communities Ghora Gali and Arukas majorly cultivated wheat and maize crop in these seasons, respectively.

Ghora Gali was still more inclined towards the traditional agriculture. The new farming and water management techniques that had been introduced in the area, were tested and experimented upon, and were clearly rejected due to ecological and economic constraints. The modern farming techniques for the cultivation of wheat and maize, according to the community required excessive resource input; multiple times tilling, sowing of seed through drill machine, timely water and fertilizer application. With the land absolutely arid, and complete reliance only over rainfall, the unpredictability and the

Table 3. Percentage of local community on project approach

		Were your suggestions ever disregarded			
Locality	Yes	No, sugges- tions not taken/given	Total		
Ghora Gali	22	78	100		
Arukas	14	86	100		
Total	18	82	100		

risk factor increased due to which they prefer to cultivate in their traditional manner, tilling after the first rainfall through *bails* once, sowing the *pahari beej* through the *chata* method as it requires minimal water, fertilizers and time, use of manure or *khaad* as fertilizers, and crop protection from open grazing animals by putting thorny bushes around the cultivated land, with the output used only for domestic use.

The water management technigues introduced included the use of par nala and tankies for kitchen gardening, and dug wells (kauwan). The water management techniques even though were representative of the local approaches but not of the local constraints faced. The issue of water scarcity was of community level however, the techniques introduced were neither economical nor holistic. The unequal distribution of the assets, like tankies benefiting only a few households led to various interbarradari conflicts and it was continuously suggested that a large scale tank be made in front of the Chashma as during the winter seasons the water is abundant and is wasted. The construction of the tanks would have helped the community as a whole instead of make individual beneficiaries.

In Arukas the farming practices were in its transitory period, where the change inculcated seemed to take roots and those who's economic and ecological conditions allowed them to adopt the more mechanized techniques actively adopted them moving towards intensive agriculture. The cultivation of wheat and maize crops was done in semi-traditional way, which is different from the purely traditional methods, used 10 years

back, due to water unavailability. Those members of the community whose lands were closer to the kass made a canal system attaching the water outlet to their lands for irrigation and adopted modern farming techniques. However, as the lands grew further away from the kass the farming techniques changed and became more traditional. The projects facilitation and assistance in terms of machinery (tractors for tilling, seed drill machine for sowing, threshers for harvesting) and labor are the causes for adoption of modern techniques. This adoption was however unequal, as the assistance was not equally distributed.

The project in Arukas was completely controlled by a few stakeholders; the control was with few community members who further decided to whom the project assets will be allocated. Apart from wheat and maize cultivation, tunnel farming for growing off season vegetables like tomatoes, capsicum, carrots, radish etc., was also introduced. Traditionally the women of the area actively used to cultivate vegetables for domestic use within the house. The traditional still prevails. initiation of the project however anticipated in bringing a change in the participation and land use system. Few women started working on the major land holdings of their husbands and fathers by putting up tunnels. However, mostly the females still keep to their houses and the land use is decided by the males.

# Tillage

It is the process of preparation of agricultural land for cultivation of crops and plants and includes digging, stirring and breaking up the soil to loosen, aerate and destroy the weeds. The tilling methods observed included use of human-powered tools, animal-powered tools and more mechanized tools side by side.

The human-powered tools included the use of pail or hand-rake, which had a strong wooden bar handle with iron tines sharp enough to soften the soil. A gender analysis showed that families where the males do full time jobs and the females did the little farming that was possible by using pail for tilling taking help from their young sons too. The ploughing through bails was not possible due to non-availability of males, while tractors were either not economically feasible or there were ecological constraints like the land may be too hilly and far away from the road.

The animal-power tools included use of plough (hal) that was drawn by bail. The majority of the households still used their traditional tools as they were modified and shaped according to their specific ecology. The area mostly hilly and mountainous land which was stony, unequal, and with no decent passage ways or roads, adopting the more mechanized tractor machines seems impossible. Furthermore, not all the households owned a hal either. In Ghora Gali village mainly the *hal* was owned only by few people, who plough peoples land on rent @ Rs. 1200-1500 h<sup>-1</sup>. In Arukas village too, labor was hired to get the land ploughed at the same rate.

The more mechanized-tool for tilling included the tractors. Traditionally, the people of Ghora Gali do not use tractors due to unavailability of proper roads only a few houses that are closer to the main road can hire tractors whereas in Arukas however, relatively more people hired tractors, as they had better road system within the village.

During the primary tilling, the traditional agriculturist use manure (made from animal dung) hail, while the transitory one's use not only hail but also DAP (*kaali khaad*). It is spread over the field after the primary tilling followed by sowing.

## **Irrigation**

The artificial application of water source to the land for facilitating and assisting the growth of the agricultural crops or vegetation is an important aspect of irrigation. According to Brown (2007) irrigation is the supplementation of rainfall to grow crops. Contrarily the land that relies and pivots only around direct rainfall is referred to as dry land farming as in Ghora Gali which is rainfed (barani) area. During rabi wheat (kanak) in Ghora Gali is usually cultivated after the first few rainfalls, when the land is in perfect condition to be ploughed, in November, December. However, due to late rainfall the crops were cultivated in January, which were ready in June, July. During kharif, maize (*makki*) was cultivated in June, July and harvested in October. As observed water availability and rainfall schedule clearly shapes the local approaches of farming in Ghora Gali. With a minimum farming input, so that if the rainfalls are not timely and periodic the loss may not be too great. Thus, due to this risk factor the modern farming techniques which chiefly revolve around the timely availability of water were readily rejected. The argument is supported by the concept of relative advantage, which state that diffusion of innovation is an uncertainty-reduction process which is affected by the relative advantage of an innovation, as perceived by the members of the social system, is positively related to its rate of adoption.

Similarly in Arukas, during *rabi* wheat (*gandum*) is cultivated during November, December. And as rainfall was timely it was harvested in May. No rain or excess of it, both are issues that can make the crop cultivation late, the locals usually wait for the land to become water and then the land is tilled. Besides, the lands in Arukas have surface irrigation through the *kass* with the help of canal system that irrigates the land closer to it. This land mostly belongs to the Abassis which is the major dominant caste of the area.

## Sowing

In Ghora Gali and Arukas even after the introduction of the project, people did sowing (*beejae*) through their traditional method *chatta*. Wherein over the land after the primary tilling. It was followed by secondary tilling, with ploughs or tractors which spreads the seed all over the land, completing the sowing process.

The following are the attributes of the traditional sowing method; quantity of seed sowed is relatively more; use of local *pahari* disease and drought resistant seed, less time consuming; crop grows unequally in clusters as the seed is not equally spread; thus the yield is low and not comparable with any other parts of the land sowed.

The project introduced method of sowing includes sowing of seed given by the project with the help of seed drill machine, or manually in a straight row, keeping seed to seed distance of 10". This method is

characterized by: less quantity of seed used, which is genetically modified provided by the project, it is more time consuming as the method requires expensive machinery which is unavailable, and simultaneously unattainable, the yield however is relatively more (provided with timely water supply and fertilizers) as the seed is sown in a more organized manner utilizing the land efficiently. However efficient machinery which is too expensive to be owned and lack of time hindered the adoption of technology.

## **Crop Protection**

This process continues from tilling to harvesting. The crops need to be protected not only from crop diseases, but also from climatic changes, and free grazing animals too.

It was observed that wheat and maize in both Ghora Gali and Arukas were not much prone to disease attacks. The locals stated that the seeds were often exchanged among the community members on the basis of yield; high yielding and disease resistant seeds were bought from the member whose product was the best. Apart from exchanging, the seeds were usually bought from the closest Zarai office situated in Barakaho. The crops when 1" long were fertilized with urea. This shows how modern farming has seeped into the traditional agricultural practices. There are individuals who still only depend on animal manure (hail).

Various thorny bushes were gathered around the cultivated land to stop the animals from entering the field. Moreover, shifts for guarding the crops were decided on the basis of gender, females guarded the crops in the daylight, while the males gave

night duties. Even though the thorny bush walls were not always effective but it was what they could afford. The project did introduce the use of thorny steel wires, however it was costly thus not adopted.

## Harvesting

Harvesting *kattae* in Ghora Gali and Arukas is being celebrated since 15 years, Rainfall or a storm at the wrong time can ruin the whole crop; make it wet and prone to insect and fungus attack. The traditional method of harvesting included a combined effort of males, females and children. The *katae* is usually done by the females, but the males also used to invite their friends and neighbors to spend the night away from the heat of the day to interact and helped gather the crop. The crops were slashed with traditional tool, a daranti or pail, and piled up into stacks left to dry. If the crop is slashed too early the weight of the crop will decrease, if too ripe the seeds will fall off while slashing.

After cutting the crop, a large piece of land away from the field was leveled, then *lipae* was done (a combination of *mitti* and *bhoosa* used to cover the land). When it dried the grain was spread over the land on which the bails were moved helping separate the *danaa* and the *bhoosa*. This was then left for 4-5 days, waiting for wind to separate the two.

With the changing trends in agriculture and mechanization, decreased availability of time, and change in the occupations, the use of machinery has increased and the social cohesion and relations have weakened. The families now harvest only their own crops not taking help from anyone. After gathering the crops through the traditional meth-

od, the *anaaj* is separated with the help of a rented thresher. The thresher is brought when majority of the crops are ready, by the mutual consensus of the people, but all do not necessarily wait for each other. it takes Rs.2000 h<sup>-1</sup>. Though the modern technology is less time consuming but is more expensive and weaken the social relationships.

# Sales, Marketing or Domestic Consumption

The majority of the community members are small scale farmers, using traditional methods only to grow wheat and maize for subsistence use. The productivity even though has increased through mechanization still it is majorly used for domestic consumption. The crops are often not fully grown, instead were cut before time and used as fodder for the livestock.

It was also observed that there were community members who grew seasonal vegetables on a relatively larger scale, but were unable to enter the local market as the buyers and the local farmers could not negotiate the prices. The locals thus either sold the vegetables to the community members at very low prices or simply handed them out.

The study concluded that community's involvement in the project design was invisible; the local constraints and their solutions were neither considered nor included into the project design, thus, making the community a mere recipient in the development process. The stagnant alien development approach topped it off by purposeful annulment of community's suggestions, degrading the members by projecting them as worthless and indolent, viewing them

as a burden and hurdle to the development process. It was observed that the majority of the community still preferred to use their traditional heritage of local techniques of farming. The participants were mostly the big land owners, who were being benefitted by staff labor and assets, who openly accepted that with the project's help the techniques are inevitably unadoptable. The techniques were criticized to be too expensive, time consuming, resource dependent, and unparallel to the ecological, economic constraints they locally faced.

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