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## PERSPECTIVE OF AGRO-BASED INDUSTRY OF THARPARKAR

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### Abstract

This study is perspectives of agro-based industry of Tharparkar, and Third chapter of the thesis of Ph.D submitted in 2002. In this study perspectives of agro-based industry are discussed. Main topics of the study are: Crops, Non-crops, Livestock, Fishing, Poultry and Edible oil. Secondary data from different resources is collected to indicate the importance of agro-based industry. Purpose of the study was to give the complete picture of perspectives of the study for proper occlusions and recommendations for policy maker to get the Tharparkar better economically and socially. Study reveals that Thar depends on livestock and not crops. People of Thar are poor and they have strong attachment with in the crops. In spite of uncertainty of rain people like it and take risk. Dairy products are not so income generating due the fact that milk taken out butter is used for personal nutrition and somewhat for saleable, there is no market for sale in villages. However poultry farm system does not exist only few people rare it in informal way. From all these discussion it is clear that only livestock is main agro-based industry and source of income. However in future if developed may increase income and alleviate poverty.

Keywords: Agro-Based Industry; Livestock; Rangeland Plantation; Tharparkar; Perspectives  
JEL Classification: D13;D18;D24;D31;H51;H52;H53;I38;O47;P17;P21;P28

## CHAPTER-III

### AGRO-BASED INDUSTRY OF THARPARKAR

#### I. Agro-Based Industry

“Those industries are called Agro-based industries, which have a backward linkage with agriculture sector. The Agro-based industry includes rice and wheat milling, gur and sugar making, oil crushing, cotton ginning, hosiery, poultry, fish processing, dairy products etc. The Agro-based industries mentioned above are with in the range of ordinary investors. The technology and skill required for the development of this industry is not lacking. What needed is the creation of appropriate environments for the development of these industries in the rural areas. For suitable planning, the Agro-industries are divided in many major areas, which are as under:

- |             |              |                     |
|-------------|--------------|---------------------|
| 1. Crops    | 2. Non-crops | 3. Livestock        |
| 4. Fishing. | 5. Poultry   | 6. Edible oil.” (1) |

These are distributed for easy description as:

- |                   |                |              |
|-------------------|----------------|--------------|
| 1. Crops          | 2. Non-crops   | 3. Livestock |
| 4. Dairy products | 5. Edible oil. |              |

Description of all of these in details is as under:

#### A. Live Stock

##### 1. Domestic livestock farming

The main source of Tharies to make both ends meet is raring of livestock, that is why there is a saying that” Thar depends upon “ animals” not on “crops”. The livestock of Tharparkar consists of buffaloes, goats, sheep, and camels, horses, donkeys and poultry. Each of these is described in details in this chapter .In Tharparkar people keep the livestock additional to agriculture, for the purpose of commercial and nutritional. All Tharies who are living in villages have these as a nutritional and commercial purpose. And those who are living in towns have it for the purpose of nutrition, e.g. milk, butter ghee and yogurt. They think that they should have own milk ghee, butter and yogurt Thari like yogurt from which butter is extracted by old traditional methods. All Tharies use yogurt, which is less dense than which is use in cities. Tharies like yogurt at substitute of vegetables; they can pass the whole day with using yogurt without using vegetable.

1. Dogar Brothers, To Wards Pakistan Economy for banking and finance services commission and other competitive examinations. (S.M. Dogar, M.A & dia 1994,Zahid Bashir Printers Rasheed Road, Lahore) p.127.

In rural Tharparkar the standard of richness is having of livestock. "It was pointed out, more than once, that a poor man was one who owned no cattle or goat." (2)

Now we give the details of each livestock as under:

#### a). The Present Situation of livestock

As we have mentioned above that the kind of live stock which are at present in Thar are buffaloes, cows, goats sheep, camels, horses, donkeys and, poultry. Detailed description of each of as follows:

##### (1). Buffaloes

Buffaloes give more milk than all animals. They also like to bath and swim in water and water is not in abundant in Thar. They eat too much that is why the poor people can not have these because of much cost itself and much expenditure to fodder; so well to do people keep these livestock. The growth according to TRDP research is 312 % (Appendix-20). From census report 1986 given by SAZDA population was 0.19 millions (1,90,000) in all over Thar. According to 1996 national census report (0.039 millions) 39,842 buffaloes are in Thar. It shows decrease and growth rate is 20.96 % for ten years and per annum it is 2.01 %. It is concluded from above that growth rate according to TRDP research from 1989-92 in their project area is impossible by reproduction. Because annually they do not give kids, that is why this growth rate may be due to new purchase of Buffaloes from out of area. If any body or planner follow this then it will misguide and planner could not conclude the best suggestion for future, so, we think that all animals are decreasing due to drought so this also decreases because it eats too much, which is very difficult. As we know that it is expensive than others. Every body cannot have it due to high poverty ratio of Tharies.

##### (2). Cows

Cows are found in all over Thar. It is very difficult for cows to survive in Thar in drought conditions. The growth rate is 253 % in the project area of TRDP in the year 1989-1992. According to figures given by SAZDA in 1986 it was 0.55 million (Appendix-20). In census report of 1996 cows were 485,137 (0.48 million). It Shows decrease and its growth rate is 88.20 % for ten years and 8.82 % per annum. It shows that due to drought, it decrease and at this time in 2001 it is expected less than that as observed by different ways and by personal meetings with people. Cows give kids after one year, if conditions are favorable for fodder. They are difficult to keep for every villager due to expensive. They meet the nutritional needs of the family and only those who keep them in herds they can earn from it only.



2. Arif. Hassan, Dr. Fiona A. Hardy, Tharparkar rural Development Project (TRDP) Evaluation 1993 (Government of Sindh, United Nations Children's Fund (UNICEF) Save the Children Fund (SCF)-U.K, May 1993.P.16

*A Comparative Study of Agro-based Industry of Tharparkar with Canal Barrage Area Sindh (1988-2000), Suggested Techniques Leading to an Industrial Economy, PhD Theses, Department of Economics, University of Sindh, Jamshoro, April, 2002, Chapter-3* By: Gobind M. Herani

**LIVRSTOCK OF THAR**<http://www.Tharparkar.sdnpk.org/>**(3). Sheep**

Sheep is found in much quantity in Thar. In Thar only sheep is that livestock whose growth rate is highest to others. It is 317% for 1989-1992 (Appendix-20). According to the figures of SAZDA taken from census report 1986 sheep are 1.33 millions. According to census report 1996 total number of it is 89,8542 (0.898 millions). It shows decrease and growth is 67.56 % for ten years and 6.75 % per annum. After 1996 to 2001 also drought were affecting it and drought of 2000 and cyclone of May 2000 also decreased the number. And in Chachro taluka its ratio is highest It gives milk but in low quantity which is used for daily life use as other. It gives wool twice years, which gives support in income generating. Its meat is not so popular but it is sold with the same ratio as of goats.

**(4). Goats**

Goats are found all over Thar and 93 % people keep at least one goat. (See table-18 of primary data). They are cheap that is why every body keeps it easily and sale it at the time of emergency.

According to the figures of census 1986 given by SAZDA, total number of goats is 1.33 millions. According to TRDP its growth rate is 216 % for (1989-1992) three years and 72 per annum. According to census report of 1996 its number is 1970852 (1.97 millions). It shows increase and growth rate 148 % for ten years and 14.8 % per annum.

It gives kids twice a year if suitable fodder is available. Its wool is cut twice a year. It can survive in drought and meets the needs of nutrition. This is the reason that only milk giving animal goats has increased and all the others decreased.

**(5). Horses**

Horses are used for riding and some low quality is used in ploughing for the farmland. Every body cannot keep it because it too expensive by fodder. According to census report 1986 horses are 0.003 million and according to census report 1996, they are 8132 (0.008132 million). It shows increase and growth rate 271 % for ten year and 27.1 per cent per annum. According to TRDP's report growth rate increased and it is 256 % from 1989 to 1992 in three years, and calculated per annum is 85.3 %. From TRDP's growth it is clear that these growth are not from reproduction but they are imported from other areas. At the same time it shows that some people has increased their standard of living and use horses. Increase according to 1996 may be right and correct that it is from reproduction.

**(6). Donkeys**

Donkeys are cheaper as compared to all other animals. These are used like slaves and demand less fodder, because they eat what ever they find in home thrown things. According to TRDP's report its growth rate is 277 % for 1989 to 1992 in their project areas, calculated growth rate per annum is 92 %. According to census report 1986 its total number was 0.02 millions and according to census report 1996 its number was 150834 (0.15 millions). It has increased and growth rate is 751.7 % for ten years and 75.17 % per annum. The growth rate is acceptable because they give kids after one year. Its growth rate is more than all the others as shown in each heading. The reason of increase is only that they survive in drought needing less fodder. In drought people do not sell the donkeys, which support them in lots of labour works.

**(7). Camels**

According to TRDP's report in their project areas the growth rate is 177 % for three years. Calculated per annum is 59 %. According to census report 1986 the number of camels in whole Thar is 0.015 million and according to census report 1996 is 103057. Its growth rate is 687 % for ten years and 68.7 % per annum. These figures show that people of Thar like it and want to keep it with them in droughts too for the labour work. Kids are born after every three or four years so this growth rate is not from reproductions but they are imported from barrage areas. He camel is used in different works, ploughing, loading; pulling water etc, but is costly also; every body can not have it. She camel is cheaper in rearing. Fodder for it is easily available in Thar also in famine conditions.

Their milk is used in tea and drinking only for their owners. Mostly of the people do not like its milk. They generate income only by helping in work and giving their kids. Kids getting young are sold. Hair is also used in rugs and is thought good quality because of its softness.



CAMEL IN THAR

<http://www.tharparkar.sdnpk.org/>

## 2. Fish Farming

In Thar there is no water storage that is why it is not over there.

## 3. Poultry Farming

In Tharparkar there is no formal poultry farm and some people less than 1 % keep it informally at home.

## B. Dairy Products

Livestock is very important factor of Thar and an income-generating source for Tharies. Its importance is too much due to bones, wool, milk, butter ghee and meat etc. The livestock, which gives milk, butter and ghee, are buffaloes, cows, sheep and goats.

How much each of them gives productions, that is different for cows, buffaloes, sheep and goats and even for different species. At this time mostly milk is not sold in the villages .Due to lack of market they make yogurt butter and ghee and sale ghee at cheaper rates. There is no preserving system of these productions except ghee, which can remain as other oil, and vegetable ghee for some years.

Their production depends upon fodder crops and imported feed from barrage areas. From all of them the natural vegetation is better and if there is rain then natural vegetation is best for livestock as fodder, which is free of cost and it is also better for people of Thar too.

As the fodder of livestock is based upon agro-based. Therefore we should study agriculture, which is actual base of agro- based industry, without studying it, we cannot imagine above development of agrobased industry and agriculture. They are inter-related with each other.

## C. Crops (Un-Sustainable Source)

### 1. Agricultural Crops

It depends upon rains and therefore it is not a sustainable source of income. Tharies always wish for good monsoonal year but it comes mostly after 3-4 years. There are some fruits and vegetables, which are preserved at this time as a dry fruit and vegetable on traditional methods Tharies eat these dry fruits and vegetables up to two three years too. These do not spoil due to dryness. They are not sold in market. But villagers borrow from each other or exchange these in friendly. These fruits and vegetables are cultivated in the rainy season and if monsoonal season

is good then production is much; Other wise there is no production in drought like conditions. These vegetables and fruits are very important for Tharies and fulfill the requirements of daily food. Because of rains scarcity there is no green vegetables in farms so people collect these fruits, which are at the same time vegetable, preserve it in houses at small scale. This may be improved for commercial purpose e.g. chibhar, watermelon and guar phalli (Pod).

## 2. Crop Fruits and Vegetables

In the rainy season they are cultivated, the watermelon and chibhar are used as vegetables and fruit and. meho and gawar phalli (pod) are used as vegetables

### a). Water Melon

Watermelon is used as green vegetable when it is un-ripened and eaten all over the Thar. Its test is like turi and kadu (vegetable). It is also cut and dried for preservation of dry vegetable but in the low quantity because its ripened fruit is tastier as fruit.

### b). Melon

There are so many varieties of this, big size called chibhary are used for eating purpose when they are ripened. It is very soft and remains fresh for 2 to 4 days only after ripening. It is a fruit and people all over country like it, but these species are different from all over country's species and they are found in Thar mostly.

### c). Chibhar

It is cultivated and mostly it is uncultivated vegetable. It is also fruit as Tomato. It is put in all the vegetables and in curry too. Problems, importance and suggestions are same as melon, and it is a small variety of melon.

### d). (Hanzel/tooma/meho)

These are vegetables and much liked by all with interest. Surplus vegetable is cut into pieces and dried up by simple method and used during the whole year. It can be used with in two years, without any cold storage.

### e). Guar Phalli

It is a vegetable, which is common all over the country as a green vegetable. But in Thar it is also used as dry vegetable.

## D. Non-Crops

### 1. Non-Crops Vegetation

Those plant, which are not cultivated but naturally grown or produced are known as non-crops vegetation such as shrubs and trees, which partially depend upon rains but without rains they can live alive for few years til monsoonal rains comes after 3 -4 years or alternative year, giving productions regularly in its own seasons. Such types of plants are: kandi, Khabar, Capparis aphylla (kirur), Acacia Senegal (Kombhat), Gugrani etc. The example of gugrani is also in Blochistan, which give the production when plants receive cuts, as is the practice in Thar too. There are some other plants like ber called wild ber (*Zyzyphus Rotundifolia*), which are now grafted in Thar successfully.

Therefore it is necessary that the study of the following plants should be made. Fore example Kandi (propos ginerasia), *Salvadora oleoides* (*Salvadora oleoides* (Khabar), *Capparis aphylla* (kirur), *Acacia Senegal* (Kombhat), *gugrani*, *Leptadnia spartium* (khip) and ber, and so many other plants.

### 2. Non-Crops Fruits and Vegetables

Fruits in Thar are limited. Some of them are naturally grown in jungle in shrubs and trees. They are not looked after well. Such as singri/ kandi pod (proposginerasia), *Salvadora oleioides* (pilo), and *Capparis aphylla* (kirur).

**a). Kandi/Khejdi pod (propos ginerasia)**

Singri is fruit as well as vegetable. In tree of Kandi (propos ginerasia) singri is produced and when it is un-ripened, it is used as vegetables and in the some condition it is boiled and dried at home by simple method and preserved for one or two years as dry vegetable.

When it is ripened then it is used for eating purpose as a fruit. It can remain fresh for two or three days after that cold storage is required. Ripened singri is called Khokha. Khokha is dried up by simple method and can be used for eating. It is grinded and flour is mixed with wheat flour when its Paratha (bread) is very delicious. These are good fodder for livestock.

**b). Salvadora oleioides (pilo)**

OLD TREE

<http://www.tharparkar.sdnpk.or/>

It is a fruit of Khabar tree, which is spread all over Thar. It is not cultivated fruit. There is no ban on collecting of this fruit from private land and government land. This is a fruit like grapes. If its crops are good then it is indication for good rain. People eat this fruit with interest and it is good for health. Livestock also eat this and get fat.

**c). Capparis aphylla (kirur)**

It is a shrub of Thar and is wild plant. It is fodder of livestock like: camels, goats and sheep etc. It is also used as medicinal purpose in Paralysis. Its fruit is also called Kirur. It is used in vegetable, Achars or Mitchell's products, which is very popular in the towns/ cities in the urban market.

**E. Edible Oil**

There are plants out of these some are crops and others are non-crops. These are used in oil manufacturing in very small quantity. Twenty to thirty years before it was very much developed but now it is decreasing. Previously til oil was being crushed and extracted from seeds. From *Salvadora oleioides* (pilo) seed oil is extracted only for medical purpose. At the same time *Salvadora oleioides* (pilo) is also used as fodder for livestock, that is why it is not used in oil crushing. Till seed depends upon rain therefore, it is not confirmed sources of manufacturing because of no production in famine conditions.

**F. Mills**

1. **Cotton Ginning:** Not available.

2. **Gur making:** Not available.
3. **Sugar Mills:** Not available.
4. **Rice Milling:** Not available.
5. **Flour Millings**

There are few flourmills in some villages, which are not enough for the area. Mills invest so much and output in villages as compared to the investment is low. Because of in rural areas people mostly grind flour in homes by chaki (Stone).

## II. Government Funding Pattern for Agriculture (For Tharparkar)

Government gives loans to landlords and farmers for the purpose of increase in production. As we know our government has limited sources of income and it is developing country. But whatever sources it has got, it allocates estimated budget for the purpose. The bureaucrats, at their discretion, distribute this allocated budget.

In Tharparkar ADBP gives loans to landlords, who got their own farmland. Therefore landless farmers do not get benefit from it. The bureaucrats distribute this amount among landlords for political pursuits or on their own discretionary powers. Whatever may be the situation, it depends on type of government. Actually this amount should go to proper hands, but mostly it goes to improper hands and they benefit out of it, though, they are already rich. Whatever may be the policy of government, still that is not successful in overcoming this problem. Another problem is that people do not do the same jobs, which are mentioned, for the purpose of receiving loans. In spite of that people at least get rid off, from the loans of moneylenders, whom they pay high rate of interest.

## III. Conclusion

From this chapter it is concluded that Thar depends on livestock and not crops, which is also one of popular sayings in Thar too. People of Thar are poor and they have strong attachment with in the crops. In spite of uncertainty of rain people like it and take risk. Dairy products are not so income generating due the fact that milk taken out butter is used for personal nutrition and somewhat for saleable, there is no market for sale in villages. However poultry farm system does not exist only few people rare it in informal way.

From all these discussion it is clear that only livestock is main agrobased industry and source of income. However in future if developed may increase income and alleviate poverty. Other item is non-crop, which will prove better for livestock feed stock. Non-crop includes melon, watermelon vegetables and medicinal herbs. And main thing is that they are permanent stocks of fodder for livestock.

If crops are decreased and farmland is fenced then all the natural vegetation inside the farmland will be saved. It will remain protected and when there is scarcity of fodder it should be utilized. In this way only livestock and non-crops manufacturing will increase. After some time this natural vegetation will increase and shrubs and trees will also increase proving confirmed source of fodder for livestock, which increase rapidly.

The census of 1996 shows that:

- (i). Only goats, donkeys, camels and somewhat horses stocks have increased
- (ii). There is decrease in buffaloes cows and sheep.

Due to drought conditions, goats, donkeys and camels can survive in Thar easily, even in drought situation but needing little fodder at home. Horse needs much fodder only rich people can afford it. It is a luxury livestock and is used for riding.

Overall we conclude that 24 % rangeland of Tharparkar can give too much support to increase in the livestock. In future only livestock conserved, natural vegetation and plantation of indigenous and exotic plants can lead Thar into an industrial economy.

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