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## IMPORTANCE OF AGRO BASED INDUSTRY OF THARPARKAR AND BARRAGE AREA OF SINDH

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## Abstract

This study is about importance of agro-based industry of Tharparkar and barrage area of Sindh, and sixth chapter of the thesis of Ph.D submitted in 2002. In this study importance of agro-based industry is discussed with reference of main topics of the study: Crops, Non-crops, and Livestock in detail. 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 importance of the study so that valuable findings be drawn and recommendations for policy maker to get the Tharparkar and barrage area of Sindh to be better economically and socially. It is concluded that the scope of agro-based industry is too high, because of the fact that our country depends on agriculture. All branches of agro based industry are very important because they increase industrial products, provide employment, earn foreign exchange, increase income level and also provide employment to women and provide base for development for backward areas. At the same time reduces pressure of population and migration, distributes the Wealth properly and can be established with small capital. For this little imported inputs are required and no foreign investments or sophisticated technology is needed.

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

## CHAPTER-VI

## IMPORTANCE

**I. Barrage Area of Sindh****A. Crops****1. Agricultural Crops**

A crop growing is an agricultural activity. With this activity farmers utilize the land with the help of Riverine water or rainwater, to produce the crops for the sustainability of people and livestock. All types of vegetation called producers they produce the food for human being and livestock. Human beings and livestock are called consumers. If there is no producer (Plants) then survival of the consumers (animals and human beings) is not possible. These producers (plants) are also utilized in different forms, for example furniture, fuel, fruits, vegetables, crops and so many others etc. without the crops it is impossible to survive in this world for human beings and livestock, which are herbivores and omnivores.

**2. Fruits and vegetables**

Fruits and vegetables are reliable source of income generating. The fruits and vegetables fulfill the needs of local people and inhabitants of cities and they are also exported. Mangoes of Sindh are too popular in foreign countries it is a source of foreign exchange earning.

**B. Livestock****1. Domestic Livestock Farming**

Livestock is number two sustainable source of income generating. From live stock human beings get lot of things for their survival For example; we get milk, butter, ghee meat, wool, furs, and bones from livestock. Milk, butter, ghee and meat are required for the edible purpose. Furs, wool and bones are useful in preparing different things, which are used by human being for the comfort.

Human beings are also secondary consumers to the livestock. Livestock products make, human beings survive and keep them happy and healthy. From it is clear that for the survival of human beings and carnivores animals these are necessary and without livestock the life of human beings is uncompleted. As we know the milk is essential for the human beings, which contain lot of things, which are essential for the balance food. From all of these things we come to know that livestock is very important for human beings.

**a). Types of Animals**

Types of animals reared are as under:

**(1). Buffalos**

Buffalos are very expensive animals but they give more milk, which is also a source of regular income for farmers. The need of milk in cities is being fulfilled by this source. In villages, towns and cities, dairy farms are available to fulfill the needs of people of cities, towns and big villages even for those who do not have their own animals in villages. In every house milk-tea is liked very much and served in parties. Surplus milk is packed and preserved sent to cities for sale. Their young buffalos are sold at good prices. But only rich people can have buffalos.

**(2). Cows**

After buffalos, in every respect the cows are second as milk giving and also expensive animals. Cows also give milk and meat. Their butter and ghee are important for human being. The dairy farms for cows-milk are less than buffalos.

**(3). Goats**

Goats give milk less than the cows. In any case in villagers like to keep one to four goats, to meet the needs of milk for their family. Those who are poor and cannot afford to buy the milk from the open market and cannot keep cows and buffalos; they keep the goats. Goats are cheaper and easier to buy and, their care is easy can be sold at the time of need or in emergency. The number of goats is more than other livestock, because Sindhi farmers are poor, so they keep goats and are not able to keep the cows and buffalos. They give birth twice a year, so growth rate is more than other animals with less care and fodder.

**(4). Sheep**

Sheep is more important livestock. It gives milk and fulfills the required need of poor families. It is more productive than goats because its wool is costly and it gives the wool twice a year. It also gives birth twice a year. It is also easy to sell and buy. It needs less fodder and care as compared of other animals. Its growth rate is the highest.

**(5). Camels**

These are the important animals. Its male is used mostly in towns and cities for the purpose of camel carts. They pull heavy load on the road by carts. It is also costly and poor farmer cannot afford to have it easily. If not utilized for the income purposes then it is expensive as they need more fodder as compared to other animals. Its female, are also used for same work, but mostly rich farmers keep them for income generating purpose i.e. for breeding. They do not sell she-camel and keep them for the breeding purpose. It also gives milk but the milk cannot be sold in the open market and farmers use it for their personal use and for her kids. Its milk is not the source of income.

There was a newspaper's report that, in India camel's milk is used for the treatment of T.B and problems of lungs. Camel is known as the ship of desert. In barrage area it is also used for the purpose of pulling water and sending it to the small watercourse for irrigation purpose using traditional methods. If level of farmland is higher than the level of watercourse, then above method is used to fulfill the need of water.

**(6). Horses**

Horse is an animal, which is traditionally kept only by big landlords for racing and riding purpose. Medium and low quality species are used in horse-carts in cities as well as villages. These species are kept for the purpose of income generating. Fine quality horses are used for polo games, riding and racing. Therefore, such horses are too expensive.

**(7). Donkeys**

Donkeys are cheapest animals than all the others animals. They are used for donkey cart in villages, towns as well as cities. They are facilitators for the poor who do labour with the donkey carts. Donkeys are used everywhere in the cities, towns and villages and on farms for transportation goods. This animal is cheaper and easy to look after and needs low fodder.

**2. Fish Farming**

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It is a reliable source of income and it completes our food requirements. The fish, which is found in fresh water is too tasty and is liked in cities and available at favorable rates. Fish oil is extracted from fish and used as medicine.

### 3. Poultry Farming

This sector is main source of income generating. It is needed all over the country and world wide for the purpose of food. It is now progressing due to reduced tax facility allowed by the government.

### C. Dairy Products

It is also a sustainable source of income generating. As we know that livestock contributes 34 percent of the value produced by agriculture sector. (1) Principal products are milk, beef, mutton, poultry furs, bones and wool. All these things are very important for the human beings. Mostly children need milk and every person likes to have milk-tea. Yogurt, curd, butter, ghee and sweets are the products of milk and essential for human food.

From the medical point of view these milk products are also necessary in food. Furs are used by footwear and leather industries. Jackets, bags, belts, suitcases etc. are used in the country and surplus is exported to earn foreign exchange. Wool of the livestock especially of sheep and goats is used to make different products for example, blankets, shawls, sweaters (for the winter use), carpets, rugs and thread for embroidery. Bones of animals, are also used for manufacturing things; such as bones of camels are now used for ivory items as a substitute of elephants bones and some bones are used for animal-feed too. They are also used in furniture and other showpieces for the purpose of decoration.

### D. Non-Crops

#### 1. Non-Crops Vegetation

All trees shrubs and herbs, which are not cultivated in the rangeland and farmlands, and grown naturally, are non-crops. From these we get, timber, fuel wood, gum, fruits and so many other things. These are also helpful in some medicines of allopathic as well as herbs for traditional home cure purposes. This vegetation is main source of fodder for livestock as meadows. They save the soil from erosion and destruction. They are helpful to keep the atmosphere clean in decreasing pollution of air and soil.

Natural vegetation is very important to livestock as a cheap and natural process of fodder.

Followings are the benefits of trees and natural vegetation:

- a). Trees improve environment by supplying fresh oxygen.
- b). Trees keep air clean.
- c). Trees give the shade.
- d). Trees give the timber and fuel.
- e). Trees give the fruits.
- f). Trees give us flowers and help in aromatherapy
- g). Trees give the shelter from scorching.
- h). Trees save soil from erosion
- i). Trees fertilize the soil
- j). Trees present us the nice smell
- k). Trees give us gum, honey.
- m). Trees give food for human beings
- n). Trees give the comfort to birds and animals.
- o). Trees supply fodder for animals.
- p) Each and every part of trees and natural vegetation is beneficial.

#### 2. Non-Crops Fruits and Vegetables

There is no non-crops' fruit and vegetable in the region. Therefore it is not a reliable source of income.

### E. Edible Oil

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1. [http://dosfan.lib.uic.edu/ERC/economics/commercial\\_guides/Pakistan.html](http://dosfan.lib.uic.edu/ERC/economics/commercial_guides/Pakistan.html) (Livestock contribute 34%)

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This is the product of agriculture. The oil is extracted from seeds and used for different purposes. It is used for preparation of ghee and oil for eating. The oil is necessary for different therapy process. It is used for massage therapy too. It is important factor of our balance food.

## **F. Mills**

Mills are available in barrage area of Sindh such as cotton ginning, sugar mills, rice mills, flourmills, local gur making, textiles and so many others. Mills are labour incentive and local raw material is produced in good quantity and helps the economy of Pakistan.

## **II. Tharparkar**

### **A. Crops**

#### **1. Agricultural Crops**

It is very much important for Thar as it is in barrage areas. But from the income generating purpose, it is less sustainable in Thar because of scarcity of water and rainfall. Some fruits, which are important, are given as under: -

#### **2. Crops Fruits and vegetables**

##### **a). Water Melon**

This fruit is eaten much with interest.

- (1). It fulfills the requirement of fruit for decreasing thirst for water.
- (2). It supplied glucose, which is energetic.
- (3). It cleans the kidney and Urine.
- (4). Seed after salting and backing is eaten by Tharies and it can also be marketed, for income generating purpose.
- (5). But no struggle is made for its sale in cities.
- (6). Flour of seeds is used in paratha (bread), rice and kheer (sweet dish), which are too delicious used only in local people.
- (7). Its seed can be marketed in cities.

##### **b). Melon**

- (1). It fulfills the requirement of fruit and at the same time dry vegetables for whole year.
- (2). In villages the green vegetables are not available and this is good vegetable.
- (3). It is sold in cities only in some friendly families.
- (4). It saves the money reducing the demands for green vegetables.

##### **c). Guar Phalli**

- (1). It is vegetable, which is delicious and easily available.
- (2). It saves the farmers' money for purchase of other vegetable.
- (3). Dry vegetables can be used during year.

### **B. Livestock**

#### **1. Domestic Livestock Farming**

Its use and benefits are same as in the barrage area. They are sustainable source of income generation. As an income generating, they are on the top. They give milk, butter & ghee. They fulfill the nutritional need of family. Tharies like yogurt and have meal with it. Without yogurt they think inferior to other families who are having it. They think to have milk of their own livestock, the great blessing of God

##### **a). Types of Animals**

Types of animals reared are as under:

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**(1). Buffalos**

Buffalos are very expensive animals but they give more milk, which is also may be a source of regular income for farmers. The need of milk in cities is being fulfilled by this source. In villages, towns and cities of Thar, dairy farms are not available to fulfill the needs of people of cities, towns and big villages even for those who do not have their own animals in villages. In every house milk-tea is liked very much and served in parties. Their young buffalos are soled at good prices. But only rich people can have buffalos.

**(2). Cows**

After buffalos, in every respect the cows are second as milk giving and also expensive animals. Cows also give milk and meat. Their butter and ghee are important for human being. The local and traditional dairy farms for cows-milk are more than buffalos.

**(3). Goats**

Goats give milk less than the cows. In any case in villagers like to keep one to four goats, to meet the needs of milk for their family. Those who are poor and cannot afford to buy the milk from the open market and cannot keep cows and buffalos; they keep the goats. Goats are cheaper and easier to buy and, their care is easy can be sold at the time of need or in emergency. The number of goats is more than other livestock, because Thari farmers are poor, so they keep goats and are not able to keep the cows and buffalos. They give birth twice a year, so growth rate is more than other animals with less care and fodder.

**(4). Sheep**

Sheep is more important than other livestock. It gives little milk and fulfills the required need of poor families. It is more productive than goats because its wool is costly and it gives the wool twice a year. It also gives birth twice a year. It is also easy to sell and buy. It needs less fodder and care as compared of other animals. Its growth rate is the highest.

**(5). Camels**

It is known as a ship of desert. These are the important animals. They are used for ploughing, pulling water from the wells, riding and for transportation. It is also costly and poor farmer cannot afford to have it easily. If not utilized for the income purposes then it is expensive as they need more fodder as compared to other animals. It's female, are also used for same work, but mostly rich farmers keep them for income generating purpose i.e. for breeding. They do not sell she-camel and keep them for the breeding purpose. It also gives milk but the milk cannot be sold in the open market and farmers use it for their personal use and for her kids. Its milk is not the source of income.

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Medium and low quality species are used in ploughing in villages. These species are kept for the purpose of income generating. Fine quality horses are used for polo games, riding and racing. Therefore, such horses are too expensive.

**(7). Donkeys**

Donkeys are cheapest animals than all others. They are used for transportation, ploughing in farms and pulling water from wells. This animal is cheaper and easy to look after and needs low fodder.

**2. Fish Farming**

This is not in Thar, because, there is no water in Thar.

**3. Poultry Farming**

In Thar poultry is needed for food but it is not in Thar as a formal, but in houses, one percent families

rear them.

### C. Dairy

It is not so much beneficial for the purpose of income generation but it is more important than barrage area because of less availability of vegetables in Thar. There is no market of milk in villages at all. In some villages there is one small markets of it, and in 3-4 villages milk is collected and is sent to Karachi during the year 2000.

### D. Crops

#### 1. Non-Crops Vegetation

They are more important than barrage area, in the sense that they are meadows for livestock in Thar and there is no ownership of it. They may be more sustainable in future if vegetation is saved properly and planted in proper way. There are some fruits, which are described as under, except that some other fruits are also available but in less quantity like pipoon and Kundheer (It is used in making qushta of Mercury and Hakeem search for it).

#### 2. Non-Crops Fruits and vegetables

##### a). Khejdi pod (propos ginerasia)

Importance is as under:

- (1). They fulfill the requirement of human as a green vegetable and to some extent as a fruit.
- (2). They fulfill the requirement of livestock as a good fodder (camels, goats, and sheep etc).
- (3). They are income-generating source for labour.
- (4). Flowers of Khejdi (propos ginerasia) are useful for male and female people as medicinal add.
- (5). They increase employment.

##### b). Salvadora oleioides (pilo)

Importance is as under:

- (1). This is a fruit of Thar like grapes.
- (2). It cleans the abdomen through limited motions.
- (3). Its seed is oily and gives much energy to live stock.
- (4). Goats and Sheep become pregnant after having these and get healthy.
- (5). Its season results in increase of livestock Population.
- (6). Its trees are fodders for livestock like camel.

##### c). Capparis aphylla (kirur)

Importance is as under:

- (1). They are income generating.
- (2). They increase employment for labour.
- (3). They give wood for fuel and other useful purpose.
- (4). Its wood is also used in medical purpose.
- (5). It is also used in vegetable and fruits.
- (6). Its flower is used in Curry and vegetable and is very tasty.
- (7). Kirur is used in Mitchell's, pickups and sold commercially in the urban market fruits.

### E. Edible Oils

Presently, here is not such activity. However there are some seeds like, till, Pilo, Seed, Seed of tooh, and Seeds of watermelon, from which oil may be extracted, if proper planning is made for it.

### F. Mills

There is no mill in Thar except small flourmills. They are serving to Tharies women who were

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grinding flour by olden traditional stone-made chaki. Due to this the health of women gets better.

### **III. Scope of This Study**

The Agro-based industry, as a sub-sector, plays an important role in the economy of any country. It is indeed a significant source of household goods and other basic things required in our daily life. It also provides an ever-increasing number of jobs in both, rural and urban, areas of the country. Planners and Policy makers faced difficulties due to lack of accurate data for this sector of the country.

In order to fill this gap an evaluation was conducted from the grass root level. Typical villages have been selected to collect related data to get complete information about the study. This type of data and comparative study on an Agro-based industry of Tharparkar, are first ever in its nature.

The data on agro-based industry provides information about basic sources, manpower skills, estimation and forecasting of income generating sources and needs for additional steps to be taken. It also provides detailed suggestions to assist the Planners, Policy makers, investors, traders and businessmen, as well as NGOs and Government personnel concerned with microeconomics, community development projects and other income generating sources in Tharparkar District and in Barrage area of Sindh.

Data on sex, age and marital status services are the basis for estimation and forecasting of population growth, to calculate various demographic indices as a guide of public health and social welfare Programmes.

Literacy and educational data provides a basic inventory of manpower skills and needs for additional education and training.

The data when compared with other data on economic characteristics, it provides insight into the factors and processes of social, economic and demographic changes. These changes are very important for the formulation of policy/planning and administration of Programmes for economic and social development.

There is a shortage of capital and technical skill in Tharparkar. It is not possible, on the one hand, to establish the heavy industries but on the other hand, it is very easy to transform the population to increase the number of agro-based industries. The examples of Denmark and Scandinavian are before us. They developed their agro-based industries, which gave birth to country with an industrial economy

### **IV. Specific Importance**

#### **1. Increase in Industrial Products**

It supplies raw material for agro-based industry the agro-based industry, which are: Crops, Non-crops, livestock, poultry farming, fish farming, edible oils

#### **2. Increase in Employment**

The rate of unemployment is increasing day by day. To control unemployment, it is necessary that, we should increase agrobased industry, because this is labor incentive. Farmers can also easily work and increase their income more and more if they are encouraged adopting different ways.

#### **3. Increase in Foreign Exchange Earnings**

Various kinds of commodities like guar, cotton, fruits, rice, and other crops and carpets are sold in international market. We earn some foreign exchange by exporting these goods.

#### **4. Provide Employments to Women**

Women of Thar are engaged in agro-based industry. This is the only work in which woman can perform her duty separately from man. The share of women is noteworthy in agro-based industry. We should improve and increase the agro-based industry to make the female sectors a real asset of the nation.

#### **5. Increase in Income**

Production of goods in agro-based industry increases the income of the people. The rise in income improves the standard of living

#### **6. Cheaper Production**

Agro-based industry is labor incentive. While labor is cheaper in the area, so, the production of Thar

agro-based industry at the season is cheaper. Due to low prices people purchase more and more and market expands.

### **7. Proper Distribution of Wealth**

The agro-based industry increases the income of the area and eliminates the difference between rich and poor.

### **8. Establishment with Small Capital**

Farmers can establish the agro-based industry with small capital. Farmers are mostly poor, so they can start it better with small capital.

### **9. Development of Backward Area**

We can develop the backward area by establishing agro-based industry. It will remove poverty from area.

### **10. Reduction of Population Pressure**

The development of agro-based industry reduces the pressure of population on income generating sources and increases the income of the people of the area.

### **11. Reduction in Migration**

The employed labor force is migrating to the other parts of the country, especially to cities of province of Sindh in search of labor.

## **V. Conclusion**

It is concluded that the scope of agro-based industry is too high, because of the fact that our country depends on agriculture. All branches of agro based industry are very important because they increase industrial products, provide employment, earn foreign exchange, increase income level and also provide employment to women and provide base for development for backward areas. At the same time reduces pressure of population and migration, distributes the Wealth properly and can be established with small capital. For this little imported inputs are required and no foreign investments or sophisticated technology is needed.

All the branches of agro-based industry are essential to the human being. Crops provide diet; non-crops also provide diet, and crops and non-crops both are called producers and balance the oxygen cycle on the earth. All these vegetation provide fodder to livestock, timber, fuel and lots of these are utilized for the medicine for human beings and livestock. All the livestock serve human beings by different ways supplying meat, milk, wool, furs, fats, blood and bones. All crops, non-crops and livestock are basic needs of human being. Without these things to survive is impossible any where in any case. At the same time each of them is essential for economical change. They are key for the development for Pakistan at this time. If household possesses physical assets (land and livestock) then the incident of poverty falls by as much as 55 percent.

## **References**

1. [http://dosfan.lib.uic.edu/ERC/economics/commercial\\_guides/Pakistan.html](http://dosfan.lib.uic.edu/ERC/economics/commercial_guides/Pakistan.html) (Livestock contribute 34%)