

HORTICULTURE ECONOMY OF ZANDRA, A VILLAGE IN BALOCHISTAN

(World System Analysis at Micro Level in Anthropological Perspective)

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ABSTRACT

This paper deals with research findings regarding horticulture, a major sources of income in the Village Zandra, District Ziarat in the province of Balochistan. Initially the natives were earning their livelihood through horticulture only. The main contribution was coming through apple production. The process of tree plantation and the people involved in horticulture economy have been discussed in this article. During the last 3 decades few changes have been witnessed. Shift from subsistence to market economy has increased the lust for money due to which the natives have started opting for secondary sources of income. In horticulture they have started using technology, pesticides and chemical fertilizers to maximize their production and profit.

They are also switching over to the cultivation of profitable types of apple. The impact of these changes has been analyzed in light of world system theory at micro level. The data presented in this paper has been collected by using qualitative anthropological research techniques.

KEYWORDS: Core, Periphery, Semi-Periphery, Capitalist Economies, Labour, Exploitation

INTRODUCTION

In Zandra, the practice of cultivating apple was started by late Haji Payo Khan about 90 years ago. At that time nobody was aware of or even had an idea of what Payo Khan conceived. He inspired the idea of growing apple orchards when he visited Punjab and got impressed by the lush green fields. He wished to turn the barren land of his area into such green fields. He worked day and night, cleared stones from the land, spread new soil over it and successfully planted apple trees. In this way, he made a model orchard, which eventually proved to be fruitful. Hence, the lives of the villagers changed by following his practices in the field in the years to come.

Payo Khan, thus, not only turned the barren land into lush green orchards but also changed the fortune of the people of the village, who were initially semi-nomads. After this unprecedented work by Haji Payo Khan, they settled down permanently. In the past, the Pashtuns of this area were pastoral and used to grow few crops for their subsistence. Haji Payo Khan was the first educated person of Zandra. He was awarded with Sitara-e-Khidmat (award from Government of Pakistan) in horticulture for his revolutionary work.

He was 45 when he made the first model orchard. He died in 1970 at an age of 100 years. He had three wives and his descendants are still living there and benefiting from his work. Haji Payo Khan, the founder of apple economy became mentally retarded in the last days of his life and is still known as "the mad-man of Zandra" and the village is known as "village of mad man".

LOCALE OF STUDY

The present research was conducted in Village Zandra, District Ziarat, in Baluchistan, Pakistan. Zandra Village is situated 108 km southeast of Quetta just 12 km short of Ziarat town. The village is 8,000 ft. above sea level and is surrounded by grey hills, apple orchards and Juniper forest, which is considered to be the 2nd largest in the world. Thus, the area is greener than other areas of the province. Area wise Baluchistan is the largest province of Pakistan. It shares its northern border with Afghanistan with major cities of Chagai, Quetta and Zhob. The western border is shared with Iran via districts Makran and Khara. The eastern end is bounded by the Sind province, whereas the Arabian Sea lies on its south.

RESEARCH METHODOLOGY

Qualitative anthropological research methods which include socio-economic survey, participant observation, key informant interviews and in-depth interviews were used to collect empirical data. Stratified random sampling based upon social classes was used for selecting 100 households. This research was a longitudinal study. First of all a 4 months visit was conducted in 1987, then a couple of month long visits in 1990s and finally in 2007.

THEORITICAL FRAMEWORK

This research has been embedded in the theoretical discourse of world system theory. World Systems Theory is a multidisciplinary approach, which studies the world history and social change at macro-level. This theory is also known as the world systems analysis. This theory treats the world systems as the basic unit of social analysis and by world system it means the division of labour at international level. The world system approach was developed by Immanuel Wallerstein in 1970s and 1980s. His three volume work "The modern world system" (1974, 1980, 1989), Historical Capitalism (1996), "The end of the world as we know it (1999) and number of essays (i.e. 1974, 1979, 1983, 1991, 1991(b), 1995, 1997, 2000, 2003, 2004 and 2004(b)) were the major contribution in developing the theory. The other contributors of world system theory are Samir Amin (1970, 1973), Cardoso and Falleto (1969), Santos (1970a, 1970b), Rodney (1974), and Andre Gunder Frank (1969).

According to Wallerstein the capitalist world economy is a dynamic system which keeps on changing with the passage of time. However, some of the basic features remain constant. When we look into these changes the core countries are clearly the most benefited from this arrangement. They earn very high profits from international trade. They exchange manufactured products for raw materials mainly from peripheral countries and to some extent from the semi-peripheral countries. The core countries are becoming richer and richer at the cost of the peripheral economies. It does not mean that every citizen of the periphery is becoming poorer and everybody in the core countries is becoming richer as a result. The landlords in the periphery often become richer at the expense of their underpaid labour, as they can exploit them and can use their surplus manpower in their interest. On the other hand in the core countries, most of the landless rural population is forced to work as wage labour, which results in a relative decline in their income and living standard. In general this theory says that the world's capitalist economies determine the rout for development of the large part of the world's population in their own favour.

In world system theory, Wallerstein explains the wide-ranging and different effects of development on the world's population. He examines how economic and political conditions in northwestern Europe transformed into the superior commercial and political power after the breakdown of feudalism. The capitalist world economy has been growing since its birth. Its geographic expansion has changed political systems as well as the labour conditions wherever it could penetrate. Functions of the world economy have created big differences and inequalities among the economies of different countries.

The relationship between the core, peripheral and semi-peripheral countries are also relative inconstant. Technological development brings positive changes all over the world. Some impulsive changes are brought in peripheral or semi-peripheral countries, but the core countries get the most advantage. Wallerstein, however, after the analysis of history of the capitalist world system firmly concluded that this development has created inequality and disparities in economic and social sectors of different countries rather than bringing prosperity all over the world.

Most of the world system theorists have analyze its implementation at macro level. The exploitative relation between core and periphery has been studied at state level. In this research this model will be put on test at micro level to confirm, revise or drastically change the reasoning built into this. Its impact would be observed on village economy. The researcher would try to examine how this development of underdevelopment influences the masses at grass root level. Husain (1976) in the field of technological development and Di Bona (1977) and Keith (1978) in the field of education have studied the implementation of world system analysis at micro level. Arnove (1980) has emphasized the need of further research at micro level.

APPLE ECONOMY

According to 1998 census the total area of Zandra is 1229 acres; out of which 669 acres are under roads, graveyards, residential area, mountains, karezes (underground water channels) etc. Out of the remaining 560 acres, 367 acres are under apple orchard, and 193 acres remain uncultivated. In 1986 the area under apple orchard was 227 acres. Reportedly, special efforts were made by the villagers at individual level to expand the area under fruit orchards by preparing and converting their uncultivated land into orchards. Everybody in the village, who has a piece of land, has planted apple trees. So apple is cultivated in all 367 acres of land. Some farmers have also planted other fruit trees in the same orchards i.e. cherry, apricot, peaches and almonds etc. The ratio between apple and other fruits is 95%:5% respectively.

Since the middle of 20th century, the village economy has undergone a transition. Initially it was based on horticulture only with apple as the main source of income, but over the years the population has outgrown the farming resources. Landholdings have reduced and hence the majority, apart from providing services to the orchards, during the season, has taken up other non-agricultural activities like different businesses and employment in public and private sector to earn additional income. In order to further supplement domestic income, the women folk have also started producing home based handicrafts like crochet work, embroidery, stitching etc. besides the household chores. Women are also working – mostly as teachers and some others as lady health workers (LHWs), lady health visitors (LHVs) lady doctors etc. but they are very few in numbers.

In spite of these changes apple is still the main source of income for majority of the people in the village. The natives mostly depend upon the income from the orchards. Apple trees bear fruit only once a year during April – August. Thus, the people, who solely depend on the apple production can only earn once a year. The big landholders can easily spend whole year on the orchard income. An average annual income per acre is Rs.300000 to 400000.

PROCESS OF HORTICULTURE

To understand the complete phenomenon of apple economy, it is necessary to know the steps of horticulture i.e. production, plucking, packing and sale. The owner of the orchard faces many hardships in the process of growing apples in order to get the maximum output. The owner has to take more pains at the time of plucking, packing, transporting and selling it at different markets. In non-productive seasons i.e. from October to March, they just have to irrigate their orchards.

In Zandra, there are three types of land i.e. land prepared by flood water, plain land and stony land. Plain land is artificially prepared and its preparation involves a complete process. The owner of the land has to bear numerous hardships and invest money to convert a stony land into an apple orchard. First of all he has to remove the stones and level the land with the help of bulldozer. Then he has to fill it up with mud brought from the dam. After leveling the ground, trees are planted at a distance of 24, 27 or 30 feet from each other in rows. Normally the plantation is done in March or December because in these months more water is available as the schedule of karez is suspended and anybody can use water at any time.

For better production of fruit, grafting and budding of trees is done in two different ways.

1. Tee Budding
2. Ring Budding

For "Tee" budding, 'T' shaped cut is given on the stem, a branch of fine quality is cut, embossed in that cut and fastened up with a piece of cloth. In ring-budding, a round cut is given on the stem; new branch of fine quality is planted in it. Only a specialist can do it successfully and there are only three experts in the village for grafting and budding of the plants.

On both sides of the newly planted trees, the farmers erect small boundaries of one foot height with mud for proper irrigation. In March every year the soil inside the boundaries is softened for proper absorption of water for the first six years. After six years, complete orchard is dug to give more oxygen to the roots of the trees. Fertilizers and insecticides are used whenever needed. An apple tree takes about seven years to grow, but their production remains lower than that of the grownup trees. The trees ageing ten to fifteen years give maximum and a very high quality production. After fifteen years, the quality starts decreasing because the trees get thicker and the proper amount of sunlight does not reach the fruit and it starts losing its colour.

Since the start of apple economy 9 different kinds of apple were grown in the orchards, which includes Kala Kolu (Tor Kolu), Sabaz Kolu (Shin Kolu), LalKolu, Kashmiri, Mashadi, Ameri, Kandhari, American and Fransi. Kala Kolu is considered to be the best and dearest of all apples. It is also called Golden apple. SabazKolu has a longer life. It can be stored for longer durations. As far as the taste is concerned, both of these are considered as the best. Kashmiri, Mashadi, Ameri and Kandhari come in the next order of taste and quality.

American, Fransi and LalKolu are small in size and sour in taste, and are used for making jams and juices only. But now from the last 20 years, the people have gradually switched over to two kinds of apple – Kala Kolu and Gaja, because of their great export value and local market demand. Both of these types have higher rates and bring them more profit. This shows that desire for more money is forcing them to abandon their traditions. This traditional society is gradually changing into a more profit oriented society.

Use of Technology in Horticulture

During the last couple of decades technology has played a pivotal role in the development of new cultivation methodologies. Beasts of burden such as donkeys and bulls are no longer used for cultivation; instead tractors are used for leveling of the land, bulldozers are used to clean stones from the fields, modern spraying machines are used for insecticide spraying and trucks are used for transportation of fruit to the markets. Chemical fertilizers mixed with animal dung are used for fertilization. These modern chemical fertilizers are readily available from the near city market of Quetta. An office of Agriculture Department also exists in the village which provides knowledge regarding protection and development of

fruit production, thus modern techniques such as grafting and budding are also known to the villagers. This department also provides bulldozers, tractors and other mechanical instruments to the formers at cheaper rental rates.

For transportation of fruit to the different markets, they hire trucks which are easily available in the village during the season. In the past, there were no proper road network and transport facilities were also not available to everyone. Today with the improvement in these two sectors, it has become easier for the farmers to reach the markets. The orchard owners have started taking their fruit to the markets themselves avoiding the contractors and earning more profits. Until 2002 horticulture production was mainly depending on Karez water. A small area was irrigated through tractor-powered wells. In 2002 electric tube-wells were introduced in the area. These tube-wells are providing sufficient amount of water and fulfilling most of their irrigational needs.

PEOPLE RELATED TO APPLE ECONOMY

There are many individuals in the village who are in one way or the other involved in production, distribution and sale of apple. Apple economy of the village is based on a complete cycle of individual efforts that are related to apple economy for their earnings. Their role in the apple economy and how they are organized is explained as under.

Owner of the Orchard

The horticulturalists of the village could be divided into the following three categories.

Owner Cultivators: Majority of the villagers falls under this category and includes medium and small landholders. Mostly they do not employ labour and prefer to work in the fields by themselves. They perform the activities like land leveling, trees plantation, digging, fertilizing, spraying, irrigating, and fruit plucking and packing. They seek the help of their family members. Even sometimes, they hire the trucks and take the fruit to the markets within Pakistan. Exporters normally approach the owners themselves. The direct access of the exporters to the farms is a new phenomenon, which has become popular during two decades. Now more than 40% of the total apple production is sold to them.

Owner Non-Cultivators: This category includes big as well as small landholders who do not work in the orchards. There are 9 big landholders in the village who hire the labour and supervise them, as they can afford it. Sometimes, they themselves take the fruit to different markets in the trucks and sometimes, they sell it to the contractor. Many of the small landholders are involved in businesses or employments to earn livelihood. So they cannot give time to the orchard and have given the land to the contractors.

Non-Owners Cultivators: This category includes landless and the small landholders. They hire the orchard in the beginning under a contract, work there and in the end share half of the produce with the owner.

Thekedar (Local Contractors)

Thekedar is the person who purchases the whole lot of apples from the owner under an agreement and then sells it in the market. The agreements are made well in time before the apples ripe normally in July and August. The contractors from different areas visit the village to make deals with the owners. They go to the orchard and check the quality and quantity of the fruit before giving the offers to the owner. The quantity and quality of fruit varies from orchard to orchard, though they may be of the same size having the same number of trees. It depends upon the age of the trees. The price is determined on the basis of number of trees, their quality and expected quantity of the fruit. An average orchard of 1 acre normally has 100 apple trees. According to the local estimate, one tree yields average 15 boxes of apple per annum. One box contains 10-kg apples, so one tree produces 150 kg apples and an orchard sizing 1 acre produces 15000 kg. Average rate of 1 box of Kamari (Kala Kolu) is Rs.500 in the market. So the annual income from 1 acre orchard is Rs.750000.

Table 1: Income from the Orchards

Type of Apple	Size of orchard	Number of trees	Quantity per tree	Quantity per acre	Rate	Amount
Kamari	1 acre	100	15 boxes	1500 boxes	500	750000
Golden	1 acre	100	15 boxes	1500 boxes	400	600000
Rimzim	1 acre	100	15 boxes	1500 boxes	400	600000
Gaja	1 acre	100	15 boxes	1500 boxes	500	750000

The people who take their apple to the market can earn the above mentioned amounts but most of the people do not take the yield to the market. They sell the orchard to the contractors. The contractors normally offer between Rs.400000 to 500000 per acre depending upon the quality of the fruit. If the offer is acceptable to the owner, the terms and conditions are finalized and the deal is done. Right at that moment the contractor pays the first installment. After the deal is made, the contractor is responsible for plucking, packing and transporting of apples. The responsibility of irrigation stays with the owner till the apples get ready. The buyer protects and collects the fruit as early as possible because in this season the danger of hailstorm poses a serious threat as it may destroy the whole production.

Arti (Contractor in the Fruit Market)

These contractors have their offices in different fruit markets such as Lahore, Karachi, Multan, Hyderabad and Faisalabad. They make high level deals for purchasing the fruit. The local contractors work in the village normally work on their behalf. They pay them money in advance to make purchases before the start of the season. contractor gets about one million rupees in advance at the rate of Rs.50/- per box, which makes him bound to bring 20,000 boxes to him in the end of the season. The arti recovers his investment, along with 5% commission or service charges. They know each other very well and have full trust in one another.

Table 2: Rates of Different Types of Apples in 1980

Kind of Apple	Rate of sale in the market
Kala Kolu	Rs.350/- to 400/- per box
SabzKolu	Rs.130/- to 250/- per box
Mashadi	Rs.100/- to 140/- per box
Ameri	Rs.100/- to 140/- per box
Kashmiri	Rs.150/- to 250/- per box
Fransi	Rs.80/- to 100/- per box
American	Rs.80/- to 100/- per box

Table 3: Rates of Different Types of Apples in 2007

Kind of Apple		Rate of Sale in The Market
Kala Kolu	Kamari	700/- per box
	Golden	500/- per box
	Rimzim	550/- per box
Gaja		650/- per box

The villagers who don't sell their fruit to the local contractors bring their fruit directly to them. They make arrangements for the auction, and sell their fruit on commission basis.

Baghwan (Orchard Watchman)

The rich orchard owners hire watchmen for protection of their orchard. They are called bazgers, and are paid Rs.3000/- to Rs.4000/- per month. They look after the orchard the whole year. Mostly, these people are outsiders, Khurasani and Afghans. They are poor people come to the village for labour and live in tents outside the village.

Thismali or Torwai (Fruit Pluckers)

When the apple gets ready in August and September, thismali or torwai (fruit pluckers) are employed either on daily wages or contract. They spread yellow dried grass called shalli in the orchard covering an area of about 20 x 4 yards. They start plucking apples and gather them in a cloth called thismal (handkerchief), which they hang around their necks. After collecting 15 to 16 kilo apples, they come down the tree and spread those apples on the grass, which has already been spread for this purpose. For plucking fruit from one acre of orchard, one to two pluckers are employed on daily wages. Some villagers do it by themselves. An amount of Rs.300/- to 350/- per day is given to the plucker. This work could also be assigned on contract basis and the amount is decided before the start of the work.

Chani (Chooser or Separator)

Chani is a person who categorizes the plucked apple according to their quality. He is a labourer and charges almost the same amount as the plucker. Apples which remain small in size because of less water or for some other reason are packed separately and considered of inferior quality. The defective apples having different types of marks on them are also packed in separate boxes which include pata-dagh (leaf mark) Sukha-dagh (dry mark). Last category of defect is gheela-dagh (wet mark) of light brown colour, caused when an apple falls from the branch and hits the ground hard. Such apples are collected from the ground and are packed in sacks. Out of these defective apples, sukha-dagh (dry mark) apples can survive for 3 to 4 months.

Crate Walla (Box Maker)

Crate-walla makes boxes (wooden box) for the fruit to be packed in and sent to the market. There is only one box maker in the village. Every year, he makes about one hundred and fifty thousand boxes, for which he brings wood from Multan or Faisalabad. The total expenses of wood are about six to seven hundred thousand rupees. He has employed a carpenter who makes boxes and charges Rs.2.00 per box. The nails used for making boxes are brought from Quetta. One bag full of one-inch length nails costs about Rs.800/-. The box maker sells one box for Rs.15/- to the villagers. In Quetta markets, one box also costs the same, so people of Zandra village prefer buying boxes from him. The cost breakup for making one box is given in the following table.

Table 4: Cost on One Empty Box

ITEMS	AMOUNT
Wood and labour	Rs.8.00 per box
Transportation of material	Rs.2.00 per box
Carpenter	Rs.2.00 per box
Nail	Rs.1.00 per box
Total	Rs.13.00

Annually, he saves about 60,000 to 70,000 rupees. Sacks for packing defective apple are brought from Quetta as they are not available in the village.

Cratee or Maikhi (Packer)

Cratee or maikhi (packer) are the people who are skilled in apple packing. They orderly arrange apples in the boxes. Packers and all other labourers work from 8:00 a.m. to 5:00 p.m. During this time, a packer packs about seventy to eighty boxes. He uses nails to close the boxes. That's why he is also called maikhi (person who fix the nails). He normally works on contract bases. For an orchard of one acre with about hundred trees, he charge Rs.7000 to Rs.8000. Loading of the fruit in trucks is also included in this contract.

Markay-Walla (Marker)

Markay-walla (person who labels the apple boxes) marks all the boxes according to the quality and names of the owners or contractors. For instant if there are 20 boxes of No.1 quality apples, the marker will mark 20/1 on all of them, with the initial letter of the name of owner or the contractor; for example N.K. for Nasir Khan. After marking, list/chalan (payment voucher) is made in the office of koti (person who makes voucher) in the village before the fruit is loaded onto the trucks. Marker is paid Rs.300/- per day for marking the boxes.

Transporter

The transporters do not belong to the village. In the apple production season i.e. in August to September there are numberless trucks available here. After selling the export quality to the exporter they take rest of the fruit to different fruit markets in Faisalabad, Lahore, Multan, Karachi and other cities where it is sold to the artis (contractors in fruit market). There is no cold storage in the village and thus they are forced to sell their fruit to artis. One truck normally carries 410 boxes. The freight charges vary from market to market, which are paid by the owner of the fruit or the contractor.

Table 5: Truck Charges for Different Fruit Markets

Market Station	Charges for Truck Trip
Lahore	RS.6000/-
Faisalabad	RS.4500/-
Karachi	RS.3500/-
Multan	RS.3500/-
Hyderabad	RS.3500/-
Quetta	RS.1000/-

Table shows that the transportation rate for Lahore fruit market is the highest, Rs.6000/- followed by Faisalabad, Rs.4500/- and then Karachi, Multan and Hyderabad for Rs.3500/-. In Quetta, it is only Rs.1000/-. On the way to the market, the owner/contractor has to pay octroi (tax) also at Rs.300 to 500 per truck.

For Kala Kolu, Faisalabad's fruit market is considered as the best one. For Ameri apple, Multan's and Lahore's fruit markets are considered to be the best ones because with Amari apple, jams and marmalade are made and both of the cities have such factories. For contractors, markets in Lahore and Karachi are the most suitable because they can earn more profit from there. However for owner horticulturalist, Faisalabad's fruit market is considered as ideal as they face less problems in selling and taking money from the arti.

EFFECTS OF APPLE ECONOMY

Since the advent of apple economy, the Pashtuns have gone through a social and economic change. Due to their interactions with the people in different markets they have become aware of their surroundings and technology, which they

are utilizing to achieve their horticultural goals. They have become more settled and economically better-off today. There is a complete shift from lower to middle class because of this apple economy. Haji Payo Khan started growing apple in early 20th century. Later the natives accepted the idea and followed him. Today majority of the villagers enjoy basic facilities. Now many of them have their own cars, property and running businesses in Quetta.

THEORETICAL DISCOURSE

In the above discussion some major structural change could be observed. In the beginning of 20th century people of the village were nomads and the apple economy changed their nomadic lifestyle to the permanent settlements. Subsistence economy has changed into market economy. In subsistence economy, people were growing crops for their domestic use and keeping cattle for meeting household needs, meaning thereby that they don't have to spend money to get anything from the market. On the other hand when it opened up into the market economy, the farmer started growing crops to sell in the market and earn money. Now he has to buy almost everything for his personal use from the market. The money which he earns always falls short of his needs because of change in his consumption pattern. For example, in the past he drank lasi to finish his thirst and served the same to his guests, but today he buys coca cola or any other soft drink for the purpose. Same is the case with other products which are available in the market and properly backed up with advertising.

Since the middle of 20th century, the village economy was only based on horticulture with apple as the main source of income, but now they are involved indifferent businesses and employment in public and private sector to earn additional income. In order to further supplement domestic income, the women have started working. Some of them have started producing home based handicrafts.

Joint families are breaking into nuclear families, which has changed the bigger land holding patterns to the small pieces of land. Special efforts were made by the Government as well as by the individual to expand the area under fruit orchards. A major shift from horticulture to the other occupations was also observed in the village. The sole dependence on apple economy has fallen from 74% to 22%. Now they are economically better-off as middle class also has emerged. They have their own cars, property and businesses.

In the field of horticulture use of technology, modern techniques, transportation, pesticides and chemical fertilizers is clearly visible and it has grown during the last three decades. Before 1980s farmers were dependent upon animals for farming and the animal waste for urea. The low profit farm products are no more cultivated. Majority of the natives has replaced cheap quality apple trees with that of expensive ones. They have switching over to the types having great export value, local market demand and high profit. The market is also in transition from local market to the export. Before 1980s total production was consumed at local markets but now more than 40% of the apple is sold to the exporters. Improved irrigation system has also been introduced in the village in public-private partnership and some further refinements have been brought with the help of NGOs. The traditional karez system has been replaced by tube-wells which has weakened their social integration. Certain important points have been further analyzed by linking to conceptual and theoretical discussions, which are as under.

1. Shift from subsistence economy to market economy supports the industry as the raw materials, which includes livestock and farm production are sold in the market to earn money and for personal consumption they are bought from the market produced or processed by the industry. So the ultimate beneficiary of this change remains the industrialist of core countries for being producer of all these products.

2. Moving from horticulture economy to businesses and employments in public and private sector to earn additional income also benefits the industry as it finds cheap labour. Supplementary domestic income by the women folk through handicrafts helps to maintain low wage rates.
3. When joint families break into nuclear families it normally results into urban migration where the majority of the adults work for the industry and their dependence upon the consumer products also increases.
4. Technology, modern techniques, transportation, pesticides and chemical fertilizers used in the village are imported from the core countries sometimes in shape of finished products and sometimes in shape of instillations, industrial supplies and fabricated parts.
5. Use of pesticides and chemical fertilizers gives rise to health problems due to which medical bill increases and the pharmaceutical industry of the core countries gets benefit. The transfer of wealth by exploiting periphery and semi-periphery by core countries which encourages rapid scientific development so that Western medicine and other scientific institutions could surpass underdeveloped countries of the world.
6. Increase in the export of farm products supports Wallerstein argument where he says that world is becoming a single economic unit through exchange and trade with a vast diversity in division of labour among the countries.
7. Intervention of core countries through NGOs and Government sector by providing financial development aid is also visible in the village.

In the end the researcher is in full agreement with the views of world system theorists who have been working in the field of capitalist world economy. The argument developed by Wallerstein (1974, 1980, 1989), Samir Amin (1970, 1973), Cardoso and Falleto (1969), Santos (1970a, 1970b), Rodney (1974), and Andre Gunder Frank (1969) seems valid. So in the light of empirical data world system theory is found valid and accepted.

CONCLUSIONS

Man has always been striving for the richness of human life. Traces of this advancement could be found right from human prehistory which begins in the Paleolithic Era. Agricultural Revolution started between 8000 and 5000 BC and began to spread all over the world. When productivity increased need for store and transportation of food was felt. This resulted in development of cities and division of labor. This process continued and the man started using machines for mass production in 18th century what we call Industrial Revolution.

This Industrial Revolution brought some significant change in man's life. The concept of development changed from enhancement of the richness of human life to the richness of the economy in which a man lives. This change has also affected the natives' life and village economic. The village has gone through some major structural changes during recent past. The natives are economically well off which they consider as development. This development has increased their choices. Use of technology, pesticides and chemical fertilizers has become common ignoring all environmental issues and health hazards. The natives are happy as far as cash flow increases which resulted in the growth of per-capita income and increase in the volume of consumer goods and thus improved the material quality of life of the people. On the other hand it has also resulted into the disintegration of social bonds in the village. This situation supports the world's capitalist economies in different ways. Technology, pesticides, chemical fertilizers pharmaceutical and consumer products are imported from core countries which in turn promotes growth for capitalist industry on one side and increases lust for money among the natives on the other who start selling their services and raw materials to the industry to fulfill their economic needs. So interdependence exists, for periphery it is for finished products and for core it is for raw materials and

human resource. This interdependence supports the core countries as the consumer products used in peripheral countries become a source of profit and inexpensive raw material and cheap labour provide them savings. So they are becoming richer and richer at the cost of the peripheral economies.

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