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## Sustainable Development Goals: Economic Empowerments of Rural People through Balanced Land Holdings (A Case of Sindh-Pakistan)

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### **Abstract:**

A global agreement of seventeen feasible points for the welfare of human beings which is named as sustainable development goals is confirmed by the world leader in the United Nations Conference on sustainable development goals. The first component of agenda for post 2015 development is to decrease poverty in its all forms everywhere but without economic empowerment of the people particularly from far flung areas it cannot be elevated until balance distribution of natural resources. The below mentioned paper is written with the same approach to follow these global initiatives in Pakistan.

The rural areas of our region are in grip of ultra-poverty particularly among agricultural labour. The rapid increase in population needs increase in their incomes which is only possible through redistribution of natural resources particularly land holdings which should be balanced for socio economic development of common man. The major issues in Sindh land holdings have been summed up by examining it through in-depth analysis using both quantitative and qualitative approaches.

The study concludes that imbalanced land holdings creates socio economic problems in two ways first the large tracts of land ownerships strength feudalism and second small land holding, both kinds creates various social ills in the society rural society i.e. poverty, less freedoms, limited market access, small scale economic empowerments which needs dire attention of policy makers for their strategic vision to redistribute natural resources as per the need of the hour in global scenario not only, for the socio economic development in the region but to create equal opportunities for their country man in era of sustainable development.

**Keywords:** Large land holdings, small land holdings, public policy, agric-development, feudalism, poverty elevation, land fragmentation, balanced holdings

### **1. Introduction**

The land is the first important and foremost source of living for human beings, animals, other living things and agricultural production as well. This natural resource plays a dynamic and important role in the culture and history of the nations. The geographical area of Sindh constitutes 17.70 % of Pakistan. The numbers of farms are 111528, total farms area is 9868792 acres, cultivated area is 7643522 acres which is 77% of total cultivated area, cultivable waste is 23% in the province (Agriculture-census 2010, table 1.1).

The land holdings also played an important role in agricultural and socio economic development of the any region and its people. Land holdings are still the source of the power and respect in traditional societies like Sindh- Pakistan. The study of land ownership indicates that land ownership system in the country is divided in two parts i.e. First, feudalistic large tracts of land which has been under domination for over 1000 years and second small ownerships which has created very small units, difficult in operating simply called fragmentation of land. Both are said to be obstacles to the agri- economic development process, the first one has strengthened the hold of feudalism in the rural society and economy and the second fragmentation has created several difficulties for small growers in operational side and economies of scale also. The above mentioned land ownership styles reduce and hamper the productivity of the

sector and opportunity for further economic development of the country. So, both of these ways need to be discussed in detail for further understanding of the problem and also in public policy point of view.

The study contributes significantly in the existing body of knowledge on this subject matter. Using both quantitative and qualitative approaches, the study evaluates historical roots of feudalism in the region and concludes that efficient and effective land distribution can reduce the poverty and also creates balance of power in the rural societies. The study also suggests dynamic policy insights for redistribution of land as per need of the hour to meet emerging economic and socio development trends in the Pakistan particularly in rural economy at large. These suggestions can also create national harmony among urban and rural elites if implemented in letter and spirit.

## 2. Methodology

The qualitative approach of research has been used in this section, mainly depending on personal observations, interviews of specific groups and some kind of valid institutional data of two agricultural censuses conducted after end of every decade 2000 and 2010 to make the study a unique policy document in all respects.

## 3. Discussions & Result

### 3.1. Large Land Holdings and Issue of Feudalism

The ancestral period evidences prove that lands were the collective property of cultivators in the region. The farmers worked together in production process, offering a fixed share in production to the state through the head of village. In the pre-Muslims period, each conquering chief ruled over a certain allotted area of a country and was sub-ordinate to a greater Raja who was paid a tribute in the shape of some portion of production of agricultural commodities.

The Muslims made use of this existing structure in 8<sup>th</sup> century and out of it grew the system of land lords locally known as (Zamindars). The same practice had been done by Sultan Altamash, Sultan Allauiddin and Mughal rulers from 1200 to 1700 AD. "The feudalistic or Jagirdari system was first introduced in Islamic states during the period of Banu Myad, when they distributed large tracks of land among their family members, loyal associates and other influential persons free of cost" (Philip K. Hitte (1960, pp.232). Another scholar, S.N Zahid concludes that "during the rule of Abbasi Khalifa named Al-Muta Wakal (847-861), an Arab ruler had been given Jagirs to his army officers in the region for expenditures of their armies". (S.N ZAHID 1982.p.21).

The Mughal Empire in the days of Akbar (1592 AD) land was the property of king only. In the mid of 17<sup>th</sup> century, about 8,000 nobles, who managed large armies to serve the Mughal Empire in difficult times were given large tracts of lands (Jagirs) in appreciation of their services and loyalty with king.

The collection of revenue from peasants for the state was their extra responsibility. Jagirdars or nobles appointed Zamindars (Local Lords) who served as revenue collectors on behalf of the Jagirdars in their locality/area. "In the last days of Mughals, Jagirdars and Zamindars grew strong in power. They made their claims on vast tracts of the land and brought peasants under their control, in a sense marking the beginning of feudalism". S. Akbar Zaidi. (1999, pp.03) The above discussions concludes that the evolutions of first group of feudalism in sub-continent including Sindh Pakistan was established in the Arab and Mughals period from 8<sup>th</sup> to 17<sup>th</sup> century AD.

The second group of feudals created by rulers in the late seventeenth century; it was a religious group of feudals. The religious hierarchy Pirs and Syeds are held in high esteem in the region. No ruler let alone a common man could ever afford to neglect or challenge them. In fact, they continue to enjoy the same respect, wield authority, and making their presence felt even today in the corridors of power in Sindh- Pakistan.

The third group of feudalistic system called Sardars, Nawabs emerged by the rulers in the eighteenth century. "They (the Talpurs) doled out vast tracts of land to them (the Sardars) due to their own tribal proximity to establish their strong hold on the province". (M. S. Kamdar 1988, pp 04) In their period, the chief of clan was known as Zamindar and they exacted a Haq-e-Zamindar or the lords' fee from the hapless cultivators and inhabitants and claimed ownership of the land and had control of all cultivation in the vicinity.

The British Government introduced fourth group of feudals in after the freedom war in 1857. The British government brought changes in their policies and priorities in its own benefit/interest. So a new class of feudal was created, rewarding them with titles of Sirs, Khan Bahadurs, and Raicies for their allegiance. They were given large tracts of land with third degree magisterial powers only in appreciation of their loyalty and services rendered for the British rule. The British government once again changed their policies in 1912 when they gave property rights to peasants as self-cultivators. According to some scholars, the principal change to take place in the first half of the twenty century in the rural areas was the increase in landlordism, which occurred on account of increase in the number of landlords and the landlord ownership of land. When 80 % of the land belonged to big and middle owners of the more traditional landlord, and was let out to lease.

In the last days of British rule, the Land ownership and tenure system was divided in Jagirs, state ownership, private ownership and Ryatwari land system. After the creation of Pakistan, a new fifth group of feudals came into being in the country. When construction of new Barrage in lower and upper areas of country was completed, large tracts of fertile land were allotted to civil and military bureaucrats, players and other prominent personalities of the country. The landless tenets of the local area were less preferred in allotment of the land of the hence large land ownership is still in the hands of the above five groups of feudal created in the past. These groups are real power brokers, the elite, politicians and so called leaders of present era.

#### Issue of Land Reforms and their Failures:

The first land reforms were introduced in the Pakistan by General Muhammad Ayoub Khan on 20<sup>th</sup> January, 1959 and last land reforms were introduced by Zulfiqar Ali Bhutto government in February, 1977. The last land reforms further reduced the ceiling to 100 acres of irrigated and 200 acres of un-irrigated land, but all the land reforms failed to bring any visible change/success at large due to strong roots of feudalism in the country.

The majority of land lords either continue to rub shoulders with members or make their presence felt in the senate, provincial assemblies, and national assembly and in the cabinet as ministers. So they slyly managed to save their estates through Benami (Un-named) transfer, and registered/owned/run in the names of their kith and kin, friends and trusted people, managers and farm managers (Kamdars) and also in the names of their tenants in revenue records.

A minimal amount/area of barren uncultivable waste land, sandy dunes and affected land by water logging and salinity were surrendered. Due to stronghold of feudals with the connivance/baking of civil and military bureaucracy, they continue to be self-proclaimed kings possessing the land in thousand acres. Landless peasants and tenants were offered land ownerships only on paper of revenue records. They are supposed to be nominal landlords not the real owners. The main reasons for land reforms failure are as follows:

- a) In-efficient and in-adequate performance of land revenue officials due to influence of feudals in the country power corridors.
- b) Social, political and religious power of landlords since ages.
- c) Weaker system of judiciary in decision making in favour of the peasants on merit basis.
- d) Poverty, illiteracy dismal economic conditions of the poor peasant affiliated with agriculture sector in rural areas since generations.
- e) Incomplete and in-accurate/forged system of revenue records which creates several kinds of obstacles in transparent distributions of land among poor rural households.
- f) Strong status quo of political and economic managers and feudals of the country reduced the speed of land reforms implication hence they continue to be in power since the period of Rajas and Maharajas to this current period of 21st century of globalization.

There is also an important point that vast tracts of land comprising Katcha Areas (River Beds) are illegally occupied by landlords, making these tracts their (Katie) kingdoms. Such vast tracts of land continue to serve as safe havens for large gangs of criminals/dacoits who are solely responsible for ever worsening law and order situation in the province. Interestingly enough, such criminal gangs continue to operate with the connivance of big landlords and such gangs are a great source of support in the socio-economic power of feudal in rural areas and in sowing fear in the poor masses.

In recent past, ex-Prime Minister Nawaz Sharif (1992-93) tried to distribute Katcha Land among tenants but greatly failed. Still there is strong hold of some big feudal in Sindh. The majority of feudals are full time politicians and part time growers that lead to absentee landlordism in Sindh. All of them depend on time barred feudal mode of production, which is said to be a great obstacle to the development of agriculture sector. Only a few among them use capital mode of production, which is necessary for agricultural sector development. Land holding pattern and land reforms issue is more complicated and debatable. Now a day, it is a very complex and sensitive issue among the people of the country also. There are two points of view in the discussion on above matter, one progressive group is in the favour of land reforms and small land holding pattern due to overall control of few feudal on the rural economy and their old status-quo and increase socio-economic and political power in the province and country level which breeds many social ills in the rural society.

Another powerful group of landlords is in favour of increasing norms of capitalists' economic system in the country economy and want that there should be no restriction on land holdings; and like to follow the example of developed countries i.e. America, where agriculture sector is working on industrial pattern and its productivity is much higher than many other countries. This second group thinks that if there is no restriction on industry and other sectors of the economy in the country and across the world, why we should follow reforms in the land sector only. According to them, the entire economy of the country is based on capitalism, so there is no need for further land reforms as it may lead further fragmentation due to growing population and inheritance law and previous land reforms.

The feudals maintain that industrialists, bureaucrats, technocrats always conspire to reduce the power of rural elite. However, the industrialists support land reforms imposed on feudals and this situation leads to discrimination and differences among the rural and urban people. But as we analyze the data with legal validity of land holdings, it comes to the fore that the limit of land holdings in the present law is 100 acres irrigated and 200 acres un-irrigated (Barani) land but actually it is several times more than this and is urgent need of reforms in due course of time.

The data on land holdings is also a difficult task due to lack of proper survey and many of other attendant problems. The reason for the above problem is also based on the land revenue records where thousands of acres of land of big feudals are registered in the fake names of their tenants, servants, relatives, friends and other individuals loyal to them. The data of agricultural census (2000) shows number of farms and area of ownership holdings by size of area owned, we find interesting picture of land holdings that 42% of people are the owners of only 9% of land area, 46% of people are the owners of 35% of land area. This clearly shows the feudalistic system that 12% of people are the owners of 56% of land area in the Sindh province as mentioned in table 1 with figure in details.

The recent census of 2010 which is completed in 2011 and report published in 2013-14 that only 52 % of owners have 11% land, 37% are owners of 34% land and 11% feudals are owners are 54 lands in the region. Details are mentioned in table 2 and figure 2 below. As we further look into it the above mentioned ownership system is absolutely imbalanced and creates several problems in rural

society. On the one hand, ownership of large tracts of land strengthened feudalism and on the other small holdings cause fragmentations of land which is also an important obstacle to current operation of economies of scale and development process as discusses in development literature by the eminent scholars of the agriculture and socio economic development.

Number's of Holdings	Percentage of Area	Percentage of Owners
493669	11	52
355027	34	37
113239	54	11

Table 1: Land Holdings in Sindh (2000)

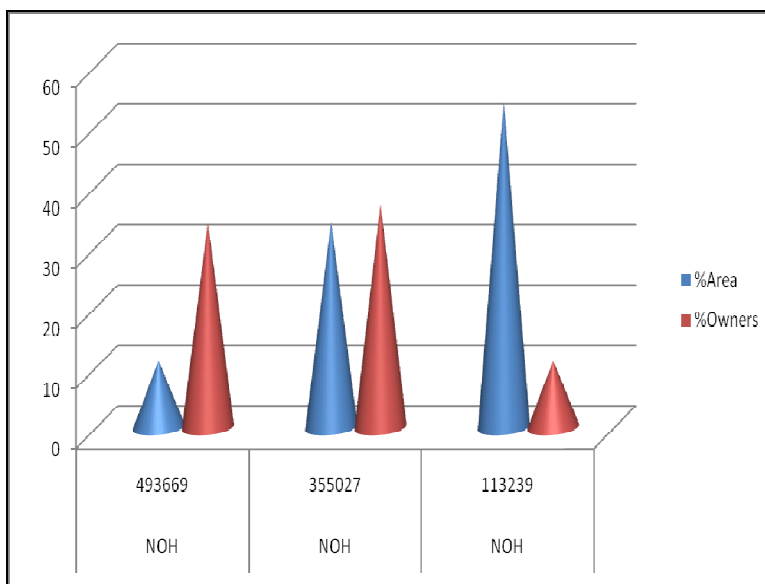


Figure 1

Source: Agricultural Census (2000) Sindh province Volume-II Part - 3, pp.606

Number's of Holdings	Percentage of Area	Percentage of Owners
351501	9	42
377024	35	46
97948	56	12

Table 2: Land Holdings in Sindh (2010)

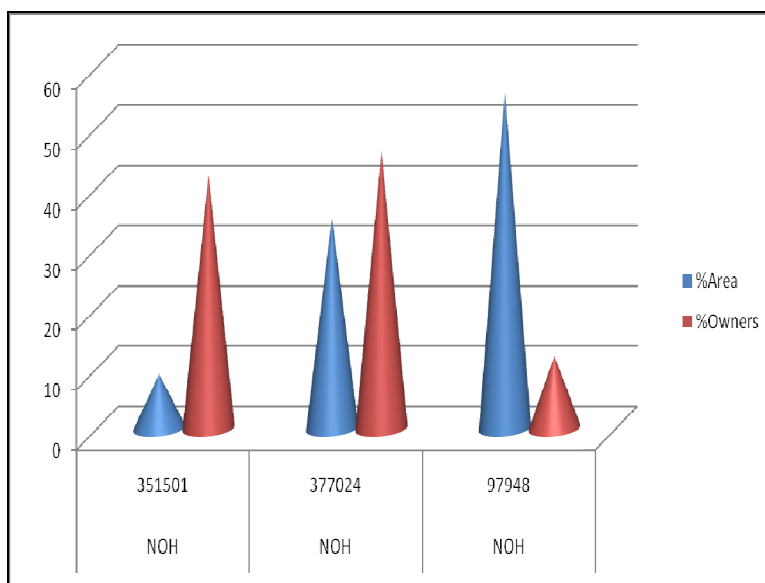


Figure 2

Source: Agricultural Census (2010) Sindh province Chapter Table 13.1

### 3.2. *Small Holdings and Issue of Land Fragmentations*

As discussed above in details that the larger tracts of feudals land served an obstacle to agricultural and socio economic development and spreading rural poverty in the region; and on the other due to ever burgeoning population and so many of other problems, small tracts of land are converted into little pieces and create fragmentation problem in land ownership / holdings system which also discourages opportunities for further development of the sector in all respects. The simple meaning of fragmentation of land is the division of land in small size of farms. Small land owners are defined as individuals with the land holding from half or 1 acre to below 12.5 acres' size of agro farm which cannot be operated according to economies of scale and laws of returns.

There are many factors mainly responsible for land fragmentation and one of the important factors is the law of inheritance. In this system, the land is divided among rightful heirs so that each person receives an equal share from each field. For example, if a father dies, leaving behind three sons and three isolated fields of 1 or 2 acres, the sons do not get one field but receive one third of each field. The result of successive generations from a common ancestor is the division of land into smaller and smaller fields. The sale of parts of the holdings and division of small pieces of farms among the tenants also lead to fragmentation in land.

The land reforms process and excessive exercise of right of alienation also create fragmentation. Lack of alternative opportunities for work and income and productivity difference among class of soil also accelerate land fragmentation but the key factor of fragmentation is ever increasing population on land especially among farming communities in the rural areas.

According to UNDP population statistics "Land degradation in Sindh (1998 pp, 5) "In 1901, the population figures stood at 3 million which jumped to 30 million in 1998. In the beginning of the 20<sup>th</sup> Century in (1901), per capita land availability was 5 acres which declined to about 0.5 acres in 1998".

The land fragmentation affects the growers in the following ways. Ineffective use of farm resources that results in low agricultural productivity. Most of the farmers face difficulties in earning living and supplement their income with other source. Small size of farms is an impediment to mechanization of land including use of tractor. It also results in loss of time and energy of the grower and irrigation becomes difficult as water has to pass through other patches of land and several other small farms. All process of ploughing, watering, harvesting, marketing, care and protection of crops becomes tiring and difficult. The effects of land fragmentation vary according to the size of the land holding with rather different implications for the farmers' sensitivity to various kinds of economics schedule. As long as the fragments are in close proximity, there is no significant waste of effort. Otherwise, the work of the individual farmer becomes more and more difficult as irrigation, drainage, disease control and improved cultivation practices can hardly be ensured.

According to agricultural census of (2000) (page 50 and 62) the number of private farms in Sindh is 1069882, out of which 799732 farms are not fragmented. It is also important to mention here that 270150 farms are fragmented from two to more than ten fragments and this fragmentation ratio is highest in the country. 222464 farms are fragmented, in 2-3 fragments. 32663 farms are fragmented in 4-5 fragments. 12333 farms are fragmented in 10 or more fragments. Average per farm fragments is 3.1.

The highest average fragments are measured in the size of 100 to under 150 acres is 37.3 and lowest is 2.1 in the size of 1.0 to under 2.5 acres. It further shows that total area of fragmented farms is 4755610 acres. Private farms total average area per fragment is 5.7. The highest average area per fragment is 53.1 in the size of 150 acres and above, and the lowest is 0.2 in the size of less than 1.0 acre. According to the tenure fragments, the highest area has been observed in owner cum tenants as 86%. The owners farm fragments are 44% and 29% in case of tenants farms, which is lowest among all.

The latest report of agric-census (2010) indicates following evidences on fragmentations in details as 54% owner's farms area is fragmented, the highest fragmentation is reported in owners cum tenant's farms as 65% in Sindh province as mentioned in the recent report in table 2.3 of Sindh chapter. The average fragmented percentage of Sindh province as per farm is 2.4 currently reported in table 2.1 of the Sindh chapter of current census.

#### Land Degradation in Sindh

The degradation of land in Sindh region is also very important obstacle in agricultural and economic development of the region. It can be considered a great tragedy for the people of the province. Land degradation has been defined by Pig Iola Stefano in the global environmental benefits of land degradation control on agricultural land, The World Bank, Washington D.C 1998, on Page: #. 02 , that "land degradation means reduction or loss of the biological or the economic productivity and complexity of rain feed crop land , irrigated crop land , or range pasture , forest and wood lands , resulting from land users or from a process or combination of processes including the processes arising from human activities and habitation patterns, such as; soil erosion caused by wind and water, Deterioration of chemical and biological or economic properties of soil, long term loss of natural vegetation".

UNDP, Islamabad conducted a survey on "land degradation in Sindh" in 1998 and concluded on page 3 that "Sindh has geographical area of 34.8 million acres, out of which only 14.3 million acres are cultivated. The agricultural land in the province is rapidly degrading, resulting in decline in agriculture produce. It is estimated that about 100,000 acres of land get degraded annually, which is 75 % of the land getting degraded in the whole country".

There are more than ten important causes for land degradation but water logging and salinity are among the major causes. There is also shortage of water, flood irrigation, sea water intrusion, malfunctioning of drainage system, depletion of nutrients, soil erosion by wind and water, impact of pesticides and other tonic inputs, non-judicious use of fertilizer, tillage practices and desertification are important degradation causes. After the construction of Sukkur barrage in 1932, seepage of canals minors, water courses and fields created water logging and salinity problems due to improper maintenance of irrigation system and lack of drainage system. Over-irrigation is also a major cause of water logging and salinity.

In 1970s, the SCARP tube well scheme and left bank out fall drain (LBOD) and right bank out fall drain (RBOD) projects were introduced but could get little success. A majority of growers and expert's analyses that above projects failed completely. The SCARP tube wells are not working properly. Above referred projects are two major drainage systems on both sides of Indus and primarily started for saline water flow in the Arabian sea but both of the projects pose serious threats to lower Sindh due to their design defects and poor construction and rampant mismanagement. Public resources are converted in sunk cost and this cost has already been imposed on growers as drainage cess.

According to above mentioned survey report, 1.5 million acres of land has so far been eroded by the sea in coastal area of the province. The wind erosion also leads to land degradation. Massive/ excessive use of fertilizers and pesticides cause soil mining and un-scientific cropping pattern affects soil due to illiteracy of growers. Continuous cultivation on the same land, violation of cropping zones and crop cultivation without soil analysis are also some of the causes of land degradation. Deforestation, low floods, irrigation water shortage, arid climatic conditions, illegal cutting of trees which harms forest area lead to land degradation in Sindh. The data of land degradation and its causes given in same report on page 4 conclude that land degradation by water logging and saliently is 67%, wind erosion is 18% flooding 12% and water erosion is 3%. The land degradation contributes to poverty in rural Sindh.

### 3.3. Cultivable Waste

Cultivable waste is defined as all the cultivable land not actually cultivated. It includes all grazing and other land but not under forest area. It is interesting to mention here that a vast land area available for cultivation is not being cultivated. It is a general observation that forty 40% of Sindh is a cultivable waste land which consists of deserts, mountain and settlements. This area is not available for farming, but it can be included a part of it with the agricultural land because it supports livestock activities to a certain extent.

The net cultivable waste area is estimated less than this and but more than 1 million acres in Sindh. Following are the main reasons of cultivable waste area concluded on the basis of specific group study. One possible explanation for this might be the dominance of landlords in Sindh who tend to leave a high proportion of land uncultivated. The other reason could be more constrained supply of water in this province and lack of modern farming as in the developed world.

The inadequate and scare supply of rain water, poverty of small growers and tenants also reduce/hamper their investment power and make them unable to operate cultivable waste area. The unfavorable land holdings system in Sindh and time barred land tenure method of cultivation is also widely responsible for cultivable waste area in Sindh region, which is already in the grip of hunger and ultra-rural poverty with higher rate of about 50% among tenants of the region.

## 4. Conclusion and Recommendations

The total cultivated area in Sindh is 77% and cultivatable waste area is 23 which signify the potential of the sector to increase in cultivation with simple and easy efforts. Absentees land lordship, manual methods of cropping and poverty of small growers is the main cause of cultivable waste.

The big feudalists possess the large tracts of land since ages which strengthens feudist in Sindh and also creates absentee feudalism that promotes sharecropping system. Pakistan governments introduced land reforms from time to time but all reforms could meet with little success, due to strong holds of feudalists in the country with the help of country power corridors even in the democratic and military governments. The last land reforms fixed 100 acres irrigated land and 200 acres' barren land holdings in 1977 but are yet to be implemented. Actually, this is not a difficult task as our neighbor India solved it in initial period but our feudals continues to maintain status quo in this respect and uses it as political tool for winning loyalties. The feudal of Sindh own thousands of acres of land without any legal obligations.

The study reaches a conclusion on the basis of above mentioned two views about land reforms that there is no need for further land reforms. However, it is necessary to implement previous land reforms of February 1977 by Zulfiqar Ali Bhutto democratic government in letter and spirit to create balanced land holding in the region. Consequently, not only will it boost per acre yield and overall productivity, but economic and social empowerment of poor people and will also alleviate rural poverty. It will expend market, encourage freedom of thought with freedom of choice and expressions in rural societies which is essentials to create boom in the rural sector of the economy. There is also an urgent need for medium scale progressive landlords in line with central Punjab within a country and Indian where the land ownership is very small but progressive. After 1951, the same practice has been followed in South Korea and Taiwan, helping them becomes economic tigers of the Asia region.

Land reform is a long-term process that requires a well thought out land policy and consistent support for long term impacts. It is a matter of socio political economy and needs to win support of masses through a broad-based consultative process at gross roots level. Formulation of a pro-poor land policy, considered in the wider context of poor people's productivity and livelihoods, and which at a philosophical level must bring about an enhancement in the quality of life of the poor. The government of the day should consider it. There is a dire need to conduct research study for collecting and analyzing data for efficient land reforms. Sustainable advanced collection of overall data regarding the number and composition of landless families, distribution and concentration of land ownership, and production, rent and land incomes is important to program, design and implement with great force of state. Land reforms should primarily focus on social justice and economic efficiency in agriculture rather than power politics. Institutional mechanisms should be developed for the proper implementation of reforms monitoring, survey and impact analysis

Land institutions are a vital element in effective governance. The government must defend the rights of the poor. Intuitional reforms must be a key element in land reforms. The NGOs, CBOs and other civil society organizations should be inducted for third party validations. Land should be integrated in poverty reduction and decentralization strategies. Land reform programs should be

effectively publicized and communicated to the beneficiaries. Access to information regarding land related issues, especially the allotment of state land, should be made easy through print /electronic media. More attention should be paid to safeguarding and assuring customary land rights of the poor, including rights to forest land, grazing land and wetlands. More attention also should be paid to intra-household allocation of land rights, assuring greater rights for women in the enjoyment, disposition, partitioning, and inheritance of land.

The issue of corporate farming, especially its impact on rural poverty and livelihood needs to be critically assessed and debated, and informed opinion should be mobilized to counter its consequences. The corporate farming should be considered at frontier land level only in the area where it's hard to cultivate the land i.e. Thar Desert and hilly areas of Kohistan. Hundreds of thousands of state owned land should be distributed in local tenants on easy installments; it will work wonders in productivity and poverty reduction. The cultivable waste can be cultivated easily through investment in irrigational development schemes with simple efforts of optimum level use of available water resources.

The Land fragmentation is second big problem that reduces the size of farms into small pieces and creates many difficulties in irrigation, drainage, disease control, credit seeking and other improved cultivation practices.

It also reduces energy and power of the growers and creates hurdles in mechanization of farms and reduces the agricultural productivity and growth rate in this sector. Farms are fragmented, from 02 to 10 fragmentations are measured. It is highest 86% in owner cum tenant's area in 2000 and 65% in 2010. The main causes of fragmentation are; Law of inheritance, increasing population pressure on land, sale of parts of the land holding and allotment of small pieces of farm among tenants by land lord.

The new anti-land fragmentation laws may be introduced and implemented as soon as possible to avert further fragmentations of agricultural land by setting up minimum level of farm size for maximum productivity in the light of cost benefit analysis and zone wise ground realities. There is a need of separate land policies for urban commercial land and rural agricultural land; still both are treated in the same manner by the policy makers.

It is concluded that up to 80,000 acres of land degrade annually due to ten different reasons with salinity and water logging taking its toll with 67%. This degradation of land leads to reduction in productivity and also reduces the rate of agricultural growth. It also causes sudden problem of poverty among land owners making them helpless in shortest period, creates unemployment in the rural areas of the province and above all harms and hampers economic development of the region. The menace of salinity and water logging can also be fought on a war footing strategy with international help that can reduce implementation gap at field level. National drainage program was also launched in the recent past with World Bank cooperation but could register little success due to lack of participatory approach of development during identification of problems.

It is to suggest that installation of new tube wells, maintenance of the old ones, subsidy by government on various inputs, effective soil testing program can also reduce the ever increasing land degradation problem as it poses a serious threat to agric- development and economy as well. The crop zoning and change in crop rotation should be strictly enforced. The anti-degradation / resistance variety of crops may be encouraged by offering incentives by the government.

## 5. References

- i. Dr.Hamzo Khan Tagar "Major obstacles in agricultural development of Sindh and their remedies: a case study of Sindh" Ph.D dissertation submitted to department of Economics University of Karachi. (Unpublished 2009) pp 80-88-193-208.
- ii. Dr.Hamzo Khan Tagar Syed Roshan Ali Shah "Sindh Agro Eco System: Major Obstacles And Remedies" International Journal Of Innovative Research & Development (Ijird) May,2015, Vol 4, Issue 5.
- iii. Dr.Hamzo Khan Tagar & Syed Roshan Ali Shah "Agricultural Development: Meanings, Modes and Models" (A Feasible Model for Sindh-Pakistan)
- iv. International Journal Of Innovative Research & Development (Ijird) October, 2012 Vol 1 Issue 8
- v. Pakistan Government of (2000), Agriculture Census of Pakistan. Islamabad, Ministry of Food Agriculture and Livestock. (Economic Wing) Agricultural Sindh province Volume-II Part- 03 pp.50, 62 606.
- vi. Pakistan Government of (2010), Agriculture Census of Pakistan. Islamabad, Ministry of Food Agriculture and Livestock. (Economic Wing) Agricultural Sindh chapter table 1.1 and table 13.1
- vii. Pig Iola Stefano "global environmental benefits of land degradation control on agricultural land" The World Bank, Washington D.C 1998, on Page: #. 02
- viii. Phillip K. Hitti (1958), History of Arabs. London, Macmillan,pp.232
- ix. Nasser A Memon (1998), Land Degradation in Sindh. Islamabad, UNDP Report, pp.2, 3, 5, 40.
- x. M. S. Kamdar (1988), Occasional Paper Agrarian Relations and Modes of Production In Sindh A Historical Survey. Sindh Agriculture University Tando Jam Sindh, Pakistan.pp.04.
- xi. M.S. Kamdar (1996), Development of Capitalism in Agriculture (A case Study of Sindh). Post Doctoral Thesis submitted at Minismptotima University U. S.A.
- xii. Syed Manzoor Dr (2006), "Agricultural Inputs for Crop Growth" Karachi, Pakistan Economic Review, No.4, pp. 7-9.
- xiii. S.N Zahid Ph.D Thesis "Land tenures and Agrarian relations" (1982) p,21
- xiv. S .Akbar Zaidi (1999), Issues in Pakistan Economy. Oxford University Press Karachi pp.3-15-23.