CONCLUSION

In any economy the component of agriculture has always been very important. The importance of agriculture through the increase in agriculture productivity and the increasing output comes first though supplying of food products to the people and as raw materials to the sectors of the economy. It provides a marketable surplus and thus an investible surplus of savings to support investment in the economy. Also the marketable surplus will increase the economic activity in the rural areas for products from the industrial sector. Further there is always the possibility of exports of the agricultural products thereby earning foreign exchange for the country. Thus agriculture makes a very important contribution to each and every sector of the economy.

The emphasis on agricultural development is important not only for its linkages with the other sectors of the economy but for the fact that of its own absorption of labour and thereby increasing employment. Further because of the agricultural production there is an increase of real income among the rural population. In fact to decrease unemployment, modern economics activity has to come to rural areas. A good agricultural strategy is to build up infrastructure, relevant technology and the basic resources available in the rural areas. Surplus of the farm products should be a major concern and developing of linkages between the different sectors of the economy.

In agriculture, the biological production process depends upon
solar energy, rainfall and soil. It must be spread out in time and space. Technology is not simply transferable, but must be adapted to the peculiar conditions of individual locations. Production is seasonal and each worker must be skilled in different skills. The production process is only partly subject to human control and management requires the ability to cope with randomly variable exigencies of local weather and other growing conditions. Agricultural production is normally done by a large number of individual farmers for whom it is a livelihood. A small mistake can be very costly and thereby the introduction of any innovative practice is not easily accepted by individual farmers.

The great variables in agricultural production make it difficult to derive an operational useful concept of agricultural development. This is due to some of the reasons as discussed. Firstly the physical conditions of production in agriculture changes from place to place. Because of changes in space the transformation of input into output changes very much. Different regions may face different price and income elasticities for the agriculture output. The strategy of modernizing agriculture and therefore its role in development will differ significantly in different geographical regions. Secondly agriculture production takes place over small independent units. The farmers differ in ability, capacity, and training for farming. Thirdly any planned development largely depend on what happened to the past. Any effort to be taken and innovations to be implemented have to modify economic, institutional, cultural and also physical environment for agriculture, which is difficult to achieve in a short period. When new varieties of seeds and techniques of production remain limited to few
regions and farm income does not depend on the number of people but on the area of land than it may not be possible that any new technology will be a stabilizing influence. Any growth, which is not equitable, will be destabilizing. The basic thrust is to device and implement agricultural production strategies which are not confined to only a single objective of increasing output at low cost but are efficient in terms of a number of objectives. Any strategies for development of agriculture that is efficient should be contributing to the overall rate of economic growth and the process of structural transformation. Another objective would be to achieve reasonable rate of increase in farm production at minimum cost. This can be done through encouraging innovations in technical change depending on the regions factor endowments. The third objective should be a broad-based improvement in the welfare of the rural population. Lastly, it should also facilitate the process of soci-economic development in terms of health, education and attitudinal and behavioral change.

Jordan’s main agricultural products are cereals, fruits and vegetables. Products yield varies widely depending on prevail weather conditions. Record high yields of agricultural produce in a good rainfall year like 1974 for wheat and barley in 1974 were in the subsequent years it reduced due to drought. The growth rate of the agricultural production has fluctuated between a negative rate of 43.7% in 1973 to a positive rate of 77.9% in 1980. This wide fluctuation in agricultural output leads to problems in planning long-term output strategy. The introduction long term output strategy. The introduction of new technologies in irrigation is very necessary specially drip irrigation and
agriculture under plastic covers. This to some extent will be able to control the wide fluctuation in the output. The strategy for agricultural development is to achieve a balance all the different sectors f the economy.

The Jordan valley is by far the most important irrigated area. This is the region in which agricultural production can be dramatically increased. This area has seen some of the largest builds up of agricultural infrastructure and trying to meet the domestic demand for agricultural products. The Jordan Valley Authority (JVA) was set in 1973 to be in charge of development program in the valley. Building up infrastructure facilities, extending irrigation canals, reclaiming new areas and constructing housing facilities.

The climate of Jordan is basically a Mediterranean climate characterized by dry hot summers and mild wet winters and extreme variability rainfall within and among years. The rainfed area in Jordan is essentially fixed resources and any future. Additions to the cropped demand must come either from conversion of natural grazing lands or from reclamation of areas that are at present not used for agricultural production.

Dry land regions of Jordan are characterized by low and highly variable rainfall. The challenge facing farmers and policy makers in Jordan is how to raise productivity of the dryland farming areas of the country. The area that could be targeted for the cropping system is to manage soils to conserve moisture and fertility and a better integration of livestock and crop production.
A well-organized program for the development of rainfed and arid areas is essential economic and social benefits. Investments should be made in these areas as soon as possible so that progressive erosion resulting in loss of soil and soil productivity does not take place. Also there are threats of possible that low farm income will lead to migration of the poor rural population. Soil survey and land classification project should be implemented as well as agricultural research on different aspects of rainfed agriculture. Agriculture extension service should be attempted through training of qualifies staff.

The World Bank, which consists of the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), has one overreaching goal, helping its borrowers reduce poverty. It is a partner in strengthening economies and expanding markets to improve the quality of life for people everywhere, especially the poorest.

The IBRD and IDA make loans for projects and program that promote economic and social progress by helping raise productivity so that people may live better lives. Along with these loans, the World Bank provides advice and technical assistance. The International Finance Corporation (IFC) which works closely with private investors and investors and invests in commercial enterprises in developing countries- and the Multilateral Investment Disputes (ICSID) shares the World Bank's objective of promoting increased flows of international investment by providing facilities for settling disputes between foreign investors and their host countries. Collectively, these five institutions
are the World Bank group.

With this reorientation of objectives, the basic philosophy behind the World Bank's operations became to develop the resources and productive capacity of the world, with special reference to the less developed countries. The World Bank was to borrow on World markets and lend to countries short of foreign exchange for reconstruction and development. The prime objectives of such lending were to finance investments in developing countries that would contribute to their economic growth and well being.

The World Bank's poverty reduction strategy, first outlined in the World Development Report (WDP) 1990 involves policies and institutions to

1. Promote broad-based labour-demanding growth.
2. Improve poor people's access to basic education, health and nutrition, and
3. Create effective safety nets for those who are cannot take advantage of income-earning opportunities or who are heavily risks prone.

In the fiscal year 1998 the World Bank published its new rural strategy paper and selected rural development as one of the top size areas of emphasis for the next few years. Nearly three quarters of poor people in developing countries live in rural areas so it is essential to focus on rural economies if poverty is to be reduces. Effective rural development also contributes to food security and helps protect the environment by making land and water use more efficient. This is
critical if the world is to feed a rapidly growing population. Estimates suggest population could grow by 45% over the next thirty years.

The revitalization of the World Bank work on rural development is showing demonstrable results. The Operations Evaluation Department (OED) evaluation show that projects are now performing much better than in recent years, with 72% of completed projects being judged satisfactory in fiscal years 1995-97 compared with just 52% in 1989-91. The goal is to achieve an 80% satisfactory rating by 2002.

The central objective of World Bank’s assistance to Jordan is to promote rapid and sustainable outward-oriented growth. Three sub-objectives support this overall theme:

1. To support the macro economic transition taking place and assist the government as it builds a market-responsive private sector capable of creating thousands of new jobs, while offsetting the temporary social adjustment likely to occur as Jordan continues its process of trade liberalization, privatization, and financial and regulatory reform.

2. To help the government address infrastructure constraints while encouraging environmentally sound investment practices by providing investment loans and other forms of assistance in key sectors of the economy such as water, energy, telecommunications, tourism, agriculture and natural resource management.

3. To support the government’s attempt to reduce poverty through targeted investments and continue its excellent track record ensuring
quality access to education and health care for all Jordanians.

Jordan and the World Bank group have enjoyed an ongoing partnership since 1962, when the International Development Association (IDA), the group soft loan arm, was invited to assist the government in financing a water and sewer project for Amman. Since supporting that initial investment in Jordan’s economic well being, the World Bank and IDA have provided assistance as partners in 55 projects. Total lending commitments through mid-1996 approach $1.4 billion, with about $600 million committed for ongoing projects.

These funds have been used to help the government finance investments in priority areas of infrastructure development such as energy, water, mining and transport, as well as in human resources development through program in education, vocational training, and health.

The proposed objectives of the World Bank’s country assistance strategy are based on the same central theme as that of the government to promote rapid and sustainable outward-oriented growth. To be both rapid and sustainable, growth needs to be private sector based and environmentally friendly. The strategy aims to establish a business-friendly policy and physical environment in which private investors guided by market signals will determine the sector direction of growth. The growth theme would be supported by three objectives, in order of priority:

1. Assisting the government, in collaboration with the IMF, in introducing the trade, financial, regulatory, public enterprise
reforms and privatization measure necessary to establish the enabling environment for sustainable growth, and hence to reduce poverty and unemployment.

2. Assisting the government to address critical infrastructure constraints—particularly water—with special efforts to induce the private sector to participate in such environmentally sound investments.

3. Assisting the government to address human resources constraints more efficiently in education, health care, family planning and protection of the poor during adjustment.

The objectives of ASAL are to promote transition to a more sustainable and efficient use of resources, particularly water and to free up markets and enable the private sector to invest, produce and trade in line with Jordan’s comparative advantage in agriculture.

ASTAP has been requested by government to help in the implementation of ASAL policy reforms and to provide support to farmers in getting the best out of the process of adjustment. The ASTAP would be implemented directly by government agencies and would provide funds for specific actions in the water sector.

ASAL and ASTAP proposals are, in general environmentally beneficial, but it is recommended that the following environmental issues be emphasized within the existing program. A water policy should ensure clear identification of legal, regulatory and enforcement
responsibility for effective ground and surface water quality monitoring and management and also prioritization of water conservation initiatives so as to minimize the effects of water resources depletion on the biodiversity of ecosystems that rely on them. Further any proposed removal of feed subsidies should be pre-announced and phased so as to minimize the impacts of overgrazing on rangelands.

Although agriculture is a modest contributor to the national income relative to many other countries, it remains important to about one-fifth of the Jordanian populations who rely on it as a major source of income. The government of Jordan has three basic objectives for the agricultural sector.

Firstly to conserve basic agriculture resources and protect the environment. Secondly, to increase the return on agricultural investments and improve farmer and farm laborer income sufficient to discourage rural-to-urban migration. Thirdly, to increase the net income and growth rate of agriculture to a proposed 7.8% and thus contribute a greater share of national income.

The expansion of irrigated areas is to be a major contributor to the achievement of the above objectives. In support of agriculture, the irrigation sector's basic goal is to increase the irrigated land to the extent available water resources permit. This would be achieved through improved water efficiency and increased water resources development. The completion/expansion of additional infrastructure (including credit and marketing institutions) and of agricultural
research. Extensions are also expected the limited availability of land and water are serious constraints to agricultural growth. The low cropping intensities suggest that water is more limiting than land. Both rainfed and irrigated agriculture will be forces to use existing resources more efficiently through introducing more water efficient crops in both rainfed and irrigated areas as well applying water conservation/water harvesting practices more widely. Further improving the major delivery systems to eliminate canal leakage losses, and continuing conversion to more efficient farm systems (from open canal to pressure pipe) and farm use (drip pipes/houses) also applying water at economically optimum rates and using more municipal waste water.

Land suitable for agriculture is in short supply, and land holdings are generally small fragmented. Where rainfall is, on average, sufficient for arable agriculture, it is highly variable, further land topography, rocky outcrops, and poor soils limit the areas which can actually be cultivated. Given the limited land base, intensive agriculture must be practiced to the extent possible. Extensive cereal-dominated cropping systems cannot be

The priorities for investment in land and water development should be determined by constraints to increase production, resources use efficiency, the cost of improving efficiency and or expanding availability, and most importantly the net benefits from the investment. This issue is complicated as these investments involve a seasonal element. Some investments increase water availability when it is relatively abundant, while others increase the availability during
periods of relative scarcity. Investments to improve water efficiency appear to economically efficient and are being addressed by irrigation conversion projects (e.g. the Wehdah Dam) continue to receive priority until existing agricultural land is fully utilized. But some incremental land development for irrigated agriculture in the Jordan valley may be necessary to effectively use the water that is relatively more abundant in winter. Investments in resource conservation are appropriate to preserve production capacity.

The overall goal is to promote efficient farming. This could be done through exploiting Jordan’s comparative advantage of a warm winter a time of year when prices are high and when Jordanian farmers should aim to produce their harvest. It should also maximize returns to the scarcest resource (i.e.; water) and identify and exploit niche markets (e.g.; cut flowers, and trees crops) and the world bank and other donors are working with the government to stave off the potential for a future crisis by taking steps today to promote water conservation, development, and an equitable distribution of this scarce resources.

Dimensions of the problem

1. Per capita water supply is among the lowest in the world, and falling rapidly as population rises. by 2025, it will be only 17% of its level in 1960.
2. Most aquifers are seriously overused, highland aquifer extraction is almost 80% above natural recharge. Saline intrusion and higher pumping costs are serious problems.

3. Significant losses of water (54% in urban systems, 45% in the Jordan valley).

4. Water quality, especially of wastewater, is poor and declining causing losses on farms in the central Jordan valley and elsewhere.

5. The cost of new water and wastewater is high and rising faster than the GDP.

Elements of a solution

1. Improve the management of the sector. This includes bringing private management into system operation.

2. Invest in reducing system losses in both municipal and irrigation systems.

3. Upgrade wastewater treatment facilities and put in place incentives to reuse treated wastewater where appropriate.

4. Implement major investments for new supply.

5. Help farmers in the Jordan valley switch to higher-value, less water-incentive crops.

6. Control extraction from aquifers to reduce it to sustainable levels.

7. Exploit all opportunities for well-regulated private investments.
The World Bank's Role

1. Partnership with putting together the strategy and plans to address the water challenge.

2. Provide initial funds for improving sector management and doing feasibility studies of specific projects.

3. Finance specific projects with loans and guarantees.

4. Help mobilize other official assistance for investments and technical assistance.

The Jordan government took the difficult decisions to increase irrigation tariffs in the Jordan Valley to cover operation and maintenance costs, eliminate import monopolies and allow market-based pricing. Pressure from farmers and some internal resistance in affected line ministries have led to a few lapses in implementation of the reforms, but the overall program is proceeding satisfactorily. Now the government is ready to extend its reform program over and investment regimes, the financial sector, the regulatory environment and the role of the public sector, with new support from the bank and other official financiers.

The World Bank recommended a strategy for agro industrial policy supported by ASAL. The agro industrial sector is characterized by a large number of small enterprises, employing more than 15% of the workforce. The agro industry accounts for some 6% of the GDP. The vast majority is based on supplying the
domestic market. Where export occurs, the Gulf countries account for almost all foreign sales, whereas only a fraction is directed to Europe, the USA, and other non-traditional markets.

Agro industries in Jordan can be grouped into two categories, enterprises of which the production is based on processing of local raw materials and enterprises of which the production is based partly or fully on imported raw materials. Manufacture of tomato paste is that the most important agro industry within processing of fruit and vegetables.

Several enterprises are canning broad beans, chickpeas and other vegetables products prepared according to the taste of the domestic market.

The olive oil industry is well established. The annual production of olive oil fluctuates substantially and Jordan is usually not self-sufficient. There is high local demand for Jordanian Olive and viability seems to be good.

Major constraints for development of agro industries are the scarce resources and in particular arable land and water. Priority should be given to promotion of agricultural and agro industrial products, which offer the best economic return on these resources. Another constraint is Jordan’s export structure. The domestic market is too small for dynamic industrial growth.

In Jordan, where three separate semi-government agencies exist to disburse credit to the agricultural sector are the agricultural Credit Corporation (ACC), the Jordanian Cooperative Organization
(JCO) and the Jordan Valley Farmers Association (JVFA).

The ACC, JCO and JVFA appear to have different areas of responsibilities, the ACC concentrates on the building up of livestock reserves, the JCO on the provision of basic foodstuffs such as wheat and barley, and the JVFA on vegetable crops. The lines of responsibilities are not, however, so clearly defined for example the JCO and ACC can both lend money for the purpose of purchasing machinery. This raises the possibilities of the farmer receiving a loan for the same purpose from more than one source and making an insufficient increase in profit to allow him to make the necessary repayments.

Those who receive loans and the manner in which loans are disbursed are other problem areas for the agencies in Jordan. The ACC lends to individual farmers, the JCO to co-operatives and the JVFA to farmers who are members of the problems of lending to the rural community is that it is an expensive sector to service, small transactions cost as much in administration as large ones, high expenses lead to reduced available capital and this, combined with low interest rates, actually reduces accessibility to credit. The JCO advocates lending to cooperatives, hence reducing costs. However, the cooperatives then pay out to the individual, taking commission on the loan.

The general aim of establishing a credit agency to service the rural sector. These are to provide investment to promote innovation and efficiency, and to reduce the poverty of farmers.
There can be added other general aims for example, ensuring food security in the nation.

However, the stating of general aims does not constitute a strategy for dealing with the problems of agricultural sector in the third World. It can be argued that the provision of cheap and accessible credit is a useful tool for development but only where it forms part of an overall strategy to lead to improvement in the performance of the agricultural sector and therefore, to the generation of income for farmers.

The effective of the government intervention in agricultural pricing of products depends on an interrelationship among agricultural prices and resource allocations, incentives, income distribution and employment. In fact the potential of government intervention in terms of price charges should not be overlooked. Usually there is a tendency to suppress economic incentives by pricing agricultural products below competitive market equilibrium prices relative to the cost of inputs. Under valuation of agriculture's contribution to growth and development is derived from the misunderstanding that agricultural production is a backward sector and is not at all open to innovations. Also the government does not let the market mechanism work out the prices on the presumption that middlemen will exploit the small farmers and the poor urban consumers.

Building local participation and partnership in the World Bank's work in Jordan is an important element of financing in
Jordan. Local participation and partnership enhance the effectiveness of the other instruments by bringing to bear local knowledge, building local analytical capacity, and most important, enhancing local ownership. This has become more important since 1989, when the economy was in crisis, adjustment measures essential. Particularly as the adjustment operations deal with areas where sensitivities regarding political interference and economic interests run high, it is important to make a good case for these operations with potential public opponents, and build into their content as much local input as possible. Greater local participation is also useful in increasing local ownership of investment projects, thus reducing the number of projects dropped well into preparation and in improving the response to our economic and sector work (ESW).

The World Bank would continue the practice of regularly reviewing the lending and ESW program, seeking greater inputs by the government in early definition of future plans, diversifying high-level dialogue to include the Economic Council of the Cabinet, and sharing analytical tools and data. The World Bank is to greater use of Jordanians as members of project preparatory and ESW teams.

The following questions should be adequately settled if agriculture were to achieve high and steady growth:

1. Can modern marketing be institutionalized?

2. Can more Jordanian labors shift to agriculture to replace imported labour and without sharp rises in wages?
3. How can agriculture become economically rewarding to the produces with a minimum risk of losses?

4. What incentives are needed to encourage expansion in domestic production of real meat and wheat?

5. How can we revive agricultural institutions and coordinate among them without facing the same problem every time as if it were new?

The government of Jordan has embarked upon a broad-based program of economic adjustment and reform that is designed to transform Jordan's considerable potential into reality. As a small country with limited natural resources, Jordan's future prosperity will depend upon the creation of an investment friendly economy with a strong export base. Fortunately, Jordan's over four million people are among the most educated in the region. This talented workforce is Jordan's greater assist. As the government's economic reforms improve the climate for business activity, the professional and technical skills of the workforce can be applied to increase Jordan's productive capacity and competitiveness. At the same time, this combination of business investments and skilled workforce can develop the physical infrastructure necessary to sustain a vibrant private sector-led economy.

In term of globalization and WTO it is important to realize what should be the continued role of agricultural trade. Even country in the new trade regime will have to look at some of these basic issues and which will be true of Jordan also can a country attempt to grow through further specialization in agriculture or should the
concentration shift to non agricultural sector. What happens in the long run, whether rapid growth can be achieved by depending on agriculture. Also, whether short-term fluctuation in price of agricultural products interfere with overall development efforts of the country.

The main purpose of this study was to find out the impact of World Bank group on agriculture development of Jordan with special reference to field crop vegetables and fruits, in this regard we rechecked this conclusion that role of World Bank is positive and therefore we except the hypothesis and we also find out some ways, means and clues to make its role more effective.

Some of the suggestions that come out the study and bears important implications for the agriculture in Jordan are as follows:

1. The government should pay more attention for agricultural development for the welfare of farmers by supporting the price of agriculture inputs, raw materials, subsidies and applying modern technology.

2. To boost up the agriculture economy of Jordan by support the infrastructure, marketing, transportation, information facilities etc, essential.

3. Agriculture should be integrated and developed in the creation of additional income for agricultural workers and small agricultural holders.

4. Programmes should be developed for increasing participation through cooperatives and agricultural bodies.

5. Increasing productivity by modern techniques should not lead to alienation of the small and the poor farmers.
6. Turing agriculture production towards commodities where Jordan enjoys relative advantages and at the same time keeping national food security into consideration.

7. To create a strategy stocks of foodstuffs and complete the infrastructure.

8. Soil conservation and fruit tree planting on lands unsuitable for cereal production.


10. Pricing of irrigation water which does not harm the small farmers.

11. Improving canal leakage and improvement in drip irrigation.

12. Development of agriculture extension and agroindustry to benefit all the sections of farmers so that private initiative does not leave them out.

Thus, the present study documents comprehensively the role of the World Bank in the agriculture development of Jordan. The study emphasizes the fact that local participation is very important in the overall development of the economy and the fact that the World Bank also releases this fact.

Agriculture program could be recommended pattern of development and of public expenditure are a definite period of years providing for the implementation of an integrated set of policies, measures and projects to the attainment of goals and target for food and agriculture which is consistent with the objectives of the national economic development plan. Agricultural programming consists of statement of the objectives of agricultural development within the
overall development objectives of the country. After that the target and a details statement of the policies and list of special projects with justifications. Also the long-range needs agriculture should be made inclusive of organizational changes needed to implement the program.

The problem in agriculture is not merely a business cycle one, but how to ensure steady and noticeable growth in agricultural income to meet the country's needs, and potentially to become a net exporter of food items.