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***Debre Markos University***

***College of Business and Economics***

***Department of Economics***

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***Distance Learning Material***

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**Module Description**

This module contains rural development distance learning material for second year economics students. In this part of the module, Agriculture and Rural development will consider the process of rural development from both theoretical and practical point of view. Theories related to definition of rural development, to measurement of rural development and to new institutional economics approach to rural development will be covered in this course. Moreover the application of such theories will be analyzed from the perspective of Indian and Ethiopian experience. Finally, the rural development policy and strategy of Ethiopia will be examined from both theoretical and practical point of view.

**Module Objectives**

The objective the module is to

* Provide students with an exposure to the major problems, theories, models and policies of agricultural development.
* Enable students to clearly examine the rural development policy of the country and propose possible and innovative solutions to challenges that could be faced in the process.
* Acquaint students with theories and models of rural development
* Help students to understand the role and contributions of rural institutions

***There are a number of symbols and their representation in the course material:***



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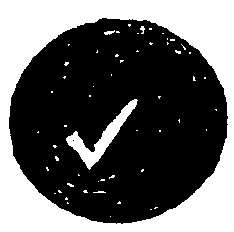


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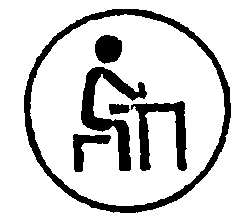


# *This tells you to note and remember important points.*

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# *This tells you there is a checklist of the main points or terms.*

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*This tells you there is a self-test for you to do.*

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*This tells you there is a written assignment.*

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# Chapter One

# Introduction

***Introduction***

Dear distance students, rural development are a subset of development. Development is a broader phenomenon. Development is a universally acknowledged goal of individuals, families, communities, societies and nations all over the world. Development is also natural in the sense that all forms of life on earth are inherently imperative to survive and develop. This glimpse of notes on rural development is prepared with the aim of highlighting the core concepts and perspectives of rural development and introducing major development aspects including policies and strategies, human capital, technology, and institutions to students who take Rural Development as a course.

***Then why do we need to study specifically rura1 development?***

The larger part of the society of the developing countries such as Ethiopia has been and will remain in the foreseeable future of rural society. The predominantly rural character of the developing world can be illustrated in terms of the size of the population residing in the rural area, the contribution of the rural economy to GDP and employment of the labour force of these countries. For instance, in countries like Ethiopia, more than 85% of the population is still residing and engaged in the rural area contributing not less than 45 % of the GDP. Hence, no strategy of socio-economic development for the country that neglects rural people and rural areas can be successful. Rural development is, therefore, an absolute necessity now, and will continue to be so in future. Rural development is the end result of the overall development of the country. Thus, as rural development is subset of the overall development process of a country, we have to be clear about the concept of development at the outset.

## Chapter Objectives

After studying this chapter, you will be able to

* Explain the meaning of development in general and rural development in particular.
* State and explain the socio-economic and cultural factors in Rural Development.
* Illuminate different elements of rural development.
* Scrutinize the role of Agricultural Research and Extension in Rural Development.

## *The concept of rural development*

 *Dear distance students, what is rural development? What is the scope and importance of rural development? Spend a few minutes and write down your thoughts. Let you try please.*------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good.* The concept rural development is built of two sub concepts, i.e. rural and development. So, it is logical to define the two sub concepts first, in order to understand the inner core of the subject. The two important questions that need to be answered are: ‘what do we mean by rural?’ and ‘what is development?’ Let’s start from the first and ask ‘what is mean by rural?’

* ***Defining ‘rural’***

Most people probably have a fairly clear idea what is meant by ‘rural’. However, the definition of rural is not as clear-cut as one might think.

* How would you define ‘rural’? Think about this for a few moments before continuing.*

***Rural*** - Is an area, where the people are engaged in primary industry in the sense that they produce things directly for the first time in cooperation with nature as stated by Srivastava (1961). A society or community can be classified as rural based on the criteria of lower population density, less social differentiation, less social and spatial mobility, slow rate of social change, etc. Agriculture would be the major occupation of rural area.

* How would you define ‘development’? Again think about this for a few moments before continuing.*

***Development:*** It refers to growth, evolution, stage of inducement or progress. This progress or growth is gradual and had sequential phases. Always there is increasing differentiation. It also refers to the overall movement towards greater efficiency and complex situations.

*Dear distance students, what do you understand by the term ‘rural development’? Spend a few minutes to writing down your thoughts. Don’t worry if you are not familiar with this field yet: try to answer the question anyway.-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.*

*Have you tried? Good.* ***Rural Development (RD)*** is a process which aims at improving the well being and self-realization of people living outside the urbanized areas through collective process. According to Agarwal (1989) ***rural development*** is a strategy designed to improve the economic and social life of rural poor. Put differently, as a concept, it can notes overall development of rural areas with a view to improve the quality of life of rural people. In this sense it is a comprehensive and multidimensional concept and encompasses the development of agriculture and allied activities-village and cottage industries and crafts, socioeconomic infrastructure, community services and facilities, and above all, the human resources in rural areas.

However, in most economic literatures, given the lower per capital income, which characterized the newly independent nations of African, Asia and Latin America in 1950’s and 1960’s, it was common to conclude, at that time, that achievement of development is as simple as achievement of sustained economic growth. Intentionally or unintentionally, economists of that time were making general development as synonymous to economic development, in general, and economic growth, in particular. For example see Lewis (1984) and Rosenstein-Rodan (1943). The conclusion of that time is that

The above conclusion is based on two basic but unrealistic, assumptions about the process of economic development. These two assumptions are:

1. Growth will trickle down, over time, from those with higher capability to ward those with lower capability.
2. Income is the main determinant factor for achievement of other elements of development.

Means through trickledown effect growth will generate economic development and economic development will generate general development. The implication being economic growth is the same as development, not in definition but in process. But this conclusion does not seem right. So let’s put the two assumptions under microscope, in order to understand what is wrong with conclusion of the aforementioned economists. In line with conventional wisdom it is true that:

* When the rich get richer, he/she will be able to create employment opportunity to the poor through investment (Thorbecke and Charumilind, 2002).
* When high potential areas produce more output efficiently, they will create both employment opportunity and cheap supply of agricultural products to people in low potential areas. (Kuyvenhoven, 2004).
* Capital, skill and technology accumulated in high potential areas will be used in low potential areas to create employment and production capability in the future (Kuyvenhoven, 2004).
* Even though, in short run industries will concentrate in locations with better infrastructure, skilled labor force, market access and so on (Hoover, 1948); in long run when industries are congested in such locations and when they are able to develop all necessary business and technical skills, they will outsource their business to other locations (Hanson, 2000; Fujita and Thisse, 2000 and Quigley, 1998).
  1. ***Socio-economic and Cultural Factors in Rural Development***

*Dear distance students, what do you think is that the determinants of rural development? Spend a few minutes to writing down your thoughts. -----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.*

*Have you tried? Excellent!* The factors affecting rural development favorably or adversely are so varied, and have combined over time in so many different ways. It is very difficult to isolate a small number of crucial variables or determinants. There are many physical, technological, economic, socio-cultural, institutional, organizational and political factors that affect the level and pace of rural development. These factors operate at all levels household, village, district, state, nation, and the world as a whole. Depending upon how they are managed, these factors can have both favorable and adverse effects on development. For instance, if the human resources of a country are not properly developed by proper nutrition, health care, education and training, and are not productively utilized, these resources become liabilities and obstacles to development. But if they are properly developed and utilized, then they become great assets and major factors contributing to development. Knowledge about the nature and magnitude of the impact of various determinants on rural development is necessary for rural development practitioners to be able to use these factors to achieve their goals efficiently and effectively. In this sub-topic we will explain how each of these factors determines the pattern of rural development rigorously.

*Determinants of Rural Development*

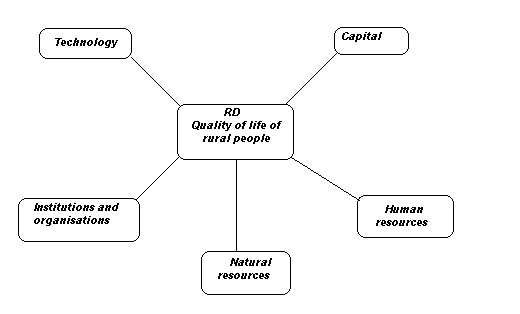


Figure 1.1

## *Changes in Output*

Measuring changes in output over time is much more complex than often thought. For this, we need a system of accounts that provide indicators of output change. Many indicators may be used, but they are all subject to certain limitations. Before proceeding with a discussion of specific indicators of output change, a few observations will be made about economic growth as a means of promoting overall development. A growing economy is one of the goals of economic policy in practically all countries, rich and poor. In recent years, however, particularly in developed countries, this preoccupation with growth has been challenged. It is now pointed out that growth should not be considered as an end in itself, but only as a means of promoting development.

Before growth can be considered an end of social policy, it must be demonstrable that economic activity will enhance the level of well-being of at least some human beings. The national income accounts have been designed to provide indicators of aggregate output or, alternatively, on the other side of the accounts, aggregate income to owners of the factors of production. Some of these indicators are gross national product, net national product, national income, personal income and personal disposable income.

If we must have a single indicator which shows the growth that has occurred, that indicator must have a way of meaningfully aggregating physically unlike goods and services, such as wheat, milk, houses, clothes, steel, aero planes, banking and insurance, etc. The national income indicators accomplish this by converting these physical units of output into monetary values by multiplying the physical units by market prices. The monetary values of output are thus comparable and additive.

This valuation procedure is open to one basic question. Do market prices used as weights accurately reflect the contributions of the respective units of output to aggregate income? The answer seems to be that if product and factor markets are perfectly competitive, and no externalities are present in either consumption or production of the commodities being priced, they do. If the demand for a product is less than perfectly elastic, however, the additions to income due to increase in the output of the product will be reflected by marginal revenue rather than by price, because as output expands, the price of all units sold will decline. Furthermore, if externalities are present in consumption of the product, the market demand price will not reflect the ‘social’ value of the product as it is consumed. By the same token, if externalities are present in production of the product, the product supply price will not reflect the complete ‘social’ productivity of the factors of production. Externalities may be positive or negative, and when they can be shown to exist and can be meaningfully quantified, valuation adjustments may be made to reflect their significance.

An even more serious problem relates to the statistical coverage of the traditional national income indicators. What is needed, of course, is an indicator that captures all changes in the level of output. As a rule, the income accounts provide good coverage of those goods and services which pass through the market, but do not include many of those which do not. This means that the statistical coverage becomes more comprehensive as the economy becomes more complex, and the market expands into more and more areas of the economy. If so, the consequence is that the real output of a less developed country is probably understated more by the income accounts than the real output of an advanced country.

Economists and others have recognized that a gross measure of output, such as the real gross national product, is not the best indicator of the aggregate size of the growth-producing mechanism called the economy. The reason is that part of gross output is needed to maintain the stock of capital which is part of the productive base of the economy. Some of the category called ‘gross investment’ constitutes net addition to the capital stock, and should thus be included in any measure of net productive capacity. But a substantial part of gross investment is simply replacement capital, called ‘capital depreciation allowance’ in the income account. Gross product less capital depreciation allowance is net product. We would argue that change in real net product is the best indicator of economic growth.

Although we cannot measure them in the income accounts, it is important to remember that other factors of production have precise parallels to the capital depreciation allowance. Labour sometimes depreciates as production occurs, and maintenance of the stock of human capital at a certain base requires investment in training, schooling, health, and nutrition. Resources taken from the natural environment are depleted, and to that extent should be netted out of gross productivity figures in an exactly analogous fashion as with capital. The point is equally relevant with respect to the quality as well as the quantity of the factors. If the quality of the stock of human capital and of natural resources declines over time, latent productivity of the economy declines, and these deleterious changes should be subtracted from the net product of the system. Contrarily, if the quality of the factor stock improves due to technical advances and increases in knowledge, this latent capacity to produce should be added to the net product actually produced in a given time period.

Perhaps the most devastating limitation of our productivity accounts is the manner in which we deal with negative final products. These are those final outputs of production which cause disutility to human beings, and which usually cause deterioration in the natural environment in the form of waste residues and environmental degradation. They also take the form of external diseconomies, such as crowding, congestion and crime. Before a true estimate of the effects of growth on human wellbeing can be assessed, therefore, these negative influences on growth should be netted out from the positive ones.

Rural development is characterized by multiple goals, and as has been discussed in Chapter two, there is no single index or indicator which can adequately capture the multifaceted nature of rural development. At the same time, unless we can measure the phenomenon of rural development, we are unlikely to know much about the quantitative impact of the factors that influence it.

In the absence of a single index of rural development, we shall use change in output as a proxy measure, and discuss the role of various factors that appear to us, on an a priori basis, as important determinants of this measure. Let us assume that change in output is a function of changes in natural resources, employment, capital, technology and institutions and organizations.

This can be expressed in notational form as follows:



Where Y = output, R = natural resources, N = employment, K = capital, T = technology, 0 = organizational and institutional framework and delta (A) means ‘change in’.

This equation states that changes in output will be functions of changes in those variables appearing on the right hand side of the equation, i.e., natural resources, employment, capital, technology, and organizational and institutional framework (Figure 4.1). The variables might be called the ‘instrument variables’ of economic growth or change in output. Of course, it is not easy to determine the causal relationship between Y and these instrument variables. All change simultaneously, and the contribution of a single variable is difficult to isolate, but at least some statistical associations are often possible, and have been established by a number of economists.

## *Changes in the Utilization of Natural Resources*

By a natural resource we mean any product, thing or circumstance found by man in his natural environment that he may in some way utilize for his own benefit. In this sense, the resources provided by nature include air, climate, soils, water, plants, animals, mineral ores, mineral oil, coal, natural gas, solar radiation, and certain amenities which can be used for tourism. As time goes by, the world’s resource pattern changes, not because nature’s basic provision alters, but because of changes in what constitutes a resource. Natural resources can be classified into two categories: non-renewable or stock resources, such as metal ores, mineral oil and coal deposits and renewable or flow resources such as solar radiation, animal and plant species, and winds, among others.

***Role of Mother Nature Environment in Economic Growth***

Provides inputs

Economic

growth, i.e., production of goods and services

Biosphere/

Mother

Nature

Absorbs wastes

Produced in the process of production

***Figure 1.2***

This distinction is very important from the point of view of policies for resource development, conservation and utilization.

Mother Nature performs two important functions in the process of economic growth, namely, providing inputs to production processes, and assimilating the wastes generated in the process of production (Figure 4.2). Since Planet Earth is finite, closed, and non-growing, there is a natural limit to both these critical functions, i.e., the inputs provisioning and waste assimilating capacities of our planet are both limited. This means that one cannot go on increasing the production of goods and services using natural resources forever, i.e., there are ecological/natural limits to economic growth; hence it cannot be sustained forever. Sustainable development requires that in the process of economic growth, we maintain our natural resources and environment intact, and use/harvest only that quantity which is regenerated naturally, i.e., we live on the ‘flows’, and keep the ‘stock’ of natural resources and the environment intact. However, we would like to add that it is now possible to augment— through appropriate technological and management interventions—the natural flows/harvest of products of nature.

For example, fish catches can be increased sustainably through artificial feeding and breeding; crop yields can be increased through application of balanced organic and inorganic fertilizers, bio-pesticides and scientific soil and water management; and forests can be rejuvenated faster and their natural productivity increased through application of fertilizers and water. Thus, the carrying capacity of our biosphere in terms of the population of living beings is, to some extent, amenable to augmentation through technological and managerial intervention. Therefore, contrary to what growth maniacs and technocrats believe, there are limits to economic growth, and also, contrary to what ecologists assert, the limits are not absolutely rigid—they can be relaxed. Proponents of sustainable development recognize this truth, and advocate the middle path between the two extremes represented by technocrats and ecologists.

In many countries, Common Pool Resources (CPRs), i.e., resources used by people in common, play a very important role as sources of food, fuel wood, fodder and many other basic needs of rural people, particularly the poor. Depletion of CPRs of land, forests and water has increased the misery and drudgery of the rural poor, particularly women, who now have to spend a lot of their energy and time in fetching water, fuel wood and fodder from faraway places. Restoration and judicious management of natural CPRs is essential for improving the well-being of the rural poor, as also for improving the quality of the environment.

At any level of economic development, utilization of domestically available natural resources constitutes the bedrock of an economy. The quantity and quality of available natural resources along with the intensity and efficiency of their use determine to a considerable extent, the level and pace of the economic development of a nation. Poverty of natural resources does not, however, exclude a high level of economic development, as is shown by the examples of Denmark, Switzerland, Israel, Hong Kong and Japan. These countries have compensated for the lack of natural resources by appropriate technologies, institutions and organizations and highly developed human resources. Ethiopia is relatively well-endowed with natural resources, but has not been able to develop and utilize them fully and judiciously for the benefit of its people that resulted in low level of agricultural and rural development in the country.

It is almost invariably true that the poorer a country is, the greater the percentage of its income that goes to the owners of natural resources, and thus the greater the importance of natural resources to economic development. The same point is relevant with respect to the production of other products that depend primarily on natural resources. If capital is scarce and labour tends to be unskilled, then land and natural resources of other kinds tend to be very significant in production, and their ownership becomes an important social issue.

## *Changes in Employment*

The level of employment is best considered from the viewpoint of the long run and the short run. Over the long run, employment is related primarily to population growth. The correspondence between employment and population growth is especially close in societies where human beings enter the labour force at a young age, where much of the labour is utilized in agricultural pursuits, and is, therefore, likely to be utilized even if underemployed. The higher the rate of population growth, the larger will be the amount of labour used relative to the other factors of production.

The important point in this connection, however, is that it takes time and investment to get a fully productive human being. If the time is shortened by the necessity for children to work, the result tends to be less productive labour over the long run. On the other hand, if work is postponed and children go to school, the burden on public institutions such as the educational establishments becomes greater, and the net consumption embodied in per capita incomes is reduced, as resources go into institutions for training and maintenance, rather than for consumption. Thus, per capita incomes are temporarily reduced until people eventually get into the labour force, at which time per capita incomes are increased if the labour is productive enough to compensate for the time which is spent on schooling and training.

In the short run, on the other hand, employment can be increased by providing more opportunities for people to work. This may be accomplished by offering favorable wages, which attract previously unemployed workers into the labour force and by a healthy economic environment where jobs are more plentiful.

Research undertaken in developed and developing countries of the world reveals that for an increase in output, the quality of labour is more important than the quantity. A clear picture emerges if one looks at the experience of different countries. No country with an educated, technically trained labour force is poor, and no country with a predominantly illiterate, untrained labour force is rich. In general, the quality of the labour force is much more critical in economic development than is the availability of natural resources. Japan is a country which has almost no mineral or energy resources but has high economic productivity because of a highly literate, trained and efficient working population.

It has also been seen that investment in education and training produces very high internal rates of return in economic output. Especially high are the returns to basic literacy. The rate of returns to investment in schooling is in the neighborhood of 50 per cent per year in many rich countries, and in developing countries the rate of return to primary schooling is even higher. Any poor country that wants to develop could do no better than use its scarce resources in schools, technical/vocational education, training and management.

Another point to note about people and their importance in the development process is that their values and attitudes must be conducive to development. If development is to occur, an increase of income and wealth held either privately or publicly, must be one of the dominant goals in life. That is, people must have a desire to acquire, accumulate, or consume at increasing levels. If not, development is practically impossible. There is no denying that it was this desire that produced Western technology, money and financial intermediaries, private property, and an economic structure based on free contract and exchange. Some would argue that even political liberty, which increased social mobility, which in turn contributed to development, resulted from the dominance of pecuniary considerations in the hierarchy of privately-held goals.

## *An Increase in Capital*

Most development economists from developed Western countries consider capital to be the key instrument of economic development. The Harrod—Domar model represents a typical example of this school of thought. In this model, capital accumulation plays a crucial role in the process of economic growth, as the rate of economic growth is expressed as the product of the savings rate and output-capital ratio. Capital formation is, therefore, an important prerequisite of economic development. Much of new technology, such as high yielding seeds, chemical fertilizers and pesticides, tractors, combine harvesters and food processing plants, is embodied in capital. Increases in the capital stock lead to increases in the marginal productivity of labour which, in turn, generally enhances wage rates.

Capital can be classified in various ways. Long-term capital is embodied in improvements in land, machinery, equipment, basic infrastructure and other long-lived forms of capital, while operating capital exists in the form of seeds, fertilizers, fuel and other raw materials which are used up annually in the production process.

Moreover, capital may also be classified according to whether it is owned publicly or privately. Private capital is managed by the individual entrepreneur, and examples are those listed above in the examples of long-term and operating capital. Public capital, on the other hand, is society’s investment in infrastructure, such as roads, schools, hospitals, national defense, and various government establishments. Private capital is, of course, acquired by individuals by their own decisions to consume less than they earn. Public capital, on the other hand, is produced by joint action through political processes, but can also come into being because society earns more than it consumes. For promoting rural development, both private and public capital investments are necessary.

Looking at capital formation from the vantage point of the economy, capital resources can be acquired in one of two ways: by domestic saving, or by foreign aid. In most countries, domestic savings can be acquired from three sources: The first is from private citizens who consume less than their incomes, and make the difference available in the form of investment to the economy. In rich countries, people save as a matter of course in their attempt to provide security against various contingencies and thus, the saving takes the form of insurance premiums, retirement annuities, bank accounts, etc. Since these choices are made voluntarily, people consider their well-being enhanced in the process of saving, and therefore, no deprivation is incurred. In poor countries, on the other hand, saving is often painful, because people live so close to the edge of hunger and disease, and need all their income for consumption alone. As a result, savings are usually meager, and if society needs more than are available by private decisions to save, then saving may be forced by inflation. Savings can be acquired from corporations, which as a rule, in an effort to expand, take some of their earnings and plough them back into the firm for additional capital formation. In rich countries, where corporations are numerous, large, and powerful, this form of savings and the concomitant capital formation is extremely important. Governments can acquire resources for purposes of capital formation through taxes and inflation. Income tax, property tax, excise tax, value-added tax, all have their own advantages and disadvantages.

Foreign aid has been used extensively since World War II as a form of transfer of international capital from one country to another. It should be pointed out, however, that many of the advanced countries of today received much of their development capital from external sources. The United States and Canada were aided tremendously in the take-off phase of their development by foreign capital shipments, particularly from the UK. There is one major difference, however, between that period and the present day. The bulk of the development capital that fuelled the take-off in the US and Canada came from private foreign sources. Profit opportunities were unusually high, and this attracted capital which was seeking these profits. It goes without saying that since the capital transfer was made voluntarily, both borrowers and lenders were benefited by it.

There is also much private capital that goes abroad today. Large international firms have established branches in many countries. However, large quantities of financial resources are being transferred through international organizations, such as the World Bank, the Inter-American Development Bank, and through foreign aid from government to government. Again, as long as the transfers are mutually beneficial and voluntary, there is a lot to be gained by both the grantor and the grantee. Since a large amount of international capital is available through grants or low-cost loans, the recipients do not worry too much about the economic feasibility of projects utilizing these funds. This is needless waste of scarce resources. International grants and low-cost loans should be administered just as tightly and economically as high-cost loans. The real cost to the economy of using these funds, regardless of source or terms, are the foregone opportunities of using the resources in their most productive alternative. These capital funds should be allocated to uses where they generate the greatest productivity. Planning should be just as tight and rigorous with foreign aid resources, in terms of determining their use in the economy, as would be the case if the resources were generated through domestic saving.

Most of LDCs’ rural sector is starved of capital, and this is perhaps one of the most serious constraints on rural development. The rate of capital formation in the rural sector has been low vis-à-vis the rate required for achieving a higher level of rural development. Furthermore, much of the surplus generated in the sector is siphoned off to the urban sector for a variety of reasons, including lack of institutional arrangements for mopping up small savings and providing incentives to small savers.

## *Changes in Technology*

In all likelihood, technological advance is the most important factor that accounts for economic development. Studies in the advanced countries have shown that increases in natural resources, employment, and capital have accounted for less than one-half of the increases in output over time. The bulk of growth must, therefore, be accounted for by qualitative rather than quantitative increases in the factors of production. In essence, this is what technological advance is—an improvement in the processes of production that produces increases in output per unit of input. It is improvements in knowledge and know-how; it is improved skills; it is utilizing better machinery and equipment, all of which combine to increase productivity.

Many scholars of development, notably Hayami and Ruttan (1970), Schultz (1964) and Rostow have constructed theories of development which have technological advance at the very centre of concern. Schultz has argued that the transition from traditional to modern agriculture is essentially one of utilizing modern inputs, which are defined as those that are technologically advanced. In Rostow’s scheme, once the static stage of traditional life has been disturbed, society passes through the later stages of: (a) establishment of the preconditions for growth; (b) takeoff; (c) drive to maturity; and (d) mass consumption. During the period of establishment of the preconditions for growth, the insights of modem science begin to be translated into new production functions. This is just another way of saying that technological advance is occurring.

Schumpeter distinguishes between two classes of influences upon the dynamic evolution of an economy, viz., (a) the effects of changes in factor availability, which he calls the ‘growth’ component; and (b) the effects of technological and social changes, which he refers to as ‘development’ or ‘evolution’. In his view, development covers five combinations, including the introduction of a new commodity, the introduction of a new method of production, the opening of a new markets, the conquest of a new source of supply of raw materials or half- manufactured goods and the reorganization of an industry, like the creation of a monopoly position or breaking down a monopoly situation.

In Schumpeter’s model of economic development, the entrepreneur is the central figure. He revolutionizes the pattern of production by exploiting inventions, by exploiting untried technological possibilities for producing new commodities, by producing old commodities in new ways, and soon. For entrepreneurial activity to flourish, the capitalist rationality and bourgeois institutions are important prerequisites. Schumpeter also assigned an important role to credit as a means of enabling entrepreneurs to obtain productive resources and to carry out innovation. He emphasizes the importance of innovation in generating business cycles. In Schumpeter’s opinion, there is no limit to the increase in the rate of output per head.

The critical question is, of course, how to promote a high rate of technical change. In the first place, the general economic climate must be conducive to innovation and knowledge-building. As a rule, if incentives exist for individuals to innovate, they will. A country which has a size-able and educated middle class can rely largely on the profit motive to push inventors, scientists and entrepreneurs to undertake technological advance. In conservative traditional societies, however, public institutions must also play a very large role. Educational institutions are crucial at all levels. So are the experiment stations and the extension services. Empirical studies from both rich and poor countries clearly demonstrate that rates of return from public investment in these knowledge-building institutions and activities are very high. Over the long run, no country can afford to neglect these institutions, which act as agents of change in producing and implementing technical change.

While examining the role of new technology in rural development, we would like to caution that the adoption of technologies which are not appropriate may cause serious damage to the biosphere, albeit unintentionally. The general economic and political environments prevailing in developing countries tend to favour and promote environmentally harmful technologies. For example, indiscriminate use of chemical fertilizers, and the effluents discharged by firms producing such chemicals as napthol, disulphonic acid and its derivatives, pollute rivers, streams, land and air and cause hazards to human health and reduce the longevity. People in most LDCs, particularly the poor, suffer more from such hazards, as there are neither property rights nor liability rules to protect them. Therefore, it is necessary that environmental impacts of new technologies are carefully evaluated before they are recommended for wider use.

## *Changes in the Organizational and Institutional Framework*

As already mentioned, rural development is influenced by a multitude of factors, such as natural resources, human resources (labour), capital, technology, and institutions and organizations. Although the classical and neoclassical economists emphasized the role of natural resources, labour, technology, and investment in economic development, they did not assign any significant role to institutions and organizations in the process of development. They assumed the institutional set-up of the economy as given (exogenous), and hence beyond scientific analysis. As a matter of fact, they even argued for minimizing the role of the government in the process of development, and advocated a policy of laissez-faire. It was the institutional economists and Karl Marx who recognized the significant role that institutions and organizations play in the process of economic development.

The terms ‘organization’ and ‘institution’ are often used interchangeably. We consider organizations as a subset of the broader set of institutional structures or arrangements. An organization connotes coordinated acts or endeavors of two or more individuals. It is created to give effect to a certain institutional arrangement. The main function of an economic organization is to provide signals that will guide self- interested economic agents/entities to act in the interest of the larger community. The main task of any nation-state is to create institutional arrangements that provide the needed signals to individual economic entities. Markets provide such signals efficiently, so long as they operate with low transaction costs. Non-market mechanisms, such as government agencies and non-governmental organizations, including cooperatives, can also provide such signals.

Institutions and organizations are important aids to development. They may affect agricultural and rural development in many different ways, including provision of production inputs and services, reduction of transaction costs, enhancement of bargaining power of rural producers vis-à-vis those to whom they sell their produce and from whom they buy production inputs and services, influencing investments and savings and bringing the two together, and so on. The economic life of any community takes place in a milieu of organizations and institutions. They largely determine the economic structure of the community, and set the rules in which the economic game is played. Changes in these organizations and institutions over time will probably have a pronounced effect on economic output and development. Often these effects are difficult to isolate and measure because of the interdependence between changes in organizations and institutions and between other instrument variables of agricultural development.

There are many forms of organizations, such as public (government), sole proprietorship, partnership, company, cooperative and charitable trust, that can and are in fact serving the needs of farmer. The form of organization suitable for promoting agricultural development should fully identify with the interests of farmers, and both organizationally and operationally should be fully oriented to meeting their needs.

The government has been, still is, and will continue in the near future to be an important organization in the field of agricultural and rural development. Development is seen as the specific responsibility of the government. This has far-reaching implications for the role of public bureaucracy, which is the arm of the state responsible for carrying out the wishes of political leaders. Efforts to bring about improvement in the quality of life of rural people depend heavily on government administration and bureaucrats.

At the institutional level, laws of property and contract have a profound impact on economic growth. The essential questions here are: (a) what may a man do with his property? (b) What may others do to his property? and (c) In what kinds of economic activity may he engage? Some societies are fairly liberal in permitting private firms and individuals to operate without restrictions, while others impose many restrictions that curtail private profits, in the name of protecting the broad public interest. Other questions relate to what kinds of agreements private individuals may make; what kinds of claims and contracts can be enforced and to what extent, and so on.

All these questions relate to the influence of government regulation of business activity and its impact on economic growth. How tightly are specific kinds of business activities regulated by the government? How are taxes, tariffs, subsidies, and other fees utilized to discourage certain activities and encourage others? How are taxes and laws of inheritance used to control the distribution of income at the expense of economic growth? All these forces and factors determine the incentives for economic production, and must not be neglected in the search for a favorable institutional and organizational climate for economic development.

The only organization that conceptually satisfies all the criteria of a good rural organization is a cooperative. The cooperative form of organization is solely designed for promoting the mutual interests of user patrons on the basis of equality and equity. It is controlled by them on a democratic basis. It also resolves the conflict of interests between the lender and borrower, or between seller and buyer, for in it the lender and the borrower or the seller and buyer are the same person. The objective is not to do business for the sake of profits only, but for meeting the members’ needs. It is a local organization, and provides for local participation. It is responsive to local needs, as its policy is decided democratically by the local member-users. It serves as a training round for rural people in business and in democracy.

In addition cooperatives and many other forms of formal (for instance, NGOs) and non-formal associations which could do a good job of promoting agricultural and rural development. The role of NGOs is to organize people and help them with technical information, training, and, to some extent, with funds. Besides, they also help grassroots organizations to secure financial assistance from various governmental and non-governmental sources. In most cases, the performance of the programmes taken up under the auspices of NGOs has been better than that of government programmes. However, this statement cannot be generalized, as there are many NGOs which do not have the necessary technical and managerial expertise and financial discipline to initiate and support agricultural and rural development programmes.

Corporations and companies could play a pivotal role in promoting agricultural development. Corporate can bring the benefits of modern science and technology, management and world markets to the agricultural sector, and thereby promote agricultural development, particularly now in the era of liberalization, deregulation, privatization and globalization.

* 1. ***Dimension or elements of rural development***

 *Dear distance students, what do you think is that the elements of rural development? What are the main explanations of each elements of agricultural/rural development? Spend a few minutes and write down your thoughts. Let you try please.* -------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good.* When trying to determine and measure level of development of a given area, you need to know where to look. Hence, in order to determine level and dynamics of development, first you need to know which dimensions you have to measure. Some economists measure development in terms of per capital income, others in terms of human development, and others in terms of basic needs. In this sup-topic a general synopsis of developmental dimensions will be given. Elements of rural development can be approached from three dimensions or school of thoughts. These are:

* ***Economic welfare***
* ***Basic needs***
* ***Capability***
* ***Economic welfare***: If the economy is having functional market to supply private goods and services, and functional and democratic state to supply public goods and services; more income will mean more goods and services that they can consume to generate utility. To use Sen’s (1983a) terminology, resource entitlement and exchange entitlement will determine once access to goods and services. So a person with more income or expenditure and operating under functional market and state will have more capability to consume more goods and services. Moreover assuming people are rational enough to be the best judges of their own welfare; people will only use their income in goods and services that can maximize their utility, in best possible way. This also applies to public goods and services.
* Under democratic systems by using their voting power, people will determine the optimal taxes and public expenditures needed in order to have optimal supply of public goods and services. Under these conditions, more income or expenditure will mean more goods and service. And this is why the economic welfare school tries to measure development by income or expenditure (Duclos and Araar, 2006).

Fundamentally, the school is trying to measure development by utility; with the assumption that: more utility means more development (Duclos and Araar, 2006). However utility, generated from given income, is neither observable nor comparable between different persons. Utility is unobservable psychic satisfaction, which is not possible to measure. As proxy, they will use income or expenditure as measure of development, assuming people with more income will have more goods and services to generate more utility (Duclos and Araar, 2006). And this will be the case,

* If there are functional market & state or other institutions to create exchange entitlement.
* If people are rational enough to be the best judges of their own welfare.
* You can have more income, but if market is not supplying you with necessary goods and services that you demand at acceptable price, if state is taxing you without supplying the necessary public goods and services, if the state itself fail to exist or if there is no alternative institution that can fill the gap of market and state; more income means more paper, nothing more than that! If people have different capacity to generate utility from the same goods and services, goods and services consumed are not adequate indicators of utility. Say I don’t like white shirt but you do. If I am given two white shirts, I will not able to generate any utility from them. But if you are given just one shirt, you can generate some utility out of it. Means with one shirt you have more utility than me, though I have two shirts. The implication is that more goods and services, does not mean more utility. That is why people have to be rational enough to be the best judges of their own welfare for this approach to work.

Accordingly, under the above stated assumptions, families and locations with higher income or with higher expenditure are more developed (having better life) than other families and locations. The dimensions or elements of rural development based on economic welfare school, therefore, are

*Elements of rural development*

* *Income per capital & its distribution*
* *Expenditure per capital & its distribution*

 *Dear distance students, what do you think is that the practical and theoretical shortcomings of economic welfare elements’ of rural development? Spend a few minutes and write down your thoughts. Let you try please.* ---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good.* The above approach has both theoretical and practical short comings, when used to measure rural development. The ***theoretical shortcomings*** are

1. Since, utility, generated form goods and services, is reversible with change in quality of life, more goods and services or income does not mean more utility. This is true even when there are perfect market and state. To quote Sen (1983a, 1984, 334): “A grumbling rich man may well be less happy than a contented peasant, but he does have a higher standard of living than the peasant. The comparison of standard of living is not the comparison of utility”. When the rich have better life for long, he/she will fail to generate utility from his/her splendid life, over time. When the poor has been under poverty for long, it will start to enjoy what he/she has. As result the poor will have more utility than the rich. Does it mean the poor is better off or more developed than the rich? To give you a simple example, if you can’t afford a cup of tea and some body was able to buy you one, you will enjoy it deeply. However if you can easily afford it, drinking a cup of tea will not generate that much utility to you. The more you have, the more you will expect from life and the less utility you will generate from what you have. The less you have, the less you will expect from life and the more utility you will able to generate from life. Does this mean the self content poor are more developed than the grappling rich?
2. Utility is generated not only from material attainment but also none material attainments, too, like having more role in community life; having self respect; being respected by the community; having social, political and cultural freedom. People with more income or expenditure can have less social, political and cultural freedom, so they will have less utility (UNDP, 1990). If development is measured by income or expenditure only, it will give a misleading picture of development. So wealth is not necessary condition for attainment of none economic functioning’s (Sen, 1984; Todaro, 2000 and Ravallion, 1997). To give example we can follow description of Iseman as sited in Landis (1986). He stated that in 1976 Saudi Arabia earned $ 37.8 billion from crude oil. However literacy rate was less than 13%, life expectancy 40 years and the country was known for its high child mortality. The study found that some tribes were calling every child less than 5 years age Mohammed and they will give him specific name if and only if he/she survives up to 5th year of age.

* ***The practical short comings***

1. The assumption of functional market and state function are less realistic in rural areas of developing economies. Market failures, missing markets and dysfunctional state are norm than exception in rural areas of developing economies (Sadoulet and Janvry, 1995; Newbery and Stiglitz, 1981 and Braun et al, 1994). Under such reality, it is possible for people to have more income but not more goods and services. The Somalia regional state of Ethiopia, for example, is one of the leading regions in Ethiopia in terms of per capital income. Unfortunately, the region is classified as under developed or lagging region in the country, due to its low level of development.
2. People are not always the best judges of their own welfare (Tomer, 2008 and Todd and Gigerenzer, 2003). First the level of rationality assumed in economics is far from reality, in face of well documented irrational actions of individuals’, by psychologists. Second, real people, than theoretical people, will neither have all necessary information nor processing capacity to make rational action at each stage. In 2nd world war rationing of food items in both UK did able to generate satisfactory outcome, despite serious shortage of goods and services (Deaton, 1997).

* *In a nutshell, the two assumptions, which are the corner stone of the welfare school, are founded in shaky ground. This is why income or expenditure as measure of development is accepted with high amount of reservation by many economists, in particular, and social scientist, in general.*
* ***Basic Needs***

The basic needs school stress the fact that before anyone can be ‘well’ alive, he/she needs to ‘be’ alive (Duclos and Araar, 2006). The logic of this school is as following. In developing rural areas, peoples’ main problem is not lack of income to buy more goods and services, but lack of basic needs of life. In such locations majority of the population is under nourished, illiterate, without access to basic health care and education service and are without any security of life. The critical question to them is not how they can live well? But how they can survive tomorrow? Under such reality, objective of development can’t be maximization (max) of welfare, but minimization of maximum (min-max) suffering that can be faced by any one in line with Rawls philosophy (Rasmussen, 1974). Their conclusions is that development in developing economies, in general, and rural developing economies, in particular, has to be measured by majority’s’ access to basic needs of life. Means, the main focus of development has to be on improvement of peoples’ access to basic goods and services of life, political freedom and self respect.

Based on this school of thought, elements of rural development are

*Elements of rural development*

* *Having access to basic needs of life*
* *Having freedom*
* *Having self respect*
* Basic needs life include access to minimum nutritional requirement, basic education, basic health care, basic shelter and basic clothing. Freedom is related to economic, social, cultural and political side of life (Singh, 1999). Freedom implies emancipation from alienating material conditions, servitude to man, nature, ignorance, misery, institution and dogmatic beliefs (Singh, 1999 and Todaro, 2000). So it means expansion of peoples’ choice to develop and use their potential as they choose by avoiding economic, social and political constrains in the way (Todaro, 2000). To have self respect, a person must have decent life in relation to the community standard and must be respected by the community. Self esteem or self respect implies having self worth or not being tool for others end or to be respectable person (Todaro, 2000).

 *Dear distance students, what do you think is that the practical and theoretical shortcomings of basic need elements’ of rural development? Spend a few minutes and write down your thoughts. Let you try please. ----*-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good.* This school of thought also has its own theoretical and practical problems in the measure of rural development. These include

1. The practical definition of basic needs in entitlement and commodity dimension is very vague (Duclos and Araar, 2006). For some economists having bicycle can be luxury. However, if a head of a family needs a bicycle in order to be employed in distant factory, so he/she can provide means of living for the family, then bicycle is basic (Sen, 1984). Without considering the social, cultural, political and economic structure of a given location, it is hardly possible to define what is basic and what is not basic (Duclos and Araar, 2006 and Sen, 1984). Even if we accept Sen’s (1983a, 1984) hypothesis that basic needs in capability space is absolute concept and in commodity space is relative concept, the actual definition and measurement of basic needs, in practice, is still vague. In above example, the need to provide for family subsistence is basic and absolute in capability space. But what is needed in order to do that in commodity space, bicycle in the example, is relative to the structure of the society.
2. Peoples failure to satisfy their ‘basic needs’, as normally defined by expert, is not always result of lack of access, but also a rational choice (Duclos and Araar, 2006). Peoples’ choice to ward leisure and work, different commodities, path of life and soon will also has its impact on their capacity to have basic needs of life. Voter turnout in many African countries is much higher than voter turnout in USA. Does this mean there is more political freedom in African countries compared to USA? As demand for goods and service is function of both willingness and ability, access to basic needs of life is function of both access and choice. The problem with this school is that it ignores the importance of choice. When people are lacking access to basic needs, the recommendation of the school is that state have to fill the gap, through welfare programs. Even though, this action is beneficial to receiving families in the short run, in the long run it will create dependency problem and will bankrupt the sate (See Singh, 1999 for Indian example).
3. The link between the supply of basic needs and the generation of sustainable economic growth is not clearly understood (Ranis et al., 2000). Countries operating in imperfect market need not only to supply basic needs of life to their people, but also they need to sustain it. It is not theoretically clear how people after having the basic needs of life will able to sustain36 it, trough economic growth? Sir Lanka is a classic example, to show this fact. Despite having better achievement in wider welfare measures as early as 1980’s, the economic growth in early 1990’s was both slow and variable (Jolly, 1998). It is clear, by know, that government supply of basic needs for the mass is not a guaranteed recipe for success in the long run. In case of India for example welfare oriented polices though able to benefit some portion of the population, they become unsustainable to cover the whole nation and to extend it over time. What is worst is that it created dependency problem among the poor (Singh, 1999).

* ***Capability element***

To solve the short comings of preceding two approaches, an innovative approach based on idea of capability is developed by Nobel Prize winner Economist Amartya Sen. The capability school defines life in terms of functioning’s (Sen, 1984 and Duclos and Araar, 2006). Functioning are being and doings that in rich life and are not directly related to utility. Functioning’s include being well feed, being knowledgeable, living long and health life, having self respect, having-say in community life, having political, social and economic freedom and soon. Attainment of this functioning’s is result of both free choice and capability.

In this school, capabilities are defined in real than assumed scenario, which was not the case in neoclassical theories. To be well feed you need income (endowment entitlement) and market access (exchange entitlement) (Sen, 1983a, 1984), among other things. So your capabilities to be well feed are related to your access to resources, input and output markets, information and soon. However having these capabilities, weather you will achieve any functioning is a matter of choice. If you have resource (say labor), access to input market (say employment opportunity) and access to output market (say milk market), it is up to you either you consume milk or not. What you chose is not important, what matters is do you have the capacity to drink milk. So the capability school will identify you as having good life, if good life is measured by capability to have milk. This is so because the school assumes people are rational enough to be the best judges of their own welfare. If you did not drink milk, while having capability to do so, it is because drinking milk is not good for you. So you will not be judged to loss any welfare. Assuming people are rational enough to be the best judges of their own welfare, the capability school’s concentration is in the expansion of peoples’ choice or capability (Sen, 1983a, 1984 and Duclos and Araar, 2006). This can be observed from Sen (1983a, 754) statement

“*Ultimately, the process of economic development has to be concerned with what people can or cannot do, e.g. whether they can live long, escape avoidable morbidity, be well nourished, be able to read and write and communicate, take part in literary and scientific pursuits, and so forth. It has to do, in Marx's words, with 'replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstance*”

In other words objective of development has to be expansion of people choice or capability (Sen, 1983a, 1984; UNDP, 1990 and Duclos and Araar, 2006), so they can have a life that they prefer (Sen, 1983a, 1984, 1997). A high school graduate priest is not judged to have less welfare than a medical doctor, as long as he has a means to be a medical doctor. As long as a person choices, not forced by anything or any situation, to be elementary complete business man than an astronomer, he/she is not judged to have less welfare compared to the astronomer. The idea is that development has to be judged and measured by people capability or option to have rich, heath, long, enjoyable and enlightened life. Basic in this school, elements of rural development are

*Elements of rural development*

* *Access to health care*
* *Access to educational facility*
* *Access to market*
* *Access to infrastructure*
* *Access to employment opportunity*
* *Access to all necessary information*
* *Having decent life by community standard* …

Here contented poor is not judged to have better life than grappling rich, since he/she does not have the capability to be well educated, health, well nurtured and soon. This will solve the reversible nature of utility, which makes it unacceptable measure of development (Sen, 1983a, 1984). The ***strong side*** of this school is that

1. *It reintroduces the importance choice on outcome*
2. *It does not need to assume functional market or functional state*
3. *It does not take a narrow view of life but focus on both material and none material side of life*

This is why the capability school is able to have wider appeal and earned a Nobel Prize for its developer, Amartya Sen, in 1998.

 *Dear distance students, what are the practical shortcomings of capability elements’ of rural development? Spend a few minutes and write down your thoughts. Let you try please.* ---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good.* Unfortunately, there are many practical challenges that can be faced when using this approach to measure rural development. These are explained below:

The problem is: why do we accept their choice as right? Philosophically, a trick question which was faced by all philosophers from time of immoral up to now is: “What is the final goal of life?” Nobody was able to give a clear answer to this question (Tomer, 2008). Moreover, assuming peoples are rational enough to be the best judges of their own welfare, how can you super impose a universal functioning’s and capability over their life?

The aforementioned challenge can be possibly addressed by using democratic process, as proposed by Sen (1984). Moreover as there are different and unlimited wants by different people, there will be diverse and unlimited demand for different capabilities by each person and each community, in face of scare resources. So the relative importances of different capabilities have to be addressed through the democratic process (. However, rejecting utility based theory of peoples’ choice, in what ground can you assume democratic process to be efficient? (Gasper, 2006). People being poor and content for long time may expect less from the political process. Does it mean their choice is right? The idea of democracy, in economics, is highly interlinked with assumption of the fact that the final goal of rational people is utility maximization (Musgrave and Musgrave, 1984). The fundamental logic being that given peoples are rational enough, they will choice political leaders with optimal mix of taxes and public goods and services. However, if you reject utility maximization as final goal of life, in what ground can you accept the optimality of democracy? Is not possible well enlightened dictator or autocrat can do a better job?

* *This is clear indication of the fact that capability theory, in order to be practically relevant and theoretically complete, needs a farther advancement.*

Unit summary

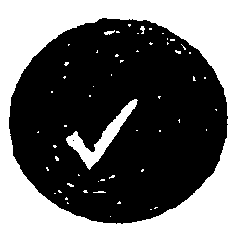
*Rural development is broader than agricultural development, encompassing many sectors and addressing links between the social, technical, economic, political, institutional and ecological dimensions of rural change. Its goal is essentially achieving equitable growth to benefit the poor in rural areas. The means include investment in agriculture, improved rural services and infrastructure, institutional reform, technological change, economic change, political reform – all combined with measures to ensure environmental sustainability. It requires a truly multi-disciplinary approach.*

*In whatever way we define and measure it, rural development is affected by a multitude of physical, technological, economic, socio-cultural and institutional factors. All these factors operate within the limits imposed by the finite, non-growing and closed Planet Earth. This means that there is a natural (ecological) limit to economic growth and development. Of all the determinants of rural development, technological advance is the most important; in fact, it is a sine qua non of development. However, to produce a constant flow of technological innovations, a large reservoir of technically trained, skilled and motivated manpower and a congenial domestic environment are necessary. Although it is not possible to produce anything without using any natural resources and environmental amenities, inadequacy or poverty of natural resources does not exclude a high level of rural development; human resources and technologies can be substituted, to a limited extent, for natural resources, as has been amply demonstrated in Japan and Israel. In countries like Ethiopia, quite a big chunk of natural resources is used in common by people. It is necessary for sustainable and equitable development that such resources be judiciously developed and utilized for the benefit of common people, most of whom depend on them for their livelihood.*

*Some economists measure development in terms of per capital income, others in terms of human development, and others in terms of basic needs. According to economic welfare elements of rural development, if the economy is having functional market to supply private goods and services, and functional and democratic state to supply public goods and services; more income will mean more goods and services that they can consume to generate utility.*

*According to basic need elements of rural development, in developing rural areas, peoples’ main problem is not lack of income to buy more goods and services, but lack of basic needs of life. In such locations majority of the population is under nourished, illiterate, without access to basic health care and education service and are without any security of life.* *Hence,* *the critical question to them is not how they can live well? But how they can survive tomorrow? Under such reality, objective of development can’t be maximization (max) of welfare, but minimization of maximum (min-max) suffering that can be faced by any one.*

*The capability school defines life in terms of functioning’s. Functioning are being and doings that in rich life and are not directly related to utility. Functioning’s include being well feed, being knowledgeable, living long and health life, having self respect, having-say in community life, having political, social and economic freedom and soon. Attainment of this functioning’s is result of both free choice and capability.*

***Check List***

*Now it is time to check your understanding about the meaning of development in general and rural development in particular, the socio-economic and cultural factors in Rural Development, elements of rural development and the role of Agricultural Research and Extension in Rural Development.*

* *Read each question and put a tick (√) in the box for tasks that you can perform.*

1. *Can you list and illuminate different elements of rural development? .................*
2. *Can you explain the main explanation of capability elements’ of rural development? ......................................................................................................*
3. *Can you list and explain the cultural and socio economic determinants of rural development? .......................................................................................................*
4. *Can you define rural? Development? Rural development? .................................*
5. *Can you explain the difference between basic need and economic welfare elements of agricultural development? .......................................................................*
6. *Can you spill out the practical and theoretical shortcomings of each elements of rural development? ......................................................................................*

***Dear student, is there any box that you cannot perform? If there is one goes back to your text/module and read about it before you go to the exercise below.***

Review questions

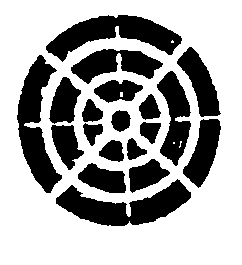
***Discussion question***

1. *Explain the meaning of development in general and rural development in particular?*
2. *State and explain the socio-economic and cultural factors in Rural Development?*
3. *Illuminate and spill out the main explanations of different elements of rural development?*
4. *Scrutinize the role of Agricultural Research and Extension in Rural Development?*

**Chapter Two**

**Institutions and Rural Development**

***Introduction***

* Hello! Dear distance students, this is the second chapter of the module. Dear student, this unit is aimed to acquaint you about definition, concepts and economic importance of institutions, the need for government intervention in agriculture and rural development, market and state failures and state failure to coordinate rural development.* *Dear student, please study each section of the unit attentively, critically and thoroughly. Try to complete the check lists and do all the self check exercises without skipping any of them. All the best!*

***Chapter Objectives***

*After completing this chapter, you will be able to:*

* *Understand the definition and economic importance of institutions.*
* *Elucidate the demand and supply of institutions.*
* *Illuminate the need for government intervention in agriculture and rural development.*
* *Explain the nature and types of market and state failures.*
  1. ***Definition, concepts and economic importance of institutions***

* What do you think is the definition and economic importance of institutions and state? Let you try please.*

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*Have you tried? Good*. Institutions are laws, social norms, traditions, religious beliefs and values, which determine the relationship between economic agents (individuals, households, firms, countries and soon) and economic agents and their environment. Institutions are sanctioned by community, by state or/and by other economic agents to coordinate the effort of each and every agent to ward specific goal. Institutions can be formal, as sanctioned by law, or informal, as sanctioned by social norms. It is always important to remember that informal institutions are as important as formal institutions. This is so, given the fact that “rules that contradict the moral of the people would not be sanctioned socially and, if stipulated formally, would not function effectively” (Hayami, 1997). This is because socially rejected institutions will demand huge enforcement cost to be practical. Let’s see the following institutions as example:

***Table 2.1 Example of formal and informal institutions***

|  |  |  |
| --- | --- | --- |
| *Institutions* | *Nature* | *Effect on the economy* |
| *Private property will have protection under the law* | *Formal* | *It will promote capital accumulation, entrepreneurship, innovation, self-development, risk taking and soon.* |
| *It is not right to steal any bodies property* | *Informal* | *It will make the formal rules that protect*  *private property very effective; if formal rules*  *are absent it will substitute them* |
| *Exchange of private property has to be by free will of each party involved* | *Formal* | *It will improve market efficiency by making*  *reward proportional or equal to effort and will*  *make exchange win-win situation* |
| *It is not right to force someone to trades his personal possession* | *Informal* | *It will make the formal rules that protect private property very effective; if formal rules are absent it will substitute them* |
| *Every person has obligation to pay tax* | *Formal* | *It will improve the provision of public goods*  *by promoting the supply of public goods* |
| *It is wrong to evade income tax* | *Formal/*  *Informal* | *It will make tax enforcement very effective* |
| *Seedlings have to supply the basic needs of their senior parents* | *Informal* | *It will generate social security for old age* |

Thus, institutions are needed to organize diverse economic agents in to functional body, called organization. The organization can be family, firm, ministry, market, state and soon. Organization is a functional body or group organized to act for specific purpose. The two important organizations, for economics, are market and state. Market will organize the self-motivated act of economic agents toward maximization of social welfare, using the invisible hand of competition. Viewed from different angel, market is built from matrix of rules (institutions), which coordinate the self-promoting act of individuals towards social welfare maximization. Not only institutions will guide agents’ effort in the right direction, but also will introduce certainty on future outcome of current action. A farmer will only crop his land optimally, if and only if he/she is assured that he/she is the sole owner of his/her effort. People will be willing to save and lend to somebody, if and only if they know that they will paid pack with interest. In general, institution of private property will make, both, saving and production socially optimal, by providing assured rules, which govern the relationship between agents and agents and their environment

Similarly, state is an institution with set of rules for governance. State is an organization built out of three sub organizations classified as administrative body, legislative body and judicial body. The state coordinates action of its people and its own parts to ward predetermined objective. This is done by fixing different formal institutions or laws. How much tax people have to pay, what service people can expect from government, how people elect their political leaders, how people monitor the elected officials and soon; will determine the efficiency of the state.

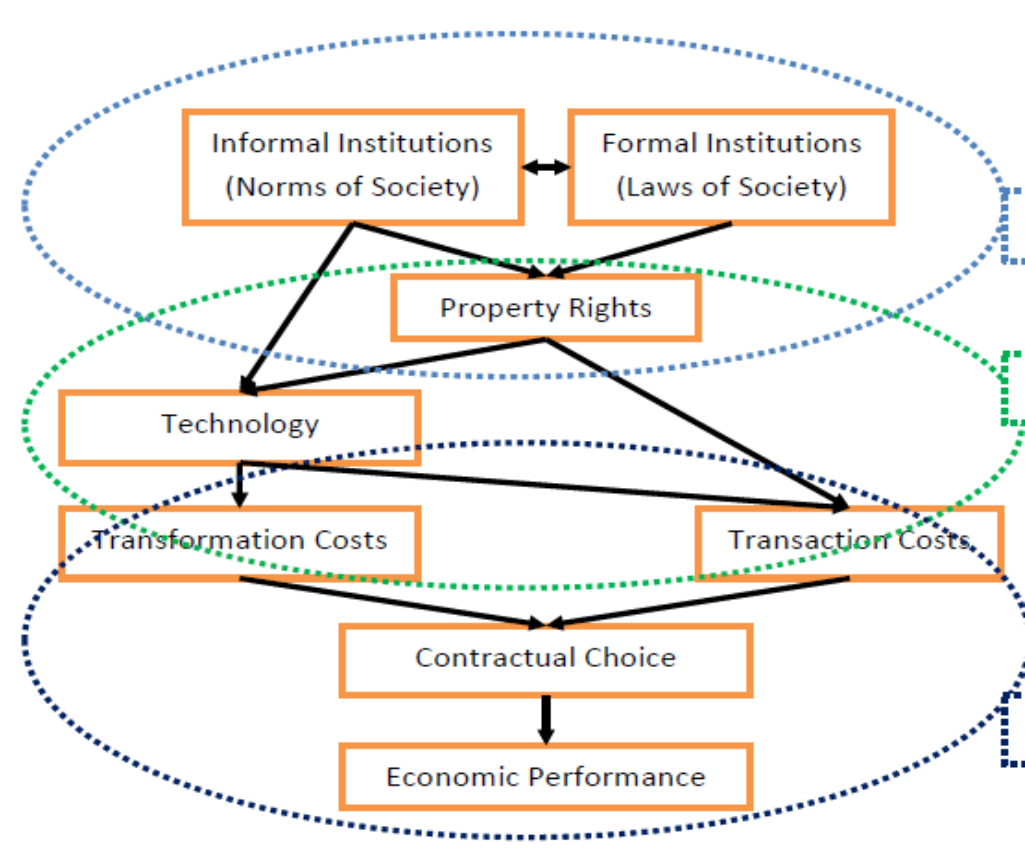
Organizations are built of economic agents and the relationship between economic agents within the organization and economic agents and the organization is defined by institutions. Moreover the relationship of that organization with wider economic system is also specified by the institutions, which define the ownership right of resource and the distribution of wealth among people. Debre Markos University is built of students, teachers, administration and supporting staff. The relationship between these different agents of the University is defined by university’s formal and informal rules and regulations, which define the relationship of each agent with each other and the University. Moreover the relationship between Debre Markos University and the overall economic (national) system is defined by wider national institutions. If these institutions are a right kind, Debre Markos University will achieve its objectives.

In general, organization is a functional body organized by set of rules and institutions are set or rules, which organize a group of economic agents in to functional body. Institutions will provide necessary signal and expectation to coordinate the activity of individuals. Right incentives and signals provided by the right institutions will achieve efficient resource utilization by the mass. But, if institutions are of a wrong kind, ego centric act of individuals can possibly result on disastrous out come to everyone. Just think about private property. If it is appropriately enforced, it will grant fruit of own labor to the owner, which can provide positive signal for hard working rational individuals. Unfortunately, if it was not properly enforced some people will prefer to share the output of others than produce their own output. As result national output will decline by amount which can be produced by those who prefer to be a free ride. Far worst even those who prefer to work, after observing that their output is shared by others, will work less hard or will be free rider. This will has a devastating impact on economic efficiency. Thus, if institutions are well defined and enforced, they will provide optimal signals to coordinate ego centric action of individuals to make it compatible with maximization of social welfare.

* ***Rules and norms***

Rules and norms are similar in many of their characteristics. A rule specifies actions that are permitted, obliged, or forbidden, the circumstances and group to which the rule applies, and the sanctions for violating the rule. Referring a norm however there is no explicit sanction or method of enforcement. The process by which rules are enforced along with the supporting rules, norms and their enforcement define the institution. The norms and laws of society determine the distribution of economic property rights. An economic property right is “one’s ability, without penalty, to exercise a choice over a good, service or person” (Allen 1998, 106). Legal property rights are the property rights stipulated by the laws of society and enforced by the government or other entity.

**Figure 1: Institutions and their economic implication**



* 1. ***Institutional Change: Demand and Supply of Institutional Innovation***

 What do you think about the definition and natures of institutional change? Let you try please.

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Have you tried? Good. Institutional change is a complicated process because the changes at the margin can be consequences of changes in rules, in informal constraints, and in kinds and effectiveness of enforcement. Moreover institutions typically change incrementally and why even discontinuous changes (such as revolution and conquest) are never completely discontinuous is a result of the embeddedness of informal constraints in societies. Although formal rules may change overnight as the result of political and judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies. These cultural constraints not only connect the past with the present and future, but they provide us with a key to explaining the path of historical change.

Relating institution to incentives, to choices, and to outcomes is essential to assess its characteristics. Efficient institutions are expected to reduce transaction costs by reducing measurement cost, by reducing information cost, by reducing costs of monitoring, and costs of enforcement of contracts/agreement.

Institutional changes like evolution of property rights in land that have happened in different countries in the past which would contribute to the development of efficient market system are profitable for society only if the costs involved in the assignment and protection of rights are smaller than the gains from better resource allocation. If those costs are very high, it may be necessary to design non-market institutions to achieve more efficient resource allocation (Ruttan, 2001). Disequilibria in economic relationships such as new income streams caused by technological change and changes in relative factor endowments as a result of economic growth are important sources of demand for institutional change. Institutional innovations are demanded because they enhance the welfare of rational actors. As argued by Ruttan (2001) institutional change is a response to changes in resource endowments and technical change.

The supply of institutional innovations depends critically on the power structure or balance among interest groups in a society. If the power balance is such that the political entrepreneurs' efforts to introduce an institutional innovation with a high rate of social return are adequately rewarded by greater prestige and stronger political support, socially desirable institutional innovations may occur.

* **Culture and Institution**

Culture has impact on institutional and technological changes. Cultural endowments, includingreligion and ideology, exert a strong influence on the supply of institutional innovation. For example, the traditional moral obligation in the Japanese village community to cooperate in the maintenance of communal infrastructure has made it less costly to implement rural development programs than in societies lacking in such tradition. Likewise, ideology (e.g. socialist/communist ideology in China to mobilize communal resources to build irrigation systems) may reduce the cost to political entrepreneurs of mobilizing collective action for institutional change.

Advances in social science knowledge can lead to institutional innovations that generate new income streams or that reduce the cost of conflict resolution and thus shift the supply of institutional change to the right. With the advancement of social sciences knowledge and analytic skill, the generation of institutional innovation could be done with less cost than through the process of learning by trial and error. Cultural changes (e.g. tastes or ideology) are also important sources of both technical and institutional change. Generally, changes in relative endowments and prices of land, raw materials, energy resources, capital, and labor have pervasive impacts on both technical and institutional change.

* 1. ***Market as institution, market failure and rural development***

***2.3.1 Market as an Institution***

 What do you think about the role of market as institutions in social welfare maximization? Let you try please.

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Have you tried? Good. Market will organize the self-motivated act of economic agents toward maximization of social welfare, using the invisible hand of competition. Producers are producing to maximize profit, individuals are trying to maximize utility, workers are trying to have better paying job with better working environment, countries are trying to have more foreign income and more inflow of foreign investment and soon. The problem is: what is the grantee of the fact that when everybody tries to promote his/her/its own interest over all welfare or social welfare is maximized? This can be granted by invisible hand of the (perfect) market or market competition. That is why (perfect) market is taken as organization of economic agents with objective of social welfare maximization. Viewed from different angel, market is built from matrix of rules (institutions), which coordinate the self-promoting act of individuals to ward social welfare maximization.

As can be shown below, if market is perfect, as assumed in main stream economics, it is the only institutions needed to coordinate the rural development effort, in specific, and general development effort, in general. This is however based on the following central assumptions.

1. **There are large number of buyers and sellers**: Everyone will take the market price as given and is price taker in the market. Nobody will have the power to fix price, which is determined by market demand and supply (collective action of all participants).
2. **There is given and fixed technology**: In the economy technology is given and anyone can use that technology without any restriction.
3. **There is perfect mobility of factors**: Factors of production, like capital, labor, land and raw material, can freely move from one firm (location) to another without any need for additional cost.
4. **There is perfect information**: There is perfect information about price, output, market demand, and supply level etc. Means there is no risk and judgment is done under perfect information.
5. **Entry and exit is free for all**: Since there is free entry and exit, nobody can earn any abnormal profit and only the fittest (the one with best quality products and least cost of production and marketing) will survive.
6. **There are no public goods and externalities**: All benefits and costs are accruing to those who are responsible either for the consumption or production of the goods and services.
7. **Economic agents are rational**: Human beings are making the best possible decision on time use, production, consumption, and saving, after considering all important information.

Under these assumptions the neoclassical economics taught will show us that market will result in the best possible resource allocation or Pareto optimal resource allocation. Means there is nothing that can be done to improve market efficiency. What can be done is already done. If these assumptions are right, resource allocation which is the cornerstone of any development effort can be coordinated by market forces only. In other words, the institution needed to achieve rural development is market only. Free market will provide optimal inputs to the rural residents and will create optimal market for their output demanded by the people. If these assumptions are right, rural and national development could be as simple as letting the market free or getting the price right.

* + 1. **Market failure and the need for institutions**

 What do you think about the concept of market failure and the roles of institutions when the market is fail? Let you try please.

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Have you tried? Good. Market failure might be:

* **Traditional market failure**

1. **It assumes away the existence of externality**:

Given negative and positive externalities are widely observed in any economy, market allocation will not result in the best possible resource allocation or Pareto optimal resource allocation, by itself. To understand this fact, let’s develop market demand and market supply curve below.

Market allocation, based on market demand and supply, will generate optimal output of Q\* and optimal market clearing price of P\*.

**Figure 2: Market demand and supply curves**



If either price or output is changed, it will result in suboptimal allocation of resource. If more output is produced, the social marginal cost of production (supply curve) will be greater than the monetary value of the marginal social benefit of the good (demand curve). As result the additional output will generate negative social gain to the society. If less output is produced, the marginal social benefit (demand curve) of additional output in monetary terms will be greater than the marginal social cost (supply curve) of additional output. More utility could be generated, if more output was produced and consumed. In general, the social optimal output is Q\*, which is related to point where demand is equal to supply.

If price is greater than P\*, there will be excess supply of output compared to demand. This will result in waste of scare resource; given the excess output produced will not find a buyer. If price is less than P\*, the economy will face shortage of goods and services implies people which are willing to buy the good or service at market price will not be able to do so. In general, under perfect market social welfare will be maximized, if and only if the market clearing price and output are not altered. This is why neoclassical economists assume market will result in Pareto optimal resource allocation or in the best possible resource allocation. However in real, than assumed economies, there is difference between market demand and supply curve, and social demand and social supply curve; due to positive and negative externalities. Let’s start from negative externality below.

The market supply curve is based on private marginal cost for producing each additional output. However, if there are negative externalities exerted on other economic agents and the environment, it will not be equal to the social marginal cost of each additional output. The private sector will pay for cost of labor, land, capital and other private costs, but it may fail to cover the cost related to river pollution, air pollution and other negative externality exerted on people and the environment.

**Figure 3: Negative Externalities**



The above figure clearly shows this fact by shifting the social marginal cost or social supply curve up ward, by the cost of negative externality exerted on the environment. Based on the private demand and supply curve, the market will supply ***Qm*** level of output at ***Pm*** price level. This is the point where profit of producers and surplus of customers can be maximized. It is optimal resource allocation from private gain point of view. However, at ***Qm*** level of output the social marginal cost is higher than the social marginal benefit. Maximum social welfare is not attained at ***Qm*** level of output. The socially optimal level of output is at Q\* with socially optimal price of P\*. Any production behind Q\* will cost more than the benefit it can generate to society.

The above graph clearly shows the fact that when there are negatively externalities, market allocation will not result on Pareto optimal or the best possible resource allocation. By introducing taxes equal to P\* - ***Pm*** better resource allocation can be attained. Means there is possibility to improve market allocation. When taxes are laid on the private sector, the private marginal cost curve will be equal to the social marginal cost curve. Producers in order to maximize profit and customers in order to maximize utility will produce and consume, respectively, socially optimal output of Q\* at socially optimal price of P\*.

Now let’s turn to positive externality. Education, health care, skill development, research and development will not only benefit the person who is paying for them, but also the wider society. Taking health care, for example, healthy people can have better and enjoyable life, which will lead them to pay for health care. However the benefit to society is much higher than that. A health person will not transmit contingent diseases, for example. When one person is healthy other people have more chance to be health. These are social benefits, which are not directly accruing to the individual. Based on private benefit, the market demand for health care will be presented by market demand curve. However, considering the social benefit, the social demand for health care will be higher than the market demand curve. This is given in figure 4, below.

**Figure 4: Positive Externalities**



Based on market allocation, private consumer and producer surplus are maximized, when ***Qm*** level of output is supplied at ***Pm*** level of price. However, at ***Qm*** level of output social marginal benefit is much higher than the social marginal cost of production. As result, social welfare can be increased by producing and consuming more output. Socially optimal level of output of Q\* at price of P\* can be supplied, if a subsidy equal to P\* - ***Pm***is given to customers of health care service.

This is clear indication of the fact that when private benefit and social benefit are different, due to positive externality, market allocation will not result a Pareto optimal or the best possible resource allocation. So, state or other third party can use tax and subsidy, to improve market allocation.

1. **It assumes away the existence of public goods and services**:

Private goods and services, which can be supplied efficiently by market, are rival and excludable in character. If bread is consumed by you, nobody else can consume it. So, it is rival. Moreover, you can easily exclude others from consuming your bread. That is why bread is a private good. However, think about a light house, which used to direct sailors, in mid sea, toward dry land (see figure 5, below). If one person built a light house, his use of the light house will not limit the use of light house by others, vise verse. Light house is not rival or many people can use the same service without increasing cost. Moreover, once the light house is built, it is not possible to exclude others from its use. In other words, light house is none excludable service. This is why light house is a public service.

**Figure 5: A light house**



Public goods and services are goods and services which are none rival and none excludable in character. Public goods and services include policing, public administration, defense, infrastructure and soon. For these goods and services private allocation will result on suboptimal resource allocation and the state have to supply them by imposing mandatory tax. Let’s see how the market can under supply such public goods below.

**Figure 6: Public goods and market failure**



If only ***A*** is in the market, it will demand ***Qa*** level of output at ***PA*** level of price. If only ***B*** is in the market, it will demand ***Qb*** level of output at ***PB*** level of price. However when both are in the market and the good (service) is none rival, consumption by one will not reduce consumption by other. As result social demand will be vertical than horizontal summation of each individual’s demand. ***Qa*** level of output can be consumed by both ***A*** and ***B*** at the same time, so the market price for ***Qa*** level of output is the sum of the price that can be paid by each. In graph 5 above, the social demand is derived by using vertical sum of ***A’s*** and ***B’s*** demand curve.

The social optimal level of the public good (service) is Q\* and the social optimal price is P\*. However, market forces will not give optimal incentive for each person to pay for optimal level of public goods and services. Let assume the public good is road. And the optimal level is 10 Km; 7 Km is demanded by ***B***and 3 Km by ***A***. Now let assume ***B*** builds 7 Km road. What does ***A*** have to do to maximize profit? He/she can use the 7 Km built by ***B***, which is more than what is demanded by him/her or can pay for additional 3 Km, which has no value for him/her. Logically, without paying for additional road construction, she/he has to move her/his business towards the road. As result, the market will only supply 7 Km road. This can be observed in actual behavior of people. People normally reject to pay more tax for road construction, but if road is built they will open their business around the road. This is because road is neither rival nor excludable. In figure 5 above even though ***A*** was willing to pay for 3 km (***Qa***), it will try to be free rider once the 7 km (***Qb***) is built by ***B***.

Now let’s assume ***A*** will build the first 3 Km (***Qa***). This will not be enough for ***B***, who is looking for 7 km (***Qb***). ***B*** has to invest more, but the question is how much. One option is to invest in the additional 4 Km (***Qb - Qa***), so he/she can have the needed 7km. Another option is to invest on new 7 km (***Qb***). To maximize profit the rational action is the first option. ***A*** will build 3 KM (Qa) and ***B*** will build 4 km (***Qb - Qa***), and the economy will has 7 km (Qb) road than 10 KM. Means ***B*** will use road built by ***A***, as free rider, and is only adding the road needed from ***A’***s road to his business.

One way or another, market forces will supply less than optimal public goods and services, unless state (or any third party) is able to impose mandatory tax, on both ***A*** and ***B***, to supply optimal level of public good and service. The state will charge ***Ta*** level of tax on ***A*** and ***Tb*** level of tax on ***B***, to supply optimal public good of Q\*. These will not only maximize private benefit, since the marginal cost and marginal benefit are equal for each person, it will also lead to socially optimal supply of public goods and services. This is why we say market allocation of public goods and services is not Pareto optimal or the best possible resource allocation.

The above market failures are traditional, in sense they have been known for decades. Moreover, there is nothing special about these market failures to rural area. These are market failures which have been widely discussed in economics.

* ***None traditional market failure***

1. **High transaction, overhead and administrative cost**:

Rural areas are known for their sparsely populated areas. Give their low population density, the transaction and administrative cost of supplying goods and services will be very high. Facing such high administrative and overhead cost, the state will often undersupply public goods and services to rural areas. This is, partially, why rural areas are having less public goods and services compared to urban areas, all over the world. The private sector, facing hardly adequate supply of public goods and services and high transaction costs, will under supply private goods and services, too. As the result, most of the private market is observed to be missing or malfunctioning. The missing markets include banking, insurance, information, recreation, and soon. Means, let alone to have perfectly functioning market to coordinate resource allocation perfectly, most markets are missing. And whatever market that can be found in rural areas is operating inefficiently. In other words, the private sector does not has economic incentives to supply Pareto optimal goods and services to rural areas. Even though rural areas can be in equilibrium, it is low level equilibrium and they will remain trapped in poverty. If there are ways to reduce these transaction costs, it is possible to improve rural life by none market forces. Means market does not result in the best possible allocation of resource and still there is door for farther improvement.

1. **Imperfect information or asymmetric information:**

Imperfect information is observed, when people does not have perfect information about course of events. Asymmetric information is observed, when all concerned bodies are not having balanced share of information. Let’s start from the first one.

Imperfect information is the norm than exception of life. Farmers can make rational decision on their grain choice and input use, if they perfectly know the state of nature and market in the future. They will produce products which are highly demanded by customer, which can fetch higher price, at a least possible cost in order to maximize profit. The problem is that let alone farmers, even professional meteorologist can’t have perfect information about state of nature, even with the most sophisticated instruments they use. It is possible if price of A is higher than B now, it can be vise verse next time. So what seems optimal now may not be optimal for the future. If you introduce mechanism to reduce the uncertainty or to improve the risk management capacity of rural population, you can do much better than market allocation. Say state can stabilize prices around their long run equilibrium; this will improve market allocation by eliminating the risk faced by rural population.

Under the imperfect information paradigm, markets are almost never Pareto efficient (Stiglitz, 2001). Let us use the following example which is very relevant to rural areas. Let’s focus on developing economies’ farmers, who are making production decision under high output and price risks. Unless we assume there are complete and efficient credit, information, insurance and future markets, market allocation will not result on the best possible resource allocation, under risk (Stiglitz, 1981).

1. **Manipulative middle man:**

Perfect competition assumes the existence of large number of buyers and sellers, in which everyone is a price taker. However, in rural areas large and unorganized rural agents are trading with small number of middle man. First rural agents will have neither the production capacity, nor the resource to invest on information. On other side, traders can afford to invest on information and this will create asymmetric information, to disadvantage of rural residents. Again farmers lacking adequate storage and financial resource will be under stress to exchange their output at whatever price. This will create asymmetric bargaining power in hand of manipulate middle man. Moreover farmers will come to market with their grain, which needs more transaction (mainly transportation) cost, and middle man with their money, which needs less transaction cost. Under such reality rural agents are under more stress to sell at whatever price compared to traders. These facts will concentrate marketing power in hand of manipulative middle man, to result on Pareto suboptimal resource allocation. In such reality farmers will lack the incentive to be innovative, to be productive and to take risks. That is why, any change which can improve this structure directly or indirectly can improve market allocation.

1. **Factor immobility under imperfect information:**

Investment decisions, if done under perfect information and factors of production are mobile, market allocation could be Pareto optimal for private goods and services. Mobility implies inputs are like Jelly, which can take any form in process of production. If capital is invested in photocopy machine and the photocopy business is not profitable, the photocopy machine can be changed in to coffee machine to open café. If not, any intervention which can improve resource allocation under imperfect information, which can help you to start café than secretary service at the start, will improve market allocation. Since most activates in developing rural areas are less capital intensive, this short coming is not a series challenge in to market allocation in rural areas.

This is why market, as institution, is very important, but not perfect institution to serve as perfect recipe for every developmental problem. One thing common among philosophers, social scientists and practitioners is that in order to show what they believe is perfect, normally will end up proving what they believe is wrong. This is unfortunate reality that we have, where the practical good becomes the archenemy of none existing perfection. In market economics in order to show that the market is perfect, they make it easy for others to prove that the market is imperfect and to demand for its replacement. There is no doubt that market is the most effective institution in allocation of resource, compared to any alternative institution. It is always better to let the market to take the leading role and use other institutions to make it more effective by solving market failures directly and indirectly. If you use other none market institutions, there is no grantee that the outcome will be Pareto optimal. But if market failures are somehow mitigated by other institutions, there is theoretical (neo classical) knowledge and empirical evidence (from former communist economy, newly industrialized nations and western economies) that market is not perfect, but it is the most effective institution in process of economic development.

* 1. ***State as institution for rural development***

 What do you think about the role of state as an institution for rural development? Let you try please.

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Have you tried? Good. Due to market failures and missing markets, market allocation will not result on the best possible resource allocation. In other words, market forces alone will not result in best possible rural development. That is why we need alternative institutions to give complementary signal to coordinate diverse activity of many agents, with diverse and personal objective, to ward achievement of fast and sustainable development.

Market will coordinate the action of ego centric economic agents to ward maximization of social welfare using the invisible hand of competition with incentive provided by prices. Viewed from different angle, market allocation under its assumptions will result on best possible resource allocation, because it uses efficient institutions which guide individual to ward maximization of social welfare. The three fundamental institutions among the diverse matrix of market institutions are;

1. Private property will have protection under the law: Means you can’t take somebody’s property and output without his/her consent. You can’t take the beakers bread without his/her will. If not the beaker will not have proper incentive to produce the best bread at least cost, to save, to invest and to be innovative in his management. It also means the beaker can’t take other peoples’ money without their consent. If not, for the beaker being good beaker is not more attractive than being a thief, so he will end up being a thief than a good beaker.
2. Exchange has to be by consent of all parties involved: This is extension of the above market institution. If private property is respected, private property can be exchanged only by full consent of everybody involved. When you buy bread, you are exchanging your private property on your money to have private property on the bread.
3. Freely agreed contract has to be enforced by state or other third party: Once people freely sign contract, the contract has to be enforced. If not, it will increase uncertainty for agents and this will increase production risk, to limit their efficiency.

Based on these three fundamental market institutions, there will be a complex matrix of formal and informal institutions that are used to coordinate action of ego centric economic agents to ward maximization of social welfare. These institutions will deal with how long labor how to work, how labor efficiency has to be assessed, how much is the minimum acceptable wage rate, weather purchased goods and services can be returned or not and soon. However, when market is imperfect, the above conclusion is not necessarily true. This is why we need alternative institutions to complement market forces. The next most important institution is state. Market institutions are based on free exchange of property. But state institutions are based on coercive power and mandatory transfer of property. Under some conditions such institutions can do better than free will based market institutions. The role of state in rural development as complementary to market and its rationales are given below.

***1. To provide public goods and services*** – In preceding pages it is shown that for public goods and services market will result on sub-optimal supply of public goods. If the choice weather to pay for public goods and services is left to free will of the people, the supply of public goods and services will be sup-optimal. This is so since people has more incentive to be a free rider than to pay for supply of public goods and services. That is why, than expecting people to pay for roads, schools, defense, public administration and soon by will, they will face mandatory taxation. Using the tax revenue, that state is expected to supply optimal public goods and services. In simple words, in order to supply the critically needed public goods for development, states coercive power than free.

***2. To internalize externality*** – If market demand is the same as social marginal benefit and if market supply is the same as social marginal cost, market forces will result on the best possible resource allocation. However when there is negative externality, social marginal cost will be higher than private marginal cost, as result market institutions will over supply the good or the service. That is why mandatory tax has to be laid to make the private marginal cost equal to social marginal cost. When mandatory taxes are laid in production, market forces will result on efficient and optimal production of the good or the service. A factory may produce more goods and services to maximize private profit, ignoring the negative cost exerted on society in terms of river pollution, air pollution and others. By laying taxes, to increase cost of production, it is possible to reduce the production of the good or service. Moreover, the tax revenue can be used to compensate economic agents affected by the externality. Think a flower farming which is using hazardous chemicals as insecticide and herbicide and producing privately optimal flowers to maximize profit. However, in making production decision the negative externality exerted in form of river pollution, that can cause sickness to local communities, will not be taken in to account. As result, it will over produce flowers and there is need for mandatory tax by state to be laid on production to reduce flower production and to invest on river purification. This can farther improve market allocation.

Viewed from different direction, education, health care, sanitation and other social goods do exert positive externality on society’s welfare. In other words, the marginal social benefit is higher than private marginal benefit. As result, market forces will supply less than optimal social goods. That is why state has to subsidize the supply of education, health care, sanitation and other social goods in order to enable people to be more educated, health and clean, for example. If there is such subsidy, people will have a free meal, which is unacceptable under institutions of market. Fortunately, such change on institutions will improve resource allocation of resources by market forces. State can work either in reduction of risk faced by economic agents or creation of risk management capability within economic agents or both. A classic example for the first one is oil price stabilization through buffer fund implemented in Ethiopia. Drought relief, safety net and income diversification efforts are good example for the second one. Moreover state intervention to improve the functionality of financial intermediaries and risk management institutions (like insurance companies) is example of risk management capacity building.

***3. To create egalitarian society***: Even if markets are efficient, in which you can’t make some one better off without making some body worse off, the final distribution of benefits may not be egalitarian. If the initial distribution of capabilities (education, wealth, asset, social network and soon) is unfair, the final distribution of economic benefits will not be fair. Such distribution of quality of life may not be acceptable to society, given the fact that the social value of the poor persons’ benefit can overweight the social loss of the rich. What efficient free market will result is on the fact that you can’t give one bread to Mr. X, unless you take it to from Mr. Y. But if society thinks that one bread that is given to Mr. X is more important than one bread taken from Mr. Y, social welfare can be farther improved by redistributing wealth and income.

If market is working under perfect conditions, it is distribution neutral. As result, it does not matter if land, labor, capital and other resources are owned by X or Y. If you have land, the value of the land for you is the market price. When you use the land for production purpose, the opportunity cost that you are facing is equal to price of the land. And if you buy it from others, the cost of the land is equal to its price. So the cost of production will not be affected by distribution of resources, if markets are perfect. Under such reality assuming X is capability poor and Y is not, capability can be distributed from Y to X. This can be done by taxing Y and investing on X’s capability or actual redistribution of assets. In other direction, you can tax the rich in order to subsidize the poor. Means, even if markets are working perfectly, there is role for government to distribute capability and consumption.

If markets are imperfect, skewed distribution of wealth and living standard could result from market power of the better off than from its contribution to social good. In such case redistribution of wealth is advocated, even by those who accept market allocation of wealth and living standard as legit and moral. If markets are imperfect, they will not be distribution neutral. If there is efficient but land constrained farmer, in otherwise perfect market, he/she can buy or rent land at existing market price. So whether he/she own land or not will not make any difference in cost of production. Under imperfect market, however, he/she may not have access to land at existing market price. Under such reality, redistribution of land to favor him/her can improve efficiency and redistribution which disfavors him/her can reduce efficiency. So redistribution under imperfect market can lead to more or less efficiency depending on local condition.

***5. The need to create rural urban balance*** – Missing markets, missing public goods (services) and missing administrative services are common reality of rural areas with in developing economies. These facts coupled with low organizational capital of rural population, can make development highly urban biased phenomena. To solve this challenge, state intervention to organize rural population into functional political body and to improve the provision of goods and services is critically needed in rural areas.

***6. Need for leapfrogging or to compress the gestation period of development*** – The important point about market is that it will tend to solve its own failures in the very long run. Not only market forces will self-perfect on long run, but also complementary local institutions will spontaneously emerge to solve the problem of market failures. If market forces are left for themselves, in very long run can solve their own problems and can lead to economic development. Unfortunately, the implication is that we have to wait 200 to 300 years in order to achieve the level of development attained by developed economies.

With appropriate and selective use of the visible hand of the state, government can possibly shorten the gestation period of development in to maximum of 50 years (as was the case in Japan) or to minimum of 20 to 30 years (as was the case in East Asia countries). In developing countries like Ethiopia, where majority of the population is living in rural areas, any leap forging effort ignoring rural is a faulty business. The need for leap forging will call for optimal government intervention in rural areas, where series market failures and missing markets are widely observed.

* 1. ***State failure***

 Dear distance students have you ever here about the concept of state failure? When do you think the state are said to be fail? Let you try please.

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Have you tried? Good. No rational mind can deny the complementary role of that state in rural development. The million dollar question is what does this complementary role of the state imply in practice? It can run from weak state to patronistic (like father or nanny) state. This is because in mixed economy, in which the invisible coordinating hand of market is supplemented by the visible coordinating hand of the state, wide spread state failures are norm than an exception. These state failures include;

1. ***Information asymmetry and managerial diseconomies from the state side*** – If state is going to produce goods and services by itself, as was/is the case in communist countries, it will face series managerial diseconomies and asymmetric information problem related to demand dynamics. In market economy demand dynamics is communicated to producers through dynamics in market prices. When market and its prices are eliminated, the state will normally face asymmetric information related to demand dynamics. As result, state will fail to organize production to meet every changing customer demand.

State engaged in production of diverse goods and services will face managerial diseconomies, too. How can a central planning commission plan for every possible contingency of the nation? How can a central planning commission supervise the efficiency of each enterprise and factor of production in all locations? Given the fact that civil servants are known for their inefficiency, it is impossible for central planning commission staffed with inefficient workers and bureaucratic procedure to do such impossible job. This is the main reason why communist system was a complete failure everywhere.

But even with in mixed economy, where the state is concentrating on solving externality and public goods (service) problems, state will face series information asymmetry related to economic agents actual income, wealth and use of public goods (services). If the state lacks adequate information on income, expenditure, wealth and demand for public goods (service), it can’t fix optimal tax to supply optimal public goods (services). The reason why state in developing economies is highly dependent on indirect than direct tax is because it has better information related to indirect tax base than direct tax base. Under such reality, state intervention which is planned to avoid free riders in the allocation of public goods (services) will fail to tax all individuals either according to their ability or their benefit. Some public goods and services will not be supplied, because the state needs high administrative cost to enforce tax laws under asymmetric information.

Lack of information about the occurrence and extent of externality will destroy state capacity to internalize externality. Since the state does not have all necessary information needed in order to internalize externality, it will face more administrative cost. If the administrative cost is higher than the benefit of solving the externality problem, it would be rational for state to ignore the externality problem.

1. ***Information asymmetry from public side*** – in democratic system, where there is higher accountability of government to the people’s choice, asymmetric information faced by voting population will result on suboptimal state policy. If public choice, about government action, is reflected by peoples’ capacity to vote in to office individuals who do their wish, they need to know the application of each and every policy and their possible outcomes. Unfortunately, due to need for state secrecy, there will be imperfect disclosure of state policy and actions. This will give higher freedom for politicians to divert from their electoral choice and stay in office. Even if, each and every, information is made public, voters will not have the capacity to understand the net impact of all state policies. When economists can’t even agree on the net impact of any policy, how is a lay man to do better? This is why state intervention is not granted to be productive.
2. ***The failure of voting to consider intensity of want*** – In democratic system every person is given equal voting right. If 10 people are expected to lose 100 birr each, due to proposed new policy, social welfare will decline by 1000 birr. But if 500 people are going to benefit 1 birr each, the expected social gain is 500 birr. Given the fact that 500 people are for the new policy and only 10 are against the policy, the new policy will be implemented with support by significant majority. This is despite the fact that total welfare will decrease by such action. Thus voting, which does not consider intensity of want, can’t necessarily lead to maximum social welfare.
3. ***Lack of incentive and high inefficiency in public sector***– The bureaucratic system, which is used in public offices, is less flexible to changing conditions and the incentive system used in public sector is loosely linked to efficiency. That is why development, which needs dynamic, efficient and flexible decision making, will face rigid bottle necks from the public sector.

First, decisions will take longer time and such bureaucratic rigidity will negatively affect efficiency of the public sector. Second, the public sector facing highly asymmetric information will have less capable works, which normally work less than their full capacity. There is a tendency for state to pay lower salary, everywhere in the world, which will create adverse selection problem. Only option less workers, which can’t find alternative employment, will be employed at low paying public sector. Most often, these people arethe less productive part of the labor force. To make things worse, since reward in public sector is not directly related to productivity, there will be series moral hazard problem among the civil servants. i.e there is no adequate incentive for civil servants to be as efficient as private sector employees. Even if there are exceptional workers within the public sector, social capital among civil servants will be used to ostracize the efficient ones. If everyone is producing 5 units per day and a new one is producing 10 units per day, it will signal to the state that others are either incapable or un-willful to be efficient enough. As result they will use their social capital to discourage productivity by ostracizing efficient workers. Both economic and social institutions, found within the public sector, will not promote efficiency of civil servants. Observing that civil servants are inefficient, the state has rational base to pay low salary, keeping the vicious circle ongoing!

In general, state can solve some market failures, but is not a magic institution that can solve every market failure problem, everywhere. State is a critical institution for rural development, but is not also a magic fairy or a silver bullet which can be used to achieve rural development, in all cases. The logical question left is “do we have another option?” The answer of institutional economists is: yes ended!

* 1. **Evolution of alternative institutions**

 What do you think is the evolution of alternative institutions where market and state become perfect and imperfect? Let you try please.

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Have you tried? Good. As was explained above, the two most important institutions for development are market and state. If market is perfect on coordinating diverse and self-promoting act of rational agents on production, distribution and consumption of private goods and services, and the state is perfect on internalizing externalities and on supplying public goods and services; all that is needed for efficient attainment of development is just perfect mix of market and state institutions. Unfortunately, imperfect market and state, which we have in real world, will face high cost of doing things, which will hinder their efficiency. That is why complementary institutions are needed, to give complementary signal in order to improve the efficiency of the invisible hand of the market and the visible hand of the state. To understand this fact, let’s consider share cropping as alternative institution to market, below.

If market is perfect and transaction cost is zero, a landowner, who faces a production technology presented by **MPLo** and perfectly elastic supply of labor at **W**, will employ **L2**amount of labor. At employment level of **L2**, he/she will produce **beL20** level of output and will have maximum real profit of below. This is optimal output, given at **L2** level oflabor employment, the marginal cost (real wage = **W**) of each additional labor is equal to the marginal productivity of labor (**MPLo**). But, the assumption of zero transaction cost implies that there is no screening, monitoring and supervision cost of labor. In other words, the employer has perfect information about the capacity and actually efficiency of each worker. Moreover, it implies the employer has function (at best perfect) financial intermediaries, which can supply him/her capital at market clearing interest rate. This capital will be used to hire labor and purchase other inputs.

**Figure 7: Economics of Sharecropping**



The problem is that in real than assumed word, high transaction cost is a norm than an exception. First, the landlord will not have adequate information about the production capability of each worker and use of his/her capability. This will result on *asymmetric information* problem. The existence of asymmetric information in turn will create *adverse selection* problem. If more efficient and less efficient workers are competing for the samejob and the employer does not know who is who, he/she will end up with less efficientworker, who is willing to accept a low wage rate. Again given farming is land extensive, land labor ratio will be very high. This will create asymmetric information related to actual labor efficiency. The workers know better how efficiently they are working compared to the employer, which can’t easily monitor them. Or there will be moral hazard problem. These facts, adverse selection and moral hazard, are why if landlord has to hire labor, there is need for costly supervision. The supervision cost is part of a transaction cost incurred in exchange of labor power for wage rate. *Additional transaction cost is related to the interest rate that has to be paid for informal money lender, in facing dysfunctional or missing credit market.*

Now let’s assume transaction cost per labor unit is equal to **T = b – W**. As can be seen above, this will shift the labor supply curve up ward and as result output will decline to ward zero. Any labor input above zero will cost more than what it can produce. As result, both land and labor will end up unutilized and the economy will remain trapped in poverty, despite availability of land and labor resource.

The above problem can be solved, if the laborer can rent the land. If the laborer rented the land, for rent less than below **beW**, he/she will employee **L2** amount of labor. This level of effort will generate output equal to **beL20**. This output can be shared as rent and wage rate among them. The problem is in most cases landless laborers will not have the necessary access to finance to rent land. Even if there are informal money lenders, they will demand very high interest rate from landless laborer compared to the landowner. So if the laborer rented the land, he/she can avoid supervision cost; but will face high interest rate. This will push his/her cost of production up ward and will not give him/her any incentive to rent land and produce output. This is a good example to show the fact that when there is high level of market failures (transaction costs), market forces may not give adequate incentive (signal) for economic agents to be productive, innovative and efficient.

Now let’s think about institutional innovation of sharecropping to give alternative signal to economic agents. If output equal to **ab** (equal to **cd** and **ef**) is given to the landlord from each marginal product of labor and the land is given in share to the laborer, this will solve the asymmetric information problem in labor market. Since the share of the laborer will increase with level of output produced, the laborer has incentive to work hard, without any need for supervision. Moreover, this will solve the need for finance to pay for labor or land use before output is harvested, in face of missing or dysfunctional credit market. Any additional input cost will be shared between the landlord and the sharecropper, reducing the financial burden of both parties. Additionally risk will be also shared between landowner and laborer, in face of missing or highly dysfunctional insurance market. If the labor is hired, all risk will lie on the hand of the landowner. If the laborer rent the land, he/she will take the full risk of farming. But, under sharecropping the risk will be shared between landowner and labor. The capacity to share risk and financial cost will encourage both parties to produce efficiently.

When the share of landowner is deducted from the marginal product of labor, the marginal benefit of the laborer will be equal to **MPLT**. To maximize surplus, the laborer will employ **L1** level of labor to produce **bdL10** level of output. This output will be divided as payment (**WcL10**), share of landowner **(bdac**) and surplus of laborer (**acW**). When the institutional arrangement is changed from either hiring labor at fixed wage rate or renting land for given period of time, as is the case in market, to ward sharing of resource and output, the level of welfare and output will increase.

Unfortunately, this institutional innovation is not as efficient as perfect market. This is so since at **L1** amount of labor, the marginal benefit to society (**d**) is greater than the marginal cost to society (**c**). The problem is that after taking the share of the landowner in to account, laborers will not have any incentive to produce more. This is because the marginal benefit to the sharecropper (laborer) is less than the marginal cost he/she is facing. The inefficiency of sharecropping compared to perfect market in terms of output lost is equal to **L1L2** and in terms of surplus lost is equal to **dec**. The dead weight loss caused by inefficiency of sharecropping or **dec** is related to surplus that can be generated (total benefit above cost), if laborers were using socially optimal input of labor (**L2**) than privately optimal labor input of **L1**. This shows us that sharecropping based allocation is better than imperfect market allocation; but will have inferior allocation compared to perfect market.

That is why additional institutional innovation of land redistribution or land to the tailor policy is needed to avoid the share of the landowner and to give full incentive to the laborer. When the laborer becomes owner of his/her own land, he/she will have full incentive to employ the socially optimal level of labor (**L2**) to produce socially optimal level of output equal to (**beL20**). This will take the outcome of imperfect market to ward outcome of perfect market. Putting the above facts in line, it is time to focus on some alternative institutions that can be used for rural development.

 Dear distance students, what do you think is that those alternative forms of institutions that can be used for rural development? Let you try please.

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Have you tried? Good. By putting the above scenarios in your mind, one can outlined six alternatives of institutions that can be used in rural development. These are:

1. **Service Cooperatives**

If the transportation, storage and information costs are a determinant factor for efficiency of a marketing system, small scale farmers, which are failing to benefit from storage, transportation and information economies, will be effected the most. Moreover, given financial stress related to obligations to pay debit and tax or to cover expenditure needs, small scale farmers will be forced to sale their output at whatever terms. Additional stress will be also created from lack of proper storage facility. As result, having low transaction cost and better information, manipulative middle man can develop unfair trading relationship with small scale farmers. The negative effect of these market failures on farmers’ incentive to be productive, efficient and innovative is inversely related to their size. Means the intensity of the problem is directly related with smallness of the farmer production system. The natural solution for market failure related to smallness is cooperation.

One possible way that can be used to improve the bargaining capacity of small scale farmers is to organize them in to service cooperatives. Collective action under service cooperatives is a natural reaction for problem related to smallness. This will enable them to have more market power that can balance the power of manipulative middleman. Moreover by consolidating their sell and purchase, they can benefit from economies of scale on transportation, storage, information collection and soon. This will reduce the transaction cost they face in exchange.

If the marketing function of cooperatives is very beneficial to its members, the supply of credit can be easily facilitated by cooperatives, too. This can be done by linking the marketing role of cooperatives with their credit service. The flow of cash through cooperatives can be used to collect information about the credit worthiness of each potential barrower. There is no need for additional screening cost, since the information is available in the cooperative financial books. Moreover debit can be recovered from income of the barrower that is flowing through the cooperative.

The supply of local public goods, like irrigation facility, adopted technology, land improvement, forestation, extension and other local public goods, can be easily organized by local (service) cooperatives. A single small scale farmer can’t invest in adoption of new technology to local condition. However, 20000 small scale farmers paying 50 birr each can accumulate 1 million birr to fund such research and development project. In general, if the market failure is inversely related to size, the natural solution to such market failure is cooperation. But cooperatives are not a magic formula, which can solve every market failure problem everywhere.

1. **Value chain and contract farming**

In buyer driven market economy, an exporter, a wholesaler and a manufacture needs a sufficient and reliable supply of agricultural products from large army of small scale farmers. The problem is farmers are constrained by lack of credit, lack of appropriate technology, lack of extension service, lack of irrigation facility and high level of market uncertainty. These are related to financial, information, technology, capital and output market failures. Under such reality, small scale farmers may not able to supply reliable quantity of agricultural products to other economic agents. As result, both farmers and other economic agents may not able to achieve what is best for both of them and the society. The problem is related to existence of unspecified exchange between buyer and seller.

By changing the institutional setup from anonymous exchange in to contract farming, much better outcome can be generated under imperfect market setting. In contract farming a buyer, could it be a manufacturer, wholesaler or exporter, will supply credit, new input (technology), extension, irrigation facility and others inputs to the small scale farmers. For doing that he/she will has exclusive right to purchase their output, at predetermined price. In such arrangement farmers will not only have cheap access to agricultural inputs, but also assured market for their output. The buyer will also have assured access to reliable quantity and quality of agricultural products.

At society level the main advantage of contract farming is related to the optimal inputs that are supplied by the contract buyer. If the buyer supplied less than optimal inputs, he/she may not get reliable quantity and quality of output to maximize profit. If he/she is oversupplying inputs, the cost will be greater than the benefit. One way or another the contract buyer will maximize profit, if she/he is supplying optimal amount of fertilizer, credit, improved seed, irrigation and other inputs to the farmers.

1. **Micro finance institutions (MFIs)**

People facing asymmetric information, that can generate adverse selection and moral hazard problems, will reject to lend to someone, who is willing to pay them acceptable level of interest rate. This is because they are not sure about the actual riskiness of the exchange. Actually, asymmetric information has a tendency to increase the risk faced bythe lender. At the same time the search cost for potential borrower or lender, the cost of signing a contract and enforcement cost of a contract will be very high. Enforcement cost is very high, because the legal system is less efficient, less predictable and more sluggish in developing economies. Given these facts, direct financial market, in face of high transaction cost, will exist in form of informal money lenders only.

The informal money lender will use his multifaceted relationship based social capital and local knowledge to reduce transaction cost, moral hazard and adverse selection problems. Unfortunately this informal market is not Pareto efficient. First, since the money lender can’t raise saving, he/she is dependent on his limited wealth. The amount of loan he/she can make is very limited. Second, given the existence of high risk in developing rural economies, he/she will demand high risk premium. Third, given he/she is operating in highly imperfect market, which can generate him/her high level of abnormal profit, the opportunity cost of lending is very high for him/her. These facts will restrict the amount of finance that can be accessed from money lender and he/she will demand extremely high interest payment. In other words, in rural areas the only functional direct financial market is the *inefficient informal money lender*.

However financial intermediaries or banks, by introducing different institutional mechanism, can reduce the transaction cost of direct financial market. Search cost will be reduced by supply safety, interest income and liquidity to depositors. Now borrowers and lenders do not need to search each other, but has to come to central place, called bank. By benefiting from economies scale of contract, the bank can reduce the contract cost of lending. If a standardized contract is developed, it will become none rival as result it can be used unlimited number of times, without significant addition to cost. Asymmetric information and associated risk can be reduced by diversifying portfolio, by checking cash flow of customer, by demanding collateral, through screening and monitoring. These activities will be cost effective, because the bank normally uses professional loan officers, it will lend in large sum and some information is freely available to the bank, like cash flow data. Moreover special state laws, which allow repo (repossession), will make contract enforcement extremely effective to the bank. That is why an institutional change which links lenders and borrowers through the bank, than directly to each other, will result on functional financial intermediaries (banks) found in urban areas.

However, rural areas will create their own special problems to result on missing financial intermediaries. First rural areas are dependent on risky agriculture: inconsistent nature and faced by high quantity elasticity of demand. Second rural population will have less marketable asset to serve as collateral. This will increase both moral hazard and adverse selection problems.

Unfortunately, achievement of rural development, in face of vicious cycle of poverty which is very common in rural areas, is unthinkable without access to finance. For farmers to adopt technology, to invest on their own human capital, to specialize and commercialize, they need cheap access to finance. But the formal financial market, which does not exist in rural areas, is not in position to supply the necessary finance to rural population. To deal with challenge innovate institution is proposed in form of Micro Finance Institution (MFI). This institution is created by taking the strong sides of both the formal bank and the informal money lender. The strength of formal bank is related to its capacity to rise saving. The strong side of money lender is related to its capacity to reduce transaction cost by depending on social capital and local knowledge of the community.

1. **Commodity exchanges**

Commodity exchange is an integrated solution, which builds on the strong side of micro trust, under imperfect market, with objective of building macro trust. In other words, commodity exchange will do what networks or socioeconomic groups are supposed to do and at the same time will solve the problem created by them. Moreover, storage problem, grade and standard related challenges and other problems not fully addressed, either by networks or socioeconomic groups, effectively addressed by commodity exchange. That is why: it is an integrated solution for market failures, widely observed in developing economies.

Commodity exchange will develop appropriate grade and standards. Since grade and standards are public good in character, it is cost effective to supply them by central body, like commodity exchange. Once appropriate grade and standards are introduced, warehouse receipt system will address both storage and financial problems of both traders and farmers. Using warehouse receipts and clearly defined grade and standards, exchange will be facilitated by using auction system. The auction system will result on efficient price discovery and exchange at least cost possible. Than wasting significant amount of resource and time to search contracting bodies, brokers and traders will simply come to commodity exchange to participate on auction. This will reduce the search cost. By using standardized contracts, the term that has to be discovered in auction is only price. Grade and standards are developed and how much quantity can be traded is fixed by standard contract, so less time and resource will be wasted in process of exchange (auction). Commodity exchange will reduce problems related to high search cost, high contract cost, high storage cost, lack of finance and high screening cost. Moreover, it will also reduce the information cost, by collecting and disseminating market and industry level information to the general public, at much low fee. Since information is public good, commodity exchange has natural advantage on information market. But still there is problem of contract enforcement. This is addressed by taking a strong side of micro level social capital.

Since the legal system in developing economies is highly inefficient to enforce contracts and it is not possible to contemplate all possible contingences in any contract, there is high contract risk that can be expected in any contract. Fortunately, commodity exchange can exclude only untrustworthy economic agents and will create free entry for all productive economic agents. As result, society will benefit from all productive resources, skills and technology available. In social capital you are guilty until proven innocent, but in commodity exchange you are innocent until proven guiltily. This will create macro level social capital without avoiding sanction targeted at rent seeking agents.

1. **Social capital**

If we avoid the perfect information assumption there will be moral hazard problem. This is reflected in breach of agreed terms of contract; labor inefficiency, unless intensively supervised; lack of incentive to minimize risk by insured agent and soon. Ideally these problems could be dealt, by the judicial system. Unfortunately, given low efficiency of developing economies judicial system, the cost will normally overweight the expected benefit such process.

Viewed from socio-cultural dimension of life, however, ideologies like religious codes, norms and values can easily suppresses moral hazard problems. The incidence of moral hazard problem should be lower among people; whose personal interaction is so intense, in which one can easily predict the action of the other even without having complete information. This will result on mutual trust among community members.

Mutual trust and multifaceted relationship or in short community social capital can promote collaborative relationships with in wider community. Benefiting members will reject to collaborate with any one with bad past record of breaching agreements. The stronger the fear of social sanction by the community, the more firmly would the convention of honoring contracts with members of the same community be established. Seen from this point of view, trust will increase efficiency and reduces costs associated with division of labor (transaction cost for example). In this regard trust is a kind of social capital similar to social overhead capital.

Community principle born in rural village of developing countries has its potential to be an important part of modern organization to facilitate the process of rural development. However, traditional norms and conventions are not by themselves efficient in organizing modern rural development. This is because of community failures which include:

1. Due to supply lag and historical dependence of cognition, community norms could be functional but are not necessary optimal.
2. Mutual trust and cooperation among community members are often supported by rivalry, fear and hostility toward others.
3. Community social capital without state and market institutions to complement it will work to preserve dysfunctional system than promote efficiency.
4. Community social capital is not only Pareto suboptimal, but also will kill the capacity of market and state to develop much better institutions.
5. **Civic societies and NGOs**

The public sector is found to be highly inefficient to deal with market failure problems, as aforementioned above. Public sector within the labor market does face series adverse selection and moral hazard problems, which can reduce civil servants efficiency. The above fact, coupled with the use of social capital to preserve the inefficient status quo, will result on self-sustaining trap of inefficiency. The bureaucratic system, which is used in public sector, will complicate the problem by reducing the flexibility of the public sector. Armed with inflexible system and less efficient civil servants, the state may not be in good position to correct all market failures, everywhere.

A good alternative to state is Civic Society, in general, and None Governmental Organizations (NGO), in particular. Let’s start by Civic Society. Civic societies are established by value oriented individuals with high value for civic duty. A group of doctors may organize themselves to eradicate malaria. A community in one location may organize themselves to clean the street. These are example of Civic Societies. The advantage of such Civic Societies is that the people involved are value oriented, their system is flexible and their socio capital will be used for efficiency than shirking. If a group of people organize themselves under Civic Society, to improve the life of street children, they tend to have more efficiency than civil servants. This is because civil servants are salary oriented, but Civic Society members are value oriented. Civil servants are working to have salary, but Civic Society members are working to achieve their value. Under imperfect information, a rational civil servant has to develop moral hazard, since his salary is not related to his efficiency. Fortunately, Civic Society members will not develop moral hazard problem, because their satisfaction comes from achievement of their value not salary. The hard they can work and the more of their value is achieved, the more satisfied and happy they will be.

Moreover their value orientation will reduce the importance of hierarchy in decision making. Since a leader can’t benefit anything by blaming the failure on others, he will collaborate with others like close community for achievement of their common value. A salary oriented medical doctor can blame the failure on others and still have his salary. So if the nurse was absent, if the medical instruments are not there or if there is shortage of finance, he rationally will seat ideal. But a value oriented doctor or a doctor with sole objective of saving lives will do everything, on his power, to solve whatever problem that may come in his way.

NGOs or None Governmental Organizations could be established by value oriented individuals, but are not necessarily filled by value oriented workers. However their capacity to pay higher salary, compared to public sector, will reduce the occurrence of moral hazard and adverse selection problem. Since they can pay more than average salary, they have capacity to attract efficient workers. In general; NGOs can reduce moral hazard and adverse selection problems by paying efficiency wage than market wage rate.

One thing you will learn in institutional economics is that any institution is not a perfect solution to all problems, everywhere. The problems of such kind of institutions include;

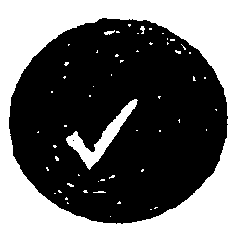
1. Civic Societies, in general, or all NGOs, in particular, are not established by value oriented individual, in all cases.
2. NGO or Civic society workers can use their social capital for productive or distractive purpose.
3. Rural development needs an integrated strategy at both sectorial and spatial level while Civic Society and NGOs are efficient under micro development only.
4. Even though efficiency wage is acceptable under asymmetric information, there is need for cost benefit analysis, as anything in economics. Thus, NGOs have tendency to spend significant portion of the budget on wages and salary of workers rather than using for development efforts.

**Summary notes**

*Institutions are laws, social norms, traditions, religious beliefs and values, which determine the relationship between economic agents (individuals, households, firms, countries and soon) and economic agents and their environment. Institutions can be formal, as sanctioned by law, or informal, as sanctioned by social norms. Similarly, state is an institution with set of rules for governance. Institutional change is a response to changes in resource endowments and technical change. The supply of institutional innovations depends critically on the power structure or balance among interest groups in a society. If the power balance is such that the political entrepreneurs' efforts to introduce an institutional innovation with a high rate of social return are adequately rewarded by greater prestige and stronger political support, socially desirable institutional innovations may occur.*

*If market is perfect, as assumed in main stream economics, it is the only institutions needed to coordinate the rural development effort, in specific and general development effort, in general. Given negative and positive externalities are widely observed in any economy, market allocation will not result in the best possible resource allocation or Pareto optimal resource allocation, by itself.*

*No rational mind can deny the complementary role of that state in rural development. The million dollar question is what does this complementary role of the state imply in practice? It can run from weak state to patronistic (like father or nanny) state. This is because in mixed economy, in which the invisible coordinating hand of market is supplemented by the visible coordinating hand of the state, wide spread state failures are norm than an exception.*

***Check List***

*Now it is time to check your understanding about the definition, concepts and economic importance of institutions, the need for government intervention in agriculture and rural development, and market and state failures to coordinate rural development.*

*Read each question and put a tick (√) in the box for tasks that you can perform.*

1. *Can you define and illuminate the economic importance of institutions? ...............................*
2. *Can you explain the need for government intervention in agriculture and rural development? .......................................................................................................................*
3. *Can you list and explain the different types of market failure in agriculture and rural development? .............................................................................................*
4. *Can you list and explain some alternatives of institution in rural development? .............*
5. *Can you explain the difference between state and market failures to coordinate rural development? ..............................................................................................................*
6. *Can you describe the supply and demand of institutions in rural development? ..............*
7. *Can you give some examples for positive and negative externality that are arising in rural development? ..............................................................................................*

***Dear student, is there any box that you cannot perform? If there is one goes back to your text/module and read about it before you go to the exercise below.***

***Review questions***

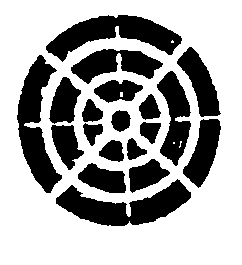
***Discussion question***

1. *What is an institution? And what are the economic importances of institutions?*
2. *Elucidate the demand and supply of institutions in rural development?*
3. *Illuminate the need for government intervention in agriculture and rural development?*
4. *Explain the nature and types of market and state failures?*

**Chapter Three**

**Theories, Models and Approaches to Rural Development**

***Introduction***

* Hello! Dear distance students, this is the third chapter of the module. Dear student, this unit is aimed to acquaint you about the Lewis agricultural transformation model with all its assumptions, rural sector development related to improvements in human capital, the bi-modal and uni-modal theories, integrated development approach, and different agricultural development models.* *Dear distance students, please study each section of the unit attentively, critically and thoroughly. Try to complete the check lists and do all the self check exercises without skipping any of them. All the best!*

***Chapter Objectives***

*After completing this chapter, you will be able to:*

* *Explain the Lewis’s model of development with unlimited supply of labor.*
* *Illuminate different rural sector development theories i.e. development theories related to the improvements in human capital, the bi-modal and uni-modal theories.*
* *Explicate the integrated development approach in rural economy, and elucidate different agricultural development models with examples.*
  1. ***Theories of Rural Development***

 *Dear distance learner, what do you think about different rural development theories? Let you try please.*

-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good*. General development theories and model can be used for agricultural and rural development analysis. In this sub section we are going to see the Lewis agricultural transformation model, human capital centered development theories, the bi-modal and uni-modal rural development theories. Now let’s make a close watch on each rural development theories in a more rigorous way.

* + 1. ***Lewis’s model of economic development with unlimited supply of labor***

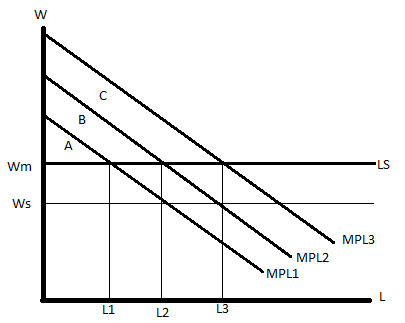
 *What do you think is the assumptions and main explanations of Lewis’s model of rural development? Let you try please.*

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*Have you tried? Good*. In Lewis’s development model the underdeveloped economy has two sectors. One sector is a backward agrarian sector using irreproducible capital – land under family institution in which everyone earns the low average product and due to large population size the marginal product of labor is zero. And there is a modern capitalist sector in urban centers which operates under competitive situation paying laborers their marginal product and using reproducible capital. In rural areas there is surplus of disguisedly unemployed labor with zero marginal product, does not affect agricultural production if transferred to the modern sector. Moreover, given the existence of unlimited supply of labor, from rural area, the modern sector wage rate will be constant and equal to subsistence wage (average product) plus transfer allowance. The transfer allowance is important in order to encourage laborers to migrate from rural areas to urban centers in which they have to build new houses (rent), buy new commodities and face unaccustomed expenditure. It also reflects the cost of training laborers by the capitalist or by themselves.

In figure below if the average product in rural area is ***Ws*** and if the cost of transfer is ***Wm– Ws*** then the modern sector wage rate will be ***Wm*** and it will have perfectly elastic supply curve given unlimited supply of labor. Now when the capitalist invest and resulted in marginal product of labor as reflected in ***MPL1*** and given the ***Wm*** wage rate it will employ ***L1*** labor force where the marginal contribution of labor is equal to its cost. And by doing so the capitalist class will earn a profit of area ***A*** and this will be reinvested to shift the ***MPL1*** to ***MPL2*** which will result on employment of ***L2*** and the capitalist profit will increase by area ***B***. And this will be reinvested to increase the employment to ***L3***. By this process of transferring the surplus labor in agriculture in to industry once back ward agrarian economy will come out as industrialized modern economy.

**Figure 3.1: The Lewis Model**



The Lewis development theory gives emphasis to the transfer of income to the reach capitalist class who can save, invest and keep alive the dynamics of the economy to ward modernization. Given zero marginal product of labor in the agriculture sector, the transfer will not decrease total agricultural production.

The main short comings of this theory are

1. Marginal product of labor is low but not zero. More over there is seasonal labor shortage even in densely populated area so unlimited supply of labor is not granted.
2. There is no grantee that the capitalist will reinvest its profit and even if he/she did, it will not be in labor intensive form rather its investment may be capital intensive. What if capitalist profits are reinvested in more sophisticated laborsaving capital equipment rather than just duplicating the existing capital, as is implicitly assumed in the Lewis model? The labor demand curves do not shift uniformly outward but in fact cross. Demand curve *D2(KM2)* has a greater negative slope than *D2(KM1)* to reflect the fact that additions to the capital stock embody laborsaving technical progress—that is, *KM2* technology requires much less labor per unit of output than *KM1* technology does.

**Figure 3.2: The Lewis model modified for labor saving capital accumulations: Employment Implication.**



1. Although the theory assumes unskilled labor can easily trained, skill formation was found to be very complex and expensive task.
2. It assumes the existence of strong capitalist class despite the fact that one of the problems of developing economies is lack of strong entrepreneur class.
3. It assumes assured demand which implies perfectly elastic export demand unless the failure to increase agricultural income will create demand bottlenecks.
4. Due to much emphasis on growth and industrialization the income distribution will be very skewed where minority are earning and investing while the majority labor is under subsistence. And this is highly unrealistic given the existence of labor union which oppose subsistence wage.
5. The industrial expansion will face shortage of food and row material due to agricultural under development.
6. Moreover, experience shows that it is very practical and economical to create employment in rural areas than in urban areas which even are not found to be capable of providing job opportunity for the urban people.

The main contribution of this model to rural development is that it recognizes the low productivity of labor in rural areas and the use of family labor in production.

* + 1. ***Human capacity rural development theory***

*Dear distance students, what do you think is the main premises and explanations of human capital centered rural development theories? Let you try please.*

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*Have you tried? Good*. Our contemporary era has a critical focus on globalization. However, notwithstanding the necessary interdependence and inter-determination of the forces of globalization, these forces are deeply influenced by an economic theory, a theory known as “economic neo-liberalism.” To date, this theory has not been seriously challenged. Fellows of the World Academy of Art and Science have evolved their thinking about the future of globalization. This approach stresses the centrality of human development in any economic theory that seeks to sustain globalization. ***The human-centered approach is an aspect of the contested theory that development needs to be human-centered and justified by a contemporary theory of human rights and development***.

The early implicit recognition of intangible resource is to be found in Slow’s analysis of labor and capital contribution to economic growth of USA. He found that a significant variation in output (87%) in the period of 1900 to 1949 cannot be explained by the traditional factors of production1. This residual is thought to be measure of our ignorance or the contribution of technological progress as embodied in capital and labor.

Later Schultz (1976) by incorporating the investment in human development but using the same production function able to explain a significant share of the Slow’s residual. And he forcefully argued for the importance of *human capital* in development process in saying that “suppose there was an economy the land, physical reproducible capital including available techniques of production that we possess in the USA, but it attempted to function under the following restrictions: there would be no person available who had on- the-job experience, no one who had any schooling, no one who had information about the economy except of his locality, and the average span of life of the people will be only forty years, surely production will fell catastrophically. It is certain there will be lower output and extraordinary rigidity of economic organization until the capability of the people raised by investing on them.” These clearly show that human capital is a precondition for efficient utilization of any means of production and general flexibility of the economic system. In general any economic development effort which does not have human development as a critical input is a destined to feller.

The human capacity theory of development in general and rural development in particular emphasizes on the importance of human capital for achieving both economic and social developments. Here, the focus is on the totality of human potential and the need to harness it for the good of the people. In this view point, human capital implies the mental and physical quality of people and this can be improved by education, training, health care or other spiritual methods.

In case of rural development the contribution of human development (especially related to education) are the following;

1. it will directly improve the productivity of agriculture
2. it will improve the probability of getting off farm employment
3. it will lead to improved family planning
4. it can improve the health and nutrition of the people and its impact is felt over generation
5. by widening the horizons of knowledge it can enable them to overcome ignorance and superstitions
6. it can improve the risk taking and managerial capacity of the farmer

* ***In a nut shell, Human Capital Development Theory concludes that investment in human capital will lead to greater economic outputs however the validity of the theory is sometimes hard to prove and contradictory***
  + 1. ***Bi-modal and Uni-modal approach to agricultural (rural) development***

 *What do you think is the main explanations and difference between Bi-modal and Uni- modal approach/theories of rural development? Let you try please.*

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*Have you tried? Good*. ***The bi-modal approach to agricultural and rural development revolves around the idea is that large farms in the economy are the most efficient compared to small farms***. This is due to the existence of production, marketing and credit economics which results in lower cost of production. ***The uni-modal approach to rural development, however, contest the production economics in agriculture operating in imperfect input market, and devises a way to deal with both capital market and output market indivisibility***. In short the central disagreement among both approaches is on the fact that if peasant farming system can be engine of agricultural and rural development or if it needs to be integrated in to capitalist mood of production. Now, let’s discus each approach one by one.

1. ***The bi-modal approach to agricultural development***

According to advocates of this approach large scale farms have strong advantage over small scale farms. These advantages are related to technical, financial, and marketing economies of large scale farming. And in general it is assumed that all advantages that can accrue to small scale farming would occur to large scale but not the vise verse. For example production economies related to;

* **The use of up to date and most automatic machines** – Given the fact that most automatic machines need high fixed initial cost, they will need large scale production in order to break even with fixed cost. Moreover, large scale farmers are well capitalized, informed and well connected to benefit from most up to date automatic machines. Just think about the fact that how many animal power is needed to do what a tractor can do in half an hour. But, for small farmer who own less than one hectare, purchasing tractor (to use it for half an hour per year) is not only uneconomic but also it is behind its financial means.
* **Benefit from high level labor specialization** – as Adam Smith states centuries specialization in one task not only improve the dexterity (skill) of workers but also the time wasted in jumping from one job to another will be avoided and this will result in significant improvement in labor productivity. Most importantly, if job is divided in to small and elementary pieces, automatic machines can be used which can significantly reduce cost of production. Thus, large farms, by allowing specialization of labor in some routine job like plowing, planting, weeding, harvesting and so on can improve productivity of labor. But the use of modern and efficient machines will be possible if task is simplified by specialization.
* **Better utilize by products** – Farm by products which are wasted in the farm are given to animals uneconomically can be efficiently used in large farms either by using as input in manufacturing or in providing feed to modern animal husbandry.
* **Repair and maintains scale economies** - not only machinery needs a high initial fixed cost but also machinery repair, too. If you have few or one farm machinery it does not pay you to use your own repair machines. But, large farms can establish their own repair workshop and can significantly reduce their repair and maintains expenditure. Even if they did not own, they can strongly negotiate for fair price due to their large business.
* **To take advantage in research and development** – last but not least R & D needs a lot of fixed cost (to cover research expenditure) and risk taking (because all innovations does not pay you back and some researches did fail to give result), which can be easily afforded by large capitals farms but it is behind the means of small farmers. In this regard, large farms are not only able to use most update and cost effective means of production and product but also can develop their own better ways.

The above listed production related advantage can be enjoyed, if the farm is large in both size of land and capital employed. Considering cost of production in their static or dynamic sense, large farms are at comparative advantage compared to small farms. Moreover, large farms also benefit from both marketing and capital market economies.

* **Transport economics** – if you want to transport a quintal of wheat from here to Addis you will pay 20 or 30 birr per quintal; but if you are transporting 100 quintal you can get it there for less than 5 birr per quintal. Large farmers who buy inputs in bulk and sale their output in bulk will face lower transportation cost.
* **Storage economics** – this is related to the fact that the area of storage increase with volume but cost of storage increase with area. If you have storage with 2 meter width, 2 meter height and 2 meter base, the area will be 8 m2. If you increase each by one meter the area will jump to 27 m2. Just compare the cost of construction which is increasing by less than 100% and the 400% increase in storage space. This implies that it is cheap to store large amount of input and output than small input and output.
* **Economies of scale information accusation and capacity to build social capital** –when markets are working in imperfect information environment large farms can spend on information which can help them to make informed decision and rational price expectations. But far important when markets fail social networks are important on provision of information and given high association between finical and social capital they are the well informed and well-connected agents in market.
* **Capacity to bargain for fair price** - in both input and output market they can bargain for fair price because first they have higher market power (due to bulk purchase and sale), they are well informed and lastly but not least they are not participating under stress as many small farmers do.

According to the bi-modal approach to rural development, large farms are not only efficient in production but also in marketing their product and purchasing inputs. Sometimes their advantages come from capital market economies. This is because large size farm owners can easily access external capital at lower interest rate to finance their expenditure which is not possible to small farms. In addition, large farm owners can finance their own expenditure and do not need external finance unless for big projects. Small farmers can’t provide viable collateral, their demand for capital is limited, they deal in agriculture which is highly dependent in nature and formal banks will fail to lend them at reasonable interest rate. So they have to depend on informal sources which charge a high interest rate.

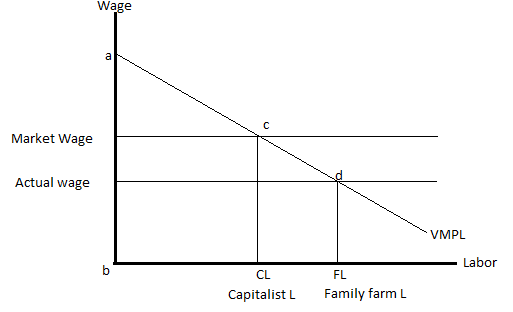
According to the bi-modal approach large farms are efficient compared to small farms, over time large farms will overtake the peasant farming by purchasing their land and they will provide employment to currently peasant population. Thus, the inefficient peasant farming will be replaced by more efficient capitalist farming. In the process, given high productivity and efficiency, the resource allocation will be efficient; the peasant will be able to enjoy fruit of his labor. The added agricultural surplus will not be consumed by the inefficient peasant family rather it will be marketed used for fast urbanization and industrial development. Even if labor is replaced by machinery given the tremendous achievement in productivity and cost reduction, it can be addressed by targeted poverty reduction strategy once an efficient and fast economic growth is achieved.

1. ***The Uni-modal approach to agricultural development***

The uni-modal approach to agricultural development questions the existence of production economies in farming. To understand the idea lets extend the size and productivity argument little far.

1. ***The preoccupation of farming with living things, high dependence on weather and season*** – you can’t do different task at the same time and any time like manufacturing. You can do some agricultural tasks (say planting) at a given time in year (one or twice or three times in year) and in a given order (after plowing not before that or after weeding), will kill the capacity for labor specialization. One person can’t weed or harvest all year round, and if he specialized he will be unemployed most of the time. By the same logic, whatever machinery that you have will be ideal most of the time. So large scale farming will not only inefficiently use the scare capital resource but also replace most abundant resource by the most scare and underutilized capital. On the other hand, small scale farms are not only endowed with family labor which is cheap and abundant but also their employment is flexible, they can perform different task in year. In slug months they can work as urban or rural laborer.
2. ***Management diseconomies in face of asymmetric information*** – if you are hiring labor you are working not in a perfect information labor market but in asymmetric information which resulted in both adverse selection and moral hazard problems. Even though it’s not widely observed, workers which are less efficient will be willing to work for lower wage. The problem is that the most efficient workers which can produce more than their higher wage will be discouraged in participating in such lower paying jobs. The final outcome is that the efficient part of the labor force is excluded and most of your employee will be the less skilled and less efficient one. In addition, the worker, once hired will lack incentive to work hard due to moral hazard problem (given wage is paid by hour not by productivity). To avoid this, you will need expensive screening and supervision cost which need to increase at increasing rate with farm size. Small farms which are dependent on family worker, however, do not need strong supervision.
3. ***Labor market imperfection and family labor*** – A rational economic agent will equalize his (his worker) value of marginal product and wage rate. The problem is the wage rate that is paid by the employer is not equal to the wage rate received by the worker if we make allowance for labor market imperfection and searching cost.

**Figure 3.3: Market and family labor**



If a worker can get job for 10 days in 30 days and searching for job for 30 days, his wage rate is not the market wage rate but 10/30 times the market wage rate. If the market wage is 10 birr per day, in month he will get 100 birr while he is there searching for job every day for 30 days.Thus, he is actually paid 3.33 birr per day than 10 birr. Therefore, the actual wage rate (opportunity cost if he works in his own farm) that is paid to rural agricultural worker is much lower than the market wage rate.

In the above graph the capitalist will hire worker at a point where the market wage rate is equal to the value of marginal product of labor or CL amount of labor. Bydoing so, it will produce a total output of abcCL. But family labor will equate his value of marginal product to market wage rate but to his real opportunity cost in the market. So he will use labor intensively up to FL (which is higher than the capitalist sector employment CL) and will produce much higher level of output abdFL. So small farmers not only produce more compared to large farmers but will make intensive use of the abundant factor of production labor and will save the scare capital.

1. ***Speculation on land and the use of land as reflection of prestige and wealth than economic input by large farms*** – given ever increasing population size the market value of land will increase over time (remember Ricardo’s extensive and intensive margin theory), so significant portion of land will be used for speculation while large portion of the population is without land. In addition, large scale farmers can use land as reflection of prestige while investing on scare capital. This will result not only unnecessary investment on scare capital but also inefficient use of the abundant land and labor.

In a situation of labor and land market imperfections, small farmers are more efficient and can produce more output, compared to large farms. Considering the preoccupation of farming with living things and seasonal pattern of employment, the economic scale advantage is not relevant to agriculture as it is for other industries. You can make the poor rural peasant an engine of agricultural and rural development by solving both the growth and fair distribution goals at the same time. By using small farmers with infusion of modern technology not only will be producing and using inputs in line with their shadow cost but also the observed growth will be egalitarian and fair to majority of the population. The idea of uni-modal is based on using of one technology by all peasant farmers, to make them engine of growth without reducing them to land less agricultural laborers.

Small farmers, however, lack access to credit and market and whenever they do, the transaction cost and interest charged will be high. So uni-modal approach looks forward for institutional solution for such problems by using service cooperatives to solve the marketing problem and using cooperative and MFI to solve the capital market diseconomies.

* + 1. ***The Integrated Approach to Rural Development***

 *Dear students, what is integrated rural development approach? What are its main explanations? Why we support integrated rural development policies? Let you try please.* -----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good*. In 1950’s- focus was on achieving higher economic growth. In 1970’s, however, the emphasis was on equity and income distribution. During this time ‘redistribution from growth’ became the common slogan among economists and policy makers. This is due to the fact that the green revolution and agriculture development programs of the 1960’s did little in enhancing the welfare of the poor. Thus, the focus of bilateral and multilateral development assistance changed in to Integrated Rural Development approaches. According to this strategy, promotion of government support improves small scale farm productivity through packages of activities. These activities include provision of farm credit, extension, agricultural inputs, reliable marketing, assured agricultural product prices, and strong village institutions.

*What is Integrated Rural Development (IRD) by the way?* IRD is the process of combining multiple development services into a coherent delivery system with the aim of improving the well-being of rural populations.IRD, a major approach to address the rural inequality problem since economic growth alone doesn’t guaranty equal access to social services. Achievement of growth in agricultural production and rural welfare requires an integrated program implementation. Rural development policy must be multi-disciplinary in concept, and multi-sectoral in application, with a clear territorial dimension.

IRD projects have the following characteristics

* focused on particular geographic areas
* designed and implemented by outside groups
* mainly concerned with the coordination of public goods and services
* multi-sectoral, though emphasizing agricultural production

In economic terms there are two categories of reasons that support the integrated approach to rural development:

* Complementarity of inputs in a given rural production function
* Synergy, that is, positive interactions, among combined rural production functions

Synergy due to:

* efficiency in resource use due to integration
* economics of scale in service provision
* Optimal production of collective goods: DATA
  1. ***Models of agriculture/rural development***

 *Dear distance students, what are those different models of rural development? What is the dividing line between each rural development models? What are their explanations? Let you try please.*

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*Have you tried? Good*. Agricultural development must abandon the view of agriculture in pre-modern or traditional societies as essentially static. Historically, the problem of agricultural development is not that of transforming a static agricultural sector into a modern dynamic sector, but of accelerating the rate of growth of agricultural output and productivity consistent with the growth of other sectors of a modernizing economy. Similarly, a theory of agricultural development should provide insight into the dynamics of agricultural growth, ie, into the changing sources of growth, in economies ranging from those in which output is growing at a rate of 1.0% or less to those in which agricultural output is growing at an annual rate of 4.0% or more.

There seem to be five general models in the literature on agricultural development:

* ***The frontier model.***
* ***The conservation model.***
* ***The urban-industrial impact model.***
* ***The diffusion model.***
* ***The high-payoff input model***
  + 1. ***The frontier model***

 *Dear distance students, what do you think is that the main explanations of frontier agricultural development model to the rural economy? Let you try please.*

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*Have you tried? Good*. Throughout most of history, expansion of the area cultivated or grazed has represented the main way of increasing agricultural production. The most dramatic example in Western history was the opening up of the new continents -North and South America and Australia -to European settlement during the 18th and 19th centuries. With the advent of cheap transport during the latter half of the 19th century, the countries of the new continents became increasingly important sources of food and agricultural raw materials for the metropolitan countries of Western Europe.

In earlier times, similar processes had proceeded, though at a less dramatic pace, in the peasant and village economies of Europe, Asia and Africa. The first millennium AD saw tile agricultural colonization of Europe north of the Alps, the Chinese settlement of the lands south of the Yangtze and the Bantu occupation of Africa south of the tropical forest belts. Intensification of land use in existing villages was followed by pioneer settlement, the establishment of new villages, and the opening up of forest or jungle land to cultivation. In Western Europe there were a series of successive changes from Neolithic forest fallow to systems of shifting cultivation on bush and grass land followed first by short fallow systems, and in recent years by annual cropping.

Where soil conditions were favorable, as in the great river basins and plains, the new villages gradually intensified their systems of cultivation. Where soil resources were poor, as in many of the hill and upland areas, new areas were opened up to shifting cultivation or to nomadic grazing.

Under conditions of rapid population growth, the limits to the frontier model were often quickly reached. Crop yields were typically low -measured in terms of output per unit of seed rather than per unit of crop area. Output per hectare and per man hour tended to decline -except in the delta areas such as in Egypt and South Asia, and the wet rice areas of East Asia. In many areas the result was to worsen the wretched conditions of the peasantry.

There are relatively few remaining areas of the world where development along the lines of the frontier model will represent an efficient source of growth during the last quarter of the 20th century. The 1960s saw the 'closing of the frontier' in most areas of South East Asia. In Latin America and Africa the opening up of new lands awaits the development of technologies for the control of pests and diseases (such as the Tsetse fly in Africa) or for the release and maintenance of productivity of problem soils. This century can be seen as the transition from a period when most of the increases in world agricultural production occurred as a result of the expansion in area cultivated to a period when most of the increase in crop and animal production will come from increases in the frequency and intensity of cultivation -from changes in land use which make it possible to crop a given area of land more frequently and more intensively and hence to increase the output per unit area and per unit of time.

* + 1. ***The conservation model***

 *Students what do you think is that the main elucidations of conservation agricultural / rural development model? Let you try please.*

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*Have you tried? Good*. The conservation model of agricultural development evolved from the advances in crop and livestock husbandry associated with the English agricultural revolution and the concepts of soil exhaustion suggested by the early German chemists and soil scientists. It was reinforced by the concept, in the English classical school of economics, of diminishing returns to labour and capital applied to land. The conservation model emphasized the evolution of a sequence of increasingly complex land and labour-intensive cropping systems, the production and use of organic manures, and labour-intensive capital formation in the form of physical facilities to more effectively use land and water resources.

Until well into the 20th century the conservation model of agricultural development was the only approach to intensification of agricultural production that was available to most of the world's farmers. Its application can be effectively illustrated by the development of the wet-rice culture systems that emerged in East and Southeast Asia and by the labour and land intensive systems of integrated crop-livestock husbandry which increasingly characterized European agriculture during the 18th and 19th centuries. During the English agricultural revolution more intensive crop-rotation systems replaced the open three-field system in which arable land was allocated between permanent crop land and permanent pasture. This involved the introduction and more intensive use of new forage and green manure crops and an increase in the availability and use of animal manures. This 'new husbandry' permitted the intensification of crop-livestock production through the recycling of plant nutrients, in the form of animal manures, to maintain soil fertility. The inputs used -the plant nutrients, the animal power, land improvements, physical capital and the agricultural labour force -were largely produced or supplied by the agricultural sector itself.

Agricultural development, within the framework of the conservation model, clearly was capable in many areas of the world of sustaining rates of growth in agricultural production around 1.0% per year over relatively long periods of time. This rate is not compatible, however, with modern rates of growth in the demand for agricultural output which typically fall between 3-5% in the developing countries.

* + 1. ***The urban-industrial impact model***

 *Dear distance students, what do you think is that the main elucidations of urban-industrial impact agricultural / rural development model to the rural economy? Let you try please.*

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*Have you tried? Good*. In the conservation model locational variations in agricultural development were related primarily to differences in environmental factors. It stands in sharp contrast to models which interpret geographical differences in the level and rate of economic development primarily in terms of the level and rate of urban-industrial development. Initially, the urban-industrial impact model was formulated by von Thunen in Germany to explain geographical variations in the intensity of farming systems and in the productivity of labour in an industrializing society. In the USA it was extended to explain the more effective performance of the input and product markets linking the agricultural and non-agricultural sectors in regions characterized by rapid urban-industrial development than in regions where the urban economy had not made a transition to the industrial stage. In the 1950s interest in the urban-industrial impact model reflected a concern with the failure of agricultural resource development and price policies adopted in the 1930s to remove the persistent regional disparities in agricultural productivity and in rural incomes.

The rationale for this model was developed in terms of more effective factor and product markets in areas of rapid urban-industrial development. Industrial development stimulated agricultural development by expanding the demand for farm products; by supplying the industrial inputs needed to improve agricultural productivity; and by drawing away surplus labour from agriculture. The empirical tests of the model have repeatedly confirmed the importance of a strong non-farm labour market as a stimulus to higher labour productivity in agriculture.

The policy implications of the model appear to be most relevant for the less developed regions of the highly industrialized countries or lagging regions of the more rapidly growing developing countries. Agricultural development policies based on the urban-industrial impact model appear to be particularly inappropriate in those countries where the 'pathological' growth of urban centers is a result of population pressures in rural areas running ahead of employment growth in urban areas

* + 1. ***The diffusion model***

 *Dear distance students, what do you think is that the main elucidations of diffusion agricultural / rural development model in the rural economy? Let you try please.*

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*Have you tried? Good*. The diffusion approach to agricultural development rests on the empirical observation of substantial differences in land and labour productivity among farmers and regions. The route to agricultural development, in this view, is through more effective dissemination of technical knowledge and a narrowing of the productivity differences among farmers and among regions. The diffusion of better husbandry practices was a major source of productivity growth even in pre-modern societies. Prior to the development of modern agricultural research systems substantial effort was devoted to crop exploration and introduction. Even in nations with well-developed agricultural research systems a significant effort is still devoted to the testing and refinement of farmers' innovations and to testing and adaptation of exotic crop varieties and animal species.

This model provided the major intellectual foundation of much of the research and extension effort in farm management and production economics since the emergence, in the latter years of the 19th century, of agricultural economics and rural sociology as separate sub-disciplines linking the agricultural and the social sciences. The developments which led to the establishment of active programmes of farm management research and extension occurred at a time when experiment-station research was making only a modest contribution to agricultural productivity growth. A further contribution to the effective diffusion of known technology was provided by the research of rural sociologists on the diffusion process. Models were developed emphasizing the relationship between diffusion rates and the personality characteristics and educational accomplishments of farm operators.

The insights into the dynamics of the diffusion process, when coupled with the observation of wide agricultural productivity gaps among developed and developing countries and a presumption of inefficient resource allocation among 'irrational tradition-bound' peasants, produced an extension or a diffusion bias in the choice of agricultural development strategy in many developing countries during the 1950s. The limitations of the diffusion model as a foundation for the design of agricultural development policies became increasingly apparent as technical assistance and community development programmes, based explicitly or implicitly on the diffusion model, failed to generate either rapid modernization of traditional farms and communities or rapid growth in agricultural output.

* + 1. ***The high-pay off input model***

 *Dear distance students, what do you think is that the main elucidations of high pay off input rural development model to the rural economy? Let you try please.*

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*Have you tried? Good*. The inadequacy of policies based on the conservation, urban-industrial impact, and diffusion models led, in the 1960s, to a new perspective. In this, the key to transforming a traditional agricultural sector into a productive source of economic growth is investment designed to make modern, high-payoff inputs available to farmers in poor countries. Peasants, in traditional agricultural systems, were viewed as rational, efficient resource allocators. They remained poor because, in most poor countries, there were only limited technical and economic opportunities to which they could respond. The new, high payoff inputs were classified into three categories:

* The capacity of public and private sector research institutions to produce new technical knowledge.
* The capacity of the industrial sector to develop, produces, and market new technical inputs.
* The capacity of farmers to acquire new knowledge and use new inputs effectively.

The enthusiasm with which the high payoff input model has been accepted and translated into economic doctrine has been due in part to the proliferation of studies reporting high rates of return to public investment in agricultural research. It was also due to the success of efforts to develop new, high-productivity grain varieties suitable for the tropics. New high-yielding wheat varieties were developed in Mexico, beginning in the 1950s, and new high-yielding rice varieties were developed in the Philippines in the 1960s. These varieties were highly responsive to industrial inputs, such as fertilizer and other chemicals, and to more effective soil and water management. The high returns associated with the adoption of the new varieties and the associated technical inputs and management practices have led to rapid diffusion of the new varieties among farmers in several countries in Asia, Africa, and Latin America.

* 1. **The green revolution evidence**

*Dear distance students, what is green revolution? What can we learn from the Indian green revolution policy? Let you try please.*

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*Have you tried? Good*.Green Revolution is a large increase in crop production in developing countries achieved by the use of artificial fertilizers, pesticides, and high-yield crop varieties. The term green revolution refers to the renovation of agricultural practices beginning in Mexico in the 1940s. Because of its success there, green revolution technologies spread worldwide in the 1950s and 1960s, significantly increasing the amount of calories produced per hectare of agriculture.

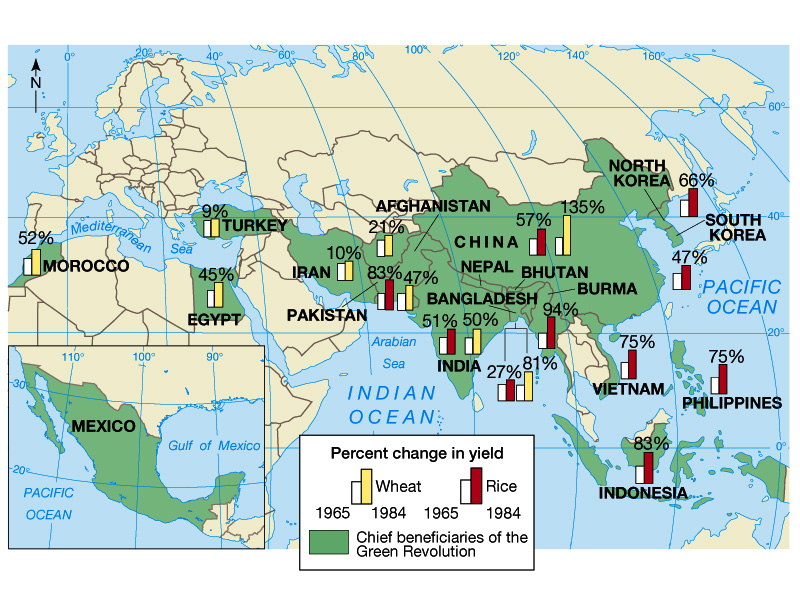


Figure 3.1: main beneficiaries of GR and achievement in crop production improvement

***Seven historical lessons of green revolution***

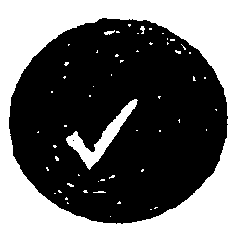
* Adoption rates were high in places where they were technically and economically superior to local varieties.
* Neither farm size nor tenure has been a serious constraint to the adoption of new high-yielding grain varieties. Within relatively few years after introduction, lags in adoption rates due to size or tenure have typically disappeared.
* Neither farm size nor tenure has been an important source of differential to growth in productivity. It has not been strongly biased in either a labor-saving or a capital-saving direction and large and small farms achieve equal gains in efficiency.
* Technological adoption has resulted in an increase in the demand for labor. Even mechanized farms typically were utilizing increase labor inputs
* Landowners have gained relative to tenants and laborers from the adoption of the higher yielding grain varieties. This is again a major source of income disparity in rural areas.
* The effect of technological adoption has been to contribute to a widening of wage and income differentials among regions. The contribution of new varieties to productivity growth has been greatest in those regions with substantial investment in physical and institutional infrastructure.
* The effect of the introduction of the new high yielding varieties has been to dampen the rate of increase in food grain prices at the consumer level. The benefits were strongly biased in favor of low income consumers and part of the new income streams generated by the new varieties have been transferred from producers to consumers

Summary note

*General development theories and model can be used for agricultural and rural development analysis. In Lewis’s development model the underdeveloped economy has two sectors. One sector is a backward agrarian sector using irreproducible capital – land under family institution in which everyone earns the low average product and due to large population size the marginal product of labor is zero. And there is a modern capitalist sector in urban centers which operates under competitive situation paying laborers their marginal product and using reproducible capital. In rural areas there is surplus of disguisedly unemployed labor with zero marginal product, does not affect agricultural production if transferred to the modern sector. The human-centered approach is an aspect of the contested theory that development needs to be human-centered and justified by a contemporary theory of human rights and development.*

*The bi-modal approach to agricultural and rural development revolves around the idea is that large farms in the economy are the most efficient compared to small farms. This is due to the existence of production, marketing and credit economics which results in lower cost of production. The uni-modal approach to rural development, however, contest the production economics in agriculture operating in imperfect input market, and devises a way to deal with both capital market and output market indivisibility.*

*In short the central disagreement among both approaches is on the fact that if peasant farming system can be engine of agricultural and rural development or if it needs to be integrated in to capitalist mood of production.*

***Check List***

*Now it is time to check your understanding about the Lewis agricultural transformation model under unlimited supply of labor, human capital centered rural development theory, the bi-modal and uni-modal agricultural development theories, integrated development approach, and different agricultural development models.*

*Read each question and put a tick (√) in the box for tasks that you can perform.*

1. *Can you list and illuminate different theories of agricultural/ rural development? .............*
2. *Can you explain the main explanation of human capital centered agriculture /rural development theory? ......................................................................................................*
3. *Can you list and explain the different types of agriculture /rural development models? .......*
4. *Can you explain and reason out why we support integrated development approach? ..........*
5. *Can you explain the difference between bi-modal and uni-modal agricultural development theories? ....................................................................................................*
6. *Can you define and explain green revolution and the lesson what other developing nations learnt from Indian green revolution? .........................................................................*

***Dear student, is there any box that you cannot perform? If there is one goes back to your text/module and read about it before you go to the exercise below.***

Review exercise

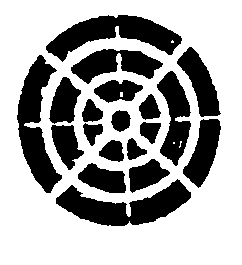
***Discussion questions***

1. *Explain the Lewis’s model of development with unlimited supply of labor?*
2. *Illuminate different rural sector development theories i.e. development theories related to the improvements in human capital, the bi-modal and uni-modal theories?*
3. *Explicate the integrated development approach in rural economy, and elucidate different agricultural development models with examples?*

***Chapter Four***

***Rural Development Policies and Strategies***

***Introduction***

* Hello! Dear distance students, this is the fourth chapter of the module. Dear student, this unit is aimed to acquaint you about the strategies of agricultural and rural development; and the policies of agriculture and rural development.* *Dear distance students, please study each section of the unit attentively, critically and thoroughly. Try to complete the check lists and do all the self check exercises without skipping any of them. All the best!*

***Chapter Objectives***

*After completing this chapter, you will be able to:*

* *List and explain different strategies of agriculture and rural development.*
* *List and explain different policy options of agriculture and rural development.*
  1. ***The Concept of Policy***

 *Dear distance students, what do you think is the definition of policy? List and explain different agricultural policies? Let you try please.*

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*Have you tried? Good*. Policy formulation is an integral part of the planning process and is specified successively at the macro, sector, sub-sector, program/project and operation of an economic unit level. Generally speaking, “policy" implies state intervention in the economy, whereas "policies" refers to the specific types of intervention further down the planning process. It is essential that these are consistent and complementary to each other. For example, once the general economic policy has been formulated, it is imperative that sector level policies are drawn up that are consistent with the general policy. Governments’ general objectives for economic development are usually defined in the form of policy statements. They specify the major goals to be achieved and the forms of suitable economic organization for resource ownership and management. Consistent with this are then drawn up sector policies, sub-sector policies, etc.

In the case of agriculture development, typical objectives may include faster growth of agricultural output, peasant sector development, reduction of rural poverty, more efficient marketing, more stable prices of agricultural products, more equitable rural land distribution and more attractive rural land tenure system, privatization of agriculture, improvement of status of pastoralists, etc. As regards organizational arrangements, agriculture sector policies may define the types of economic enterprise that will be encouraged (e.g., small farmers, pastoralists, cooperatives, private commercial farms, state farms, etc.), the role and size of domestic and foreign participation, and the extent to which markets and prices will be subject to official regulation. These policy declarations about the ends and means of agricultural development represent the fundamental terms of reference for any agricultural planning exercise.

A fairly conventional approach to the formulation of agricultural policies in developing countries is that which focuses on the relationship of policy to the inputs and outputs of the farm system and thus aims at influencing the inputs, outputs, and technology of farm household production. In this respect, some policies can be distinguished: price policy, marketing policy, input policy, credit policy, mechanization policy, land reform policy, research and extension policy, and irrigation policy.

***Price policy*** is designed to influence the level and stability of the prices received by farmers and paid by consumers for farm outputs. It is a very important factor as it influences the entire fabric of an agricultural economy. In general, it has three main functions, (i) allocation of farm resources, (ii) income distribution, and (iii) determination of the level of investment and capital formation in agriculture.

***Marketing policy*** is concerned with the transfer or movement of farm outputs from the farm-gate to the domestic consumer or to ports of export. It has two major roles; (i) in the transmission of price signals between consumers (demand) and producers (supply), and (ii) in the physical movement of the output from points of production by farmers to points of purchase by consumers.

***Input policy*** is designed to influence the prices and delivery systems of purchased variable inputs used in farm production. Purchased variable inputs include chemical fertilizers, pesticides, herbicides, improved seeds and high yielding varieties, fuel, animal feeds, etc. The policy has three major dimensions, (i) price level of variable inputs, (ii) delivery system for the inputs, and (iii) information available to farmers regarding type, quantity and combination of inputs suitable for their farm systems.

***Credit policy*** concerns mainly, but not exclusively, on the provision of working capital for the purchase of variable inputs used in farm production. Generally, the policy aims at (i) alleviating a critical constraint which hampers growth in agricultural output, (ii) replacing the fragmented and incomplete rural financial market dominated by selfish private money-lenders, (iii) accelerating the adoption of new technology by peasant farmers, and (iv) achieving equity goals, whether these are intra-rural, inter-regional, or rural-urban income distribution.

***Mechanization policy*** is designed to influence the pace and direction of the adoption of mechanical technologies, or farm fixed capital, by farmers. Given the resources and constraints of the farm sector and the economy at large, the policy is concerned with the appropriate pace of the transition amongst (i) hand tools and implements that increase the effectiveness of human power or energy, (ii) animal - draught power, in which machines or equipment are driven by animals, and (iii) mechanical power, in which engines or motors (powered by fuel or electricity) are used to drive farm machines.

***Land reform policy*** seeks to alter the ownership distribution or conditions of access to land as a resource in farm production. It covers a wide range of social changes involving the access of people to land, the ownership structure of land, the size structure of land holdings, and legal or contractual forms of land tenure. Land reform has always a mixture of political, social and economic objectives.

***Research and extension policy*** is concerned with the generation and diffusion of new technology designed to increase the productivity of resources in farm production. In this respect, generation refers to the undertaking of research, and diffusion to the provision of extension services or other dissemination methods for spreading information among farmers. These all indicate for the need to create strong link between research and extension services.

***Irrigation policy*** is concerned with the provision of water as a resource in farm production, often involving large-scale public investment in the infrastructure of farm production. Irrigation may be defined as the use of human technology to increase and to control the supply of water for crop production. Whilst in most cases, irrigation is provided to supplement rainfall in crop production; it is sometimes supplied in places (e.g., arid and desert regions) where no crop production is possible without irrigation.

* 1. **The concept of strategy**

 *Dear distance students, what do you think is the definition of strategy? List and explain different form of agricultural strategies? Let you try please.*

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*Have you tried? Good*. A strategy represents government's plan of action aimed at moving the economy further along the path towards the goal stated in the economic policy. It takes full account of current circumstances, both within the country and in its international environment, assesses the resources which are likely to be available and explains how the government would like to see these resources used to achieve the desired forms of growth and development. There may be many alternative approaches of achieving the stated goals, but the approach, which stands most chance of being successful, is selected. Needless to say, this requires a great deal of analysis.

Development strategies are usually cast in a fairly long time frame and are basically intended to provide planners with general guidelines for their detailed work in specific sectors. Thus, an agricultural sector strategy may signal an intention to put less emphasis on the expansion of a cash crop production in order to devote more resources to increasing the output of food crops. It may also indicate the policy makers' desire to achieve greater foreign exchange earnings in the agricultural sector by phasing out taxes on export crops in order to encourage more production.

There is an organic link between a development strategy and an economic policy, because the former emanates from the latter. A strategy provides a long-term perspective and framework for achieving the basic issues addressed in the economic policy, and indicates directions and priorities.

* **Considerations in strategy formulation**

The formulation of a development strategy, which is an integral part of the national development planning exercise, is concerned with the drawing up of a long-term plan specifying the general objectives, priorities, different phases of development, arrangements to be made for organizing the necessary forces for its fulfillment, and the major measures to be adopted. The strategy is based on an assessment of the various factors and conditions of economic development, and its various aspects that would affect the economic situation as a whole.

For most developing countries, the economic problems they face are deep-rooted and structural in nature. Such problems cannot be resolved in the short and medium-term strategy. Under such circumstances, the strategy would have carefully to review and assess all past strategies, including their basic problems, weaknesses and strengths. The formulation of a strategy would also have to assess rigorously:

* The resource base of the country under consideration,
* National priorities,
* Interests of producers and consumers, and
* The role of the state.

Assessment of the resource base of a country requires consideration weather conditions, land and water resources potential, mineral potential, agricultural production potential (e.g., crop, livestock and fisheries production), etc. Having assessed the resources potential, it is then possible to identify national development priorities, having regard to such issues as comparative advantages and weaknesses of the economy. This analysis is made at the macro, sector and sub-sector levels of the economy.

In formulating an agricultural development strategy, consideration of the interests of the main actors in agricultural production and consumption is of paramount importance. In most developing countries, peasants play an important role in agricultural production, and hence their interests must be carefully addressed. Equally, the interests of consumers of agricultural products, particularly food crops, require to be considered in the light of consumers' income. These interests may clash in a market-oriented economy. It would, therefore, be up to the state to intervene and find ways and means of compromising the clashing interests. In this regard, the balancing role of the state would appear essential in promoting agricultural production.

* 1. **Framework for policy and strategy analysis**

The framework for policy and strategy analysis emanates from the basic goal of government to maximize social welfare, i.e., to maximize the material wellbeing of society as a whole. In pursuit of this fundamental objective, government chooses "target variables" which it sets out to achieve, e.g., income per capita, output per hectare of land, grain stores per district. The next task is then to select the best instruments or measures to achieve the selected targets, given (i) constraints, e.g., in the form of limitation in availability of resources or administrative capacity, (ii) the existence of certain factors over which the government may not have control, e.g., natural phenomena, and (iii) side-effects which, if they are harmful, must be minimized.

Policy interventions are intended to achieve a set of stated objectives using selected instruments to overcome constraints. Therefore, any framework for policy analysis comprise of:

* Analysis of objectives
* Analysis of constraints, and
* Analysis of instruments

1. **Analysis of objectives**

The objectives of agricultural policy interventions are many and varied. Depending on existing socio-economic conditions, the scope of the goals may be of local in nature (e.g., to raise the incomes of a certain group of small poor farmers), provincial (e.g., to improve the supply and delivery of fertilizer in a specific region), or national (e.g., to overcome a balance of payments deficit). Most of the diverse and numerous social objectives fall into two main categories:

1. Goals of economic growth, sometimes known as the efficiency objective, and
2. Goals of improved income distribution, otherwise known as the equity objective.

Strictly speaking economic growth and efficiency are not synonymous, because the former one is a dynamic concept whereas the latter is a static concept. Be that as it may, efficiency refers to the optimum use of a given set of national resources, i.e., the attainment of the highest level of material welfare for the consumers of society as a whole, for a given set of prices in resource and output markets. Growth can take place either by moving from a less efficient to a more efficient utilization of existing resources, or by increasing the productivity of resources so that more output can be obtained from a given level of resources. In either case, since the resulting outcome can be specified for a given initial income distribution, efficiency can be taken as an objective phenomenon.

Equity, on the other hand, refers to the distribution of total output among individuals or social groups within a society. Decisions about income distribution require value judgments concerning the 'fairness' or otherwise of the outcome for different groups of people. As such, equity is a subjective phenomenon.

Then, an important function of policy analysis is to try to quantify both the efficiency and equity results of choosing one policy instrument rather than another in pursuit of a particular objective. This applies whether the objective itself is efficiency or equity orientated. Thus, policy instruments designed to increase output (efficiency objective) always have effects of varying degree on income distribution. Similarly, policy instruments designed to promote equity objectives always have direct or indirect effects on output, and these need to be quantified, if it is possible to do so.

1. **Analysis of constraints**

For the attainment of a particular objective, policy instruments are designed to overcome expected constraints. For instance, in places where lack of adequate rainfall proves to be a real constraint to increased agricultural production, then irrigation would be the focus of the policy analysis. Likewise, where price instability is considered to be a constraint to increased small farm output, then analysis of a policy aimed at stabilizing prices would be appropriate.

There are different types of constraints, e.g., those related to natural, economic and political phenomena. Natural phenomena like rainfall, climate, soils, etc. may limit agricultural production. Also, in the economic sphere, the availability of foreign exchange, government budget, international prices of farm outputs and inputs, may impose limitations on goals and policy options. Further, political considerations such as national security, stability of the government in power and the basis of its political support in society, and rivalry between factions or between different ethnic groups or between the various branches of the bureaucracy, may constrain policy choice.

|  |
| --- |
| **Remark**  All constraints basically fall into three categories:   1. Resource constraints, 2. Technology constraints, and 3. Organizational constraints   In analyzing resource constraints it would be of interest to know:   * Whether the existing resource base has been analyzed and its potentials assessed? * Are the existing resources fully utilized? * Are the resources being used efficiently? * Have any new resources been prospected?   Technology influences the use of available resources in two ways:   * By improving the productivity of resources currently in use, * By bringing into use resources not used currently   In analyzing technology constraints it would be necessary to know:   * Whether all possible alternatives to improving productivity of available resources have been explored and appropriate decisions have been made? * Whether existing technologies have been rendered accessible to every user? * Whether possibilities for developing and disseminating the required technologies have been explored adequately? * If the technologies are to be imported, whether appropriate actions have been initiated?   Organizational constraints basically emanate from the procedures and practices  followed in:   * Policy formulation, * Planning and programming, * Implementation, and * Feedback and review.   While development is dynamic, if procedures and practices remain static and unchanged, it will bring to a naught all well meaningful development efforts. In analyzing organizational constraints it would be important to know:   * The extent to which existing procedures and practices facilitate development on the lines desired; * The extent of coordination and integration among various branches of bureaucracy; * The capacity of existing organizational structure of development administration to deliver development; and * The extent to which modifications can be effected to procedures and practices, and the organizational design of development administration. |

1. **Analysis of instruments**

In the event a particular constraint is absolute, e.g., because of natural phenomena, then policy instruments may be devised to get around the constraint, e.g., by growing a different type of crop that is more suitable to the natural phenomena in the region. However, if a constraint happens to be relative, e.g., foreign exchange shortage, it may be part of the policy to alleviate the constraint in addition to pursuing another ultimate goal.

It is sometimes possible to attain more than one basic objective by applying a single policy instrument. For example, if teff is the staple diet, and all teff farmers are poor, then increasing the price of teff may accomplish both goals of growth, through increased output of teff, and equity, through improved income distribution. More commonly, however, there are several potential policy instruments that, separately or in combination, can contribute to the achievement of stated objectives. The task of agricultural policy analysis is thus to assess the advantages and disadvantages, i.e., the benefits and costs, of the alternative policy instruments available.

As instruments are the methods of state intervention, in analyzing instruments, the following aspects may need to be considered:

* Whether the choice of instruments was appropriate?
* Whether the timing of the use of instrument was appropriate?
* What are the side effects?
* How to counter the side effects?

**Scope of policy analysis**

The analysis of most policies has a physical (real) and a valuation (monetary) dimension. The physical dimension involves the need to estimate the physical resources and volume changes resulting from a policy intervention such as output, supply, consumption or input use changes. For example, a policy proposed to raise the market price of a staple food, say teff, has impacts on the volume of teff production, the quantity of teff that is sold in the market rather than retained for home consumption, the demand by farmers for variable inputs like fertilizer used in teff production, and the demand by consumers for teff flour.

The valuation dimension, on the other hand, concerns the assessment of social welfare changes. In the teff example, the price rise causes a change in the aggregate value (i.e., price multiplied by quantity) for marketed teff and for purchased variable inputs. These changes imply social welfare gains and losses for different participants in the teff market. That is, teff farmers experience a welfare gain from the rise of teff price, while consumers experience a welfare loss.

* 1. **Specific policy analysis**

 *What do you think is the specific policy analysis in rural development? Elucidate the aims of each agricultural policy? Let you try please.*

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*Have you tried? Good*. Agricultural policy describes a set of laws relating to domestic agriculture and imports of foreign agricultural products. Governments usually implement agricultural policies with the goal of achieving a specific outcome in the domestic agricultural product markets. Some of the specific agricultural policies that are often found in rural development are:

* + 1. **Farm output price policy**

Price policy is designed to influence the level and stability of the price received by farmers and paid by consumers for farm outputs. It is a very important factor since it influences the entire fabric of an agriculture economy. In general it has three main functions;

1. ***Allocation of farm resources***: it follows from the optimization behavior of producers in a market system described by neoclassical production economics as “increase in the general level of output prices increases returns to all inputs in production, encouraging higher use of variable inputs”.
2. ***Income distribution***: it follows from the implication that high farm prices raise producer income and lower the real incomes of consumers.
3. ***Determination of the level of investment and capital formation in agriculture***: this looks into the long-run cumulative effects of high farm out -put prices – high farm prices relative to those in other sectors increase the rate of return to capital in agriculture and encourage investment in various ways. Besides, it permits saving at farm household level across seasons, encourages the flow of credit into agricultural activities….

**Objectives of output price policy**

Primary objectives of the policy include:

* To influence agriculture output
* To achieve desired changes in income distribution
* To influence the role and contribution of the agriculture sector to the overall process of economic development

Secondary objectives include:

* To increase aggregate agriculture output (across all crops and enterprises)
* To increase the output of individual crops (export versus food crops,perennial versus annual crops, etc)
* To stabilize agricultural prices, both in order to reduce uncertainty for farmers and to ensure stable food prices for consumers.
* To stabilize farm incomes, as distinct from price stability.
* To achieve food self-sufficiency (it has links with the above)
* To generate government tax revenue either from export taxes or import taxes
* To generate or save foreign exchange, and thus to contribute to the balance of payments.
* To ensure that the manufacturing sector is supplied with cheap food and raw materials in order to accelerate the pace of industrial growth.
* To maximize the investible surplus that can be extracted from agriculture for investment in manufacturing sector.

**Instruments of price policy**

The description of price policy instruments is followed by some observations concerning the interaction between instruments, and the relationship of instruments to objectives. Farm output prices can be altered by government intervention in many different ways. Instruments are grouped here according to their type of impact on the level and stability of farm prices.

**A. Trade policy instruments**

These instruments affect domestic agricultural prices by operating on the prices or quantities of either imports or exports. They include:

* Import taxes or subsidies, which increase or decrease domestic prices by raising/lowering the cost or imports in domestic currency;
* Quantitative restrictions on imports, which raise the domestic price above the import prices;
* Export taxes, which are taken out of the fob export price and which lower the domestic price passed back to producers.

**B. Exchange rate policy instruments**

The official conversion rates between the national and foreign currencies have a major impact on the domestic prices of agricultural commodities, and this impact is the same in direction for both import substituting and export commodities.

* A higher exchange rate (when less domestic currency can be purchased for a given amount of foreign currency) results in a lower domestic currency equivalent of the world market price for both food and export crop.
* A lower exchange rate (i.e. more domestic currency for a unit of foreign currency) results in a higher domestic currency equivalent of world market price.

**C. Taxes and subsidies Instruments**

In addition to import/export taxes, farm output price levels can be affected by many types of domestic tax or subsidy imposed at different points in the marketing chain. Some examples are:

* Local government levy on producers when they sell through specified marketing agents, this levy being deducted from the farm-gate price;
* Tax on the unprocessed commodity at the point of entry into processing;
* Consumption tax levied on the commodities in wholesale markets or at retail outlets;
* Consumption subsidy applied to the commodities at retail outlets;
* Deficiency payment, i.e. the difference between target farm-gate price and actual farm-gate price covered by the government;

**D. Direct interventions**

In addition to fiscal or exchange rate policies, governments frequently seek to influence prices by direct controls on the price formation, marketing, and storage of agriculture commodities. These controls require the creation of public marketing agencies in order to secure control over part or all of the marketed supply of designated commodities. Some examples are:

* Marketed output confined to sale through state channels at fixed prices;
* Enforced procurement by the state at fixed prices;
* Fixed or minimum retail prices for staple foods, with supplies being confined mainly to state outlets and penalties for illegal pricing by private traders;
* Fixed minimum prices to producers (floor prices) linked to state procurements;
* Fixed floor prices to producers and ceiling prices at wholesale or retail, linked to the operation of a buffer stock authority which buys at the floor during harvest season and sells at the ceiling price at times of seasonal shortage.

**Impact and effectiveness of price policy**

1. **Price policy and farm output**

The critical features in considering the output impact of price policies is to distinguish between the:

1. Aggregate farm output
2. Individual crop output
3. Household decision making in the semi-subsistence food-producing peasant.

The response of aggregate farm output to change in the general level of farm prices is likely to be low in the short-term, rising only gradually in the long-term. The main reason is some farm resources (land, fixed capital and technology) are fixed in the short term.

With individual crop output, changing relative prices between individual crops can have dramatic effects on the intercrop composition of total farm output, and on the marketed supply of individual crops (high price responsiveness). But the degree of responsiveness depends on the type of crop and on the scope of intercrop substitutability at the farm level in terms of climate, soils, and other resource constraints.

With household decision-making, the impact of a staple good output price rise involves complex trade-offs between competing objectives in the peasant household. The price rise is an incentive to higher output (positive substitution effect) but also increases income, which may lead to increase in family food consumption (negative substitution effect).

**II. Price policy and stabilization**

Governments seek to stabilize prices for two main reasons. The first is in the production side, which is expected to reduce risk, increased market supply, stabilize farm incomes. The second reason is in the consumption side, which is expected to stabilize wage costs, protect urban poor from malnutrition/starvation welfare effects of price stabilization when supply changes. Thus, the conclusion is that price stabilization yields a net social welfare gain.

**III Price policy and Income distribution**

Governments often invoke income distribution as a reason for price intervention. In developed countries, farm income considerations are paramount in determining the instruments of policy and the level of farm prices. In developing countries it is more likely for the incomes of urban consumers to feature strongly in farm price decisions. However, other objectives, such as narrowing regional income disparities or raising the incomes of the poor farmers growing particular types of crop, are also sometimes encountered.

* + 1. **Marketing Policy**

**Some concepts in the study of marketing**

The marketing of farm output is typically thought to play a dual role. One dimension is the transmission of price signals between consumers and producers. As an example, an increase in demand for maize causes prices to rise in an urban center and this information is passed back to producers through the marketing system. The other dimension is the physical transmission of the commodity from points of production by farmers to points of purchase by consumers. The traditional starting point for analysis of markets is the concept of adding utility to a commodity. This is achieved in three ways:-

* + 1. ***Form utility***: changes in the physical attributes of the commodity between farmer and consumer (grain to bread) as compared to its sale by farmers. Achieved through grading, sorting, cleaning, labeling, packaging, etc.
    2. ***Place Utility***: created through transporting a product from one place to another. Transport distances may be local, medium, or long distance.
    3. ***Time utility***: created if products sold at a different time through storing them. This refers to all aspects of storage across seasons and years.

If a product passes through any or all of these stages and add utility, its price expected to vary at various levels. The overall difference between the purchase price of a commodity by consumers and its sale price by producers is called the ***marketing margin***. The marketing margin covers part or all the above utilities/dimensions of marketing and can sometimes be used as the sum of form margin seasonal margin, and a spatial margin, respectively.

Seasonal margin refers to all aspects of storage across seasons (inter seasonal storage) and years (inter-year storage). Storage has costs and risks. These costs consist mainly of the money tied up in the stocked commodity, the quantity and quality losses of commodity that rise over time, and the accounting costs of capital invested in storage facilities. Storage is risky because future prices may not rise sufficiently to compensate for the costs involved.

The spatial margin refers to all aspects of the transport commodities from location of sale to location of final purchase. Transport distances may be local, medium distance, or long distance. Distances and costs depend on the location of surpluses and deficits, and on the type of commodity (for example, light versus bulk commodities, durable versus perishable commodities). Like storage, transport involves risks concerning price differences between origin and destination, and, for perishables, the condition of the commodity on arrival.

The form margin refers to all changes in the physical attributes of the commodity between farmer and consumer. It includes not only direct processing but also cleaning, sorting, labeling, packaging, canning and others. The form margin varies greatly between commodities, and is also the one that changes most as development proceeds due to changing demand patterns as incomes rises.

The marketing systems are more typically thought of as vertical commodity systems or marketing channels, in which the commodities passes through a sequence of stages / events. The main sequential stages in marketing are: -

1. Primary procurement (assembly), in which the commodity is purchased from farmers and assembled at local village, or district level stores, or mills;
2. Processing, in which the commodity is milled or transformed prior to onward distribution;
3. Wholesale, in which the commodity changes hands in bulk at wholesale markets; and
4. Retail, in which the commodity is sold to its direct consumers;

**Objectives of marketing policy**

The objectives of government intervention in agricultural marketing are closely related to perceptions about the structure (number, size and diversity of participants), conduct (reliability, timeliness, quality) and performance (speed and accuracy of price adjustment, the stability of prices and margins, etc) of private marketing channels. The objective most commonly advanced for government marketing policy is to protect farmers and/or consumers from parasitic traders, specifically;

* To stabilize or increase farm-gate prices
* To reduce the marketing margin (state intervenes to narrow the gap between consumer and producer prices)
* To improve quality and minimum standards of consumable or exportable agricultural commodities (more of regulatory than direct intervention)
* To increase food security (traders hoard grain for speculative purposes, which exacerbates food shortage and increase price instability)

**Instruments of marketing policy**

Governments of developing countries have used many different instruments to influence the working of agricultural marketing channels. These range from replacing private channel by state institutions, through partial involvement of state bodies, licensing and minor regulator like quality, grading and hygiene. The following describe various types of intervention:

1. ***Monopoly Parastatals:*** includes all those government–owned institutions that represent some form of monopoly control over one or other stage of the marketing system through marketing boards (for traditional export crops such as coffee, tea, etc). Organization of this kind may vary widely in handling of the stages of marketing:-

* It may be at the final sale to foreign buyers at fob/chain export, or
* It may handle all stages of marketing, processing and final sale from producer to the consumer or to export.

1. ***Non-monopoly Parastatals***: includes a wide range of different institutions that provide one particular channel, but not the exclusive channel, through which crop sales by peasants are transferred to consumers like through state buffer-stock authority for staple food grains. This is to implement effective floor and ceiling prices for major food grains.
2. ***Farmer cooperatives***: the task of farmer cooperatives is to undertake procurement (assembly) stage of marketing for onward delivery to licensed processors or to designate parastatals. Sometimes it is compulsory for all farmers in a particular location, or growing a particular crop like coffee, tealeaf and others to belong to designated cooperatives.
3. ***Trader licensing***: where the state does not take itself direct responsibility for marketing, it sometimes tries to control the private trade by licensing designated enterprises. Licenses are both a source of state income and a threat (deceiving).The source of income is the license fee, often supplemented by the bribes needed to secure the license in competition with other traders. The threat is the loss of the license if the trader is perceived not to be playing the game according to the way that state officials wish to see it played.
4. ***Instruments to improve market conduct and performance***: This category of state intervention in marketing includes, among many things:
5. The provision of improved information to marketing system participants through medias (newspaper, radio, TV, etc.)
6. Regulatory function of setting and enforcing quality standards, weights, measures and hygiene.
7. Provision of marketing facilities such as floor spaces, auction rooms, assessing equipment, etc.
   * 1. **Input Policy**

Variable input policies have four dimensions:

1. Price level of variable inputs, concerns state actions to influence the prices paid by farmers for inputs
2. Delivery system for variable input, concerns state actions to improve thephysical flow of inputs to farmers
3. Information provision to farmers concerning the type, quantity and combination of inputs
4. Credit for the purchase of variable inputs

New seeds, fertilizers and irrigation water are complementary input – meaning the highest levels of yield are only achieved by the simultaneous increase of all variable inputs in the correct proportions. If one is missing the intended result will not be achieved. The complementarity of the variable inputs leads to the idea of delivery of an input package to farmers to achieve desired output. The package approach foresees a major role for the state: investment in public irrigation schemes, delivery to farmers of certified seeds together with the appropriate quantities of fertilizers and other farm chemicals, provision of credit, and advice concerning the proper agronomic practices to put into effect. The package approach to inputs, however, has become less prevalent because of high overhead cost per farmer and failure of credit repayment and input delivery.

**Objectives of input policy**

The general objective of government intervention in input policy is to accelerate and make more uniform the adoption of new technology by farmers, in situations where, first farmers are thought to underestimate the gains to be made by adopting new input combinations, and second where markets are considered unable to deliver the new inputs with sufficient competitiveness, timeliness, quality, accuracy of information, and geographical coverage.

***It assists farmers***

1. To overcome risk-averse behavior by farmers, which causes them to underestimate the returns to using new inputs;
2. To avoid mistakes in input use by farmers, which might happen on a trial and error basis, because a high occurrence of such markets will tend to accentuate risk aversion and slow down the uptake of new inputs by farmers;
3. To avoid the adoption of wrong/dangerous inputs by farmers caused by

Over-zealous sales behavior by private input supply companies in poorly regulated markets;

***For input markets;***

1. To provide a delivery system for inputs under conditions where private markets in farm inputs are non-existent, unevenly developed, or non-competitive.
2. To combine input delivery with credit provision in order to alleviate the working capital constraint on the adoption of new inputs.
3. To regulate and control the market for improved seeds, in order to ensure the genetic quality of named varieties in seed replication and seed delivery to farmers.
4. To regulate and control the market for improved pesticides or disease control chemicals in the context of measures designed to contain the spread of pests and diseases in crops grown under monoculture or near monoculture conditions

***In Input Supply;***

1. To maximize the use of domestic rather than imported supplies of farm inputs, either across the board, or in specific product lines.
2. To provide a sales outlet, perhaps at subsidized price, for a high cost domestic industry that is protected from import competition by import taxes or an import ban.

**Instruments of input policy**

Instruments of input policy can be grouped into three dimension already listed above: -

* The prices that farmers pay for variable inputs
* Delivery of farm inputs, whereby the state may wholly or partially replaces private agents in the distribution system for inputs.
* Provision of information on inputs to farmers, which in most developing countries is the task of the state agricultural extension service.

**a) Input price policy**

1. Price fixation: Prices may be fixed ex-factory when delivery takes place through private channels, or may be fixed at the farm-gate when delivery is by state agencies. Price fixing may apply only to major strategic inputs such fertilizer, or may be implemented across a range of purchased variable inputs. Purpose of price fixation is first to reduce the price instability of inputs and second to ensure that all farmers pay the same price.
2. In addition to fixing prices, most governments have subsidized for inputs such as fertilizer. Rates of input subsidy can vary over a wide range from quite low levels to over 50%. The subsidy may be paid at importation (imported inputs) to domestic manufacturing industry or to state input distribution agency.

**b) Input delivery systems**

State delivery agencies for farm inputs can take many different forms:

* In some cases, input delivery is combined with crop marketing, research and extension in crop-specific parastatals,
* In others, inputs delivery is handled by branches of the state credit agency, while extension is run by Ministry of Agriculture
* In others, cooperatives system has a role to play as exclusive final distribution of inputs to farmers.

**c) Information on inputs**

Lack of practical and relevant information has long been recognized as an important barrier to rapid and widespread adoption. The traditional methods of conveying new information to farmers relies on the government extension services through extension officers each of whom is allocated a district/Wereda within which to provide device and carry out training for farmers.

* + 1. **Land reform policy**

Land reform policy covers a wide range of social changes involving access of people to land, the ownership structure of land, the size structure of land holdings, and legal or contractual forms of land tenure. In the hierarchy of state interventions which affect farm inputs and outputs, land reform is a special case. This is due to a number of considerations:

1. Land is more than just ‘another resource’ in farm production,
2. Land ownership structures are inseparable from structures of social status and power in the agrarian economy, and
3. Land reform is often associated with social upheaval and dramatic change, rather than the relatively stable political and social conditions upon which the implementation of other policies is typically predicated.

Thus, land reform differs from other policies due to its often-political controversial nature. This becomes apparent when we go through the same exercise in defining the nature, intent, scope, and problems of land reform policy as we have done for other policies.

The fundamentally political nature of land reform must be recognized at the outset. Land reform seldom involves making only a minor adjustment in the socioeconomic environment. Historically, many landforms have attempted to change social relationships of property ownership, wealth, social status, and political power. As such they tend to be contested, in the political sphere, between those forces seeking to put land reform into effect, and those often-powerful members of society expecting to lose from it.

Some essential attributes of land are as follows:

1. Land is a resource in agricultural production, but is ultimately fixed in supply within a nation state (and indeed globally). While land can be transferred between uses (supply for a particular use is seldom completely inelastic) the potential to increase in its availability at the extensive margin is either non-existent or involves high costs (draining swamps, building sea walls, etc.). The fixed nature of land supply makes it different from labor power, fertilizers, ploughs, or camels, all of which in varying ways are reproducible resources.
2. Land is a stock of capital, a fixed asset or investment, and a measure of wealth. Land plays multiple roles in these regards. The value of land (the price per hectare) seldom merely reflects the expected rate of return to land as a capital investment in agricultural production. Land is also held as a livelihood security, as a financial security (e.g. as a hedge against inflation), as a transfer of wealth across the generations, and as a resource for consumption purposes (e.g. country estates held by urban elites for leisure purposes). The price of land reflects all these demands, services and uses.
3. Land is often private property, and as such is inalienable in law. Land ownership is formalized in legal documents (title deeds, etc.) and inscribed in land registration lists. Exceptions are communally owned lands in peasant societies, where rights of land access may be by custom or use (called 'usufruct' rights), and state owned lands. Private property in land is usually heritable in law, meaning that an additional motivation for ownership is the transfer of land across generations.
4. Agricultural land ownership involves social relations between, for example, feudal lord and serf, landlord and share tenant, landowner and cash tenant, owner-occupier and wage labor, plantation owner and wage labor. Freehold owner-occupiers (especially small-scale owner occupiers) are comparatively recent in the social history of most countries, and are usually the result of land reform. Peasants have historically derived their access to land by tenancy or by customary tenure rather than by ownership.

Sometimes a distinction is made between ‘land form' and ‘agrarian reform’. The former is used to describe only the transfer of ownership or rights over land, the latter to describe the whole host of legal, institutional, and social changes that accompany from land reform. This distinction can be confusing and is not followed here in the handout.

Finally, there is disagreement about whether land settlement should be included in land reform. Land settlement usually involves creating new farms (either owner operated or leased) on new lands (frontier settlement), on previously unutilized state lands, or in sparsely populated regions. Since land settlement does not involve the redistribution of property rights in land under existing cultivation, it is often excluded from the fabrics of land reform. However, the counter argument can be made that land settlement does alter a country's overall ownership distribution of land.

**Objectives of land reform**

There are basically two broad objectives of land reform; the political objectives and the social and economic objectives.

1. **Political objectives**

The political objectives of land reform depend on the forces and pressures that resulted for a land reform to be considered, and on whether a revolutionary change in political power is involved. Several different possibilities are:

1. Land reform occurring as the outcome of revolutionary political change, its main objective being to strengthen and consolidate the basis of the new state;
2. Land reform as a platform for liberal ('market-orientated') political groups, its main objective being to undermine the power of a land-based elite;
3. Land reform as a platform for socialist political groups, its main objective being to institute cooperative, collective, or state forms of agricultural production;
4. Land reform as a defensive measure by conservative political groups, determined to prevent social change by making an appearance of change inland tenure systems, or by making the minimum change considered necessary to maintain the social status quo (this has been called 'defensive land reform').
5. ***Social and economic objectives***

The social objective of land reform emanates from some concept of social justice. This is allied to both political and economic reasons and motivations. On the political side, in different ways and for different reasons, increased social equality may feature as an argument of both liberal and socialist advocates of land reform. On the economic side, social justice is linked to questions of employment, income distribution, efficiency, and the size of the domestic market.

Social justice also has force of its own. An idea about what is unacceptable in terms of the power that some members of society have over other members evolved and changed over time. Some features of feudal and semi feudal land tenancy (bonded labor, labor service tenancy, peonage and so on) are generally regarded as offensive and unacceptable. So too are the extreme states of wealth with poverty, power with servitude, associated with such land tenancy practices.

The two main economic objectives for land reform are to reduce poverty and to increase agricultural output so as to enlarge the size of the domestic market as economic development proceeds. A mass of very poor tenant farm families paying landlords in kind in order to till land for bare survival does not provide a market for the outputs of domestic industry.

**Instruments of land reform**

Three main groups of land reform instruments can be identified. These are:

1. Instruments of tenancy reform,
2. Instruments of land redistribution,
3. Instruments of land settlement

The first and third of these groups can be dealt easily because tenancy reform does not involve the redistribution of existing private titles to land; it merely means changing the rules concerning legal and illegal types of contract between landowner and tenant. Tenancy reform typically means the prohibition of certain feudalistic types of tenancy mainly tied labor of various kinds and the modification of others - e.g. by imposing a ceiling on the landowner's share in share tenancy contracts.

The effectiveness of these instruments are compromised in practice by the diversity and unwritten nature of the relations between landowners and tenants in many rural situations. Further instruments of tenancy reform are to convert feudal or semi-feudal tenancy arrangements to a cash rent basis, and to impose rules on landowners regarding the security of tenure of their tenants.

Land settlement likewise does not involve forced redistribution of previous private titles to land. It usually involves the release of state land for settlement, the opening up of new lands for settlement, or the resettlement of land abandoned by former owners.

Land redistribution does mean reallocating the ownership of land between people, and the rules of this are to a great deal more difficult to formulate and to implement than in either of the other more modest types of land reform. There are four main components (stages) to be dealt in this regard. These are: expropriation, compensation, exemption, and distribution.

1. ***Expropriation***

The first step in a redistributive type of land reform is to expropriate the land that it is intended to reallocate. This is politically the most difficult action amongst all instruments of land reform. Where land reform comes about as a consequence of a socialist revolution, expropriation may be automatic and widespread with few exemptions. In all other cases, expropriation is the outcome of a political process involving much trade-offs and compromises.

The most common instrument is to set a ceiling for the amount of land that landowners can retain for their own continued use, and to expropriate all land above that area. The ceilings tend to reflect the pre-existing farm size structure, intensity of cultivation, and the nature of the pressure for land reform by peasant political groupings.

1. ***Compensation***

This is about paying compensation for land previously owned but in the interest of the government for reallocation. The amount of compensation for land reallocated in land reform legislation is another difficult and highly challenging matter. It is rare for there to be no compensation at all, but also equally rare for the full market price of land to be paid. It has usually been beyond the financial capacity of land reforming states to pay the full market price for land confiscated. It is even doubtful whether a meaningful market price could be defined in the political atmosphere that typically accompanies land reform.

One method of paying compensation is to take the value of land as registered for land tax purposes. This undervalues the land by market price criteria, but is at least consistent for all landowners. Compensation is often split into two components: an immediate cash payment and an allocation of government bonds redeemable at some future date.

1. ***Exemptions***

Many land reforms in practice contain exemptions to the criteria that are established in law for expropriation. These exemptions represent political compromises in the drafting of legislation, and they can be fatal for the realization of the goals of the reform. A common exemption in Latin American land reforms was to exempt land that could be shown to be already under 'efficient' farm production. Apart from opening the door to interminable legal proceedings as to the meaning of efficient agricultural use, this type of exemption means that the beneficiaries of the land reform end up with the least fertile land. Other exemptions relate to institutional landowners (charitable bodies, mission stations, Church lands, etc.), corporate landowners (land farmed by registered capitalist companies), or foreign landowners (land operated by foreign companies).

1. ***Distribution***

Land redistribution does mean reallocating the ownership of land between people. Then land reform legislation must also set down the criteria and instruments for post-reform land allocation. In part, this involves decisions we have already discussed, such as whether to distribute or to collectivize, whether to go for tenancies or owner-occupier farms, whether to retain land under state ownership or permit freehold registrations, and so on.

The allocation of land distributed after a land reform also involves criteria concerning maximum and minimum sizes of holdings, unless land is reassigned to former tenants with no planned changes in holdings size. A failure to set minimum farm sizes could mean the advent of a large number of holdings that are below family subsistence in output, and with fragmentation in later years these might become uneconomic to operate. A failure to set maximum farm size has the reverse effect of reducing the total number of holdings available and permitting fewer, larger, farmers a relatively high standard of living while other rural dwellers may remain landless and extremely poor. Both minimum and maximum criteria are in practice are sensitive instruments given the variability in soils, climate, topography, crop choices, and other features of agricultural zones.

**Problems of implementation**

There are many reasons why the actual outcomes of land reforms do not live up to the promises of the rhetoric that surrounds their legislation. Some of these reasons are associated with compromises made during the legislative process. Others are related to the practical problem of implementation in an environment where the losers will do their best to evade or spoil the intentions of the legislators. Some common reasons for land reform to turn out very different in practice from its theoretical intent are as follows:

1. ***Foot dragging at the legislative stage***. Opposition politicians ensure that the legislation takes months, even years, to become law. This delay gives landowners more time to rearrange their property in order to evade expropriation.
2. ***Modifications and exemptions***. In order to get land reform into law, its promoters are forced to make numerous negotiations in its scope and coverage, in which the final legislation may no longer serve the original goals intended.
3. ***Evasions by landowners***. Landlords have many ways of evading land reform legislation, especially if given time to make the necessary arrangements. Retention ceilings can be evaded by reregistering land in countless different names. Making bribes to low-paid government officials in land registration offices can alter Land titles and registration documents. Tenancy regulations can be circumvented by reaching side-agreements with tenants, or by intimidating them into signing false documents.
4. ***Timidity of tenants.*** Some types of land reform impose the burden for making land tenancy or land title claims on tenants. Tenants may not understand their rights and obligations under the new legislation, the paperwork may be too complex, they may have been intimidated by landowners into 'voluntarily' ceding their rights, they may fear that the land reform is short-lived and be therefore unprepared to confront their landlords.
5. ***Role of the courts.*** Many countries have a legal system that is, to some degree, independent of the legislature and that tends to be a conservative force in society at large. Landowners may forestall compliance with land reform legislation by referring every case to the courts. Landowners may bring litigation to the court that tests the interpretation of every clause in the legislation. The courts may find loopholes and rule in favor of landowners, thus further undermining the credibility and intention of the legislation.
6. ***Legal title problems.*** Even in highly organized industrial societies, land registration and transfer of titles can be time consuming and subject to lengthy delays. Delays in issuing title deeds for land confiscated under a land reform can result in many types of intimidation and abuse. Landlords may repossess land that has been distributed on the grounds that the new owners do not have legal title. Some peasants may grab land off other peasants in order to enlarge the size of holdings that they intend to register.
7. ***Failures of institutional adaptation***. It has been common to observe in the wake of land reform that rural institutions and state bodies like banks, credit agencies, input delivery outlets, and local planning agencies fail to adjust fast enough to the change in their clientele. Where these institutions have become used to dealing almost exclusively with landowners in rural areas, they adapt inadequately to serving the needs of the small producers, and their regulations may prohibit proper access by the new farmers to the services they are supposed to provide.

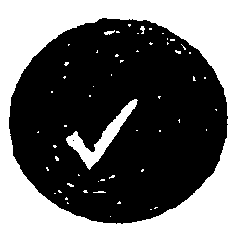
***Summary note***

*Policy formulation is an integral part of the planning process and is specified successively at the macro, sector, sub-sector, program/project and operation of an economic unit level. Generally speaking, “policy" implies state intervention in the economy, whereas "policies" refers to the specific types of intervention further down the planning process. It is essential that these are consistent and complementary to each other. A fairly conventional approach to the formulation of agricultural policies in developing countries is that which focuses on the relationship of policy to the inputs and outputs of the farm system and thus aims at influencing the inputs, outputs, and technology of farm household production. In this respect, some policies can be distinguished: price policy, marketing policy, input policy, credit policy, mechanization policy, land reform policy, research and extension policy, and irrigation policy.*

*A strategy represents government's plan of action aimed at moving the economy further along the path towards the goal stated in the economic policy. There is an organic link between a development strategy and an economic policy, because the former emanates from the latter. A strategy provides a long-term perspective and framework for achieving the basic issues addressed in the economic policy, and indicates directions and priorities. Most of the diverse and numerous social objectives fall into two main categories:*

1. *Goals of economic growth, sometimes known as the efficiency objective, and*
2. *Goals of improved income distribution, otherwise known as the equity objective.*

*Agricultural policy describes a set of laws relating to domestic agriculture and imports of foreign agricultural products. Governments usually implement agricultural policies with the goal of achieving a specific outcome in the domestic agricultural product markets. Some of the specific agricultural policies that are often found in rural development are: farm output price policy, marketing policy, input policy, and land reform policy.*

***Check List***

*Now it is time to check your understanding about different strategies and different policies of agriculture and rural development.*

*Read each question and put a tick (√) in the box for tasks that you can perform.*

1. *Can you list and illuminate different strategies of agricultural and rural development? ................*
2. *Can you explain the main explanation of agriculture price policy, input price policy, marketing policy and credit policy in rural development? ...............................................................................*
3. *Can you list and explain different types marketing policy in agricultural development? ......*
4. *Can you explain the instruments of input policy? ...................................................*
5. *Can you explain the frameworks for policy and strategy analysis in rural and agricultural development? ...............................................................................................*
6. *Can you define and explain land reform policy? .....................................................*

***Dear student, is there any box that you cannot perform? If there is one goes back to your text/module and read about it before you go to the exercise below.***

Review exercise

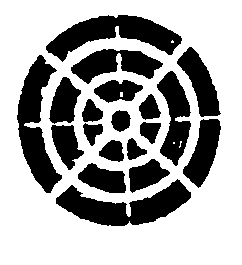
***Discussion questions***

1. *List and explain different strategies of agriculture and rural development.*
2. *List and explain different policy options of agriculture and rural development.*
3. *List and explain different types marketing policy in agricultural development?*
4. *Explain the frameworks for policy and strategy analysis in rural and agricultural development?*
5. *Define and explain land reform policy?*

**Chapter Five**

**Rural Development Policies, Strategies and Instruments of Ethiopia**

***Introduction***

* Hello! Dear distance students, this is the fifth chapter of the module. Dear student, this unit is aimed to acquaint you about the goals of rural development policy, ADLI within Uni- modal approach and its reflection on it; different rural development instruments, and; finally different agricultural policies and strategies in Ethiopia context. Dear student, please study each section of the unit attentively, critically and thoroughly. Try to complete the check lists and do all the self check exercises without skipping any of them. All the best!*

***Chapter Objectives***

*After completing this chapter, you will be able to:*

* *Understand the goals of different rural development policies.*
* *Illustrate ADLI by using Uni-modal theories of rural development.*
* *Explore different agricultural policies and strategies in Ethiopia context*
  1. ***The main national development goals***

 *Dear distance students, what do you think is the main national development goals of Ethiopian government? Let you try please.*

-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good*. The main development goals of Ethiopian government are four in kind. These are;

1. To achieve faster growth of the economy
2. To insure that all people benefit from economic growth from the start.
3. To get the country free from the current aid dependence by improving its competitive potential on international level.
4. To build strong and vibrant market economy

In order to achieve these development goals, the strategy developed after considering the existing condition of the economy. The main, but not the only, existing condition taken in to account are scarcity of capital and large abundance of both land and labor.

* 1. **Leads among sectors**

Given that the economy is having very low capital labor ratio, the first question to be addressed by the strategy is which sector should take the lead in order to generate sustainable economic development? The strategy identified rural centered agricultural development as main path for economic development. But it warns that even though agriculture centered rural development is given higher emphasis it should be clear that we have to work hard on other areas as well to achieve our basic economic development goals. However, rural development should not be labeled as simply as one of the many development tasks to undertake. It should be underlined that it is the main tool to achieve our economic goal. Statements like: ‘the development direction we are following now is agriculture and rural–centered, it is agriculture-led industrial development strategy, etc.’ emphasize that rural and agriculture–centered development movement is the major tool to achieve our development goal and the leading direction of our efforts for economic development.

This is due to many critical reasons: first sustainable growth in agriculture will increase capital stock that can be invested in trade and industry. Agriculture is highly labor and land intensive, can develop with least use of the scare capital. Second, the decline in food and raw material price, improved availability of foreign exchange and demand for non-agricultural products and services will stimulate the expansion of both trade and industry. Therefore, when we say our strategy is agriculture-led development, it does not mean that we are developing agriculture alone. Rather, we mean that trade and industry will grow faster following and in alliance with agriculture. In fact, one of the major reasons why rural and agriculture–centered development strategy is vital for us is that it creates favorable condition for the development of trade and industry. The development of trade and industry, in turn, guarantees sustainable development of agriculture. Therefore, the sectors should be interdependent from the outset. If agricultural development does not take the lead and trade and industry are not integrated with agriculture, it is impossible to ensure a rapid development of our country. But once the capital stock expands at acceptable level, the industrial growth will take the lead over agriculture. Until then the focus should be on agricultural lead development. Moreover, given the increased demand for manufactured products and availability of cheap raw material, the urban sector will develop industries which use labor intensive technology in agro processing sub sector. Therefore, in our situation, not only to ensure rapid and sustainable development, but also to make the people (both urban and rural) prime beneficiaries of development, it is imperative to adopt rural and agriculture– focused development strategy.

Unless we can assure rapid development in the rural areas where the majority is poor and where the worst type of poverty exits, we cannot take any meaningful measure to alleviate poverty. Rural and agriculture–centered development strategy ensures rapid development in these poverty–stricken rural areas and makes the poor people prime beneficiaries of the development. Moreover, the increased interdependence and expansion among domestic sectors will improve the competitive advantage of the country on agriculture, industry and trade and the country will achieve economic independence by doing so. Additionally the promotion of agriculture and rural lead development is conducive for application of free market principles. Given the market participation and development is not done by few better to do agents but by the majority of nation’s population, so it will broad-based and effective.

In conclusion, following the agriculture and rural–centered development strategy is the only way to realize rapid and sustainable economic development, to make the people the prime beneficiaries, to liberate the country from being dependent on aid and to ensure the development of free market economy in our country. This development approach is the major instrument to achieve our basic economic development goal.

* 1. ***ADLI within Uni modal approach and reflection on it***

 *Dear distance students, what are the main ideas of ADLI? How do you explain ADLI by using Uni-modal theories of agricultural development? Let you try please.*

-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------.

*Have you tried? Good*. The idea of ADLI took concrete shape as an overarching economic strategy between 1992 and 1994, and an Economic Development Strategy for Ethiopia in February 1994 highlighted the concept of ADLI to define its strategic direction. The main motivation behind ADLI has been the recognition that Ethiopia is an agrarian society in which the bulk of the population (84% in the 2007 census) resides in rural areas earning a livelihood from land. Agriculture has long dominated the economy in terms of output, employment, and export earnings. The government emphasizes that economic development and structural transformation should be initiated through robust agricultural growth, and that peasant farmers and pastoralists should be the main agents of agricultural transformation and economic growth. It is argued that labor and land are the main—and abundant—factors of production in Ethiopia and that their effective use should generate rapid and sustainable development. These arguments were clearly stated in an Economic Development Strategy for Ethiopia of 1994,

According to SDPRP (2002:13), “ADLI is a strategy in which agriculture and industry are brought into a single framework, wherein the development of agriculture is viewed as an important vehicle for industrialisation by providing raw material, a market base, surplus labor and capital accumulation”. ADLI has been the flagship of the Ethiopian Government since the early 1990s. The government argued that as an agrarian country, Ethiopia does not have the necessary capital for an outright industrial development. The most appropriate strategy is to go for agricultural development as the first stage of development and industrial development as the final goal. ADLI is also believed to be the principal instrument of pro-poor growth. There is thus a move away from the classical processes of growth viewed historically.

Initially, the ADLI strategy targeted smallholder farms, especially crop producers, so as to achieve rapid growth in agricultural production, raise income for rural households, attain national food self-sufficiency, and produce surpluses which could be marketed to the urban or industrial sectors. More specifically, the government introduced measures to provide smallholder farmers with technology and better farming practices, improved seeds, fertilizers, irrigation, rural roads, and marketing services. A rise in agricultural output was expected to stimulate industrial production by providing food and industrial materials, thus establishing a link between the rural and urban sectors. The industrial sector, in turn, could produce input to agriculture such as fertilizers and farming tools and equipment as well as consumer goods for rural households. Such dynamic linkage, which we will call Core ADLI was intended to ignite the first stage of industrialization until the economy moved into a higher level of development.

The early 2000s saw the initiation of serious implementation of ADLI as well as the creation of a political model that justified state-led development in the Ethiopian context. Beginning in 1995, the concept of ADLI was incorporated in the first and the second national development plans. The following development plan, the Sustainable Development and Poverty Reduction Program (SDPRP) 2002/03–2004/05, which further concretized the ADLI strategy, took the form of a poverty reduction strategy paper in order to inform and solicit the cooperation of the international community. SDPRP promoted agricultural development and poverty reduction in rural areas by: (i) strengthening agricultural extension services; (ii) training extension agents in technical and vocational education and training (TVET) and training farmers in Farmers Training Centers; (iii) water harvesting and irrigation; (iv) improved marketing opportunities; (v) restructuring peasant cooperatives; and (vi) supporting micro-finance institutions.

However, policymakers gradually came to realize the limitations of SDPRP during its early implementation. By the time the next national development plan, A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) 2005/06–2009/10, was prepared, there was sufficient recognition of the problems associated with an agricultural development strategy exclusively targeted to smallholder agriculture in rural areas. The productivity of the agricultural sector did not show significant improvement, and output remained volatile due to heavy dependency on the amount and timing of rainfall. In the 2002/03 season, the output of the crop sub-sector contracted by 16.5% following a decline of 3.7% in 2001/02. It was only in 2003/04 that growth in the agricultural sector in general and the crop sub-sector in particularstarted to recover significantly. From a long-term perspective, however, the labor productivity of agriculture has been on a declining trend (World Bank, 2007). Although agriculture has shown strong performance in recent years thanks to favorable weather, this did not herald a significant structural change such as crop diversification or productivity improvement.

PASDEP 2005/06–2009/10 made important adjustments to SDPRP 2002/03–2004/05 by broadening the policy scope from smallholder agriculture to other sectors, especially the industry sector and the urban sector. In what may be called Enhanced ADLI, strong emphasis was placed on growth acceleration, which was to be attained through commercialization of agriculture and private sector development (PASDEP, Eng. p.46).

In the first three years of the PASDEP implementation period of 2005/06–2009/10, good performance was recorded in agricultural and industrial production as well as export. Subsequently, however, the Ethiopian economy experienced a slowdown accompanied by inflation, balance-of-payments pressure, and a severe shortage of foreign exchange. Several causes are cited for this boom-and-bust cycle such as expansionary fiscal and monetary policies, an excessive inflow of foreign funds (including aid) relative to economic size, unfavorable weather, speculation and hoarding, and international events such as commodity inflation and the global financial crisis.

Performance of real sectors, such as agriculture and industry, is dependent on a number of factors including long-term trends in productivity and economic structure as well as short-term and largely external shocks in international economy and politics. The three-year boom starting around 2005 and the less spectacular results in the later years seem to have been affected more by short-term events rather than long-term trends produced by policy effort and private dynamism. Signs of significant structural change are not yet visible. In recent years the industry’s share of GDP has hovered around 13–14% and Ethiopian export continues to be dominated by unprocessed commodities. Although leather products and cut flowers have shown remarkable export growth, they still occupy a small part of total export.

During the first stage of ADLI, agriculture is envisaged to play a leading role in the growth of the economy. But the extremely small ratio of urbanization of the country could well raise market outlet as a critical issue due to inadequacy of domestic demand, thereby making exports a necessity. This implies that agriculture has to be made internationally competitive, and that part of its production has to be oriented towards exports. To start with, however, agricultural growth should improve the conditions of food security in the country. There are indications that excepting conditions of drought, even the present extension programme could have sufficed to bring about a satisfactory level of national food security. But droughts occur far too often to make this a possibility. Irrigation would have to be introduced in a significant way for a sustainable attainment of food security at the national level. Still further, food insecurity at the household level could persist despite growth of food and cash crops at national level, unless it is resolved on its own. For this as well the solution would have to come predominantly from within agriculture. The medium- to long-term target is to reduce the absolute size of the food insecure rural population substantially as to exit from food aid, and rely on fiscal transfer of resources to support a residual of relatively small numbers of food-deficit households.

The relationship between ADLI and export-orientation may be briefly stated. First, ADLI underlines the potential scope of the domestic market and the important role it could play for growth of both agriculture and industry, particularly considering the size of the country’s population. Second, the strategy of ADLI gives recognition to the critical role of exports both in terms of growth of income and foreign exchange. Third, as ADLI strategy is located within the context of progressive integration into the global economy, export orientation and ADLI are viewed as mutually reinforcing. The importance attached to exports is clearly reflected in the formulation of an export strategy in 1998, the creation of a forum between exporters and government, and establishment of an export promotion agency in the same year.

However, as discussed earlier in this paper, ADLI has been subjected to severe criticism. Critics argued that agriculture in its present condition could not even feed the population that depends on it. The land is highly degraded in most part of the country and the agricultural labor is largely unskilled. Therefore, agriculture’s chances of leading to capital accumulation and then to industrialization are slim.

* 1. **Reflection on leading sectors**

 *Dear distance students, how can you judge the achievement of every development objectives? What are those possible questions that one often poses to scrutinize whether the development objectives of the government is addressed or not? Let you try please.*

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*Have you tried? Good*. The strategy of the government in terms of sectoral priority is ADLI. So we need to answer the five questions raised below to judge the achievement of aforementioned development objectives of the country.

1. ***Is it possible to increase agricultural production?*** The Ethiopian agricultural history was not known for its success in terms of increase in yield and it is questionable that yield can increase in sustainable manner. The main short comings of Ethiopian agriculture related to post 1991 era are

* blanket application of inappropriate quantity of fertilizer in all areas
* lack of necessary irrigation facilities
* Lack of institutions to reduce transaction cost and manage production and marketing related risks and wide spread application problems.

But, at least at strategy level, the development of appropriate technology which is relevant for each area will solve the first problem. The use of irrigation facility was encouraged at drought porn areas but not on areas with adequate rain fall. Thus, both solutions (technology and irrigation), if appropriately applied, can solve the two problems even though lack of irrigation facility on areas with adequate rain fall will kill the capacity for multiple cropping. Lack of clear understanding about the need for effective institutions to manage price and output related risk may also hinder the increase in productivity in agriculture. To make things worst there is wide spread application problem which can make the improvement of productivity a dream than a reality. The point is, if appropriate incentives are provided it is not impossible to increase yield.

1. ***Is it possible to create productive employment for ever increasing labor force in agriculture?*** As was observed in bi –modal approach to rural development, very small farms are found to be inefficient. The question is can the ever decreasing land size, without the creation of better irrigation facility to increase the effective land size, provide productive employment to ever increasing rural labor force? The problem is two sided; one is the land is getting smaller and smaller and also more and more inefficient. Second, even if output is produced there are many mouths in farm which are not producing much, which will reduce the marketed surplus that is need for economic development. Thus, the creation off- farm employment is an important area which can reduce the pressure of population on land.
2. ***Is it possible to create increasing demand for agricultural production?*** When output increases, price is going to be collapsed unless necessary demand is created for it. This will discourage farmers from adopting new and modern technology to produce more. If this is the case, from where the demand for agricultural products does comes? Possibly three ways to generate demand are;

* To depend on reciprocal demand among peasants themselves – on which farmers will specialize and commercialize. Specialization will increase their output but at the same time commercialization will create reciprocal demand. But the problem will exist unless transaction costs are reduced to negligible. Farmers will never commercialize when transaction cost are high.
* Export demand – this is possible if cost of production is reduced to make the county competitive at international market. But almost all of grains are not tradable at contemporary time, implies there will be a need for significant reduction in cost of production and this may take long time to happen (if it can happen at all).
* Demand from people employed on non-farm sector – Increase in urban and rural income from non-farm employment can stimulate demand especially for country like Ethiopia with average per capital income among the lowest in the world. This is due to high income elasticity of food demand among the poor population. So a significant share of their income will be spent on food items (agricultural products).

1. ***Is it possible to create increasing demand for non-farm sector?*** Yes, if farm income of significant majority increase the demand for goods produced on other sectors will directly increase.
2. ***Is it possible to relay on static comparative advantage? or Do we need to think about dynamic comparative advantage in terms of product cycle and technological gap?*** Yes, we need to think in terms of dynamic comparative advantage of technological gap but we can develop technical capacity to imitate or build things and if resource are efficiently used at point of time. You can’t ignore the static comparative advantage that is found in agriculture; in opposite you need to exploit it to maximum advantage.

* ***Land Policy of Ethiopia***

1. ***An overview***

 *What do you think is the strength and weakness of Ethiopian land policy? What are the basic principles that should be considered in informing any land policy? Let you try please.*

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*Have you tried? Good*. In 1975, the socialist derg regime that had overthrown the imperial regime of Haile Selassie profoundly altered the agrarian structure and the mechanisms of access to land. The “Public Ownership of Rural Land Proclamation” nationalized all rural land and set out to redistribute it to its tillers and to organize farmers in cooperatives, thereby abolishing exploitative landlord-tenant relations so pertinent under the imperial regime. Even though, with the defeat of the military socialist derg regime of Mengistu in 1991, the dissolution of farm collectives took place rapidly, there was limited change with regard to property rights to land – to the disappointment of many international donor agencies. In principle, the Transitional Government of Ethiopia did not question state ownership of land. In its declaration on economic policy in November 1991 (Transitional Government of Ethiopia 1991), it announced the continuation of the land policy of the derg regime. The new constitution of 1995 approved and confirmed the state ownership of land in Ethiopia (Federal Democratic Republic of Ethiopia, 1995).

Land policy, the real source of power in imperial and contemporary Ethiopia, also remains at the center of a controversial policy debate. The debate has largely been carried out along two antagonistic arguments concerning property rights to land. The Ethiopian government continues to advocate state ownership of land whereby only use rights are given upon landholders. The use rights exclude the right to sell or mortgage the land. This, the government assertion, was to protect the rural peasants from selling off their land to wealthy individuals leaving them landless and without source of livelihoods. The government builds its argument on the premises of social and historical justice that is based on two principles: (1) justice understood as egalitarianism – guaranteeing every farmer in need of agricultural land - equal rights of access to such land, and (2) historical justice – granting tenure security to the Ethiopian farmers who had experienced land deprivation and land expropriation through different mechanisms during the imperial era. The government’s position that emphasizes the social function of land is challenged by advocates of a privatization of property rights – most prominently, the Ethiopian Economic Association (EEA), some political parties in opposition to the current regime, and a number of donor agencies. These tend to argue that state ownership of land prevents the development of a land market, discourages farmers to invest on land, and thereby holds down land productivity as well as encourages unsustainable land use practices. This line of argument emanate from the 1975 World Bank Land Policy paper which shows that the following three basic principles should be considered in informing any land policy.

1. Owner-operated family farms were efficient and thus desirable,
2. There should be freely operating land markets to permit land transfers to more efficient and productive users, and
3. There was a need for a more equitable distribution of assets.

Property rights in land need to have a time horizon long enough to provide investment incentives and to be defined in a way that makes them easy to identify, enforce and exchange. They need to be administered and enforced by institutions that are accessible and accountable and have both legal backing and social legitimacy. Even if property rights in land are assigned to a group, the rights and duties of individuals within this group, and the way in which these rights can be modified and will be enforced, have to be clear. Finally, as the physical and/or legal precision with which property rights are defined will generally increase in line with rising resource values, the institutions administering property rights need to be flexible enough to evolve over time in response to changing requirements (Groppo, 2003).

The objective of Ethiopia’s three decades old land reform was to abolish the exploitative landlord-tenant relationship through nationalization of all rural lands. It, however, failed to address wider agrarian issues. Moreover, no major revision has been made to revisit and address important issues overlooked during the 1975 land reform or new problems emerging since the reform. The structural problems of agriculture in Ethiopia that includes shrinking of small and largely less productive farms, high farm fragmentation, high population pressure, low migration, scarcity of productive farm lands, environmental degradation, lack of investment in land including investment on irrigation, low farm income and productivity are all related either directly or indirectly to the land tenure system that the country adopted since 1975. In addition to current government efforts to address the issue of tenure insecurity through the provision of land certificates, many agree that the land policy should be discussed in order to address challenges of low farm productivity, stagnant agriculture, increasing environmental degradation and food insecurity.

The insertion of the issue of land in the Ethiopian constitution in the early 1990s, however, may indicate that rural land has increasingly become a political affair. By inserting the land policy in the constitution, the current government has effectively eliminated the possibility of flexible application of policy. Even worse, it has eliminated all meaningful debates about efficient utilization of land (Nega and Degfe, 2000).

However, there are growing criticisms of the existing land policy

1. The land policy of Ethiopia has been heavily criticized for not being participatory. The policy was the result of a centralized, top-down approach rather than being developed through consultations with all concerned parties (farmers, civil society, businesses).
2. It is not possible that rural land could play a social security role indefinitely, as the supply of farm land is physically fixed and subjected to decline because of misuse.
3. The land tenure system in the country has gradually thinned economic and social differentiation within rural communities which will hinder competition among farmers.
4. Gradual conversion of productive lands into waste or barren land due to mismanagement of the land.
5. The land tenure system has also contributed to the creation of this social structure indirectly through its effect of discouraging rural-urban migration, especially long-term migration.
6. Moreover, ethnic federalism that the current regime adopted could make difficult for farmers to access land in other regions
7. **Rural land administration proclamation**

As early as the land reform of the 1970’s, tenure insecurity of smallholder farmer’s was identifiable as one as a key cause of declining food security, environmental degradation, and social inequity. In recognition of the deep-seated problems, the Government of Ethiopia issued the Rural Land Administration Law in 1997 (FDRE, 1997), which was amended in 2005 by the Federal Rural Land Administration and Land Use Law (FRLALUL) (FDRE, 2005).

It is confirmed in the Constitution of the Federal Democratic Republic of Ethiopia that the right to ownership of land is exclusively vested in the State and in the People. Whereas, Article 52(2)(d) of the Constitution provides that Regional Governments are empowered to administer land and other natural resources in accordance with Federal laws. Following this, the Ethiopian Government issues a new rural land holding and administration proclamation in 1997. According the new proclamation, "holding right" means the right any peasant shall have to use rural land for agricultural purposes as well as to lease and, while the right remains in effect, bequeath it to his family member; and includes the right to acquire property thereon, by his labor or capital. The general principle of this proclamation is that land is a common property of the Nations, Nationalities and Peoples of Ethiopia shall not be subject to sale or to other means of exchange.

**Conditions of Land Administration**

1. Any Region shall administer rural land in accordance with the general provisions of this Proclamation.
2. For purposes of implementation of the provisions of sub-Article (1) of this Article, each Regional Council shall enact a law on land administration.
3. The land administration law of a Region shall be in conformity with the provisions of laws on environmental protection and shall observe the Federal land utilization policies.
4. The land administration law of a Region shall confirm the equal rights of women in respect of the use, administration and control of land as well as in respect of transferring and bequeathing holding rights.

* ***Labor policy***

The policy makes it clear that the first work of the labor policy have to deal with creating optimal allocation of labor on land. This imply use of small scale farming on densely populated areas, resettlement when possible and use of private sector commercial farming on areas with low population density. After that the motivation of the farmer and his human capital need to be augmented. Once a productive labor with higher motivation to work is created, its productivity need to be increased. The last point calls for generation and diffusion of new technology.

The strategy assumes that “basically, these days citizens engaged in agriculture do not think of the existence of alternative jobs and they basically practice traditional farming methods inherited from their ancestors. They are fully prepared to be engaged in agriculture. This preparedness is not only because of absence of other alternatives rather love and appreciation of their profession as farmers, which has been inherited from generation to generation, is not under estimated. Therefore, the traditional farmer possesses adequate interest to engage in agriculture. It is possible to assume that work preparedness of the farmer is assured”. The main problem is retention of educated youth in rural area. To do that first the educational curriculum and methodology must be use full for rural life. Second people who are educated should be able to enjoy a rural quality of life which is better than the alternative urban employment. Most importantly the view of farming with backwardness and poverty should be revised and there is work to be done to improve the attitude of the young people to ward rural work and manual labor, through education and motivation.

The policy state that the improvement in farmers’ education is critical and this can be achieved by improving the educational achievement of the new generation. High school complete individuals will be sent to agricultural training collages. Then after they can work as extension agent to all farmers in given (their) Kebele, and especially can do critical job on educating young farmers on modern agricultural production.

Once the need necessary conditions are created by developing appropriate human development, the farmers need input and technology which can increase their productivity. So the strategy insist that, the adoption of modern technologies which are cost effective, market based and which can improve the quality of farm products are critically needed. Those technologies need to reflect local conditions, ecology, population and must be profitable to the farmer. Their development and diffusion should be continuous. And it needs to consider the problems, resource and nature of farming as faced by the farmer.

So it insists that there is need for adoption of technologies developed in other countries. For its effectiveness, the domestic capacity on adopted research needs to be improved in the short run and this capacity will be useful for development of new innovations in medium and long run. Moreover, three extension agents per Kebele with medium level college diploma are needed and an extension professionals need to coordinate and help the work of the extension agents. The extension package must be continuously improved and evaluated. But it is important to note that the needs and capacity of uneducated farmer is different from the needs and capacity of educated farmers and private investors. So the technology given for different individuals should be different. It needs to focus now on small farmers but the need of the private sector will be incorporated in long run (with its development). But to promote fast development and diffusion of new inputs and technology, multiplication and dissemination new technology must be leaded by the government.

* ***Policy toward new technology***

The fact that the need to use different approaches towards different zones with different ecology, population density, and way of living (pastoral and sedentary), is clearly understood on the strategy. The use of land for its comparative advantage will have to be made possible by developing different extensions packages which can be applied in different areas by choice of the farmer. In this way specialization and diversification can go side by side. But at the same time the policy states that in order to mitigate the impact of risk and to enable efficient utilization of labor and land throughout the year, farmers should also produce different crops. The idea is that farmers need to specialize in few crops in given time. Given the fact that with change in season the crop which can give a maximum output (revenue) will normally change, this fact will enable them to diversify their production between different periods. But given wide ecological diversity within the country, different crops will be produced in given point of time and this will result on diversification at national level.

This is clear from the following policy statement of the strategy

*“The packages we provide and the training we conduct to accelerate agricultural development should include division of labor and producing various products side-by-side. The current division of labor is mainly based on agro-ecological and other differences in which each area focuses on activities that enhance production and growth through area specialization. Regarding production of many outputs simultaneously, it is being practiced by producing different outputs simultaneously within the areas of specialization mentioned before. We follow the direction of agricultural product diversification based on area specialization. Different packages that are suitable for different areas, those that contain different activities to be performed simultaneously, and those that are wide in their scope should be prepared; and our extension and agricultural skills training programs will be based on them. It is a basic direction that enables us to bring about rapid and sustainable growth by making each area produce the maximum development possible and by utilizing our labor power and land continuously throughout the year”.*

In each area farmers are to be given a menu extension packages which are appropriate to their agro ecology and way of farming. In addition, farmers will have the right to decide if they are going to participate on the extension package and what kind of package they are going to use.

* ***Marketing policy***

The strategy insists that “most agricultural products can be widely used for the producer's own consumption. The producer sells what is left. Rather, under the real conditions of our country, the far larger portion of our agricultural products is consumed by the producers themselves. Even the majority of the farmers do not produce enough for their own consumption. Therefore, substantial parts of the initial result of agricultural development will not need any market since it will be used to fulfill the requirement of the producer’s demand for consumption. Substantial amount of additional agricultural product will be used this way. However, satisfying the producer's demand for consumption alone cannot serve as a basis for rapid and sustainable agricultural development.” To improve farmers quality of life by consuming different goods and to purchase farm inputs and implements which can augment his/her output he/she needs to produce behind his/her own consumption needs. This way the farmer can contribute to the national development in addition to improvement his own life to do so, he/she needs to produce goods which are needed in the market. Currently production is for farmers’ own consumption so the issue of quality is not serious but it needs proper focusing. Moreover, the marketing of some leading commodities like coffee is important at international level, so proper attention should be given to marketing.

In long run, the strategy states that, the farmers will specialize and will create reciprocal demand for each other. But in short and medium term the cities of the country must create the demand. Given the low urbanization and per capital income, breaking in to international market will be needed if the full potential of agriculture is to be realized. Thus, agriculture production must be domestic market lead in short run and international market lead, in medium and long run. So production decision must be done by observing market demand first and the producer must have the capacity to adopt his production pattern to very unstable international market. The farmer needs to produce goods which generate high consumer value at a least cost and acceptable quality, with in the dynamic international market. In quality terms it starts with appropriate selection of outputs that can be produced at acceptable quality, but also includes the use appropriate farm management and post-harvest management like processing, packaging and marketing.

But to make sure that the farmer is producing to supply consumer value, the extension package need to include all necessary inputs from production to post production and marketing activities, which can generate him/her high income. If he/she is provided with this complete package he/she will adopt the technology and will produce goods which possess a higher consumer value. “The main thing here is that the research and extension system should be able to develop an attitude and capacity leading to a market, especially international market–led agricultural development.” Moreover “establishing efficient marketing system which enables to maintain the quality and competitiveness and improving the system continuously is important to ensure rapid and sustainable agricultural development.”

An important element in the market development is the need for national standards based on international standards (for those products which are new at international market, we can introduce our own grade) which does not only increase market penetration capacity but it also reduces the transaction cost of marketing. Moreover, the dissemination of marketing information and the establishment of commodity exchange which facilitate spot and future (forward) markets are critical.

But the establishment of service or general cooperative is given the higher priority on the strategy. The strategy states that “if there are strong cooperatives in country, there can be a high rate of agricultural development, growth and improvement of agricultural marketing system, whereas it will not be an exaggeration to say high rate of agricultural development, growth and improvement of agricultural marketing system is impossible without cooperatives.” This is related to consolidated sell to reduce marketing cost and high bargaining power of the farmer which can save them from any exploitive middle man. But cooperatives need to be created by free will of the members to solve their problem. There is need for financial, technical, managerial (through hired professionals) and other support in addition to promotion of cooperative formation by persuasion. But there is need to avoid political intervention by government official.

The strategy calls for complementary than competitive role of private sector with cooperatives. It states that in “saying that cooperatives will and have to play decisive role in our agricultural marketing system does not mean that this will be done by them alone or that the private investors will not have any key role in this respect. Rather, unless the key role of the private investors is included, the system may not work at all because there are many holes that cannot be closed by the cooperatives. This role may express itself in the form of retail and whole selling as well as in collecting agricultural products and processing them in factories.” (98) Although for efficient value chain management cooperatives have to take the lead role, the private sector can also play its own complementary role in retail and other miner activist. Moreover private sector can participate in whole sale trade between cooperatives and final consumer or input producers and cooperatives. For exported products the use of brand name and promotion by internationally proclaimed companies is critical in order to enjoy the high price that come with branded product.

* ***Reflection on marketing policy***

The first problem of the marketing strategy is that it assumes a fairytale that the first increase in output will be for home consumption than for market. Based on that assumption, the policy argues that the first few round increases in output will not need any market development or market at all. In real world of Ethiopia, first if there is subsistence farmer isolated from the market, it is an exception than a norm. Second the increase in agricultural production is to be made by using science based modern inputs which have to be bought in the market. Commercialization on input side which by itself needs market development will also need commercialization on output side to cover the financial needs of modern inputs. So technological progress or technological adoption and market development can’t be isolated from one another at any level.

The second short coming of the policy is related to grade and standards. If customer can differentiate 40 to 45 grain qualities, how are you going to enforce 10 or 15 grades of grain? This is like forcing all Ethiopian people to dress traditional cloth in order to attract foreigners. But people have a much larger life than getting truest money being a show case of a foreigner. In order to encourage export of Teff you need grades which meet international standard but this have no real relationship with domestic grades, how can you force such grades in to the economy? If I know there are 5 types of maize how are going to convince me there are only 2 types? The right path was to understand the scientific characteristics of the domestic grades so they can specified clearly and scientifically. If grains can fetch higher price (given they have all the good quality) and are cost effective (due to R & D done them), they will be accepted by both customer and producer. Over time few grains will be able to dominate all other grain varieties and the economy will end up with few grades and standards. This is the pattern of grade and standard formation followed on more developed economies. These economies started from large number of grade and standards, but with above stated process they end with few numbers of grades and standards. But now we are trying to adopt such grades in to domestic economy without considering the local reality. In short run export of grain can be done by using international standards but you can’t force it to domestic economy. It is neither needed nor possible.

On cooperatives side, even though cooperatives are an institutional solution to some market failures they are not a magic formula which corrects all market failures. The problems need to be seen from the development of appropriate institutions by choosing from the different menu of institutions than simple focusing on one institution. Second to create efficient cooperatives and to make sure they are efficiently managed the existence of competition on all levels and voluntary membership are necessary. But the strategy even though accepts voluntary membership it pushes for complementary than competitive role by the private sector. But the efficiency of the cooperatives is conditioned on the existence of competitive private sector to serve as check on their inefficiency and vise verse.

* ***Role of NGO***

The policy does not have any deep analysis about role of NGO (civic society) in rural development. It simply insists that the NGO (civic society) could be used in fund raising and implementing projects selected by kebele but which are behind their capacity. NGOs (civic societies) have to fit themselves in to the priority of the kebeles decision. They are assumed as instrument to access funds and complement kebeles but no more than that.

* ***Integrated development strategy***

The rural and agricultural centered development will be integrated approach not only on injecting new and more productive technology but also on promotion of human development, infrastructure building, market development and others.

* ***Reflection on policy with in agriculture***

The main interesting point of the labor policy is in its focus on ‘integrated’ solution to problems of low labor productivity. Not only new technology is going to be injected but the creation of educated and health individuals are given proper focus. But there is inconsistency between the extension policy and the goal of promoting pro-poor growth. The extension policies insist that educated and uneducated farmers will get different technology. The educated farmers will get demanding and rewarding technologies, but not the illiterate farmers. The illiterate farmers will get less rewarding and less demanding technologies. The problem is that even though education and poverty are highly correlated, it is not mainly because education reduces poverty but because the poor can’t afford to go to school. This means the educated one is not necessary the smart one but the better off one. In such reality providing different technology based on education is simply against the promotion of pro-poor growth. The better off will be the educated as result will get better technology to improve their income which in turn increases his educational achievement. The poor in other hand will not go to school and can’t get the technology and will stay poor. If the policy is going to be pro-poor it needs to improve the educational access of the poor than discriminating the poor and the illiterate in extension package.

On land policy we saw that small scale farmers are more efficient than large scale farmers as they will use intensively the most abundant factor (land and labor) and will save the scare capital (in line with uni-modal theory). It is preferable in country like Ethiopia, however, if land concentration is avoided. So collective ownership of land will make sense if farmers are granted use right but not transfer right (by sale). But the problems are related;

1. land improvement which is critically needed at current age of population explosion will not happen unless some form land security is created
2. the land tenure institution which grant use right for adults is behind the population explosion problem, it self
3. factor mobility of both land and labor is hindered and this will have series negative consequence on economic efficiency
4. the fourth question is related to the fact that if farmers need any nanny or patron (state) to tale them how they should live their life

Let start from the fourth problem that says peoples’ decision about their welfare will be the right one no matter what. But it is clearly understood that rational agents operating under wrong institutions can do what is against their best interest. Means assuming people are rational does not grant that their decision is Pareto optimal, unless the necessary institutions are there to guide their action by providing incentive on the right direction. A farmer who is facing a death in face of drought can sale his own land to assure for its own survival. This is rational act because you have to be alive before you can be well alive. So the utility of staying alive is higher than any utility that can be generated from any level of future income. But if farmers sell their land and flood to urban areas the economic consequence is a total disaster. Rational farmers operating in system without necessary insurance, safety net and drought relief institutions could make a decision which can reduce national welfare, especially in country like Ethiopia which is having a frequent reoccurrence of drought. In such case state can use its power to provide a different signal to avoid such disaster. Once you accept market failure to provide farmers with capacity to manage risk and state failure to provide social security, the fourth argument will evaporate on the air. The first argument related to security of tenure can be addressed if land redistribution is avoided in which families are made liable to provide land to their own seedlings.

By banning not only the right to sale but also the redistribution of land both insecurity and concentration of holding can be avoided. But at the same time the right incentive will be created for families to have small family size. So limiting selling right can be short term solution to avoid concentration of holding. But banning selling right and redistribution of land are basically unrelated. Redistribution, especially if it is frequent, will not only kill security of tenure but also it will encourage families to have large family size feeding the problem its self. The introduction of land certification and the payment of appropriate compensation can encourage investment on land improvement. But unless farmers can have the necessary bargaining capacity to determine the compensation level how sure could you be if the compensation is enough or not.

But the main problem comes from the lack of factor mobility. Somebody can be a trader but he is stack to be a farmer and other prefers to be farmer but he is stack to be civil servant, for example. Such labor allocation could have a significant impact on agricultural productivity. Second people will be discouraged from searching temporary job, for few years, on other areas, if land is not their property. But most importantly structural transformation needs the periodic shift of labor from rural to urban areas. However, rural population will not migrate to urban areas to find uncertain job, unless necessary financial capacity is able to create for him by selling his own land. In general these are factors which make state owner ship (or simply limiting selling right) less efficient compared to private property of land.

Now the problem is related to the question: which one is the worst: lack of factor immobility or concentration of holding on hands of few large farms and increasing rural – urban migration? The choice is between two evils to find the quasi evil in general. The second problem is the most series problem under the erratic weather condition which characterizes the Ethiopian agriculture. But these needs to be a short term solution until the necessary safety net and institutional solution are provided to avoid rural – urban migration in occurrence of natural disaster. But some institutional adjustment can be done in to the current land tenure institution. One is to grant private property without the right to sale and this can increase tenure security. If the problem is related to sale of land why not just directly address the problem. More over after redistributing land fairly land redistribution can be abolished for one and for all. This will not only increase tenure security but also it can encourage families to have small family size. But in the long run the private ownership is unavoidable if the economy is to grow and structural transformation is going to be initiated. Such structural transformation and the need factor mobility will need private ownership of land which must be granted in long run.

The strategies promotion of farming and technology development, which reflects the special condition of the area, is a very interesting diversion from current practice. And will probably solve the central problems of the current practice on technology dissemination and adoption. The main problems of the extension package which are applied in Ethiopia are two a kind. First the technology is provided as blanket technology to be applied in all areas although it does not work ever where. 50 kg urea and 100 dap per hectare in drought porn areas and 100 kg urea and 100 dap in other areas is to be used, according to the normal extension that is used now. But the right application of fertilizer depends on quality of the soil and the actual moisture level, which is can’t be put in to 2 groups of drought porn and areas with enough moisture. But there are host of other issues which are specific to small scale farmer way of farming which need to be study to determine the appropriate mix and level of fertilizer to be used. But to make things worse the application was made in campaign form in which the performance of government officials and civil servants was measured by how many people were adopting the technology, without considering its appropriateness. Farmers are literary forced to buy fertilizer by officials which in turn are forced by their superior. But the strategy does not only clearly recognize the need for development and adoption of technology specific to each area ecology and farmers characteristics, but also it accept that farmers will not be forced to adopt any new technology, input or farming method. So the strategy will able to solve the central problem of the current practice, if it was applied appropriately.

When we see the ‘integrated’ nature of the rural development policy, it is hardly possible to call it integrated. It is integrated in sense different problems are solved at the same time. But the inter linkage effects are very different on different areas. As result the needed priorities are not the same in all areas. In such reality providing similar social services in all areas does not make the strategy an integrated strategy. If in some areas agriculture is productive but the problem is related to health sector; but in other areas alternative employment and education is needed more than health care, providing the same level of school and health service does not make it an integrated solution than egalitarian solution (from crude sense).

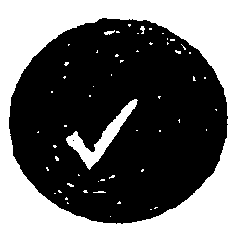
Summary note

*The main development goals of Ethiopian government are four in kind. These are;*

1. *To achieve faster growth of the economy*
2. *To insure that all people benefit from economic growth from the start.*
3. *To get the country free from the current aid dependence by improving its competitive potential on international level.*
4. *To build strong and vibrant market economy*

*In order to achieve these development goals, the strategy developed after considering the existing condition of the economy. The main, but not the only, existing condition taken in to account are scarcity of capital and large abundance of both land and labor. Given that the economy is having very low capital labor ratio, the first question to be addressed by the strategy is which sector should take the lead in order to generate sustainable economic development? The strategy identified rural centered agricultural development as main path for economic development. But it warns that even though agriculture centered rural development is given higher emphasis it should be clear that we have to work hard on other areas as well to achieve our basic economic development goals.*

*The idea of ADLI took concrete shape as an overarching economic strategy between 1992 and 1994, and an Economic Development Strategy for Ethiopia in February 1994 highlighted the concept of ADLI to define its strategic direction. The main motivation behind ADLI has been the recognition that Ethiopia is an agrarian society in which the bulk of the population (84% in the 2007 census) resides in rural areas earning a livelihood from land. Agriculture has long dominated the economy in terms of output, employment, and export earnings. The government emphasizes that economic development and structural transformation should be initiated through robust agricultural growth, and that peasant farmers and pastoralists should be the main agents of agricultural transformation and economic growth. It is argued that labor and land are the main—and abundant—factors of production in Ethiopia and that their effective use should generate rapid and sustainable development.*

***Check List***

*Now it is time to check your understanding about the Lewis agricultural transformation model under unlimited supply of labor, human capital centered rural development theory, the bi-modal and uni-modal agricultural development theories, integrated development approach, and different agricultural development models.*

*Read each question and put a tick (√) in the box for tasks that you can perform.*

1. *Can you list and illuminate different theories of agricultural/ rural development? ......................*
2. *Can you explain the main explanation of human capital centered agriculture /rural development theory? ..........................................................................................................................*
3. *Can you list and explain the different types of agriculture /rural development models? .......*
4. *Can you explain and reason out why we support integrated development approach? ..........*
5. *Can you explain the difference between bi-modal and uni-modal agricultural development theories? ....................................................................................................*
6. *Can you define and explain green revolution and the lesson what other developing nations learnt from Indian green revolution? .........................................................................*

***Dear student, is there any box that you cannot perform? If there is one goes back to your text/module and read about it before you go to the exercise below.***

Review exercise

***Discussion questions***

1. *Explain the main explanation of human capital centered agriculture /rural development theory?*
2. *List and explain the different types of agriculture /rural development models?*
3. *Explain and reason out why we support integrated development approach?*
4. *Explain the difference between bi-modal and uni-modal agricultural development theories?*
5. *Define and explain green revolution and the lesson what other developing nations learnt from Indian green revolution?*

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*Rural development individual assignment for second year economics distance students.*

*Max mark:* 30 pts

* ***Discuss the following questions (3 pts each)***

1. *Explain what green revolution is? And state the lesson what Ethiopia learnt from Indian green revolution?*
2. *What are the main differences between bi-modal and uni-modal agricultural development theories? And what are their economic justifications?*
3. *Explicate the main explanation of human capital centered agriculture /rural development theory?*
4. *What do you think is the strength and weakness of Ethiopian land policy?*
5. *What are those possible questions that one often poses to scrutinize whether the development objectives of the government is addressed or not?*
6. *Explain ADLI strategy/program by using Uni-modal theories of agricultural development?*
7. *List and explain the main objectives of different agricultural policies in Ethiopia?*
8. *Comment on urban-industrial impact and conservation models of rural development in you thought?*
9. *Illustrates that how the existence of externality in a given market creates inefficiency?*
10. *What do you think about the role of market as institutions in social welfare maximization?*