

UNIT

2

THE AGRICULTURAL SECTOR IN ETHIOPIAN ECONOMY

Unit Objectives

After completing this unit, you will be able to:

- appreciate the role of the agricultural sector in the Ethiopian economy;
- understand the different policies and strategies applied by the Imperial, Derg, and recent governments;
- analyze the performance of and the possible remedies for the Ethiopian agricultural sector.

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INTRODUCTION

As records reveal, the agricultural sector in Ethiopia is the mainstay of the country's economy. It is also the most volatile sector, as exhibited in the unevenness of its growth patterns, which is the effect of its heavy dependence on rainfall and the seasonal shocks that are frequently observed in Ethiopia. However, it contributes the largest share to the GDP, export trade earnings, and employment. It also provides raw materials for the various industries in the country to a great extent. With this scenario, the various strategies so far adopted to develop it need rethinking. This serious work of rethinking the development priorities should be made considering the various regional as well as local objective conditions.

2.1 AGRICULTURAL VERSUS INDUSTRIAL DEVELOPMENT

At the end of this section, you will be able to:

- assess the debate on agriculture versus industry.

Start-up Activity

- 1 Do you have any ideas related to the various agricultural development approaches or strategies adopted by the preceding regimes of Ethiopia?
- 2 Did they change the LIFESTYLES of the poor peasants or of the landlords?

Different views or paradigms have been adapted for the development of a country. The role of agriculture in economic development has been considered as largely passive and supportive or secondary. In the Western economies, the industrial sector was given priority, based on the assumption that it has the largest potential to adopt technology and to create forward and backward linkages with the other sectors.

However, the desirability of placing such heavy priority on industrial growth is questionable for most developing countries like Ethiopia. Since the 1970s, development economists have come to realize that the agricultural sector needs to be viewed as a leading and dynamic sector. They further state that, without the development of the agricultural sector, the growth of the industrial sector will become weak. Hence, the agricultural sector has to be the leading sector, and this is the approach of the current Ethiopian strategy of development, ADLI.

Activity 2.1



Your teacher will arrange the class into two groups so that you can debate the issue of agricultural versus industrial development.




2.2 UNI-MODAL AGRICULTURAL STRATEGY

At the end of this section, you will be able to:

- define the uni-modal agricultural strategy;
- explain the characteristics of the strategies and
- identify the advantages and limitations of the uni-modal approaches.

Key Terms and Concepts



-  Uni-modal strategy
-  Paradigms
-  Transformation

Start-up Activity

Did the poor benefit from the development plans practiced?

Uni-modal and bi-modal strategies are two types of agriculture-development pathways or options that can be used to transform the agricultural sector, which is the core section of the country's economy.

2.2.1 What is the Uni-modal Strategy?

It is a pathway based on the proposal that the achievement of transformation in the agricultural sector is possible through intensification of small-scale peasant farms. It is based on the concept of a specific peasant economy in which small producers who are not separated from their means of production retain a degree of control over land and family labour in spite of international secular differentiations (example: Japan, Thailand and China).

2.2.2 Characteristics of the Uni-modal Strategy

- *The central element of this approach is the development and diffusion of highly divisible innovations that promote output expansion within the existing agrarian structure (small-size holdings)*
- *It is a pro-poor growth strategy.*
- *It believes in enhancing small-landholders' access to modern inputs such as improved seeds, fertilizers, and providing them to farmers on revolving-credit bases.*
- *It focuses on the production of food crops with a view to ensuring food security.*

2.2.3 Advantages

- *It protects the existence of a differentiated peasant group/class.*
- *It protects the peasants from eviction.*
- *It creates a huge potential for the government to gain political support.*
- *It reduces poverty in the rural economy.*
- *It provides individual peasants with access to modern technologies.*
- *It reduces outgoing migration from rural areas.*

2.2.4 Limitations

- *It focuses only on food crops rather on other marketable or high-value products for the market.*
- *Does not improve the shortage of knowledge regarding market information and weather conditions.*
- *Does not improve the shortage of infrastructures that is due to the smallholders' settlement patterns (fragmentation)*
- *The small-size holdings cannot employ large-scale agricultural inputs.*
- *Continuous price rises of the agricultural inputs, like urea, dap, etc. are not controlled.*

2.3 BI-MODAL AGRICULTURAL STRATEGY

At the end of this section, you will be able to:

- ❑ define bimodal agricultural strategy;
- ❑ explain the characteristics of the strategy; and
- ❑ identify the advantages and limitations of the bi-modal strategy.

Key Terms and Concepts

➤ Pathway

➤ Dualistic/economic dualism

➤ Divisible innovations

2.3.1 What is the Bi-Modal Agricultural Strategy?

It is an agricultural development pathway that advocates the practices both of the intensification of small peasant farms and of commercialisation. It is based on a dualistic structure of farm units (as in the case of Mexico and Columbia) which proposes that commercialisation and commoditization inevitably generate differentiation in agrarian societies, whereby rural producers are set apart into agricultural capitalists and landless agricultural employees.

2.3.2 Characteristics of the Bi-modal Approach

- *It is a dualistic agricultural development approach that supports a strong principal commercial sector.*
- *An obvious implication of this pathway is that entrepreneurial individuals should be allowed to accumulate land.*
- *It supports the differentiation of individuals who invest more in farming and those who develop business.*

2.3.3 Advantages

- *It supports individual rights to acquire land*
- *It invites more capital and technology investment for agriculture*

- *It promotes large-scale diversification*
- *It allows the transfer of technology*

2.3.4 Limitations

- *It creates differentiation in the rural society*
- *Lack of off-farm job opportunities*
- *Promotes the eviction of small peasants/poor people*
- *It deprives the majority of the rural population of land.*

Activity 2.2



Your teacher will invite an extension package worker or another nearby agricultural service expert. From his/her presentation and available literature, discuss the two approaches. Which approach is most advisable in the Ethiopian context? Debate this issue.



2.4 ROLES OF THE AGRICULTURAL SECTOR


At the end of this section, you will be able to:

- identify the contribution of the agricultural sector to the rest of the economy;
- examine the forward and backward linkages of the agricultural sector;
- analyze how surplus is transferred from the agricultural sector; and
- assess the role of the agricultural sector in Gross Domestic Product and in the creation of employment.

Key Terms and Concepts



-  Backward linkage
-  Forward linkage

-  Compulsory delivery

Observe your locality carefully. In which economic activity/sector is the majority of the people engaged? What percentage of the student population belongs to peasant families?

It is apparent that agriculture is the backbone of the Ethiopian economy, as you can see from the important roles it plays, as discussed in the following sections.

2.4.1 Source of Food and Raw Materials

One of the main roles of agriculture in the Ethiopian economy is being the source of food and raw materials. For example, agriculture supplies the country with food grains, dairy and meat products. A productive agricultural sector provides relatively abundant food and raw materials to the population.

Backward linkages: an efficient/productive agricultural sector supplies food and raw material to the industrial sector and its labour force. In turn, it has to be supplied with modern inputs and technologies to cope with responding to the growing demand of the non-farming and farming population. Without such support, the agriculture sector appears weak and non-supportive. It may even risk its own population facing food insecurity.

Furthermore, productivity in the agricultural sector improves the level of income received by rural people. Increased income of rural people is believed to generate increased demand for manufactured goods from the industrial sector.

Forward linkages: productivity in the agricultural sector can promote the following forward linkages. First, it reduces the cost of living in the industry-based/urban areas which, in turn, reduces the pressure on wages and makes industrial profit higher. Second, increasing the provision of raw materials reduces the cost of raw materials and makes industrial profits higher. These two factors can contribute significantly to increasing industrial savings and investment that leads to the promotion of the sector.

Activity 2.3



- 1 Refer to the 'Agrarian Reform in Ethiopia' by Desalegn Rhamento and two other materials related to the status of Ethiopian agriculture, and then give reasons why the agricultural sector has not been active enough to promote the country's development. For this task, your teacher will help the class to form two or three groups in the classroom. One of the groups will collect the source information, and the other group will produce the reasons or facts.

- 2 How many of you (in the class):
- a fully depend on the income generated from agriculture?
 - b experience and understand positive changes in your families' income from year to year?

2.4.2 Source of Capital

Although the agricultural sector provides meagre surpluses of savings and taxes to support investment, the transference of surplus from the agricultural sector to other sectors is made through the following three modalities:

- *tax;*
- *defining the terms of trade to protect domestic agriculture by imposing price controls on agricultural products, and*
- *compulsory delivery of agriculture commodities at very fixed prices.*

The question is how much surplus should be transferred. In this regard, two opposing views can be discussed. One is that agriculture does not require large amounts of capital for its expansion. The other view is that the investment requirements for agricultural transformation are so large that there may be a need for a net flow of capital from non-agriculture to agriculture.

The Derge regime removed a great deal of surplus from the agricultural sector to supply both the urban consumers and its huge army with cheap foodstuffs. However, this surplus was used ineffectively. This indicates that the potential of the agricultural sector to produce surplus that could be transferable to the other sectors could be high.

2.4.3 Contribution to Gross Domestic Product

Over the last four decades, the share of agriculture and allied sectors (fisheries and forestry) to the national GDP has been declining. The percentage share declined from 76 percent in the early 1960s to 45 percent in 2003/04. Consequently, it has been the major source of fluctuations in the Ethiopian economy.

Table 2.1 The Performance of the Agricultural sector and its contribution to GDP

Years	Share of agriculture and allied sectors to the GDP in percentage
1960/61	76
1970/71	68
1980/81	52
1999/00	43.6
2000/01	45.1
2001/02	43.2
2002/03	39.4
2003/04	45.1

Note:

From Table 2.1, we see a decrease in the performance of the agricultural sector and of its contribution to the country's GDP. This could be attributed mainly due to

- ➔ the frequently appearing drought
- ➔ the agricultural percentage share has been taken by the service sector
- ➔ the increasing prices of agricultural inputs

Source: Computed based on data obtained from NBE 2001/02.

In general, available data reveal that Ethiopian agriculture generates only a meagre amount of surplus and contributes much less than expected.

2.4.4 Contribution to Employment

More than 80% of the Ethiopian population earn their livelihood from agriculture (crop cultivation and livestock rearing activities). High population growth and low urbanization have been an increasing major challenge to this sector that it could not absorb the growing surplus labour force. Neglect or less attention to urbanization and non-farm sector development has put the farm sector under a growing pressure. Nevertheless, it supports a large percentage of the labour force.

In the face of the increasing scarcity of other resources, particularly agricultural land, measures should be taken to improve labour productivity in the agriculture sector.

Activity 2.4



Your teacher will ask a certain number of students to voluntarily come to the front of the class and draw a flow chart that shows the various roles played by the agricultural sector.

The remaining students should ask questions. The teacher shall help the students who produce the explanation. Finally, a consensus has to be reached regarding the existing status of agriculture in providing the expected contribution.

2.5 STRUCTURE OF THE AGRICULTURAL SECTOR

At the end of this section, you will be able to:

- ❑ examine the structure of the agricultural sector of Ethiopia, and
- ❑ identify and explain the major agricultural production systems.

Key Terms and Concepts

- 🔑 Household size
- 🔑 Smallholder

- 🔑 Price incentive

Start-up Activity

How many types of farming system are dominant in Ethiopia? How do you characterize them?

The agricultural sector of Ethiopia is composed of the *crop-production, livestock, forestry, and fishery sub-sectors*. About 65% of the sector's GDP comes from crop-production, while animal husbandry contributes 25%. The remaining 10% is generated from the allied sectors, forestry, fishing and others.

The national 2001/2002 Sample Agricultural Figures provides some data on the major *agricultural production system*. The report has identified three categories of farms

2.5.1 Farming Systems in Ethiopia

Currently, the following farming systems are widely practiced in Ethiopia.

- ★ The smallholder farming system,
- ★ The pastoral/nomadic system, and
- ★ The modern commercial farming system.

i *The Smallholder Farming System*

It is the most important or dominant system. It accounts for more than 90 percent of the agricultural production and for about 95 percent of the total area under crop production. It is characterized by mixed farming.

The total number of households in this category were estimated to be about 10.58 million heads. The average household size stood at around 5 members per household.

Over 86 percent of this community cultivates farmlands with areas less than 2 hectare each.



Figure 2.1: Ensete Farm (a smallholder farm in the Guraghe zone, SNNPR).

Table 2.2 The distribution of landholding size of smallholder households

Landholding size	% of agricultural house-holds	Cumulative % of agricultural households
< 0.10 Ha	7.2	7.2
0.10 – 0.5 Ha	28.6	35.8
0.51 – 1.00 Ha	25.8	61.6
1.01 – 2.00 Ha	24.8	86.4
2.01 – 5.00 Ha	12.5	98.9
– 10.00 Ha	1	99.9
> 10.00 Ha	0.1	100

Source: *Girma, 2006.*

Based on [Table 2.2](#)

- 86.4 percent of agricultural households own land with areas of two hectares or less.
- only 12 percent of agricultural house-holds own farmland with areas of 2.01 and above hectares.
- 1 percent or fewer house holds own farm land with areas greater than 10 hectares.

ii Pastoral Farming System

About 40% of Ethiopia's land area is in the arid and semi-arid zones and is located in the lowlands, below 1,500 m. There rainfed crop production is not possible because of low-level erratic rainfall, and people rely more on livestock

for subsistence. The lowlands are home to about 20% of Ethiopia's cattle, 25% of the sheep, and 73% of the goats, plus about one million camel. These animals support some 5.5 million people.

In addition to feeding this population, the livestock in the range lands account for a major portion of the country's exports of live animals, in particular of cattle. Surplus sheep and goats sourced from the rangelands represent about 19% of the domestic supply.

Ethiopia's range lands are also important for wildlife. The main areas of wildlife concentration are in the southwestern part of the country, particularly in the Omo River basin and the Gambella region. In these areas, which have a high rainfall and fertile soils, tsetse infestation has greatly suppressed agricultural and pastoral activities. Although less abundant, wildlife also exists in the eastern part of the country, particularly in the Awash Valley and in the southern rangelands. The conservation and development of these resources are carried out through the development of national parks, wildlife sanctuaries, and reserves. In addition, 14 controlled areas have been established, of which the largest is the Borena controlled hunting area.

There is not much documented information about this system of farming. Most of the people are nomadic, moving seasonally, together with their livestock, from one place to another in search of pasture and water. Some studies have been undertaken about the pastoralists roaming in the Awash Valley, in connection with the development of medium-to large-scale irrigation schemes there.

Livestock production is much greater than crop production in the pastoral nomadic system. General and empirical observations suggest that this system is characterized by chronic food shortages. Thus, agricultural products and productivity are extremely low. With the possible exception of livestock vaccination, there is virtually nothing that the government (or any other, non-governmental organization) has provided for long in terms of assistance or support to the pastoral-nomadic system. However, these days, the sub-sector has been the focus of serious concern through the expansion of extension service.

iii Commercial Farming System

Commercial farming system was officially introduced during the third five-year plan (1968 – 73) of the Imperial Government of Ethiopia. Among the strategies

envisaged to modernize agriculture and increase marketable surplus, the plan stated that available government land would be utilised for the establishment of large commercial farms. As a result, many entrepreneurs rented and developed commercial farms in the Awash Valley, the Rift Valley and other areas. After the 1974 revolution, all these farms were confiscated by the government. Additional government lands in many parts of the country were also developed into large-scale state farms. These were organized into enterprises which in turn were grouped under corporations, according to their locations and output specialization. A separate ministry, the Ministry of State Farms Development was set up to manage and expand state farms. Also another separate ministry, the Ministry of Coffee and Tea Development, was established.

The state farm enterprise introduced intensive farming and extensive mechanised agriculture. The former was based on irrigation, while the latter was marked by rainfed agriculture, with or without the use of fertilizers and other chemicals. It is based on bringing unused land, into cultivation a predominant feature of modern agriculture in Ethiopia prior to 1974.



Figure 2.2: Commercial Farming

State farms have been the most pampered of all production systems in Ethiopia. There had been no limit for these farms in terms of receiving land, agricultural inputs, credits, price incentives and marketing facilities. Despite all these advantages, they were unproductive and inefficient. The major characteristics of many of them were mismanagement, abuse of assets, corruption, etc. It must be noted that some of these farms were developed without adequate studies, resulting in huge financial losses. In fact, most of the state farms were run on government financial resources.

This system, comprising about 5% of the total cropland area, together with co-operatives, accounted for less than 10% of total agricultural production.

The efficiency of state farms is extremely low, relative to the high expenditure made in establishing and operating them. The major crops grown in these farms include cotton, coffee, tea, sugarcane, fruits and vegetables.

The size and role of state farms declined after 1992 when the new government granted some of the state farms to nearby farmers and investors. At present, there are only 13 state farms. They produce mainly wheat, maize, cotton, coffee, and tea on 156,040 hectares of land.

Under the current economic policy attempted have been made establish commercial farms. Out of the total investment permits issued between 1992/93 and 1997/98, 1148 or 26.8% of them were in agriculture. However, only 508 projects became operational.

With the advent of market economy, the Federal Government has recognized the decisive role that private capital can play in the expansion and development of large-scale modern farming in order to enhance the supply of food and raw materials and to create employment opportunities. As a result, the role of state farms is expected to fall significantly. The state may operate those state farms that are strategic to the economy, jointly with domestic or foreign private capital. In order to encourage domestic and foreign private capital, without any capital limitation, the government is committed to creating an enabling environment.

Activity 2.5



Identify the dominant farming system in your area. Are there commercial farms? If yes, please write down their basic characteristics. If not, give your opinion.

2.6 SPECIFIC POLICIES AND STRATEGIES OF THE AGRICULTURAL SECTOR SINCE 1960S

At the end of this section, you will be able to:

- examine the specific policies and strategies of the agricultural sector that existed during the different regimes.

Key Terms and Concepts

- 🔑 Package projects
- 🔑 Fiscal
- 🔑 Green-revolution
- 🔑 Market forces

Start-up Activity

- 1 Does Ethiopia have a long history in practicing specific policies and strategies in the agricultural sector?
- 2 Have the policies and strategies adopted hit their targets?

Although Ethiopia does not have a long history of adopting economic policies, attempts begun in the 1960s in the form of five-year development plans. Starting from then, both sectoral as well as national development plans have been launched with varying priorities and institutional frameworks.

2.6.1 PRE-1974 AGRICULTURAL POLICIES AND STRATEGIES

There were two policy paths for the development of the agricultural sector in the late 1960s. They were large-scale mechanized commercial farms and the establishment of package projects to assist the sector in diffusing agricultural innovations.

A *Large-Scale Mechanized Commercial Farm*

The main objective of this path was to facilitate agricultural exports and to create new employment opportunities.

As the name implies, LSMCF (Large Scale Mechanised Commercial Farm) requires bringing extensive areas of land under cultivation with the use of modern agricultural inputs such as modern technology, machinery, equipment (tractors and combines), chemical fertilizers and hired labour, in contrast to the family labour used in the small-holder farming system.

The government took some fiscal measures to encourage the expansion of these farms in the country. Among the resulting policy measures were credit arrangements, tax holidays for the first five years for investments in excess

of 200,000 Birr, low land use fees, tax-free import of heavy machinery, and possibilities of remitting profits to investor countries of origin. As a result, some foreign-owned profitable plantations developed. They mostly produced food and fiber. However, these results were too small to achieve the given incentives. They accounted for almost 5% of the total agricultural output and 3% of the total area cultivated. The 1974 popular uprising led to the nationalization of these farms and their conversion into state farms in 1975.

B *Establishment and Development of Package Projects*

The package approach was successful in improving the productivity of farmers in Mexico, India, Bangladesh, Israel, etc.

The basic objective of donors and the government in initiating the package project in Ethiopia was to repeat the success of the Green Revolution of India in Ethiopia. The Green Revolution was a type of agrarian revolution characterized by the large-scale use of improved and high yield variety (HYV) seeds and other inputs.

There were two types of package projects: *comprehensive package projects* and *minimum package projects*.

Comprehensive Package Projects

These are package projects include integrated rural development. They were designed to supply important inputs such as chemicals, fertilizers, improved seeds, improved farm tools, credits, pesticides, and know-how. These inputs were for the purposes of:

- *raising the living standard of the poor peasants by raising per-capita income;*
- *creating employment opportunities by encouraging labour-intensive technology;*
- *encouraging peasant participation in the development process to solve problems;*
- *expanding experimental stations for propagating new ideas in agricultural technology and providing improved farm tools.*

The criteria for selecting areas for such a package were the availability of adequate rainfall, good weather conditions, fertility of soil, the possibility that

the areas are conducive for further expansion, etc. Accordingly, the Chilalo Agricultural Development Unit (CADU), the Welayita Agricultural Development Unit (WADU), and the Adaa District Development Package Project (ADDP) were established. These projects were sponsored by the Swedish International Development Agency (SIDA) and the United States Agency for International Development (USAID).

Some achievements were observed in the project areas. For example, income of participating farmers increased by Birr 340 per year, productivity in crops and livestock increased significantly, and the adoption of modern inputs expanded in the project areas. But there were also some adverse effects, such as an increase in the eviction of tenants. For example, in 1969 and 1970, over 500 tenant farmers were evicted from CADU. This means that the number of landless people increased. The other problem associated with these projects was their huge cost. At the start of the project, the cost per beneficiary farmer was Birr 15,000. Because of these problems, the comprehensive package project was too difficult to be duplicated in other areas of the country. Therefore, a relatively less costly package programme, known as the minimum package programme, was launched, substituting for the comprehensive package projects which covered larger areas.

Minimum Package Projects (MPP)

These projects were designed in order to raise production and income of smallholders quickly over a wide area with a minimum reliance on scarce resources. These projects involved the diffusion of a few proven imports of agriculture such as chemical fertilizer, improved seeds, and farm implements.

The first minimum package project was established in 1971. It was hoped that these would be duplicated at a rate of 10 projects every year to cover all rural areas. But, as with the comprehensive package projects, the benefits were poorly distributed in favour of landowners and large cultivators, and the eviction of tenants was still a problem in some areas.

The second phase, MPP II, launched in the first half of the 1980s, continued well through the Military Regime. However, the over ambitious objectives attached to the projects and the relatively small amount of resources allocated made the projects unsuccessful. The projects largely concentrated on the cooptivization process.

2.6.2 Agricultural Policies and Strategies During the Derg

The uprising in 1974 led to the overthrow of the Imperial regime and to changing the official national ideology to socialist principles. This was followed by overall shifts in the economic policies of the country. State control of the economy was overextended. There were no circumstances in which private-sector participation in economic activity was encouraged. The new policy paradigm was manifested in the different sectors of the economy.

The comprehensive and the minimum package projects launched during the Imperial regime continued in the Derg period. CADU was transformed into Arssi Rural Development Unit (ARDU) and then to Bale-Arssi Rural Development Unit (BARDU), which resulted in the thinning of resources over wide areas. Finally, all these projects were transformed into Peasant Agricultural Development Extension Projects (PADEP) which were organized along pluralist principles. Some of the objectives of PADEP included decentralization of the activities of the Ministry of Agriculture.

These objectives resulted in the formulation of eight PADEP zones, each with its own plan, budget, administration, and research activities, but by 1988, PADEP came to an end due to shortage of funds and changes in administrative structure. The financing of PADEP was expected from international development agencies like the World Bank, SIDA and International Fund for Agriculture, upon conditions which would be fulfilled by the government of Ethiopia, such as the adoption of liberalization programmes. Research and feasibility studies were conducted by foreign experts especially by the World Bank.

The government also organized the small holders along socialist lines for the purpose of the collective production and marketing of agricultural output and distribution of inputs. There were three types of associations, namely peasant associations, service cooperatives, and producers' cooperatives. By 1989 most peasant households were organized into 17,000 peasant associations, 3,700 service cooperatives, and 3,300 producers' cooperatives. But these associations could not help the farmers due to various problems, such as their inability to make decisions in their own affairs and the emphasis given to politics at the expense of everything else. These facts led to poor leadership and the embezzlement of funds.

In general, the agricultural sector policies of the military government were characterized by the following:

- *Nationalization of all private and commercial farms*
- *Prohibition of private investment in the agricultural sector*
- *Involuntary collectivisation of peasants into peasant associations, and into producers' and service cooperatives*
- *Forced villagization and settlements*
- *Government control of virtually all agricultural input and output markets*
- *Forced food-grain quota deliveries at predetermined low prices*
- *Restriction of the movement of agricultural outputs from one part of the country to another.*

These ill-conceived government interventions were the primary reasons for the lack of success in the development of the agricultural sector, in particular, and the national economy, in general.

2.6.3 Post-1991 Agricultural Policies and Strategies

The Transitional Government of Ethiopia adopted a new economic policy in 1991, with a general objective of replacing the command economy with an economic system driven by market forces. Some of the changes observed in the agricultural sector include:

- *dissolution of producers' and service cooperatives;*
- *encouragement of smallholders and private commercial farms;*
- *termination of public investment in state farms; and*
- *abolition of compulsory food-grain quotas and restoration of freedom of market.*

The government also adopted Agricultural Development-Led Industrialization (ADLI) in 1993, which revolved around enhancing the productivity of smallholder agriculture and industrialization based on the utilization of domestic raw materials via adopting labour-intensive technology.

The essence of this strategy rests on the belief that the agricultural sector can serve as the driving force for the rest of the economy. This means that the strategy

aims at better use of the massive agricultural labour force in rural areas. It has internal forward and backward linkages with the industrial sector. This strategy has been adopted by the government to fit in the Ethiopian context.

These linkages can be explained as follows:

- *Agriculture will provide the domestic food requirement, supply industrial inputs, and provide commodities for export.*
- *Development of agriculture expands the market for domestically produced goods as a result of increased farmer incomes.*

The development of the agricultural sector is said to be achieved through the improvement in the productivity of smallholdings and the expansion of large-scale private commercial farms. The smallholder farmers are the major source of stable food production for the national food supply. Food security could be achieved through promoting smallholder development in a sustainable manner. In order to do this, special emphasis is given to raising production and the productivity of farmers. In this regard, policies focused on designing incentive packages, such as access to fertile land, provision of inputs, credit and tax incentives; improving budgetary allocations; developing human resources; and improving the infrastructure and logistical support.

Agricultural extension services are the basis for raising the productivity of the smallholder farmers, who are the participants at the grass-roots level. Thus, a new system of agricultural extension activities, named “Participatory, Demonstration and Training Extension System” (PADETES), was formulated. The system is based on demonstrating to and training farmers in proven technologies in line with the philosophy of bottom-up development approaches. This strategy gives special emphasis to human resource development along with efforts to transfer appropriate technologies that are suitable to conditions in rural areas. Human resource development in this context implies improving the status of agricultural labour by upgrading skills by way of investments in health, education and appropriate training.

The implementation of this strategy involves a package approach geared towards different agro-ecological zones: areas with reliable moisture and nomadic pastorals. According to some appraisals, the strategy is effective: in the reliable moisture areas, the results achieved in 1994 and 1995 included high output and yield such appraisals help to justify the possibility of overcoming chronic food shortages in a relatively short time if the strategy is implemented on a wider scope.

At the program level, ADLI consists of the following:

- i One of the basic goals of the program is ensuring **accelerated economic growth** through a rural-centred development program strategy which mainly focuses on the development of the agricultural sector's output using "a package programme" through:
 - *the distribution of improved seeds, fertilizer, and pesticides to farmers;*
 - *the provision of credit and improved extension services;*
 - *the construction of small-scale irrigation schemes;*
 - *the development of livestock resources through an improved feed base, improved veterinary services, better use of improved breeding, and improved livestock products;*
 - *conservation and rehabilitation of natural resources;*
 - *implementing a favourable land-use policy;*
 - *establishing agricultural marketing services;*
 - *encouraging private sector development;*
 - *expanding the economic and social infrastructure; and*
 - *establishing peasant associations and service cooperatives.*
- ii Ensuring accelerated economic growth to improve the living standards of urban dwellers through:
 - *rapid changes in urban dwellers' living condition;*
 - *supporting indigenous investors; and*
 - *the development of urban infrastructure.*
- iii The programme also targets adopting an effective education strategy which:
 - *spells out the efficiencies of the existing educational curricula;*
 - *suggests measures to increase the quality of the existing educational curricula;*
 - *ensures the fairness of the curricula;*
 - *takes appropriate measures necessary for the expansion of vocational education;*
 - *encourages the participation of the community, NGOs, and private investors to improve the standard of education; and*
 - *improves educational administration.*

iv The preventive and primary health care strategy of the programme is aimed at:

- *the identification of health service problems in Ethiopia;*
- *the expansion of preventive and primary health care services;*
- *improving the supply of basic medicine; and*
- *encouraging private entrepreneurs to participate in rendering health services.*

In general, ADLI aims at improving the productivity and production of smallholders by improving both allocative and technical efficiency.

At local levels, efficiency will be improved by using existing resources of land, labour, and capital in a better way through improved agronomic practices. But the technical efficiency of smallholding farmers will be improved by increasing their resources, essentially capital, to introduce improved technology, be it biological, chemical, or mechanical.

Activity 2.6



Compare and contrast the agricultural policies and strategies adopted by Derg and EPRDF.

2.7 THE PERFORMANCE OF THE AGRICULTURAL SECTOR

At the end of this section, you will be able to:

- examine the performance of the agricultural sector in terms of crop production and livestock production.

It is apparent that agriculture is the mainstay of the Ethiopian economy. But its performance is not strong. Can you guess why this is the case?

In earlier discussions, we said that agriculture is the dominant sector in the Ethiopian economy, accounting for about 45% of the GDP and employing close to 85% of the labour force. It is also the major source of foreign currency for the country. However, the performance of the sector has been unsatisfactory relative to the rapidly growing population. During the period of the Derg, especially from the years 1980/81 to 1990/91, the growth rate of the value added in agriculture and allied activities averaged a mere 1% per annum. Crop production and livestock

rearing, forestry, and fishing exhibited annual average growth rates of 0.8, 2.6 and 4.6 percent, respectively, for the period. Besides population growth was about 2.9% per annum over the same period per capita agricultural value added increased at only a little less than 2% per annum. The sector did not register any significant improvements after the reform period. Between 1993/94 and 1999/2000, the average annual growth rate of value added in agriculture was only 1.8% while that of population growth was 2.9%. This value indicates the level to which the productivity of the agriculture sector is incompatible with population growth.

The economic policy and strategy reforms of the 1990s positively influenced the performance of Ethiopian agriculture. Total production of food crops increased. However, the drought of 2002/03 weakened the capacity to produce food. In some parts of the country where agriculture has performed relatively better, drought has forced people to depend on food aid.

2.7.1 Crop Production Sub-sector

This sub-sector involves the production of food crops and cash crops. About 97 percent of the food crops is produced by smallholders.

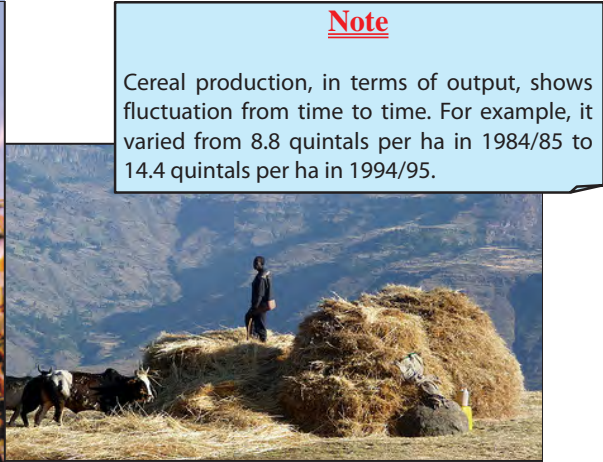
A Food crops

The food crops include grains, root and tuber crops, pulses and oil seeds. They are almost rain fed. Among the food crops, cereals are the most dominant in terms of areal coverage and total output.

Table 2.3 Area coverage, total production and yield per hectare for five major food crops for the period 1980/81 – 1999/2000

Year	Yield (Q./Ha)	Quintal ('000)	Area ('000Ha)	Yield (Q./Ha)	Quintal ('000)	Area ('000Ha)	Yield (Q./Ha)	Quintal ('000)	Area ('000Ha)	Yield (Q./Ha)	Quintal ('000)	Area ('000Ha)	Yield (Q./Ha)	Quintal ('000)	Area ('000Ha)
1980/81	14.5	11,337.0	1,385.0	9.6	9810.5	743.2	13.2	5105.5	462.2	11.0	8304.7	671.1	12.3	14,194.1	973.3
1984/85	8.7	9,057.1	13,334.8	6.7	7721.9	741.4	10.4	5850.4	592.1	9.8	9598.8	847.7	11.3	5058.1	754.4
1988/89	13.8	1,287.4	1,367.6	8.8	7415.3	648.8	11.4	6884.1	561.3	12.2	1455.07	7888.8	18.4	8423.5	607.5
1992/93	14.8	14,007.1	1395.7	10.0	8090.5	612.9	13.1	8860.3	55.2	15.9	14,374.7	775.8	18.5	6456.8	435.1
1996/97	14.3	20,018.9	2167.7	9.2	7423.8	697.6	10.6	10,015.4	772.2	12.9	25,320.0	1316.8	19.2	20,073.4	1399.9
1997/98	11.0	13,287.8	1807.1	7.4	9827.2	897.2	11.0	11,472	831.8	15.9	23,443	1448.9	16.2	10,832.7	981.8
1998/99	12.4	16,422.9	2091.3	7.9	7685.9	830.2	9.3	1113	987.1	12.9	24,166	1303.1	18.6	13,208.4	1042.4
1999/00	11.9	17,175.6	2123.5	8.1	7419.3	794.1	9.3	12,126	1025	13.7	25,254	1407.3	17.9	11,811	995.4
Average 74/75-90/91	11.9	11,694.7	1382.4	8.4	9343.2	832.9	11.3	6540.9	595.1	11.5	13,437.1	888.9	15.0	9608.5	791.9
Average 91/92-99/00	11.2	15,764.7	1825.6	8.7	8826.2	850.5	10.4	9697.1	798.7	12.5	21,025.9	1354	15.6	11,128.3	924.7
Average 80/81-96/97	13.2	12,925.5	1467.4	8.9	8407.2	717.5	11.8	7504.8	615.2	12.2	14,754.9	878.2	16.6	10,488.0	793.2

Source: EEA (Ethiopian Economic Association) 1999 and 2002

**Note**

Cereal production, in terms of output, shows fluctuation from time to time. For example, it varied from 8.8 quintals per ha in 1984/85 to 14.4 quintals per ha in 1994/95.

Figure 2.3: Benefits of extension service

Activity 2.7



Make a field trip around your area and by consulting the extension worker identify the major food crops cultivated in terms of:

- a** Total output **b** Coverage **c** Output per hectare

B Cash crops

Cash crops are produced for the market in order to generate income. Ethiopian cash crops include coffee, chat, cotton, tea, cut flowers, etc. The three most important cash crops are coffee, chat and sugarcane. These days, the production of cut flowers is gaining importance.

Coffee, chat and sugarcane were cultivated by about 1.5 million, 0.5 million, and 2.1 million farmers, respectively, in 2001/02. The average holding size was 0.062 ha per holder for chat, 0.021 ha per holder for sugarcane and 0.12 ha for coffee.

Table 2.4 Land allocation and management practices of the three major cash crops in the peasant sector

Cash crops	Number of holders	Total area (ha)	Per holder (Ha)	% of land under improved crop management			
				Improved seeds	Irrigation	Fertilizer	Pesticide
Chat	1,545,861	96,066	0.062	NA	11.27	42.25	4.34
Sugarcane	556,310	11,775	0.021	0.25	27.10	28.75	0.63
Coffee	21,209.24	246,033	0.12	4.4	2.17	16.46	0.72

Source: CSA (2003 NA: Not Available).

The data shows that

- Chat producers apply more fertilizers and 11 percent of land is irrigated
- 29 percent of land under sugarcane cultivation is fertilized, while 27 percent of the land is irrigated
- Only 4.4% of the land under coffee cultivation is planted with improved varieties, while 2.2 percent is irrigated.

C Fruits, vegetables and flowers

Ethiopia's agro-climatic conditions make it suitable for the production of a broad range of fruits and vegetables. Cut flower and vegetable production have been fast-growing export businesses in recent times.

Table 2.5 Landholding and crop management in vegetable and fruit production (the peasant sector)

Crops	Number of holders	Area		Percent of land under improved crop management practices			
		Total (Ha)	Per holder (Ha)	Improved seeds	Irrigation	Fertilizers	Pesticides
Lettuce	9,656	231	0.022	9.36	68.08	69.95	13.15
Head cabbage	38,755	965	0.025	6.42	54.51	59.07	12.44
Ethiopian cabbage (Kale)	1,439,965	24,398	0.017	0.23	1.87	56.70	1.48
Tomatoes	45,647	3,035	0.067	6.99	65.57	61.58	27.55
Green peppers	407,900	4,633	0.011	0.86	21.86	51.54	2.27
Swiss chard	21,260	158	0.007	12.66	28.48	46.84	
Others	558,106	9,662	0.017	0.12	0.91	44.86	0.38
All vegetables	3,046,339	98,262	0.032	0.54	6.51	51.05	2.91
Avocados	324,489	2,414	0.007	2.82	3.31	26.01	0.04
Bananas	1,327,486	21,268	0.016	0.45	17.34	25.38	0.09
Guavas	140,261	1,224	0.008	7.68	24.35	33.99	0.41
Lemons	111,884	749	0.007	0.80	26.30	25.63	0.27
Mangos	298,303	3,642	0.012	1.57	8.15	30.48	-
Oranges	309,219	2,402	0.008	1.17	18.11	34.47	1.00
Papayas	404,188	2,713	0.007	2.80	17.25	29.19	-
Pineapples	10,974	171	0.016	-	-	4.68	-
Others	255,007	5,494	0.022	0.51	7.35	22.59	-
All fruits	2,110,342	40,076	0.019	1.13	14.63	26.49	0.41

Source: CSA (2003). *Ethiopian agricultural Sample Enumeration, 2001/02*. Addis Ababa. All data are for the peasant sector. NA = not available.

Table 2.5 shows that 3.1 million farmers cultivated different kinds of vegetables on about 98.2 thousand hectares of land. Out of this, 0.5, 6.5, 51.1, and 2.9 percent were planted with improved varieties, irrigated treated with organic and inorganic

fertilizers, and treated with pesticides, respectively. The average landholding size was about 0.03 ha. Red peppers and Ethiopian cabbage occupy about 56.2 and 24.8 percent of the total area under vegetable crops, respectively.

Similarly, 2.1 million farmers cultivated different kinds of fruits on about 40 thousand hectares of land. Out of this, 1.13, 14.63, 26.5, and 0.41 percent were planted improved varieties, irrigated treated with organic and inorganic fertilizers, and treated with pesticides, respectively. The average landholding size was about 0.019 ha.

Vegetables and fruits are not only important for domestic consumption, they also generate some foreign earnings. The major trade partner for Ethiopia's fruits and vegetables is Djibouti.

D Floriculture

In recent years, both local and foreign investors are showing a growing interest in the production of cut flowers due to the high demands for fresh cut flowers in European markets, especially in the Netherlands. In 2001/02, 10 tons of flowers were exported. Following government support, in terms of providing suitable land, finance and other incentives, this sub-sector is growing rapidly.

Activity 2.8



- 1 Visit the periodic markets or the open markets functioning in your area. Before the visit, make a check-list and use it to:
 - a Identify the types of cash crops, fruits and vegetables frequently available.
 - b Identify whether most of the sellers are the direct producers or traders.
- 2 List the crops by rank, based on:
 - a Their significance in generating income to the sellers.
 - b Their availability — that is, are they available all year round or not?

2.7.2 Livestock Production

It is often reported that Ethiopia possesses the largest livestock population in Africa. Ethiopia maintains a mix of livestock species, depending on the products and services needed from the livestock.



Figure 2.4: Livestock

Performance of the Sub-sector

Livestock resources in Ethiopia means many things. It is a source of food, draft power, fuel, cash reserves, and pride. The output of this sub-sector can be divided into food, and non-food items. The food items comprise meat and meat products, milk and milk products, eggs, honey, etc. The non-food items include draft power, hides and skins, bees-wax, manure, transport facilities, etc.

The livestock sub-sector contributed 23.4%, to agricultural exports and 10% to total exports, respectively, in 1987/88. However, the trend in the following years was a decline. The reason for the decline was the rise of cash crop exports. Almost 96% of the livestock exports was accounted for by hides and skins in the same year.

Apart from hides and skins, meat production occupies a significant position. It consists of beef, mutton, chicken, goat, and camel meat. From 1980/81 - 1996/97, it increased by 0.9%. Beef, mutton and goat meat accounted for 61.3%, 20.5% and 17.4%, respectively, of the over all meat production in 1980/81. The per capita meat production was 7.5 kg per head per annum in 1996/97, which was insignificant compared to world standards.

Similarly the standard of milk production per head per annum was very low in the same year, accounting for 22 litres per head per annum. The largest share of milk production came from cows, followed by milk obtained from goats.

Activity 2.9



Ethiopia possesses the largest portion of Africa's livestock population. But the country's annual output in terms of livestock products is very low, relative to world standards. Give your opinion the reason for this paradox.

2.7.3 Fisheries

Ethiopia has large potential fishery resources in the country's bodies of water: lakes, reservoirs, rivers, and others. The lakes and rivers support a wide variety of aquatic life, including more than 100 fish species, of which 40 are endemic to Ethiopia.

Table 2.7 Ethiopia's bodies of water and their fisheries

Bodies of water	Area (km ²)	Potential (ton/year)	Actual catch (ton) in 2001	Off take (in %)
Major lakes	6477	23342	10598	45
Major reservoirs and dams	857	4399	1366	31
Smaller bodies of water	275	1952	303	16
Rivers	7185	21788	3121	14
Total	14794	51481	15389	30

Source: FAO, 2003.

According to [Table 2.7](#), the major lakes account for 45%, while small rivers account for the least (14%) of the fish production in Ethiopia. Although hundreds of local fish species have been identified in Ethiopian bodies of water, the bulk of production is of tilapia, lates, Nile perch, etc. It is estimated that this sub-sector provides a means of livelihood for more than 20,000 people.

Activity 2.10



Write a brief report on why Ethiopian fisheries are not strong when compared to their estimated potential. Then discuss the reports produced.

2.8 PROBLEMS OF AND POSSIBLE REMEDIES FOR THE AGRICULTURAL SECTOR

At the end of this section, you will be able to:

- assess the problems of the agricultural sector; and
- identify possible remedies.

Think of the various agricultural policies and strategies adopted, such as package programs and extension services. To what extent did they transform the agricultural sector? Has the country achieved self-sufficiency in food production?

It has become an every-day saying that agriculture has been the mainstay of the Ethiopian economy for decades. However, its performance in achieving food security and generating capital for the other sectors is poor. This situation has attracted the concern of policy makers, experts, and international organizations, who hope to change the situation. *Why is this so? What are the problems? What are some possible remedies?*

2.8.1 Problems

According to the studies made so far, the sector's problems identified fall into two major categories:

- i **Natural problems – Unpredictable Weather Conditions** - These problems relate to recurrent drought and its negative effects. Almost all the farming and livestock practices in the highlands of Ethiopia depend on rainfall. The variability of rainfall in time and amount affects the country's crop production and live-stock rearing; millions of cattle have died of the hazard. For instance, the drought that occurred in 1972/73 victimized 100,000 people and their cattle. This disaster has continued up to now with more than thirty-and forty-fold victims. If the situation is not checked, the number of victims will increase in unimaginable ways.
- ii **Human-Made Problems** - These are negative effects that result from the social and economic practices.
 - **Land fragmentation:** *In a country like Ethiopia, where the majority of the people's livelihood is attached to land, entitlement to land possession, land size, and land utilization are core. In rural Ethiopia, where the average landholding size is shrinking over time, land fragmentation and over-cultivation are inevitable. This decreases the productivity of the farm plots, in turn effecting food insecurity at a national level and causing the migration of rural people into urban environments.*
 - **Lack of infrastructure:** *poor infrastructure facilities is a the major problem in the agricultural sector. Transportation and communication facilities are poorly developed in rural Ethiopia. About 75% of rural household farms are located far away from transportation and communication*

lines, and this that prevents farmers from accessing proper markets and information about prices for their products.

- *Lack of credit facilities: A serious problem that the Ethiopian small-landholders face is the absence of microfinance institutions to provide the farmers with credit facilities to overcome shortages of money for buying improved seeds, fertilizers and storage facilities. For decades, lack of this facility subjected the farms to the mercy of man-made and natural problems. This prevented farmers from using even the meagre resources available at hand. Now, however, reforms have created accesses to micro-finance loans, opening the gate to increasing small holder productively.*
- *Lack of effective land-ownership entitlement: Effective land-ownership entitlement is important for long-term, sustainable agricultural development. Without it we have poor work attitudes, the improper use of common resources, and poor output.*
- *Erosion and land degradation: Although Ethiopia's rugged highlands naturally produce erosion and degradation, the magnitude of the process is accelerated by human activities. When the population of the country increased rapidly after the 1950s and 1960s, the need for more farmland greatly increased. These practices have exacerbated the rate of erosion and degradation which in turn, contribute to the recurrence of drought. Without preventative measures; this situation will accelerate in the near future, putting millions of hectares out of use.*
- *Traditional practices: These are rural practices that result in misusing work time, unproductive consumption and retaining resources especially livestock resources unscientifically, resulting in very low output per ox, sheep, goat, etc.*
- *The use of backward technology.*
- *Inadequate rural markets.*

2.8.2 Remedies

Possible Remedies: to reduce or mitigate the problems affecting the agricultural sector of Ethiopia, the following possible remedies are proposed.

- i Reduce the prevailing heavy dependence on rain-fed agricultural practices by:
 - *promoting the use of local streams and lakes for irrigation purposes of various scales.*
 - *promoting and expanding the storage of rain water in shade to reduce the rate of evaporation and to enable people to store water for longer periods of time.*

- *expanding the number of afforestation and reforestation schemes through a structured and financed agency or office.*
- ii Production of drought-resistant crops in drought-prone areas so that the recurrence of acute shortages of food will be minimized.
- iii Pursue an effective land-ownership right so that the farmers will develop long-term developmental commitments.
- iv Promotion of extension services supported with consistent capacity-building tasks.
- v Promote committed literacy campaigns to help farmers understand price and farm-technique information.
- vi Promote infrastructure facilities as per their availability.
- vii Inclusion of the issue in school curricula.

Activity 2.11



- 1 Your teacher will organize a field visit to nearby farming areas perhaps having different groups of students visit farmers in different areas.
 - a Check whether the farmers practice crop agriculture only or mixed agriculture (crop-production and livestock keeping).
 - b Then prepare a checklist containing the items listed below and interview three or four farmers and record their responses.

Content Check 2.1



- 1 What are the contributions of live stock production to the country's economy?
- 2 What are the major human - made problems that affected the development of agriculture in Ethiopia?
- 3 Suggest four possible remedies for the problems.
- 4 State the major frequently occurring nature - made problems that affected the development of agriculture in Ethiopia.

UNIT REVIEW

UNIT SUMMARY

- ❑ The agricultural sector is the mainstay of the Ethiopian population, in which more than 85 percent of the people work. It also plays an important role in the development of the national economy, for example in:
 - *supplying food for both the rural and urban population.*
 - *providing raw materials for domestic manufacturing.*
 - *supplying foreign earnings.*
 - *suppling employment opportunities.*
 - *contributing about 45 percent to the country's GDP.*
- ❑ Various strategies and policies have been adopted since the 1960s to transform the sector. These strategies, have used the uni-modal or bi-modal approaches, or both at the same time. However, food security at the national level has not been satisfactorily maintained.
- ❑ The existing government adopted a strategy of Agricultural Development-Led Industrialization (ADLI) to transform the agricultural sector and promote economic development. To effect this, different incentives are being offered to both domestic and foreign investors.
- ❑ Crop production is the first major sub-sector. It is largely engaged in the production of cereals, pulses, Oil seeds, and cash crops.
- ❑ Among the food crops, cereal production has the largest share in total output and areal coverage. Coffee exceeds all other cash crops in terms of value of export. However, these days chat is gaining strength, due to its relatively higher prices.
- ❑ The livestock production is also a significant source of. It produces 15.20%, of the country's foreign earnings. This sub-sector is victimized by the frequent droughts as much as crop production.
- ❑ The agricultural sector, though dominant, is facing problems that have deterred it from meeting national requirements. The problems are both social and natural. The social (human-made) problems are related to allocation of resources and decision-making, while the natural ones relate to recurring and unexpected weather conditions.
- ❑ Possible remedies have been suggested and implemented to overcome the problems.



REVIEW EXERCISE FOR UNIT 2

I *Tell whether each statement is True or False.*

- 1 Agricultural development is more important than industrial development.

- 2 The current developmental strategy adopted in Ethiopia is the Industrial Development-Led Agriculture Strategy (IDLA).
- 3 The uni-modal approach gives priority to the intensification of agricultural practices for smallholders.
- 4 The current approach to improving the agricultural sector is the bi-modal approach.
- 5 Cereal production ranks second, next to oil seed production, in terms of volume of output.
- 6 The European demand for the cut flowers of Ethiopia has little effect on the promotion of floriculture in Ethiopia.

II *Match the items in column A with those in column B.*

- | <u>A</u> | <u>B</u> |
|---------------------------------|--|
| 7 Comprehensive Package Program | A Cadu, Ardu, etc |
| 8 Djibouti | B Ethiopia's cut flowers trade partner |
| 9 The Netherlands | C Relatively drought resistant crop |
| 10 Inset | D Chat, coffee, and sugarcane |
| 11 Cash-crop | E Cereals and pulses |
| 12 Land fragmentation | F The diminishing size of per-capita landholding |
| | G Agricultural development approach |
| | H Ethiopia's vegetable trade partner |

III *Choose the best answer from the given alternatives.*

- 13 Which of the following is not one of agriculture's roles in the Ethiopian economy?
 - A Source of raw materials for non-agro-based industries
 - B Source of food supply
 - C Source of foreign currency earnings
 - D All of the above
- 14 One of the following is the dominant farming structural type in Ethiopia.
 - A The large-scale animal husbandry sub-sector
 - B State farms
 - C The smallholder farm system
 - D The collective farm system

- 15 All are natural problems that hinder agricultural development in Ethiopia except
- A rugged topography
 - B unpredictable weather changes
 - C rapid rate of deforestation
 - D A and B
- 16 The Agricultural Development Approach adopted by the Imperial Regime was
- A Un-imodal
 - B Bi-modal
- 17 The bi-modal approach pursues
- A the intensification of the smallholder farm system
 - B the promotion of large-scale farming
 - C the promotion of exportable agricultural products
 - D All of the above
- 18 Which one of the following practices does not discourage the transformation of the rural economy?
- A Inappropriate or incorrect pricing policy towards agricultural land property
 - B Inappropriate or incorrect entitlement of land property
 - C Increasing prices of agricultural inputs
 - D Credit offerings at lower interest rates
- 19 Ethiopia's largest share of export earnings is obtained from
- A Chat
 - B Coffee
 - C Live animals
 - D Cut flowers
- 20 The livestock sub-sector contributes to the country's GDP
- A 15 – 20 percent
 - B 25 – 30 percent
 - C 5 – 10 percent
 - D 50 – 60 percent

IV *Answer the following questions briefly.*

- 21 What is meant by “agriculture versus industrial development”?
- 22 What is meant by ADLI?
- 23 What is meant by the transformation of the agricultural sector?
- 24 What are the major problems responsible for the fluctuating performance of both crop production and livestock rearing?
- 25 Why did the pre-1974 bi-modal approach in the development of Ethiopian agriculture fail?
- 26 Which cash crop is gaining significance these days? Why?