

**GOVERNMENT OF THE FEDERAL DEMOCRATIC
REPUBLIC OF
ETHIOPIA**

**RURAL DEVELOPMENT POLICY AND
STRATEGIES**

Ministry of Finance and Economic Development
Economic Policy and Planning Department Addis Ababa
April, 2003

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Foreword

By all measures, Ethiopia is clearly at a low level of social and economic development. A large part of the economy is characterized by semi-subsistence agriculture with exceedingly low incomes and hand-to-mouth livelihoods. Agriculture, although the dominant sector of the economy,¹ is constrained by age-old production practices and structural problems. It has failed to provide moderate and sustained incomes for many who are engaged in the sector. Nor, has it provided a basis for the accelerated development of other sectors. Indeed, it has even failed to satisfy national food requirements. The basics are not yet met within the sector, let alone that it should fulfill the vision of a dynamic basis for growth in the entire economy.

An extended period without appropriate development policies and strategies is one of the main reasons for this situation. Previous policies did not address the major structural constraints of the economy and in fact there even were all too many cases where policies were detrimental to economic development introducing imbalances that tended to impede rather than promote economic well being. The agricultural sector fared particularly badly and policies tended to exhibit a bias against this important sector of the Ethiopian economy. Clearly, in the absence of proactive and well thought out policies, it is not possible to attain accelerated development or to improve the condition of the Ethiopian people almost half of which subsist in absolute poverty. The tragedy resulting from decades of inappropriate economic policy in Ethiopia is that, although an agrarian economy, Ethiopia has failed to attain food self-sufficiency; forcing millions to seek food assistance.

This predicament can only be addressed if we can formulate and put in place an economic policy that will accelerate economic growth, distribute the benefit of such growth broadly to the people, and build a system that can progressively grow in strength within the framework of the international division of labor. In Ethiopia, the agricultural sector and rural development will necessarily form the core of such policy. It is our belief, furthermore, that the objectives expressed above can best be attained in the context of an independent

and free market economy and a democratic system of governance. However, it is not enough to simply design appropriate policies and strategies to accelerate development. Reviewing the development experiences of East Asian countries that have succeeded in attaining rapid development and making their peoples direct beneficiaries of such development, we observe that it is important not only to map out correct development policies and strategies but also to build a common appreciation of the formulated policies and to ensure a collective commitment to their implementation, this is a decisive precondition for accelerated development.

Starting from this basic point of departure, the Government of the Democratic Republic of Ethiopia has designed an economic programme to guide the future development of the country. Various policies and strategies that are expected to enable the implementation of the programme have also been put in place. In doing so, the Government has identified the specific role each economic and social sector plays in the acceleration of development and introduced measures to promote the correct and interdependent development of all sectors. Building on policies already on the ground and taking into consideration practical experience and lessons learnt over the past

Agriculture contributes to about 80% of employment and 45% of GDP. ...

ten years as well as considering the development experiences of countries which have attained rapid economic development, the Government has now formulated specific policies and strategies to guide rural and agricultural development. The government also stands ready to translate these strategies into concrete action.

It is recognized that economic policy, particularly as it relates to rural and agricultural development, can be effectively translated into practice only if the public at large and implementing institutions at various levels build a common awareness of the importance of these policies and rise in unison for their full implementation. Hence, the policies and strategies articulated in this document will be opened up for public debate so that a common understanding can be forged and resources mobilized for its implementation by government institutions, NGOs, civil society and the public at large. Comments and views forwarded in the course of the public debate which are constructive and growth - promoting are expected to enhance the Government-initiated development programme. We would therefore like to urge all persons concerned about the development challenges facing our country to enhance the development programme through constructive discussion and also to contribute their share for its effective implementation.

Introduction

The Federal Democratic Republic of Ethiopia underscores one basic objective with regard to economic development:

to build a market economy in which (i) a broad spectrum of the Ethiopian people are beneficiaries, (ii) dependence on food aid is eliminated; and, (iii) rapid economic growth is assured.

This objective has four elements. First, accelerated economic growth is incorporated as a fundamental goal and a point of departure. Second, the objective is not limited to rapid economic growth but extends to broad-based growth in which the majority of the population is able to benefit. The third element seeks to improve the country's position in the global economy moving away from the current status as an international alms recipient to progressively take part in the global integration process. On the fourth score, the objective is to realize accelerated economic development in the context of an economic system characterized by market orientation.

Given the rural nature of most livelihoods in Ethiopia, fulfilling the above economic development objective requires a comprehensive rural development vision as well as practical action to realize it. Given, moreover, the dominance of agriculture in the Ethiopian economy, the rural development effort is presently associated with agricultural development. This, however, does not in any way imply that development effort in rural areas will be limited to agricultural development. Indeed, in order to facilitate agricultural development, there is a need to undertake rural infrastructure and social development programmes. Furthermore, trade and industry will build on developments in agriculture and should emerge within the rural areas as well as expanding in an urban context. Hence, rural development although admittedly centered on agricultural development, is not confined to it.

The agriculture-centered rural development programme has been adopted as a major strategy expected to assist in the realization of the country's economic development objective. It is recognized that this must be complemented by efforts in other sectors. Nevertheless, the rural development effort is not something that can be regarded as just one element in the overall economic development package. It is more than just that. Rural development constitutes the plank that underlies all other efforts towards economic development. The reason for repeated mention of the nature of economic policy in Ethiopia being agriculture and rural-centered is because this is the basis for implementing the overall economic development objective and the guiding principle for our development efforts. The agriculture-centered rural development strategy maps out our main development path because it is capable of bringing to fruition the four elements, which constitute the country's economic development objectives as indicated above.

Part One

The Rural Development Policy and Strategies in the Context of Ethiopia's Overall Development

1. Rural and Agriculture-Centered Development as a Means of Ensuring Rapid Economic Growth

A key element of our economic development objective is to assure accelerated growth. The emphasis is on continuous growth, as rapid economic growth that is not sustained over time cannot be considered to be viable. Hence, in order to realize our basic objective for Ethiopia's economic development, it is necessary to identify, in relation to the objective conditions of the country, a development path that will guarantee rapid and sustained economic growth and to do all that is necessary to closely follow this path. One consideration in this respect is the factor mix prevalent in economic activity.

It is well known that, in order to engage in any kind of economic activity, one brings together the four factors of production, namely capital, labor, land and entrepreneurship or management. In Ethiopia, we observe that there is an acute shortage of capital. This is expected to remain a constraining factor over the short and medium term. By contrast, labor is abundant as Ethiopia has a large working population. Also, there is an adequate supply of land. Rapid economic growth can be realized only if we can adopt a strategy that promotes the economic uses of our limited capital resources and more extensive application of our labor and land resources particularly the former. If we pursue a development strategy that does not make much use of labor and land resources in economic activity, the contribution of such factors of production to Ethiopia's development will be forestalled, thereby causing a pace of development that is well below potential. If, on the other hand, we rely too heavily on capital as a basis of our development effort, then our efforts will be curtailed by the limited availability of this resource. Our development strategy that is centered on agriculture and rural development promotes a judicious use of factors of production.

Some eighty-five percent of Ethiopia's population lives in rural areas and is engaged in agricultural production. Although capital is especially scarce in rural Ethiopia, the bulk of the land is in the hands of the rural population. Thus, strategies that promote the use of the country's labor and land resources while relying less on capital should embrace rural development and agricultural production that provides the basic livelihood of most of Ethiopia's rural population. Such a focus will allow the extensive and/or intensive use of both labor and land without the need for much capital. Agriculture is a sector in which our resource potential can be used to a high degree for rapid and sustained economic growth.

A second factor reflecting the contribution of the rural and agriculture - centered development strategy to accelerated economic growth, is that the very focus on agriculture will ensure rapid growth in the entire economy given the dominance of this sector. The significance of the strategy extends beyond the objective of rapid agricultural growth, which accounts for over fifty percent of GDP. Accelerated and sustained growth in agriculture will also spur growth in trade and industry through its strong forward linkages (greater supply of food products will contain wages and greater supply of raw materials for industrial production and trade will expand opportunities for Ethiopian enterprise). Also, as agriculture registers growth, so will the prospects for domestic capital formation improve, thereby creating a momentum for future growth both within agriculture as well as in trade, industry and other sectors. Finally, growth in agriculture enhances the quantity and quality of exportable products, which will in turn help build our foreign exchange resources (reserves). This, no doubt, will play a key role in the acceleration of industrial development. In the long run, the process of agricultural development and growth of agricultural productivity will give rise to surplus labor the absorption of which in trade and industry will contribute to rapid growth of these sectors.

Growth in agriculture implies higher incomes of the agricultural population and hence increased consumption. To some extent such increased consumption will include processed goods. Also, it is expected that the process of agricultural growth will include the application of new technologies that will involve use of agricultural inputs and implements. Thus domestic demand for industrial goods and services particularly trade will expand, providing the industrial and trade sectors an impetus for growth. The expanded domestic market will lay a firm foundation for accelerating growth of the non-agricultural sectors.

In sum, intensifying efforts in the agricultural sector would result in gains beyond agriculture (which is important in and of itself given its dominant position in the overall economy) as growth in other sectors particularly trade and industry is driven by the growth momentum initiated within agriculture.

Clearly, when we say that we have an agricultural-led development strategy, we do not only mean we are developing the strategic sector of agriculture. We also mean that a favorable environment will be created for the accelerated and sustainable development of the non-agricultural sectors. Development of trade and industry in Ethiopia cannot be sustainable without the development of agriculture, since it is growth in this sector that will form the primary market and generate capital and labor necessary for their development. Development in trade and industry in turn ensures the sustainability of agricultural growth. Thus, all the economic sectors are made to grow in a mutually reinforcing manner. Agriculture occupies the position of prime economic mover and industry and trade are made to grow in conjunction with agriculture. This will ensure the accelerated growth and development in the economy overall.

When we say that it is only when agriculture and rural development occupy center stage in the overall economic development process that we will ensure rapid and sustainable growth, it does not mean that this strategy will be relevant to forever. In the long term, as the industrial sector growth in terms of its contribution to in the national economy, it will become the strategic and leading sector in the overall development process. Industry will reach this stage only if we are able to design a development strategy, which maintains the linkages between industry and agriculture (where industry based on agricultural development and, itself, bolsters the agricultural sector). In the

development process prior to the stage where industry is the leading sector, rapid growth can be assured only if we are able to work out an agricultural-led development strategy.

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2. Rural and Agriculture-Centered Development as a Means of Enhancing Benefits to the People

In the development process, it is necessary to make sure that the majority of the population is made beneficiary and participates in the process rather than being simply on-lookers. We maintain that development should be seen from the perspective of equity and the objective of eliminating poverty. In a country such as ours, where poverty is widespread and pervasive, peace and political stability will be compromised unless development is broad-based with tangible material benefits accruing to the people, and prospects for positive change in the standard of living of the poor realized. In many respects, poverty is the breeding ground for political and social turmoil that can turn into an intractable upheaval. This is not just a theoretical premise, but an actual tragedy witnessed in several African countries.

Realizing the objective of rapid and sustainable growth is unthinkable in the context of political turmoil and bloodshed. Broad-based growth, although primarily an economic issue, is also a decisive condition for peace, stability and national security. As such, it reinforces the prospects for attaining economic growth objectives.

In addition to ensuring that the majority of the population benefits from the development process, a priority consideration for broad-based growth is that necessary attention be given to the situation of people who fail to benefit from the development process. As already stated, the policy we have adopted ensures economic development through increased capital formation and the use of modern technology. It is perhaps inevitable that some people will not benefit from the opportunities thus created. In this case, direct assistance and/or support measures will be provided from the government particularly if population groups are vulnerable to deprivation, poverty, disease and ignorance. Such safety nets [social protection] would provide a means of continuing the development effort in a framework of peace and stability.

The above provision is often been criticized on various counts. It is said to encourage the perpetuation of welfare handouts to a sizeable section of the population and becomes a substantial public burden that does not contribute to a common good. At the same time, it creates dependency on the part of those receiving support. It is also said to place welfare-dependent persons in all sorts of social problems. Also, the provision is criticized on the ground that welfare expenditure retards growth by diverting resources that could have been used to promote output growth. These are indeed shortcomings that we recognize. We, nevertheless, have included this option as part of our strategy for the simple reason that, given fragile livelihoods in Ethiopia, denying this option altogether would only make things worse. It is to be noted the context of Ethiopia's objective conditions, an approach that embraces welfare support can have only limited application. The main thrust of our development approach, therefore, does not envision the option of supporting non-working persons on welfare and other support, whether we desire it or not. What is desired is an approach that guarantees maximum benefit for working people and which ensures peace and stability.

Ruling out a direct support as a basis for development, our approach is to enhance the productive capacity of the working population and to direct this capacity for development. Such an approach is expected to guarantee rapid growth and maximum benefits to the mass of the working people and has shown more than satisfactory results elsewhere; e.g., in the East Asian development experience. If nothing else, the Ethiopian people possess labor power, which can be employed in the country's development endeavor. Furthermore, it is possible to enhance the productive capacity of such labor by improving health status, work initiative and skill levels and thus accelerate economic growth. In our country, the people, in addition to their labor, have the right of access to land if they wish to make a living out of farming. Our development strategy seeks to enhance productive use of labor and land and is aimed at enabling working people to enhance their productive capacity.

If the strategy can be effectively put into practice, there is no reason why the majority of Ethiopia's population cannot be made beneficiary to the development process. The prime source of growth is output created through the employment of labor and land resources deployed by the working people themselves. Since land is broadly distributed and labor is a key factor in the strategy, the bulk of the output will be owned by the producing people. The development strategy thus ensures broad-based growth with most of the population benefiting and thus minimizing the need for welfare support.

Thus, the rural and agriculture-led development strategy is not only the best alternative for accelerated and sustained growth, it is also an alternative that promises maximum benefits for the vast majority of the people. Barring the option of income re-distribution through some sort of welfare system, the only way one can create a situation in which the majority of the population can benefit from the development process is by upgrading the productive capacity of the people, and ensuring that this enhanced productive capacity is effectively employed. In Ethiopia, some 85 percent of the population live in rural areas. If our approach is to build the productive capacity of the people and use it, then there is no alternative to making rural development the lynchpin of economic growth and progress. Given little capital but adequate land resources, there is no option but to engage it in agricultural activities in order to employ the country's extensive productive labor capacity.

In order to enhance the productive capacity of the people, it is necessary to improve their health status and improve their skills and readiness for work through education and training. This is possible without too much financial expenditure. With modest government expenditure and by mobilizing people's own efforts, it is possible to create a citizenry with a high health and education status where skills and readiness for work are adequate for ensuring economic growth.

Presently, in Ethiopia, every citizen has the right to farmland from which to earn a livelihood. Thus the environment is favorable for a citizen with enhanced productive capacity to himself or herself in production that

uses land as a factor of production. Because of the shortage of capital we will not apply capital-intensive production methods to land for the development of agriculture. Our strategy is to assist in the extensive employment of labor that has enhanced productive capacity. Hence, the rural and agriculture-centered development strategy will create a situation in which productive capacity of the population will be upgraded and deployment of such capacity in productive activities will be facilitated. Clearly, this makes the majority of people the target of the results from economic growth and prosperity.

It is a well-established fact that poverty in Ethiopia is not limited to the rural areas but that it is pervasive also our towns and cities. Nevertheless, poverty is greatest in rural areas and the majority of the poor are found here. Also, the degree of poverty is higher in rural Ethiopia. Unless rapid development can be effected in rural areas where the majority of the destitute are found and where the most egregious facets of deprivation are experienced, no meaningful work can be done as regards poverty reduction. The rural and agriculture-centered development strategy will ensure rapid development in rural areas which are, as pointed out above, the main poverty-ridden regions. It is however not limited to poverty reduction in rural areas. It is by for the best development strategy to address poverty among the urban population from poverty.

With high growth rates in agriculture, prices of various agricultural products will decline as their production expands (agricultural producers will nevertheless earn larger incomes from the larger volumes produced). Also agricultural production will be at an increasingly improved quality. There is no doubt that the urban population will benefit directly from such an outcome as fifty-percent of the daily expenditure of the urban population is accounted for by food expenditures alone. When prices of agricultural products decline and stabilize at a lower level, the standard of living of urban dwellers will improve in a sustainable way. This is one advantage to the urban population accruing from the rural and agriculture-centered development strategy.

A second advantage is derived from the linkages with trade and industry that, as discussed above will promote growth in these sectors. Industrial and trade development will in turn generate employment and improved incomes for the urban population. It is also to be noted that with a focus on rural and agriculture development, it is likely that industry will employ labor-intensive techniques. With agricultural growth, it is likely that industry will concentrate on the processing of agricultural raw materials. In such cases, what are required are labor-intensive production techniques. Furthermore, industry's domestic market will be derived from the demand by the farming population. Here too, most goods demanded tend to be produced by labor-intensive production methods. Thus, industrial development will depend on labor, which is, as argued above, the primary productive resource of the people. Although capital formation will increase in the development process, it is to be expected that the country will continue to face capital shortage for a long time to come. This situation itself will exert pressure on trade and agriculture to adopt labor-intensive methods.

The rural and agriculture-centered development strategy will be instrumental in bringing about reduced agricultural prices, benefiting the urban population and in generating employment via accelerated trade and industrial growth. Furthermore, by fostering industrial development based on labor-intensive methods, it will generate employment far more than would be possible through alternative development strategies. This, together with investment in skills development, health care, etc will in turn allow for enhancing the production capacity of the people and ensuring that they derive maximum benefits from the development process.

3. Rural-and Agriculture-Centered Development as a Means of Eliminating the Country's Food Aid Dependency

The world today is one where nations are economically interconnected. Whether it be through international trade, foreign aid or other resource flows, there is no country that is not economically linked with the world at large. Foreign aid, is the most dependent form of this global connection. Such nations as rely on foreign aid, can reduce this dependence. But the economic independence that this implies will remain within the context of global interconnectedness, not outside of it.

Different countries play varying roles in this integrated global economy. Some forge their economic relations with other countries on the basis of well-developed and self-reinforcing domestic markets, progressively improving technology and growing capital. Such countries tend to enjoy a prominent position and reap maximum benefits from being part of the global economy. Others, lacking large and self-reinforcing domestic markets, are vulnerable to external shocks. Still others lag behind their global partners, with neither a developed human and financial capital base nor a diversified economy, and limited if any technological developments. The result is that they are in a dependent position within the global economy relying on foreign aid for their very survival.

In this global environment, our country is one that depends on foreign aid. In order to improve our position within the global economy, eliminate dependency and more readily partake of the gains from global economic growth, we must ensure rapid and sustainable national growth; constantly improving the level of technology and capital formation within the country. Furthermore, in the process of national economic growth, the domestic economy should be consolidated and a large domestic market created. This would allow us to withstand external shocks that occur due to variable conditions in the international economy that are outside of our control. The rural and agriculture-centered development strategy will help us attain this. It is a strategy without any credible alternative for reducing dependency on aid and strengthening economic independence.

It has already been argued above that the rural and agriculture-centered development strategy is our best option for ensuring rapid and sustainable economic growth. It is a strategy that will continuously promote technological development and application as well as greater capital accumulation. Thus it will directly improve our position in the global economy and increase the gains we derive from the integrated world economy. It is a unique strategy that will extricate the country from reliance on external assistance for the most basic commodity; i.e., food, transforming our role from recipients of aid to participants in global economic development. As such it will strengthen our economic independence.

Our aim, through the rural and agriculture-centered development strategy, is to increase agricultural production rapidly and on a sustainable basis. Since some 85 percent of the population are engaged in agricultural production, the income of (output from) the vast majority of the population will increase. The rural and agriculture-centered

development strategy broadens the purchasing power of the majority rather than that of the minority and creates a domestic market with a large consumption base. Thus the strategy that we have adopted, more than any other development strategy, will widen the domestic market.

We have noted that Ethiopia has a limited capital and technological base on which to grow on. In this light, it is important that domestic demand be geared mostly towards goods and services that do not require sophisticated technology and much capital. Our strategy is based on increasing the purchasing power of the rural population. It is believed that the demand of the rural population can be satisfied without the need to introduce sophisticated technology and build a large capital base. In this aspect too, therefore, the rural and agriculture-centered development strategy is most appropriate.

As the domestic market develops, the national economy will be increasingly interconnected. Trade and industry will expand as the purchasing power of the rural population and its demand for production implements and consumer goods increases. These sectors will also grow as raw material and finished products generated by farmers increase in magnitude and improve quality. Also, trade and industry that is based on handling/manufacturing agricultural produce will have a good prospect for growth as such industries tend not to require sophisticated technology and large capital outlays. Given such interconnectedness, the rural and agriculture-centered development strategy will help promote a national economy with strong forward and backward linkages, which will reinforce the development of the domestic market.

In summary, our strategy will increase the purchasing power of the majority of the population and promote an internally interconnected national economy. It will therefore both promote national economic development, expand the domestic market and minimizing the country's vulnerability to external shocks. In this way it will minimize our dependency on foreign aid, enhance our participation in the global economy and promote our economic independence.

4. Rural-and Agriculture-Centered Development as a Means of Promoting the Development of a Market-Oriented Economy

It is our firm belief that economic development in Ethiopia can only be realized through the free market economy. Sustained and accelerated economic growth, broad participation in such growth, and poverty reduction are all dependent on our effective adaptation and application of the principles of the free market economy to Ethiopian conditions. Hence, as our goals of development, we include the creation of a market-oriented economy.

To a great extent, the development of a market-oriented economy is supported by a dynamic economy. By orienting our economic policies towards rural and agricultural development, we intend to inject such dynamism into the Ethiopian economy. We will pursue rapid and accelerated economic growth through the rural and agriculture-centered development strategy. It is in this manner that our development strategy links to the promotion of a market-oriented economy.

The market economy does not hinge on the few but is rather based on broad-based economic activity and, as has already been repeatedly emphasized, the rural and agriculture-centered development strategy is geared at enabling the majority of Ethiopians to be productively engaged in the economy. The strategy will furthermore ensure that market orientation in Ethiopia is nevertheless broad based and has a reliable foundation by making the bulk of the population (millions of farmers) the main actors; enabling them to benefit considerably from the development process rather than making them the on-lookers of economic prosperity. It will therefore create a conducive environment for building a developed free market economy.

Summary

(Ethiopia's Octroi(Development (Policy e& Strategies

The rural and agriculture-centered development strategy is expected to bring about rapid and sustained economic growth, guarantee maximum benefits to the majority of the population people, minimize dependency on foreign aid, and promote the development of a market-oriented economy in Ethiopia. As such it is by far the Government's most preferred economic development strategy. This strategy is the main instrument that will enable us to meet the basic development objective we have set for ourselves.

A simple claim that we are following rural and agriculture-centered development strategy will not guarantee success. We will back this up by designing policies, strategies and programs that carry through on the four elements of our basic economic development objective. Our interventions will be comprehensive enabling us to fully carry out our objectives and will also be amenable to revision and modification whenever necessary. It is important to devise policies, strategies and programs that will help us implement the goals we have set. But it is perhaps even more important to be able to revise these as the need arises and to adjust our goals according to developments over time. With this in mind, the following section will attempt to provide greater insight into our policies and strategies for rural and agricultural development in Ethiopia.

Part Two

Rural and Agricultural Development Policies and Strategies for Ethiopia

1. The Basic Directions of Agricultural Development

As has already been emphasized, rural development cannot be confined to agricultural development. Nevertheless, in the Ethiopian context there is no question that the two are closely linked. Indeed, it is the development of the agricultural sector that will provide the basis for rural development. Hence, our rural development effort will give priority to the implementation of appropriate strategies for agricultural development. In view of this, it is useful, at this juncture, to discuss the basic principles that govern agricultural development policy in Ethiopia.

1.1. The Labor-intensive Strategy

A basic premise of our strategy, is that accelerated and sustained growth can be brought about in Ethiopia not through capital-intensive but through labor-intensive production methods. This is even more so for the agricultural sector than any other sector of the national economy. But what is envisaged? Clearly, it is not that agriculture employ superfluous labor, backward technologies and traditional agricultural practices. Neither is it to employ more labor than optimum, per land plot. Rather, it is envisaged to use a heightened productive capacity of the agricultural labor force to the fullest extent possible. When we say that we should apply labor-intensive methods, we expect to promote advanced technology and farming methods that are, nevertheless, not labor-displacing in nature.

Such a strategy would include educating and training the agricultural labor force to build up skills and enhance labor initiative. Some agricultural development can be brought about through the extensive use of technology by a few people. This strategy necessarily concentrates on agricultural methods that use land and capital extensively but employ limited manpower (i.e. large-scale farming). On the other hand, it is also possible to promote agricultural development (with significantly increased yields and a focus on high-value produce) by employing an agricultural labor force that is provided some training and information; and, using non-substitutable machinery. Our main agricultural development strategy will be the latter more labor-intensive method. Both strategies are capable of yielding sustained results in terms of increasing agricultural productivity and promoting technological growth. But they focus on very different aspects of production and thus develop in very different directions. One strategy focuses on developing the agricultural skills and work initiative of farmers. The other is based on deploying labor-displacing, sophisticated machinery. By adopting a labor-intensive strategy, we place emphasis on the former.

The labor-intensive strategy is well placed to promote quality as well as quantity of agricultural production, as its reliance on labor will allow close monitoring of agricultural processes. A focus on high value crops that require close management and care is therefore possible. Conversely, the extensive and more capital-intensive production methods focus on agricultural products that are produced on a large scale and do not require such close follow-up. As in the case of the labor-intensive strategy, this approach emphasizes increasing output and productivity, and developing the land through irrigation, application of chemical inputs, diversifying production, etc. but using limited manpower and producing output that is mostly of low value.

In sum, the labor-intensive agricultural development strategy we follow does not envisage employing backward technology and excess labor. Rather, it is a strategy by which only the required amount of labor will be employed on each plot of land. It is a strategy, which enables the development of the agricultural labor force so that it may more readily utilize improved agricultural technologies and methods. Relatedly, it will enable the significant development of labor intensive technologies in agriculture and large increments in output as such technologies are applied. It is a strategy, which enables the agricultural labor force to reach higher levels of education and training. It is a strategy, which utilizes irrigation, promotes the production of high-value agricultural products and promotes production techniques that maximize yield per unit of land. In short, it is a matter of pursuing a productivity and technological growth path, which is based on skilled agricultural labor. As a basic principle, our agricultural strategies and policies shall keep to this development path.

1.2. Proper Utilization of Agricultural Land

Access and use of agricultural land is one of the most important development issues in Ethiopia. Indeed, ensuring agricultural development and sustained high rates of growth depends on the appropriate use of land. A fundamental aspect of the proper use of land is to guarantee the availability of land to people who seek to make a living out of farming. Another aspect is its sustainable use; i.e., taking care not to deplete our natural resource base. This is critical to a viable agricultural sector and to increasing and even maintaining agricultural productivity. Finally, within the constraints of ensuring broad access to land and its sustainable utilization, land should be used to the maximum extent possible and all year round, through irrigation, multi-cropping and the diversified production per unit of land, etc. Agricultural output is thereby also maximized.'

Identifying what land should be used for what type of activity and utilizing land accordingly is a key issue in the proper use of land in general. Moreover, ensuring a proper land to population balance is also an important consideration. It is well known that in our country there are regions when there are large populations but limited land and *vice versa*. Our land use strategy will necessarily take all these factors into account. In short, the issue of using our land in a manner that will maximize its contribution to overall development, that promotes sustainability of the natural resource base, and that ensures broad access is the path that will guide our agricultural strategies and policies. We strongly believe that an agricultural development strategy that lies outside this principle will, far from accelerating agricultural development, weaken and arrest it altogether.

1.3. A Foot on the Ground

If anybody who wants to walk fast attempts to move both legs at the same time, he/she may succeed in jumping but will not sustain a rapid pace for forward motion, as there is no basis to propel the person forward. One moves rapidly only by lifting each foot in succession with one foot always placed firmly on the ground and providing the necessary force for moving ahead. Our vision for agricultural development is similar. We will have a rapid and continuous forward movement only by keeping 'one foot on the ground'. Let us clarify this further by citing one relevant example.

The present agricultural labor force is largely illiterate and uses traditional technology handed down to it from past generations. If we look down upon this resource and attempt to employ a strategy that uses highly skilled labor and sophisticated technology we will have no labor force to work with and end up with no strategy at all. Yet, we can make significant improvements in our productivity by working with the existing, largely uneducated, agricultural labor force helping it to reach higher levels of productivity. This is our 'foot on the ground'¹ providing the necessary impetus for moving rapidly ahead. Similarly, rather than relying exclusively on outside technologies, we will draw on the useful agricultural experiences and practices in the country and improve on them as necessary. Hence, it is necessary to record and pass on to the next generation practical experiences and indigenous knowledge, and to make effective use of this knowledge in our development efforts. Our strategies for agricultural development will seek to draw opportunities for growth inherent within the available manpower and technology.

However, this alone will not guarantee accelerated and sustained agricultural growth. While we do believe that there is considerable growth that can result from optimizing the use of a fairly abatable labor force and indigenous technology, this impetus will eventually be exhausted. Before this occurs, we must be prepared to do all that is possible to create new productive capacity. We expect to utilize the existing productive capacity to the maximum extent possible, but in doing so we will also look for means to ensure that whatever growth results from this is sustained beyond present capacities. We must work continuously to develop an educated and skilled agricultural labor force and to put in place new technologies so that new productive capacity will be brought in as the old is phased out.

Thus, our strategy for agricultural development must accomplish two tasks at the same time. First, we must explore and put to good use all existing resources so that we reap the maximum growth possible from the available productive capacity. We firmly believe that if we do not build on existing productive capacity, and move to consider new sources of growth without first doing this, we would retard our growth. Concomitantly, we must take all necessary action to transit to a higher level of productivity using a more educated labor force and more sophisticated technology. We will stand ready for the next productivity leap before the growth horizon of the existing productive capacity is exhausted.

We can, in this way, ensure accelerated and viable agricultural growth with one foot on the ground and the other rising in the air for the next step forward. Together with the principles of promoting labor-intensive methods of production and proper use of land and natural resources, this is a basic principle guiding our agricultural development strategies and policies.

1.4. Taking Different Agro-Ecological Zones into Account

Ethiopia is characterized by the existence of many agro-ecological zones, which differ in terms of rainfall, soil types, altitude and the like. A very broad categorization finds (i) the eastern and to some extent the southern arid lands where the main livelihood is cattle herding, (ii) the western lowlands where there are large uncultivated lands and a small population, and (iii) the highlands which are ideal for farming but where farm land is limited and rapidly being eroded and where population density is high. It is not difficult to see that the agricultural activities carried out in the different agro-ecological zones are greatly varied. Clearly, any agricultural development strategy that does not take such differences into account cannot be realistic. In fact growth will be arrested (hardly accelerated or even sustained at current levels) if we develop similar strategies for all agro-ecological zones.

Given the variability of agricultural potential, our objectives for agricultural development can be attained only if we identify the development opportunities existing in the various agro-ecological zones and specify and implement strategies that will enable us to take advantage of such opportunities. Another basic principle guiding our agricultural policies and strategies is therefore that all efforts will be based on detailed development plans for each agro-ecological region so as to bring about the maximum possible growth in each region and thereby accelerate and sustain the country's overall agricultural development.

1.5. An Integrated Development Path

Every development effort requires coordinated and integrated management of different tasks. Likewise, support to agricultural development in Ethiopia requires the coordinated management of very many activities. First, when we consider agricultural development in isolation, we observe that it embraces a large number of different products and activities. Exploring these tasks in detail, identifying the linkages among them and understanding the opportunity for key linkages and the gains from such linkages all make a significant contribution to making the resulting growth rapid and sustained over time. Therefore, our agricultural development efforts will follow a development path that seeks to promote integrated activities.

Integration is required not only among the activities and products in agriculture. Agricultural development is closely linked to social development sectors such as education and health and infrastructural projects such as road construction. One cannot register rapid and accelerated growth without the other. In addition, agricultural development is closely inter-connected with sectors such as trade, finance and industry. An effective development strategy requires an understanding of favorable conditions, which one creates for the other and designing interventions that will promote such conditions. Using the integrated approach also means identifying developments and tasks that will nullify each other. Our development strategies must determine when such developments need to take place simultaneously or when one needs to cede to the other; and, ensure that this is carried through. Our agricultural development effort is placed in the context of a development strategy that is

integrated in this manner. Ensuring integrated development is therefore also a guiding principle for our agricultural policies and strategies.

The above sub-sections identify the basic directions for our agricultural development efforts. This, of course, is no substitute for the task of formulating detailed strategies and policies. What it can do, at most, is provide the orientation for such strategies and policies. Cognizant of this, we now turn to a discussion of detailed policies and strategies related to agricultural and rural development in connection with each of the five principles elaborated above.

2. Strengthening the Agricultural Labor Force

It has already been repeatedly mentioned that our overall economic development strategy and particularly our agricultural development strategy is based on continuously building the productive capacity of our labor force and employing it intensively in development activities of all sorts. This actually means focusing on four major issues.

Firstly, it requires ensuring strengthening our labor force in terms of its industriousness and preparedness for work. Secondly, as we have discussed at length under section 1.1, it is necessary to upgrade the agricultural skills of labor force, to continuously improve its productivity and to ensure viable technological growth based on these improvements. Thirdly, the health status of the working population must improve, as labor productivity does not only depend on skills and complementary technology but also on health. Fourthly, as intimated in relation to the first issue, it is necessary to ensure the development of appropriate technology and improve its supply, duplication and diffusion.

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It is useful to consider at some length these instruments for strengthening the agricultural labor force and indeed for enhancing the productive capacity of the country's manpower resources.

2.1. Ensuring Industriousness and Work Preparedness

As far as being willing and prepared to engage extensively in agricultural activities, the agricultural labor force in Ethiopia does not have too many shortcomings. The present generation of Ethiopian farmers is one that does not think it has employment opportunities outside agriculture. Although employing traditional agricultural practices, and eking a meager income, it continues to look towards agriculture as its main source of livelihood. In addition to this, its love for work, passed on from generation to generation, cannot be treated lightly. One can thus consider the work preparedness of the present agricultural labor force to be reliable.

Regarding industriousness including such factors as whether the labor force will be engaged all year round, and even when so employed, if people work diligently, we can also quite safely say that Ethiopian farmers are industrious. There are many traditions and practices with a negative impact on industriousness, and diligence varies from region to region. However, overall the people of rural Ethiopia do not shun physical labor and are generally ready to go to great lengths to earn their living. Maintaining diligence by addressing any observable shortcoming and promoting relevant changes in customs and traditions through a persuasive and democratic ideological struggle will make a contribution wherever necessary. Also, industriousness will inevitably be promoted as people progressively improve their standard of living and returns from engagement in agriculture are increased. If we expect a hard working agricultural labor force, it is necessary to enable farmers to increase their production, to ensure that they are the main beneficiaries of such increments, and to help them improve their living standards making goods and services of improved quality and quantity readily available.

With respect to the issue of industriousness, the main problem is associated with the educated and young generation. It is recognized that there are thousands of educated youths who, either because of lack of alternative employment opportunities or for other reasons, are engaged in agricultural activities and manifest an industriousness no less than the rest of the agricultural labor force. Furthermore, these youths are often found to be more productive because of the general education they have received and more effective in adopting improved agricultural practices even when they have not received any appreciable agricultural training. However, a large proportion of the youth particularly those that are still in school show an attitude different from this.

Such young people show no desire to be farmers or to be employed in farming after receiving vocational training. The number of youths who consider farming as a symbol of poverty and backwardness is very large indeed. Neither are they willing to assume hard physical work and therefore avoid employment in sectors such as agriculture, which require physical labor. One reason for this is that the education system in place through out the country and the culture it inculcates does not promote the dignity of labor, particularly physical labor. Nor does it provide students with awareness that farming, like any other occupation, is respectable and has a potential for generating a reasonable livelihood. The fact that people engaged in farming suffer from poverty is taken as practical experience that demonstrates the difficulty and limited results from make a living out of farming.

Unless a desire to engage in farming and to put in hard work can be inoculated in the youth, it is not possible to think of rapid and sustained agricultural growth. It is expected that the Ethiopian youth (who through education will constitute enhanced productive capacity) will strike at the root causes of low agricultural productivity. It is therefore of paramount importance to include this labor force in the agricultural

development effort. Schools should prepare students for physical labor and by inculcating the dignity of labor promote industriousness. As long as our schools continue, as is the case today, to produce youths who are averse to physical labor, particularly to agricultural labor, we cannot think of undertaking any meaningful rural development work. In this regard, the education system and the culture it promotes needs careful scrutiny and reform.

While, it is true that schools play a crucial role in creating a productive and diligent citizenry and a work force that is willing and ready to be engaged in agriculture, this alone will not guarantee the desired results. Except in the absence of alternative job opportunities, it is inevitable that the task of deploying our labor force in agricultural work will continue to be difficult as long as farmers remain poor and farming is low income based on backward practices. Hence, the critical factor is to promote a situation whereby the educated youths employed in agriculture obtain a similar income as equally educated youths engaged elsewhere. Likewise, it is important also that farmers who have received agricultural training are able to register productivity levels in their production processes that are much higher than registered by uneducated farmers and that they are thus able also to gain higher incomes.

To sum up, given that our agricultural development strategy relies on a productive agricultural labor force, an effort should be made to encourage the young, educated labor force to be deployed in agriculture. An effort should also be made to promote greater industriousness and a willingness, on the part of the educated youth, to assume hard physical work. Although there is some variation from region to region, there are not too many problems in this respect as far as the existing farming population is concerned. Nevertheless, even in the case of this segment of the labor force, it is necessary to ensure progressive improvement in returns to agricultural labor. Thereby maintaining work preparedness and initiative. The main concern remains with the youth. Here the role of the education system in producing a productive and industrious citizenry cannot be overemphasized. It is also recognized that an environment must be created where educated labor employed in agriculture receives an income that is commensurate to the education. This means that the wages of educated labor in agriculture are equal or comparable to those in other fields and that educated farmers are able to increase productivity significantly so that their income reflects the investment made in them through education.

2.2. Improving Farming Skills

The present agricultural labor force has had minimal educational opportunities. The agricultural knowledge and skills it possesses is mostly what has been passed on from one generation to the other. This knowledge is not to be underestimated. It is an important resource that can be built upon both by selecting known agricultural practices with potential and employing them appropriately and also by promoting improvements to existing agricultural practices of such uneducated farmers through the expansion of agricultural extension services. Our experience as well as that of other countries has provided sufficient proof that this allows for appreciable results.

Therefore, regarding improvement of farmers' agricultural skills, the priority task is to improve the agricultural practices of the uneducated farming population and thereby achieve a quick increase in agricultural production. However, such efforts have their own limitations. The lack of formal education limits the capacity of farmers to appreciate and use modern technologies. They often find it difficult to change in *tandem* with changing technologies and to assimilate new ideas. Since literacy is a factor determining the continued and extensive absorption of information, they are not able to expand their knowledge of new technologies and put them to use by reference to written notes. Thus the transfer of skills and technological know-how is limited to practical demonstration and experience. In short the farming population lacks the capacity to effect large scale and sustained transformation in agricultural practices. In this, our vision for agricultural development must rely on the educated younger generation.

Thus, side by side with the task of intensifying efforts towards increasing the productivity of the uneducated farming population, we need to work hard to replace the uneducated with an educated labor force. By an educated labor force what we mean is one that has attained a level of general education that enables it to understand and use new agricultural technologies, read and understand what it reads, and perform its farming activities scientifically. At a minimum, it should be a labor force that has received the current primary-school-level education. This alone will not be enough. It must also be a labor force that has received agricultural training introducing it to efficient agricultural practices.

The primary education that is rapidly expanding in rural areas creates favorable conditions for the creation of a farming population as described above. At the beginning of the current year, 57 percent of the primary school age population was attending school and given progress so far, it is expected that the target committed to under the current five-year plan for 65 percent national school enrollment will be attained. Although primary education is expanding in urban areas as well, most of the growth registered is in rural areas. Thus, a situation has already been created where the vast majority of youths in rural areas are receiving primary education.

It is impossible to imagine that 65 percent of the next generation will be employed outside agriculture. We do not expect a miracle whereby urban growth and industrial and other non-agricultural employment will absorb all the educated rural youth. Hence, no less than 70 percent of rural students should be absorbed in agricultural employment. These youths should be employed in agriculture not simply on account of the fact that there are no alternative employment outlets but because they are important to the development of the agricultural sector.

Young persons should be employed in agriculture because their future lies in effecting rapid and sustained development of the national economy. This we believe is possible through agriculture-centered rural development. Agriculture-centered development is, in turn, guaranteed only when there is a young agricultural labor force which can use agricultural technology that is much more sophisticated than is presently the case, and which is capable of continuously improving this technology. The young, educated population can make a significant contribution to

the development of our country only if it can be deployed in the agricultural sector. Our strategy seeks to provide the youth with the necessary agricultural training and facilitate their deployment in agriculture. If provided with the necessary support, they will earn an income that is no less than that of others of a similar level of training and education but engaged in other sectors. In short, the reason why rural students should be employed mainly in agriculture is that this is the better alternative in which they can improve their own wellbeing as well as promoting development of the country as a whole.

We believe that presently primary schools in both rural and urban impart adequate general knowledge. Although it cannot be said that there are no shortcomings regarding the quality of education, the main problem in the education system lies in civic education; particularly, the failure to inculcate in students the dignity of labor and to produce and shape youths who are willing to work diligently in the agricultural sector. Students, today, are generally averse to physical labor and to agricultural labor in particular. There is a major problem and our strategy will seek to correct this limitation as soon as possible. If not, we cannot take advantage of the significant gains achieved in expanding primary education in the country, in bringing about rapid economic growth, and in making the people the main beneficiaries of our development efforts. This is a victory but one that may eventually count for nothing and may in fact create all sorts of social problems if the concerns expressed above are not addressed.

Under present conditions, youths who have completed primary education and are ready to be employed in agriculture will not be able to attain satisfactory productivity levels. Rather than engaging them directly in productive activities, better results will be obtained by training these youths in short-term agricultural courses. Hence, our strategy envisages agricultural training centers at the *kebele* level in the same way that in the past we tried to intensify our efforts to expand primary education to this administrative level.

As regards this issue, the strategy designed at present is to select students who have completed their secondary education and give them training for three years in agricultural skills at agricultural vocational training centers. Of these so trained, at least three (trained one each in agricultural crops, animal resources and natural resources and irrigation) should be assigned to each *kebele*. These trained personnel will perform two tasks. First, they will provide agricultural extension and advisory services to both the educated and uneducated farmers in each *kebele*, making sure that these services are compatible with the agricultural knowledge of the farmers. Second, alongside this task, they will also give agricultural training to educated youths at agricultural demonstration stations to be established at every *kebele*. In this respect, they become agricultural trainers and teachers.

Thus on the one hand, we can enhance the productive capacity of uneducated farmers by strengthening and expanding the agricultural extension and advisory service, while, on the other hand, we will attempt to create a new generation of farmers who can be the foundation for viable technological progress and rapid agricultural development. We will progressively augment the productive capacity of our people by placing one foot on the ground and embracing our traditional workforce while moving forward with the help of sustained education and training.

2.3. Ensuring the Health of Farmers

Farmers, whether educated or not, cannot engage themselves in production unless they are healthy. If, in the absence of choice, they are made to struggle to earn a living despite high morbidity, their productivity will be low and results in terms of output will not be satisfactory. Hence, ensuring the health of farmers is as a key element in the overall objective of enhancing the productive capacity of the agricultural labor force. We do not conceive of accelerated and sustained development, whether in rural or urban areas, without due attention to the creation of a healthy labor force.

Our strategy in this respect is to establish a health delivery system that places emphasis on disease prevention and primary health care. While it is obvious that medical services (curative care) are also necessary, this cannot be the main health service option under the objective conditions in the country. Disease prevention helps to ensure the health of a person without large expenditures on medicine, medical equipment and medical expertise. In Ethiopia where there is a critical shortage of financial resources, it is not possible to reach the whole population with health services that concentrate on curative care. As was the case in the past, the poor and the rural population will be left out benefiting neither from medical treatment nor from disease prevention.

The main issue in health care is to make sure that the population is, as much as possible, free from disease so that people are productive and live longer. In addition to the direct costs that are involved, an emphasis on curative care will not achieve this basic objective. Emphasizing curative care at the expense of disease prevention will, in fact cause considerable social damage and weaken production. A sick person will normally be out of work while under medical treatment. Even after the being cured, they will have undergone bodily harm and will take some time to recuperate fully. Besides, the recovery may not be complete. This will inevitably have a negative effect on productivity. At the farm-household level, medical expenses, large or small may well detract from expenditures related to production.

About 80 percent of the disease that are predominant in Ethiopia can be eliminated through effective disease prevention strategies. Many can be addressed by maintaining high standards of personal hygiene and environmental sanitation, improving dietary habits and vaccination. Unless such causes of disease are addressed, even if the diseases are cured through medical treatment, the likelihood of recurrence is high. The population will remain incapacitated and re-infection will be a burden on the health system. Thus, the preferred health delivery system focuses on basic health care in which we identify the reasons why the public is exposed to disease and promote preventive measures accordingly. No other alternative is available. Curative care is both costly and fails to address the real causes of low health status.

One reason why the vast majority of the people in Ethiopia have failed to adopt life styles that would reduce the prevalence of diseases is poverty. Particularly in respect to nutrition, poverty exerts a very strong negative impact although poverty also contributes to the lack of environmental and personal hygiene and limited vaccination services. The impact of poverty on disease prevention can only be resolved in the process of economic growth. Poverty, although significant, is, however, not the main problem. Rather the fundamental issue is lack of knowledge and inappropriate attitudes as well as harmful traditional practices.

There is no denying the fact that there are many backward traditions and ways of thinking that expose our people to a variety of health risks. This also applies to problems associated with maintaining a high level of personal hygiene and environmental sanitation. Backward customs and ways of thinking also have a considerable negative impact on dietary habits. Yet, in many respects our people do not quite realize that the decisive means of staying healthy is not the availability of sophisticated medical equipment, but rather their own way of life. In respect to maintaining their health, the attitude is to look towards persons who undertake medical examinations and prescribe pills or hypodermic injections rather than toward persons who would give lessons on disease prevention and to take relevant action. This is a challenge. There is considerable need for change in the popular way of thinking and cultural inclinations to implement a health delivery system focused on disease prevention.

Even the attitude among health workers does not appear to be conducive to the realization of a prevention-based health delivery system. True, in principle it is accepted that the focus should be on preventive rather than curative care. Few medical professionals would oppose a policy based on disease prevention. In fact all preach its worth. So have all Ethiopian governments since the time of the Emperors. But in practice, such a strategy has never really been effectively implemented. Health workers show a marked preference in training for curative medicine rather than prevention methods. Many feel that they are really not medical professionals if they do not study curative medicine.

The challenge can be addressed by changing the outlook both among the public and among health workers. Hence, as far as creating a healthy and productive citizenry is concerned, the first decisive measure would be to change, through continuous education and persuasion, attitudes and customs which go counter to the centrality of basic health care. Unless this basic task is successfully accomplished, it will not be possible to implement health policies focused on prevention and basic health care, nor to support a healthy and productive citizenry.

Although the starting point for our health strategy are efforts to change inimical attitudes, this must be accompanied by a detailed plan of action and an appropriate implementing agency to successfully put into effect our health policy which as indicated above, is centered on prevention and basic health care. In rural areas, the vanguard health institution for this is the health post.

The function of health posts is not to treat patients. Although there are some simple curative services that are rendered, their basic function is to promote disease prevention within the communities that they serve. Their duty is to provide health information and education (e.g, maintenance of personal and domestic hygiene, environmental sanitation, family planning, improved dietary practices, etc.), vaccination, maternity services and mother and child health care; thereby preventing the major diseases that currently prevail throughout the country. Their objective is to create healthy localities by mobilizing the public towards this end.

To date, a number of problems have been encountered in providing these health services. An inadequate number of health posts is one problem. As a matter of policy, we envisage that one health post will be established to serve a population of about 5,000 people. As, more or less, most *kebeles* are of this size, it actually means that a health post should be set up in each *kebele*. However, as yet, many *kebeles* do not have health posts. A general lack of financial resources and, owing to wrong attitudes, priority for the construction of expensive hospitals has meant that, at present, there is insufficient basic health infrastructure. It is nevertheless possible to enable all *kebeles* to have health posts in a reasonably short period of time by correcting past budgetary mis-allocations, according the necessary priority to the construction of health posts and encouraging the public at large to participate in such construction.

Another problem is that the personnel assigned to the existing health posts are inadequately trained in the area of disease prevention. As indicated earlier, addressing this issue is a challenge as many health professionals are reluctant to focus on prevention activities and feel that they lose their medical expertise and career prospects if they do so. Another challenge is ensuring that the required material resources are made available to health posts. Indeed, no reliable system has so far been put in place that can render adequate vaccination and mother and child care health services. This points to a final problem to be mentioned here, that a concrete strategy to formulate disease prevention into an implementable program is missing and, consequently little effort has been made to rally the public behind the effective implementation of disease prevention interventions.

Our strategy will focus on addressing these basic problems. We will make sure that all implementing institutions and regional and *woreda* leaders accord priority to the construction and running of health posts. By so doing, we will also encouraging the public to participate extensively in the construction of this basic health infrastructure. It is possible to speed up the construction of health posts in all *kebeles*, and this would definitely be an appropriate step. Further, in expanding the infrastructure we will not neglect to appropriately equip and staff health posts. Simultaneously, we will also strive to ensure that our vaccination service system can reach down to the *kebele* level. Above all, we will target the sensitization of health workers so that, as they are assigned to health posts, they are made aware of the importance of disease prevention, that this is their duty and that they should have faith in their occupation. This is a strategic intervention since it is health workers that are ultimately responsible to implement the prevention strategy as well as to teach, persuade and mobilize the public in this regard.

The strategic nature of this intervention is recognized and will be given due attention in our effort.

At the household level, the introduction of new attitudes and changes in cultural practices will be required to adequately implement our strategy for disease prevention. A focus on mothers, who play a very significant role in these matters, is particularly necessary. It will be necessary to organize and familiarize them with the whole strategy and encourage them to take tangible steps as regards personal and domestic hygiene and nutrition. It will furthermore be necessary to periodically assess activities performed at this level and strengthen or adjust interventions as necessary. The effort, however, will not be limited to mothers, as the responsibility for disease prevention will not stop with mothers. Interventions towards awareness creation will therefore be extended also to the public at schools, work places and assembly halls. We in fact, intend to change the people's mode of thinking and way of life. We believe this is possible through a concerted effort at awareness creation and greater understanding of actions that can be taken at the household level to prevent disease. In addition, necessary laws and directives that will support actions for disease prevention will be issued and put into effect.

An effort towards implementing the above elements of our strategy is already on the ground. This is the health extension service that, in the current year, is being piloted in several Regional States. The health extension service resembles, in many respects, the agricultural extension service introduced to build the productive capacity of our farmers. The difference is perhaps only in the fact that instead of the work being done by agricultural development agents assigned to a demonstration center, in this case the work will be performed by preventive health workers. As in the case of the agricultural extension service package, here also a disease prevention package has been prepared and, after rural households are convinced of the importance of the package, it is expected that its messages will be adopted in the home as well as collectively. Health workers assigned to the health post will closely monitor and assess the implementation of the health extension service and strengthen it. After one package dealing with a specific issue has been adequately put into effect, another will be implemented in a similar fashion. We believe that learning from the pilots currently under way, developing the packages over time, and implementing the service extensively and comprehensively in all *kebeles* will make a significant contribution to disease prevention in Ethiopia.

In our strategy for promoting a healthy agricultural labor force and, generally ensuring the health of fanners, the focal institution is the health post, the critical driving force is the health post worker, and the main executors are the public and *kebele* leaders. There is also an ideological challenge: to change the people's way of thinking and cultural orientation so as to enable them to effectively prevent disease through transforming their way of life. Unless this strategy is successfully implemented, no disease prevention effort, including the effort to control the spread of HIV/AIDS in rural areas, can be successful.

The health posts, though at the core of our strategy, cannot by in itself, comprise the totality of the health institutional structure. It is also essential to set up health centers which closely support and coordinate the work of health posts. Health centers would also provide basic curative care and act as a referral point for health posts. Their staffing would include health workers with greater expertise than those working at health posts. According to the existing plan, one health center would serve five health posts and a catchment population of 25,000 persons. Health centers face similar problems to health posts, particularly in terms of their expansion. Given resource constraints, a more gradual approach will be adopted to their construction.

Although the government health system also includes, above the health centers, hospitals of different standards, which give advanced and comprehensive medical services, priority in budgetary allocations and all other related matters will be accorded to health posts, followed by health centers. Furthermore, the present effort being made by NGOs to expand health posts and health centers will be encouraged. However, it is expected that while the Government focuses on the lower tiers of the health system (health posts and health centers), NGOs and private investors, will participate extensively in hospital construction. This does not mean that the government should not make a contribution to tertiary health care. It will, however, need to do so without losing sight of its core priority. Also, efforts will be made to induce the public to participate in this area.

2.4. Dissemination of Appropriate Technology

A healthy, industrious and sufficiently educated and trained agricultural labor force is the foundation of our agricultural development strategy. However, it is not possible to accelerate growth to any meaningful extent, unless the agricultural labor force has access to technology that will enable it to substantially increase its productivity. Thus a complementary effort that must be considered alongside the endeavor to enhance the capacity of agricultural labor force, is the supply, duplication and diffusion of continuously improving technology. This cannot be seen in isolation from the task of enhancing the productive capacity of the people.

While promoting technological change in rural Ethiopia is important, the type of technologies applied will determine the pattern of agricultural growth. Hence, the dissemination of technology will not only be expanded but will also be based on careful selection. We cannot ensure our objectives by simply amassing whatever technology comes our way. In order for our agricultural technology to help us attain <5ur agricultural development objective, it. should have the characteristics described below.

- > *Labor-intensive:* Our agricultural development strategy aims not only to increase productivity but also to allow effective use of this favorable outcome. This is achieved only if technologies adopted in agricultural production do not replace labor with advanced machinery and capital, but rather if they are based on the use of labor. Technological change must enable us to both increase production and to produce high-value products by intensively using labor per unit of land. Although there are opportunities, in some regions where we have large tracts of open land, to apply the extensive farming methods using more capital-intensive technologies, the preferred

technology given both capital and land limitations where the vast majority of the people have settled is the type which uses intensive farming methods.

- > *Market sensitive:* We also aim to build a free market economy. This applies as much to the agriculture as to any other sectors of the national economy. Thus, agricultural technologies promoted should be those which will enable farmers (a) to produce products which are in demand on the market, (b) to sell these product at competitive prices, (c) to benefit from the sales proceeds and (d) in the process to widen their market. If output with little demand is produced simply because related technology happens to be available, there will be nothing in it that can serve as a foundation for our future growth. Furthermore, if the technology applied does not allow production that fulfills basic quality requirements and that can be sold at competitive prices, it cannot serve as a foundation for sustained growth even if, generally, the products are demanded on the market. Therefore, the technologies that we promote should focus on marketable products and should help

the production of such products to be of a desired quality and at competitive prices; thereby, contributing to improved farmers' incomes.

- > *Responding to the needs of varied agro-ecological conditions:* As indicated earlier on, there are many agro-ecological zones in our country. It would not be productive to use the same technology in all these regions. A technology that works in one agro-ecological context will not yield the same results in another context (for example, technologies for conditions of ample rainfall will not work in a region short of rainfall). In order that agricultural production exhibit the maximum growth, we have to make available various types of technologies each compatible with the different conditions of the country's varied agro-ecological zones. Overall, technological development should meet the requirements of all the country's agro-ecological zones and should improve over time developing on a continuing basis.
- > *Practicality:* A key consideration is the practicality of agricultural technology. Our aim is to transform the life of farmers. Technology must therefore be instrumental to solving practical problems encountered by farmers in the process of production. This should be approached through careful study of the chain of operations involved from production to marketing and identifying the specific problems impeding this cycle. Clearly, agricultural research and technology that remains detached from the practical problems faced by farmers cannot guarantee desired outcomes. We will concentrate largely on the major problems; however, the technological change that we envisage should not miss any opportunities for increasing farmers' income and accelerating agricultural development that arise from the entire production-marketing cycle.

Technology development and its dissemination to the farming population is not something that can be accomplished at one go. Moreover, sustained agricultural development requires a continuous process of technological change. Such continuous technological progress needs to be supported by a well-resourced institutional system for research and technology supply. We have considerable capacity in agricultural research. Its main shortcoming is that it does not cover all the agro-ecological zones of the country.

Also, its capacity falls short of the many requirements that the acceleration of the growth process demands. A slow system of technology supply is not consistent with the agricultural development objective we are trying to attain. Our strategy therefore includes significantly augmenting our research capacity both in terms of volume and quality.

Although significantly improving our own research capacity is of paramount importance, we recognize that such capacity development is a long-term process. In particular, it takes quite a long time to train researchers, make them competent and to apply their expertise to generate new technologies. We also recognize that inventing new technologies through research is a time-consuming process. If we try to base our agricultural development on the time it would take to enhance our research capacity and generate new technologies based on this increased capacity, the objective of accelerated development will be no more than an aspiration. As our intent is to accelerate agricultural development, we cannot afford to rely solely on our own research findings.

We realize that the level of technological development in Ethiopia is extremely low as compared to that of the rest of the world. Technology in use elsewhere is invariably new to us. Yet, a great many of these technologies are compatible with conditions in our country. It would be foolish not to take advantage of what is available globally. Indeed, there is no reason to retard our development by not adopting and adapting such technologies. Hence, the main source of our technology will be from other countries rather than those indigenously developed.

Our research institutions can make a contribution to agricultural development only if they recognize this reality. While maintaining our efforts to develop new, indigenous technologies, our major focus will be on selecting and adapting technologies available abroad. In this respect, unless previous attitudes and approaches are altered, our agricultural development efforts may well be jeopardized. Surveying, selecting and adapting foreign technologies all require a considerable degree of research and professional expertise. Our researchers cannot devote all their efforts to development of indigenous technologies to the detriment of this important endeavor. It is only when our researchers realize that their main task is the former, that it will be possible to ensure the continuous supply of technology that is furthermore continuously improved and suitable for all our agro-ecological zones. This does not mean that the present work being done to develop our own new technologies should be weakened. Research capacity will be improved both to enable more effective adoption of foreign technologies and the generation of our own new technologies.

The selection of appropriate technology and packaging such technology in readiness for adaptation to Ethiopian conditions, is only a first step. As a second step in the processes of technological change, the new technology must be disseminated to producers. Such dissemination can be achieved through various means (writing, seminars, etc.) but in our case the main method is the agricultural extension service. The development of a strong extension service system therefore is a major component of our strategy. In this we will build on current practices whereby it is planned that three extension workers trained at junior colleges will be deployed in each *kebele*. When our plans in this area are fully implemented, we expect to have made a major stride in our extension system. It is, however, not enough. We will also place high-level agricultural extension experts who will support, guide and coordinate such extension workers. Furthermore, we will give the necessary attention to establishing close links between research and extension service institutions as well as to periodically assessing extension services and improving them as necessary. Only if these tasks are accomplished can we guarantee the reliability of technology diffusion among our farmers.

Some technological change and improved agricultural practices can be passed on to farmers through agricultural advisory and extension services and short-term training. But not all new technology can be disseminated in this manner. For example, improved seeds and agricultural implements must be duplicated before they can be disseminated. Hence, the strategy embraces both diffusion and duplication efforts. Duplication must be speedy if it is to be consistent with accelerated agricultural development. If it is going to take years to duplicate a given technology and disseminate it to farmers, then we cannot expect agricultural development to be rapid. Furthermore, duplication is an area where care must be given to ensuring good quality products and in which the costs to farmers must be minimized. This will be achieved as we put in place a technology duplication system in which the government, private investors and farmers participate effectively.

Our vision is as follows. If, for example, we take improved seeds and agricultural implements, the task of generating new technologies, assessing them and introducing them to farmers on a trial basis is the responsibility of the government. Accordingly, the government should create a system that can accomplish these tasks quickly, efficiently and in a manner that is sustained over time although it may improve on it as may be necessary. Once this stage has been reached, the task of technology duplication can be left to private investors and selected farmers. Farmers and private entrepreneurs can participate extensively in seed multiplication. Similarly, significant and separate roles for private investors and government development agencies can be identified in the case of the dissemination of improved agricultural implements.

However, it should be assumed that once the government has brought the task of technology duplication to a stage where it can be carried through expeditiously by the private sector, that it will totally withdraw from the process. The private sector as well as the government, for that matter, is part of a larger system and interaction between the two is inevitable. Furthermore, it will be necessary for government institutions to give support to and help built the capacity of private entrepreneurs and farmers that they may carry out their share of the process effectively. Also, the government will implement quality control measures so that the technology introduced and duplicated is of a satisfactory quality standard. The important thing is to ensure that the duplication system is properly organized and run as efficiently as the research and dissemination aspects of our efforts for technology transfer. Inefficiencies at this end may cause serious bottlenecks that will arrest the entire effort for development.

As it is ultimately the farmers who are going to be the users of the new technology, it is, furthermore, necessary to ensure that such technology is compatible with the needs and utilization capacity of farmers. In this, we have in mind three types of users: (i) the uneducated farmers who constitute the most important group, (ii) the educated farmers who in due course will make up the main category of users; and (iii) a small number of private investors who are engaged in large-scale commercial farming. All categories of farmers will be able to use different kind of technology to different effect. In the case of the first two, intermediate technology packages that can be used by uneducated farmers and more advanced packages for the more educated farmers should be developed and diffused through the extension system. This is the major issue in the context of the country's current economic realities and special significance is attached to the task of proving technology packages to these two categories of farmers though on the basis of their different capabilities.

Commercial farmers tend to apply the most advanced and sophisticated technology. Presently, the number of such private investors is very small although it is expected that their number and share in agriculture will increase in the future. The types of advisory and technological services they require are quite different from those required by small-scale farmers. The agricultural technology supply mechanism will also be different from that designed for small farmers. There is no mechanism at present through which such advanced services are rendered. Although priority in this respect must be given to small farmers, the necessity for devising a system that will cater to the needs of private investors is recognized.

Finally, the viability of the system must be ensured. The supply of improved technologies must be sustained and should not be something done once every so many years. Hence, yet more advanced technologies should be surveyed even before new technologies are being disseminated. The production and marketing problems of farmers should be constantly studied and lasting solutions to these problems sought. That is why our agricultural research should focus on the practical problems faced by farmers, why there should be close links between research and extension services, why practical problems faced by farmers should be quickly identified and brought to the attention of researchers and why solutions should likewise be promptly disseminated to farmers.

If we can develop the farmers' desire to work, encourage initiative and improve motivation; if we can improve their health, and upgrade their skills; if we can supply suitable technologies and create an efficient system for technology duplication and dissemination, then we can confidently say that the critical tasks necessary to achieve our objectives of accelerated and sustained agricultural development are taken care of. But it must be pointed out that agricultural development is not confined to all this. Labor is but one resource. It is also necessary to effectively use our other critical resource: land. This is the topic that we will examine in the next section.

3. Proper Use of Land

We have shown in previous discussions that the basic objective of our agricultural development policy is to make the best use of our human resources by promoting labor intensive technology and enhancing the productive capacity of labor. Utilizing land in a manner that is sustainable and at the same time accelerates our agricultural development is another foundation on which our efforts in this sector are based.

3.1. Land Ownership

In Ethiopia, the issue of land ownership is provided for in the constitution. While it is not the practice in most countries to specify issues of land ownership in the constitutional, in Ethiopia, this issue has been made a constitutional matter on account of the special role land plays in the economic and social life of Ethiopian society. Considerable debate has arisen on whether land ownership should be private or government owned. However, this issue should not be taken in isolation of our vision on land use and accessibility. For a full appreciation of the significance of our land policy, one should take a holistic view to what is provided in the constitution.

The constitution states that land belongs to the people and that the government, particularly regional governments, should administer it on behalf of the people and indicates what role the federal government should assume in this respect. But what is actually meant by a government-administered resource owned by the people? To understand this, it is necessary to consider in some detail the rights that farmers do and do not have over land.

The policy is that every Ethiopian who wants to make a livelihood from farming is entitled to have a plot of land free of charge. Furthermore, private investors, who wish to engage in large-scale agricultural

activities, have a right of access to land on a long-term lease basis. The government, as a custodian of the land, is responsible for land distribution and has the right to re-distribute existing holdings whenever it needs to do so to ensure access by all who require land as a means of engaging in an agricultural livelihood. It can also utilize land not being used by farmers for various purposes, as it deems necessary. If the government, for whatever reasons, takes land from peasants, it will fully compensate them for the capital and other resources invested on the land. It is in this context that land is referred to, as being government owned in Ethiopia.

Because land is publicly owned, it cannot be sold, exchanged for other property or mortgaged. Farmers do not have the right to sell land. Nor do they have the right to have it held in antichresis or to use it as collateral for bank loans. On the other hand, a farmer who has been allocated a plot of land, as a source of his/her livelihood, has the right to use it free of charge and virtually forever. In fact his/her rights may even be bequeathed to heirs. Furthermore, the farmer does not only have user-rights on the land. He/she can rent it out to third persons, may use own or family labor to cultivate it or may hire labor from outside. In this respect, the rights on land are significant and comparable

to private ownership. However, these land rights are not absolute. We have already indicated that, when necessary, the government may redistribute land or use it for a public purpose in which case compensation is paid for capital invested and any improvement made on the land.

This is the essence of the land policy. Several criticisms have been leveled against this policy both from people who have understood it and people who have not quite grasped its significance. The government rejects these criticisms not only because it has a constitutional responsibility to do so, but also because it believes that most of these criticisms are wrong. In what follows we will consider more closely some of these criticisms.

Some people argue that land should be privately and not publicly owned as an ideological position. In doing so, they fail to examine the implications of private ownership for our agricultural and overall economic development efforts. Land is a factor of production like capital and labor. The question of land ownership should therefore be considered from the point of view of output growth and broad welfare objectives and will open the door for meaningful discussion on the topic. We do not want to debate the question of private land ownership for its own sake. After all, it is not a sacred issue that has to be upheld in its own right. It is therefore difficult to attach much weight to criticisms of this kind.

There are those who criticize the land policy on the ground that potential large-scale commercial farmers cannot have access to land because land is held by peasants in small and fragmented plots which by law cannot be sold or exchanged. They argue that this has constituted a major bottleneck to the development of modern farming in the country, thereby also arresting overall agricultural growth. As this criticism at least views the land issue from the standpoint of economic development, it is worthy of consideration. This does not, however, make the argument any less erroneous.

In discussing the issue of land ownership in Ethiopia and its impact on economic development, the point of departure should be the social and economic realities in our country. Let us consider two of these realities, (a) Most of the farmers in Ethiopia are settled in the highland regions where there is a great shortage of land and high population density, (b) On the other hand, there are large unsettled tracts of semi-arid land stretching from the north to the south of the country, which can be developed as rain-fed agriculture, or through irrigation. While it is true that much of the cultivable land is held by peasant farmers, this is mostly in the highlands. Large tracts of unsettled land are also available for large-scale commercial farmers on long-term lease basis although this is in the lowlands. The criticism that the current land ownership policy impedes the expansion of commercial farms is leveled without taking into account the status of land utilization in the country as a whole and is based only on the situation observed in the highlands.

Furthermore, a question that needs to be asked is whether commercial farming would bring about accelerated and sustained agricultural development in the highlands where there is shortage of land and high population density. Assuming that land could be sold, there are two ways in which private investors who buy land in the highlands would use such land. Under one scenario, it would be to displace peasant farmers, consolidate their land and use capital-intensive methods on relatively large plots. This option wastes both capital and labor. It displaces thousands of small holders without creating alternative employment opportunities for them. Causing peasant farmers to be unemployed, particularly in a situation where there is sufficient uncultivated land for large-scale commercial farming in the lowlands would be a senseless waste of productive capacity. This scenario also points to a sub-optimal use of capital. In a country where capital is a scarce resource, it will be used to buy land and transfer land titles from one person to another. As the transfer of land titles is not in and of itself a development activity, it represents an unnecessary waste of capital resources. Certainly, it cannot be justified in a country where large expanses of land can be obtained through long-term leases. Furthermore, in a country where capital is scarce, displacing farmers and using machinery instead of their labor (adopting capital-intensive methods of production) definitely constitutes a misuse both of capital and of labor.

Under a second scenario, investors would buy land and hire the displaced farmers on consolidated land holdings instead of using capital-intensive production methods. This scenario is a wasteful use of capital simply to transfer land titles from one party to another without bringing about any transformation in agricultural practices. Considering the fact that the capital expended to purchase land could have been spent on real development activities, this option cannot possibly be endorsed in a country such as Ethiopia where capital is scarce. Secondly, even in this scenario, there is an inevitable wastage of labor. Farmers who farm their own plots have a strong incentive to work because they are the owners of the final output. Wage labor, on the other hand, has less incentive to put in the maximum amount of work. Farmers who have sold their own lands and are now hired to work on somebody else's farm thus become a less industrious labor force. In fact, there will be a need to hire a supervisor or foreman to supervise their work. This is a considerable waste of labor resources.

Thus, under both scenarios, allowing land to be sold with the aim of consolidating fragmented plots, will lead to the unanticipated result of sub-optimal use in the other factors of production: capital and labor. Mis-allocation of capital to unproductive uses and the dampening of work motivation among farmers or, at worst, replacing farm labor by capital intensive methods will weaken our development efforts. Based on these considerations, we maintain that allowing land to be sold and exchanged is a growth-arresting alternative.

Conversely, our land ownership policy is able to address many of the concerns raised above. It is possible to save capital expenditure on land by providing access to land for large-scale commercial farming on the basis of long-term leases in regions where hitherto uncultivated land is available. In this arrangement, there will be only a modest lease fee and therefore limited capital outlays on land title transfers. Capital would therefore be directed to development purposes rather than for acquiring land. Furthermore, since such land has not been settled by peasant farmers, the issue of displacing farmers does not arise. Also, because at least a limited number of persons are likely to be hired despite the essentially capital intensive method to be used, additional employment opportunities will be created.

To some extent, private commercial farming may also be promoted in the highlands. Even though availability of land is much lower in the highlands, there is some land that, for various reasons, is not utilized by peasants. Such land may be leased out for modern, commercial farming without displacing peasant farmers. Furthermore, peasant farmers may also rent out some of their land to commercial farmers. Modern farming undertaken in this way will generate additional employment and may serve as a model for farmers who may then go on to improve their own farming practices. The existing land policy thus promotes private modern farming both in the highlands and lowlands without capital or labor wastage.

This, of course, does not mean that our development path will not encounter any problems. There are a number of problems that have already surfaced in implementing the land policy. For example, in the lowlands, where land for large-scale commercial farming is available, there is a serious shortage of infrastructure and much of these regions tend to be prone to diseases such as malaria. Yet, as they have the potential to become growth poles, special significance should be attached to development efforts in these areas. An integrated development approach would be appropriate whereby infrastructure and health services, particularly as related to malaria control, are adequately provided. Concomitantly, some work to encourage agricultural labor to seek employment in these regions is required.

Other implementation problems include the process of land leasing. Although many issues associated with land leasing have been removed, there still remain some that need to be addressed. It is expected that such problems will be progressively removed. The problems faced are not related to the land ownership policy. As a matter of fact, this policy is conducive to the development of the lowland areas of the country. The task is to tackle the constraints to implementing the policy, which have in fact become serious bottlenecks to accelerated agricultural development.

There are also a number of implementation problems surrounding the renting out of land by farmers to investors who wish to establish modern farms in the highlands. Although farmers do rent out their holdings on an annual basis, private investors want to rent land for a much longer period ranging from 10-20 years. Besides, they want such contracts to be legally executed. The current land ownership policy allows such arrangements. There are, however, unresolved shortcomings in issuing detailed directives to guide such transactions and in executing them. Also, private investors want to hire relatively large and contiguous pieces of land. To do this, they need to coordinate farmers and rent their combined land holdings. It is difficult to implement this without the active help of regional administrations. Such issues do not spring from the current land ownership policy. Rather than focusing on the ownership issue it is best to fully understand and address the complexity of land access issues.

Growing high-value crops (e.g. vegetables, flowers, fruits, etc.) on both peasant farms and through modern farming methods has the potential of yielding significant economic benefits. A system whereby peasant farmers rent out a portion of their holdings to private investors who, on land rented in from several small holders, run a modern commercial farm and also buy products from peasant farmers (out-grower system) would greatly help to modernize peasant agriculture. In such a system, modern commercial farms would be labor intensive engaging the peasant farmers from whom they have rented in land on a part time basis. It is thus consistent with our labor-intensive development strategy. Furthermore, the modernization of agriculture is accomplished without displacing farmers. This system will be promoted widely in regions where there are reasonably large amounts of land. It will allow farmers to earn increased incomes and to work both on their own plots and the plots they have rented out. In general it is possible to execute the strategy in a way that will not lead to capital and labor wastage and will not displace farmers.

In order to advance an agricultural system as just described, it is necessary to make sure that regional leaders and the people at large have a good understanding of the system and are fully committed to promoting it as a strategy for agricultural development. It is not possible to successfully implement any strategy unless there is sufficient transparency on measures taken to move it forward. Furthermore, it must command the trust and confidence of the people and their regional leaders. Thus as we seek to advance a system whereby peasant and modern farmers operate along side each other, mechanisms will need to be put in place which will enable farmers to rent out their land for relatively long periods, and to ensure that the ensuing land rent contracts are legally and equitably executed on the basis of detailed directives and regulations. Similarly, mechanisms will need to be developed by which regional leaders can accommodate the investment requests of prospective commercial farmers, arbitrate land rent contracts legally and facilitate renting of contiguous plots of land. We will promote an approach whereby peasant farmers operating around commercial farms can advance to modern farming through cooperation and integration with private agricultural investors.

Another criticism related to our land ownership policy relates to the fact that land cannot be used as collateral for bank loans and credits. As a result, the critics point out that banking and financial services cannot be expanded in rural areas which is an important impediment to rural development.

There is no argument over the importance of expanding banking and financial services for accelerating agricultural development. Moreover, it is recognized that banks must request collateral as a safeguard against their loans. Furthermore, although land is not the only property that can be held as collateral, it is a fact that it can serve as

such. However, in the Ethiopian objective reality where a large number of people are settled on fragmented plots of land, land is a poor instrument for the expanding banking services into rural areas whether it be private or under public ownership. With fragmented land holdings as collateral, banks have no incentive to foreclose in case of credit default. They will face difficulties and considerable cost in selling individual land holdings, renting or directly managing the holdings to recoup loan defaults.

Clearly, the possibility for modern banking to expand into rural areas is limited irrespective of the policies on land ownership given that the majority of holdings are small scale. Also, since following up and administering small rural credits is extremely costly, rural banking is not usually an area which modern banks are interested in. For this reason, banking and financial services in countries where private ownership of land is allowed and agriculture is based on small holder farming are even weaker than is the case in Ethiopia.

Where small holder farming predominates, the most effective method for expanding rural financial services has been found to be one that is based on group credit. The collateral for credit is not some material property but the desire of group members to have access to credit and their willingness to execute and administer credit transactions as well as to bear moral pressure on members who would be delinquent in loan repayment. This system was first introduced in Bangladesh where land is privately owned, but in due course it has spread to other countries as well. In Ethiopia similar rural banks have been established and in some regions these rural banks have reached a stage where they can cover nearly all the financial requirements of farmers. They have come to a point where they can render not only credit but also comprehensive banking services. In fact, Ethiopia is now being cited as one of the model countries where such banking has been successfully implemented. There is no evidence more convincing than this to prove that the use of land as collateral is not a precondition for the expansion of rural banking services and that private ownership of land does not necessarily promote the expansion of such services.

Nevertheless, we do not consider the group credit system as the sole means of expanding financial services in rural areas. Farmers' output may be held as collateral. Farmers' movable properties could also serve as collateral. Moreover, farmers that are organized within cooperatives could access financial services much the same way as through the group credit mechanism. Thus, it is possible to expand a rural financial system through multiple directions without the need to hold land as collateral.

Yet another criticism leveled against the land ownership policy is related to the question of land seizure and redistribution which the government, in principle, has the right to exercise. According to the critics, farmers do not have full trust in their user-rights over their land as the government can at any time confiscate the land or redistribute it. As a result, farmers are reluctant to improve the land. Such reluctance towards investing in land would, of course, exert a negative impact on agricultural development.

In connection with this argument, it should be noted that governments have the power to put land to public use even in countries where land is privately owned. Government may have to pay compensation, but its power to seize land when it deems necessary is legally recognized. By the same token, in Ethiopia if the government wishes to take land from farmers, our land policy stipulates that the government must pay adequate compensation. The fact that land is publicly owned makes no difference in this regard. Since the amount of land to be taken by the government for social purposes is very limited, the negative impact on the incentive of farmers to invest in their land holdings is minimal.

Redistribution of land is a slightly different issue. Even if land is not periodically reallocated in actual practice, the very possibility of redistribution creates insecurity, which is detrimental to investment in peasant land holdings. But this is only one facet of the issue. People who have not had the opportunity to obtain land through an initial land distribution would be rendered landless if there is no prospect for land redistribution potentially causing unemployment and considerable labor wastage. Hence, the conflict between equitable access to land and security of land holdings must be resolved in a manner that takes all aspects of the issue into account.

What we follow, as a matter of principle, is to not periodically redistribute land. Simply because land is publicly owned does not mean that it should be re-allocated every so often. Land ownership and redistribution are two separate issues. What in fact has been the practice in the past ten years is not to redistribute land. Furthermore, as a means of protecting farmers' rights to existing land holdings, a system where such holdings are registered and a certificate of user-rights given has been introduced. In this connection, the government guarantees that land will not be redistributed for a period of time ranging from 20 to 30 years. That some regional administrations are implementing this kind of land policy is a step in the right direction. The policy will be further consolidated and improved in regions where it is already being put into effect and should commence in regions where it has yet to be put into practice. Clearly, such mechanisms to protect farmers' land use rights will help address issues of land security that are often raised in connection with our land ownership policy. But, as argued above, this is but one aspect of the problem. The issue of the lack of access to land by young farmers and others who for one reason or another were never allocated land remains a concern. Addressing this aspect of the problem has a long and short-term dimension.

Rapid economic development will, in the long run, provide a satisfactory solution as it holds out the promise of increased employment opportunities outside of the agricultural sector. Although, today, the leading sector is agriculture, it is inevitable that industry and other non-agricultural sectors will advance rapidly with accelerated economic growth. Industry will eventually play the leading role in the national economy once the initial agricultural-led development is successfully implemented. As the economy develops in this direction, the size of the labor force employed in agriculture will diminish and the shortage of land in rural Ethiopia will likewise decrease. As a consequence, a situation will be created in which farmland inherited from parents will be enough to accommodate the available agricultural labor.

While the prospect of economic growth provides a long-term solution to the problem of land access, more current solutions are obviously necessary. The issue of land access for young peasant farmers can be tackled by applying a combination of strategies. Firstly, improvements in land use and productivity should allow a situation whereby land may be redistributed without disrupting the small holder system. Secondly, voluntary land settlement and re-settlement programmes can be used to alleviate land shortage as well as to develop hitherto uncultivated lands. Thirdly, the introduction of modern labor-intensive technologies may be a reliable solution for engaging young farmers particularly farmers whose capacity has been enhanced through training. When the strategy for

introducing modern technologies into small holder agriculture takes root, labor that is required to work the land would be greater to that currently employed on peasant farms. In fact, a shortage of additional labor can easily become a constraint to farmers adopting such technologies. For example, on vegetables and irrigated farms, we find that there is a tendency for farmers to utilize the labor of their offspring, thereby relieving their children's land access problems. Such close family labor relations are helpful in making maximum use of the total labor available.

In short, the simple reality of land being publicly owned does not mean that land should be periodically re-distributed. In fact, as the constitution elaborates the land policy, it states that land can be bequeathed to heirs. Thus, the intent of the policy is not to redistribute land. Nor is land redistribution inherent within the policy. The issue of redistribution arises not from the nature of the land policy, but from the reality of a pool of potential young farmers whose access to land is severely limited. As stated above, their situation will, in the long run, be solved through rapid economic development. In the short-run the issue is addressed through the application of a combination of measures that does not necessarily entail land redistribution. In such a way, security of land tenure is guaranteed and accelerated development may be ensured. Public ownership of land poses no impediment whatsoever and the criticism of the land ownership policy based on this argument is thus without a real foundation.

The danger of land fragmentation is also used as an argument against our land ownership policy. The criticism runs as follows. As land cannot be sold but can be bequeathed, it follows that land will continuously be re-divided as it is; inherited by succeeding offspring, ultimately making its size uneconomical to operate. On the other hand, if land can be sold, it will progressively be consolidated.

It has already been argued above that, in a country where employment opportunities outside agriculture are limited and where capital is scarce, allowing land to be concentrated in the hands of the few will be detrimental to overall economic growth since capital will be misallocated and labor underemployed. The issue of land fragmentation and consolidation should be seen in this light. In particular, we must guard against displacing a large number of farmers, which will inevitably cause massive social problems and may even be detrimental to peace and stability. It is also to be noted that where agriculture is backward and economic growth still sluggish, the division and re-division of land as it is passed on from one generation to the next is inevitable even if land is privately owned. For example, in our own country, before the agrarian reform, land was constantly divided and re-divided particularly in what are called the *rist* tenure systems. Clearly, the type of land ownership is not the determining factor in the re-division of land.

Hence, the most reliable solution in this respect would be to ensure accelerated overall economic development that would allow rapid growth in the non-agricultural sectors and generate employment opportunities for the labor presently held in the agricultural sector. As rural labor is thus drawn away from agricultural employment, land will be consolidated rather than fragmented. Where land is privately owned, land consolidation proceeds through the sale of small plots of land. Where land is publicly owned, the process of land consolidation is effected by reallocating land away from those who have shifted their living to non-agricultural activities in favor of those who depend on agriculture for their livelihoods. As the experiences of developed economies show, this process eventually leads to an acute shortage of labor in rural areas and to its eventual replacement by agricultural machinery. In fact, rural areas lose their youths so much so that they become populated with only elderly persons and children. In the United States of America, which has a highly productive and efficient agricultural sector, only about 3 percent of the total population is employed in agriculture. Here it is impossible for land to be re-divided and fragmented.

In previous sections, we have shown that the development path we are pursuing guarantees rapid and sustained economic growth. As such, it will promote the consolidation of land and will greatly minimize the opposite process of fragmentation. As the rural population is increasingly absorbed in non-agricultural activities, land will be taken from such people and larger plots of land will be allocated to farmers who continue to earn their livelihood from agriculture.

Another criticism of our land ownership policy argues that farmers are tied to small plots of land. Unable as they are to sell their holdings, they are impeded from seeking employment opportunities outside peasant agriculture and are thereby forced to eke out a meager livelihood on their small plots. It is argued in fact that the land tenure structure arrests the mobility of rural labor towards other sectors where it can be employed more productively, hence impacting negatively on overall economic efficiency.

Although the arguments sounds plausible, the fact that farmers do move to sectors where they can earn more income can be clearly seen from the considerable in-migration that, for years now, we have been experiencing in our country. The migration is not only from rural to urban areas. It also from land-deficient and rain-deficient regions to regions where both land and rainfall are relatively more plentiful. Hence, there is no evidence to corroborate that our land ownership policy is an impediment to labor mobility. Where labor mobility is constrained, the underlying reason is really not that peasant farmers are tied to their land holdings, however small, but rather the lack of employment opportunities in non-agricultural sectors. The land policy actually helps farmers in the sense that if they do migrate to urban areas and unfortunately fail to find alternative employment, they can always go back to their original land holdings.

It is recognized that when farmers leave agricultural holdings for employment in urban areas with the potential of earning better incomes, this is positive not only for the migrating farmers themselves but also for overall economic growth. The existing land ownership policy does not impede labor mobility of this nature. However, in the absence of better employment opportunities, the policy encourages farmers to remain on their land, thereby avoiding unproductive and potentially harmful labor mobility. The policy thus protects the livelihood of farmers and promotes overall economic efficiency. If land were sold, farmers who migrate to cities would in effect be unable to return to an agricultural livelihood if alternative employment opportunities do not materialize. They inappropriately use land in a way that leads to poverty and the backwardness of agricultural production. Many hillsides and sloping lands, which should not be farmed, are cultivated and deforestation is going on as farmers seek to increase incomes by expanding agricultural production rather than increasing productivity on normal farmland. If measures to increase land productivity are intensified and alternative productive uses are found for hillsides, and if forest development can be turned into a source of agricultural income, then people would use these resources in a more sustainable

manner. Thus to promote better land use, it is necessary to target the issue of poverty as well as backward and narrow agricultural practices.

Our agricultural development strategy seeks to increase productivity on lands suitable for farming through the use of improved technologies and water conservation measures. As output per land holding increase, farmers will be less likely to expand into forests and hillside, which would otherwise aggravate soil erosion. Nevertheless, hillsides and forested land will be most effectively protected only if suitable and appropriate uses can be found for them. Hence, we will promote the use of hillsides for pasture, or for various plants, which do not require farming proper, but will allow farmers to obtain some income from such lands. Similarly, forestlands should be made direct sources of income for farmers. We will work towards developing a technology package, which can bring this about.

Our approach will be to combine two strategies. On the one hand, we will seek to develop a technology package, which will be instrumental in enhancing land productivity, and in developing alternative income sources on the various types of lands available to farmers. We will also build farmers' capacity to make effective use of this technology package. This effort will be accomplished over time and will be improved in the process. On the other hand, we will formulate a comprehensive land use policy and the accompanying implementation rules and regulations. We will also establish an institution, which will implement these policies and directives. This task is also to be improved over time as feedback is obtained from the practical experience of its implementation.

3.3. Water Resources Utilization

There is no question about the importance of water for agriculture, which is almost inconceivable without this key resource. Moreover, not only is it important that water be available but also that it is available in the right quantities and at the right time. Hence, a reliable water supply and management system is essential for accelerated agricultural development. Indeed, if water is made available all year round, it is possible to more productively engage the agricultural labor force and, as such, should be considered an important policy target.

Ethiopia is endowed with vast surface and underground water resources. To make optimal use of such resources, appropriate water policy and legislation is required. Such a policy is now in place, issued by the federal government and in the first stages of

implementation in regions where it can be put into effect. Although there is plenty of room for improvement, the major part of the work has already been done.

Policy formulation although important must be supplemented by an effective water conservation and management system if it is to contribute to a situation where water is readily available and used appropriately. Such a system we lack. As a consequence, people in many regions of the country face water shortages even where there is abundant surface and under-ground water. Some drive their livestock from locality to locality in search of water. Others, depending on rainfall for agricultural production, fail to practice all-year-round cropping (lacking water conservation facilities) and thus lose potential output. In many regions, variability in rainfall means that agricultural output and general production levels fluctuate from year to year. Increasingly, intermittent rainfall and drought are making a large section of the population vulnerable to famine and starvation.

As the vernacular saying "the child of the Nile is thirsty" indicates, we have been unnecessarily exposed to poverty and become vulnerable to hunger simply because we have failed to devise and put in place an appropriate system to control and manage our water resources. In this regard, there are limitations in technical capacity and financial resources required to install and operate such a water management system. A number of political and economic problems have conspired to keep such limitations binding.

Most of our rivers, particularly the tributaries of the Nile, flow westwards across international borders. Sudan and Egypt, particularly Egypt, make extensive use of the waters of the Nile and as a result have long been highly dependent on this major river. Moreover, they have completed plans to make even more extensive use of these waters and thus fear that their interests will be jeopardized if Ethiopia steps up her use of the Nile. In this regard, the main protagonist is Egypt and with her allies has more or less succeeded in virtually blocking foreign loans and grants to Ethiopia destined for the development of our water resources. Lack of financial resources remains a major constraint in our efforts to develop Ethiopia's vast potential water resources.

Realizing this important problem, we have approached our water resources development endeavors from various angles. On the one hand, we are investing, from our own financial resources; e.g. constructing dams at Tis Abay and Tekeze (planned). On the other hand, we are also negotiating equitable water sharing schemes for the Nile basin through which we hope to convince Nile riparian countries that there is no credible alternative to an equitable arrangement and to persuade the international community to support water development schemes on our major rivers.

Results so far are encouraging on both fronts. As far as developing our water resources using domestic finances, we are doing as much as our financial capacity permits. Negotiations on equitable water-sharing arrangements for the Nile basin through a World Bank-coordinated effort to forge a common understanding among Nile-riparian countries are also showing promising signs. Ethiopia, Egypt and Sudan have agreed on a 20-year water development and utilization plan. For Ethiopia, the plan indicates that a great deal of environmental protection will be done, that excess electricity generated may be exported to neighboring countries and that many irrigation development schemes can be undertaken. Only time will tell how effectively this plan will be implemented. Substantial foreign aid is expected towards its implementation, particularly for natural resources and environment conservation and protection projects. However, financing for dams is expected largely from private investors and developers. The acceptance on the part of Sudan and Egypt, particularly Egypt, of Ethiopia's plan for large-scale dam construction and irrigation projects around the Nile basin is in itself a major diplomatic concession and breakthrough. These developments are expected to create a more favorable situation for mobilizing foreign loans and grants and encourage the participation of private investors.

Technical capacity, particularly the shortage of hydrologists (both those trained at the university level and lower level technicians), is an even more serious constraint to exploiting our water resources than the shortage of finances. This particular capacity problem has been a key factor in our failure to work out and implement an appropriate water resources development plan. To realize our objectives for water resources development and by extension to develop agriculture, we will first need to tackle this constraint be it through the mobilization of foreign loans or grants or using our own financial resources or through the participation of private investors. The training of the hydrologists and other related professionals is a task that will be accorded the highest priority.

Meanwhile, we are trying to build the country's water resources development capacities. Master plans have been prepared for our major rivers and work in this regard is still continuing. The master plans involve foreign experts who work in collaboration with national counterparts giving the latter an opportunity to widen their experience and expertise while at the same time ensuring relevance and quality of work undertaken. Efforts have been made to train top and middle-level professionals and technicians by strengthening and expanding the Arba Munich Water Technology Institute. This effort will be redoubled in the future. A recent program to train hydrologists and hydro-technicians at junior colleges and to assign these experts to *kebeles* has been introduced with great promise for the country's small-scale water resources development efforts. Of the experts assigned at the *kebele* level, a professional who has specialized in natural resources conservation and protection and the development and medium-scale irrigation schemes will be included. This will give technical support to water conservation programmes at the *kebele* level.

All the above efforts are essential for developing our ability to utilize our water resources, but are insufficient to fully address capacity constraints we are facing in the sector. In *tandem* with these efforts, we will augment the financial resources available for small-scale water resources development. Thus we will adopt a three pronged approach to addressing capacity constraints in the water sector. This is elaborated further below

It is our policy to substitute labor for capital in all our development efforts. Here too labor-intensive methods will underlie our development strategy. Our starting point is improving the agronomic practices of peasant farmers so that agricultural practices incorporate better water utilization. We will promote strategies that will enable farmers both to conserve and control rain water. We will also promote simple technologies (which can be devised by farmers themselves) to conserve runoff and flood water and use it for irrigation. Medium-size river diversion and dam construction are another option.

Towards this, two important tasks need to be undertaken. First, there is a need to develop a multi-purpose development package with multiple alternatives for conservation and control of rain water and for improvement in water utilization as well as for the application of technologies that will improve the utilization of other sources of water. A single strategy for water development, however effective it may be, cannot produce all the desired results. An integrated water development strategy that embraces several technologies is the most effective strategy. We should combine all the known technologies, reassess them, use them as an integrated water development package and improve the package on the basis of practical experience.

Secondly, we will need to ensure that most of the improved water utilization and conservation techniques are carried through by farmers themselves on and around their farm plots. Of course, there is a need to assist farmers with technical advice, training and credit services. However, the main work should be carried out by the farmers. In a capital constrained situation, the most feasible option for water resources development is to apply labor-intensive techniques integrated with small holder farming. Side by side with this, river diversion and medium-size dam construction for irrigation purposes may be undertaken by mobilizing relevant communities through their *kebeles*. If we can accomplish our water resources development endeavors by mobilizing the people with some technical and financial support through credit services, we can improve on our water resources to an extent that is perhaps now difficult to imagine.

Although our major water development strategy focuses on the use of labor-intensive methods and on the active participation of farmers as well as the public at large in undertaking different water development projects, this effort alone cannot guarantee complete success. Thus side by side we will encourage the participation of both foreign and domestic investors in water development projects. The current policy encourages private investors to build hydroelectric dams and run them for profit. A similar policy stance encourages and induces private participation in the construction of irrigation dams. The existing government policy is sufficiently attractive to private investors and there is not much of a problem in this respect.

The major problem regarding the construction of large-scale irrigation dams is the lack of infrastructure facilities in the areas where there is potential of doing so. There is also a shortage of labor much as in the case of the areas delineated for large-scale commercial farming. As indicated earlier, the problems can be addressed through an integrated regional development strategy. On the other hand, the direct and indirect pressure exerted on foreign investors to discourage them from investing in water development projects on the Nile river has been considerable. We expect that this issue will be addressed on the basis of the common agreement among Nile riparian countries regarding the development of the Nile basin. However, since the investment opportunities regarding the development of the Nile basin are not well known among potential investors, there is a need for some work to publicize such opportunities. In general, encouraging private investment in water resources development is our second basic strategy for development in the water sector.

Finally, the government will also make a significant contribution to water resources development through its budgetary resources. The main focus in this respect will be on relevant education and training, in developing and disseminating labor-intensive technologies and in actively promoting the participation of private investors in water development. Furthermore, the government will be engaged in the construction of hydroelectric dams and will simultaneously extend the use of such dams for irrigation purposes. This is a major development task that will involve government investment. In sum, the development and proper utilization of our water resources is the third pillar on which our objective of accelerated and sustainable agricultural development is based. Improving water development policies and directives and their proper implementation, educating and training the necessary manpower, engaging farmers in water development

and conservation practices, and encouraging private-sector participation in large scale water resources development projects are the main strategies through which we plan to develop our water resources.

4. Preparing Area Compatible Development Packages

Our efforts towards agricultural development need to be consistent with the particular conditions prevailing in each region of the country. Diversity in agro-ecological zones as well as other reasons that will be discussed below requires that this should be a basic consideration of our strategy.

4.1. Combining Efforts towards Diversification and Specialization

The diversity in agro-ecological zones means that a variety of agricultural products can be produced in different regions. It also means that regions vary in the type of output that they can most efficiently produce. Clearly, a product that is widely produced in a given region may be unknown in another. Accordingly, our approach should be to develop interventions that differ according to conditions in particular agro-ecological zones and to implement development programs accordingly. This implies specialization of production according to the conditions in each agro-ecological zone. Such specialization will maximize the benefits accruing to farmers and contribute to overall economic development. Let us clarify the concept of specialization further by taking some examples.

Arssi and Bale Zones of the Oromiya Regional State are well known for their large wheat production. On the other hand, Gedeo in the Southern Nations and Nationalities Region produces first-class coffee. If farmers in all three zones attempt to produce both wheat and coffee, the result will be a lower level and perhaps even lower quality of output because farmers will in part be engaged in the production of output for which the agro

ecological conditions are not well suited (coffee in Arssi and Bale, wheat in Gedeo). Similarly, some regions are close to urban centers, main roads and/or airports and thus have good access to markets. This allows them to produce and sell perishable products such as vegetables, flowers and milk. By contrast, there are many regions that are more remote. In such cases, it takes a long time to transport produce to a market. If farmers in such regions produce perishable products, their output will spoil by the time it reaches the market, causing considerable losses. If these two regions produce similar products, one will lose by not taking full advantage of its proximity to markets and the other by producing goods that spoil before they are sold off. They would rather benefit from producing solely products that are non-perishable and easily transported.

Thus, in promoting agricultural development, we will not prepare the same technology package for all regions. Since regions differ in what they can produce, how they can market output once it is produced, etc., it is more useful to develop different packages, which take into account the particular conditions of each region and thereby support regional specialization. Thus, maximum gains can be derived from the development process. In the first few years, we will support specialization across regions and agro-ecological zones. But in due course, it is expected that specialization will extend further among farmers within the same region. We illustrate this by referring back to the example cited above. In Bale where crop production may be taken as the main agricultural activity, some farmers may find it profitable to specialize in seed multiplication. The gains from such specialization will benefit the farmers as well as the whole farming community that will now have access to improved seeds produced by specialist farmers. As specialization progressively expands in scope, it will eventually become a strong foundation for rapid agricultural development.

However, specialization cannot be imposed on farmers. Rather, farmers must determine the profitability of specializing in any particular production and once convinced of its merits, should be left to do so voluntarily. The government's role is simply to prepare different technology packages that are best suited to each region and agro-ecological zone and to help farmers to adopt these packages. In this connection training of agricultural extension workers and the education of farmers will be geared towards such regionally oriented technology packages. Regional specialization based on regionally compatible technology packages is a key element of our agricultural development strategy*

There are a variety of activities subsumed under agriculture. Animal resources development is one such activity, which itself embraces several different products and operations. There is, of course, also crop production as well as fruits, vegetables and spices production, etc. all of which also include different products and operations. The same goes for soil and water conservation and agro-forestry. In short, agriculture is a wide sector comprising many sub-sectors and a wide range of products. Therefore, even though we will promote specialization across regions and agro-ecological zones, we nevertheless expect farmers to engage in mixed farming (diversified production). Thus, our strategy combines both specialization across regions and diversified production on individual farms.

The promotion of mixed farming on individual farms is important for greater security of farmers' incomes than is the case at present thereby reducing their vulnerability to shocks. Clearly, in a mixed farming system, if one product fails it will be compensated for by the success of another. Similarly, if the price of one product drops due to changing market conditions, it will be offset by the rise in the price of another product. In this way both production and revenues may be stabilized through a strategy of diversification. Considering the very low level of our agricultural development, such a strategy appears to be the only viable alternative that we can consider without undue risks to our farmers.

Mixed farming also contributes to a more effective utilization of both labor and land resources. While agricultural production is seasonal by its very nature, in mixed agriculture, farmers can smooth agricultural work over seasons as different production processes are likely to have different seasonal cycles. Thus it is possible for farmers to be more fully engaged all year around. Land will similarly be more or less fully utilized. When mixed farming is combined with water resources utilization and improvement, it will considerably increase the productivity of both labor and land.

To this end, regional technology packages comprising several products and activities will be developed and farmers will be encouraged to select those that they think will make the greatest contribution to their farming activities. Assigning to each *kebele* at least three development agents who are trained in different agricultural disciplines would facilitate the work in this respect. Development agents will be trained to perform several activities in each agricultural sub-sector, particularly in those activities, which yield maximum returns in the regions to which they are assigned. Training and education given to farmers should also enable them to practice mixed agriculture. As our agricultural technology improves in the course of time, each farmer will be inclined to specialize in one or two products as his/her main agricultural activity. This, of itself, will promote specialization across regions.

To sum up, the technology packages and training programmes we prepare should be such as to promote a diversified agricultural sector in the context of which there will also be specialization. At present, such specialization is largely based on the existence of agro-ecological zones and promotes the specialization according to the comparative advantage resulting from differences in agro-ecological zones. As such, it exhibits a regional character. Within the overall context of regional specialization, there will also be mixed agriculture on individual farms. Thus, we expect production of several of the specialized products of each region on each farm plot. In other words, we will pursue a development strategy that fosters agricultural diversification based on regional specialization. Regionally compatible technological packages and, within these packages product-specific schemes, will be prepared and our agricultural extension services and training programmes will be based on these packages. This strategy will ensure rapid and sustained agricultural growth by promoting the full employment of our labor and land resources all the year around and maximizing production in each region.

4.2. Development Efforts in Drought-Prone Regions

The principles of regional specialization and diversification on individual farms as outlined above are applicable to all regions of our country. Some regions, such as the drought-prone areas where millions of people are becoming increasingly vulnerable to hunger and where desertification is posing a serious danger to agricultural livelihoods, do, however, require special attention. We now turn to a discussion of our developmental approach in such regions. A major feature of drought-prone regions in Ethiopia is intermittent or inadequate rainfall. They are also constrained by considerable soil depletion due to years of imprudent land use that has caused soil erosion over an extended period of time. In addition, land shortage is chronic. Although food insecurity is experienced in practically all parts of Ethiopia, it is in these regions where it is most intensely felt.

Accordingly, our development efforts in these regions will be centered on ensuring food security. We note that it is not only through agricultural development that food security may be guaranteed. Basically, food security is achieved as people earn an income that is sufficient to secure enough food and does not necessarily mean that everybody must produce his/her food requirements. Hence, food security may be achieved outside the agricultural sector, notwithstanding the fact that at times people with sufficient income may not be able to purchase the required food items due to lack of road access. However, since most of the employment opportunities in Ethiopia today are found in agriculture, the main strategy for ensuring food security must include accelerating agricultural development.

4.2.1. Emergency Assistance

Agricultural production in the drought prone areas is as yet not fully viable, as it remains almost totally rain-fed. Furthermore, fertility is low as a result of soil erosion. This, coupled with the backward agricultural technologies in use, has caused severe fluctuations in annual output levels. The implications of this for our agricultural development strategy are adverse and significant in impact. We will therefore concentrate on reducing, in the long and medium term, these regions' vulnerability to drought and other natural calamities. Our strategies for water resources development and utilization, natural resources protection and improvement in agricultural technology will all help to reduce these vulnerabilities. In the mean time, however, effective emergency response and disaster prevention is required to reduce the exposure of our people to dangers arising from production losses due to drought. The agricultural development program should therefore be supported by greater capabilities in emergency response. In this respect, the government's disaster prevention and preparedness programme already in place carries considerable weight.

What will be the salient features of our emergency response? Firstly, it is essential to ensure that vulnerable groups receive assistance without being displaced. Secondly, for those who are able to work, the assistance should be in the form of payment for regional and community development work, while those who cannot work may receive assistance freely. This approach, while contributing to addressing vulnerability, will at the same time, promote popular participation in the acceleration of agricultural development. Food aid is the predominant form of assistance during emergencies and indeed also to address chronic food shortages. Although playing a significant role in life supporting programs, such assistance has also had certain negative side effects. It is usually the case that, even during the most serious emergencies, there are certain regions within the country that produce surplus food when other regions face drought and resulting food shortages. If, instead of first using the available food surpluses in these regions, we import food from abroad albeit as food aid; we will unduly depress the market in which regions that have produced a surplus sell their output. In addition, when drought victims receive assistance in kind (i.e., food aid) rather than through the market, the rural marketing system is weakened. We maintain that the best form of relief assistance is in the form of cash for work and where, food aid is provided, that it be, to the greatest extent possible, procured domestically, i.e. from regions that have produced a surplus. These are the strategies that we will put into effect to combat rural vulnerability.

4.2.2. Land Settlement as Part of the Solution

Present agricultural practices in the drought-prone regions are inadequate to bring about sufficient production to ensure food security for the people settled in these regions. That is why it has become necessary to provide relief assistance for millions of people every year. It is possible to enable these people to feed themselves and even produce a surplus by radically transforming agricultural practices and

enhancing agricultural development by *inter alia* promoting the application of improved technologies. This, of course, is a long-term endeavor. We obviously cannot allow millions to suffer hunger until this is attained. Hence, resettling a certain number of people living in these drought prone regions in areas where there is enough land and rainfall is a strategy that we will implement to expeditiously realize the objective of food security.

We note that the experiences under the *Dergue* regime have demonstrated that resettlement should be undertaken with care and the manner in which the government carries out a settlement program is crucial for its success. Indeed, if it is misconceived, the negative effects may far outweigh its positive aspects. The main defect of the *Dergue's* settlement programme was that it was not voluntary. Since a program carried out by force and imposition cannot be successful or viable, the *Dergue's* settlement program failed miserably, causing considerable damage to those who were settled in this way. The *Dergue's* settlement was guided by an incorrect political outlook harboring the notion that peace and security in border regions could be maintained by populating them with people from other regions. This unnecessarily caused friction and mistrust among various ethnic groups. The program therefore collapsed. The other shortcoming of the *Dergue's* land settlement program was that it was carried out hastily and was not integrated with regional development efforts. Care will be taken to avoid all the shortcomings of the *Dergue's* settlement program.

While we believe that resettlement is a crucial means for promoting food security in Ethiopia, if people are unwilling to move to new settlements despite their food insecurity, then the envisaged settlement program cannot serve as a means of promoting food security. Nevertheless, the experience in Ethiopia shows that Ethiopians through out history have migrated when faced with land shortages and production difficulties ~ to regions where land is more plentiful and also from the highlands to the lowlands. Although most of such migration has been confined within given regions, inter-regional migration also occurs. Hence, we know that people do move to better places on their own initiative. So, it is fair to assume that a large number of people will be more than willing to be settled if a well planned and government-assisted settlement programme is put in place. That is why we strongly believe that resettlement can be effective as a major instrument for ensuring food security. It is a crime to try and settle anybody against his or her will, and such an effort will never produce anything positive. We will make absolutely certain that the people to be settled are completely free to make their own choice in this regard.

We note that although people have been known to migrate on their own account, such isolated instances of resettlement cannot be seen as a lasting solution to problems facing people who are currently settled in drought-prone areas. Spontaneous migration, particularly when it occurs on a large scale, tends to exacerbate the unsustainable use of natural resources and to create friction among ethnic groups. This has actually been witnessed in recent times. If settlement is to be positive contributing to rural development, it should be conducted according to a well-conceived plan and with government assistance. Spontaneous and privately initiated settlement efforts are increasingly becoming a source of economic political and social turmoil. Our strategy is to underpin all efforts in this regard on a well-conceived plan. It is to be supported by the government and will be a major instrument for promoting food security.

In order to implement a settlement programme, it is not only necessary that people be willing to be resettled, but also to identify unoccupied land on which to settle these people. Here again, the land selection procedure should be carried out in a manner that will not repeat the political crime perpetrated by the *Dergue*. The settlement should in the first instance be conducted within regions rather than across regions. Fortunately, all Regional States have unoccupied land which can be used for settlement purposes. So, the settlement programme will largely be conducted within Regional States thus minimizing ethnic conflicts.

Most of the lands available for settlement are found in the lowlands. As already discussed in connection with the issue of land leases for commercial farming, these are areas that lack basic infrastructural facilities and pose serious health hazards. It is therefore inconceivable to implement settlement programs in these areas without first providing the necessary transport, health, potable water and educational facilities and services. If such infrastructural facilities are to be put in place, it should not be for the sole purpose of the settlement programmes, but also for promoting overall regional development, encouraging private sector participation and ensuring the supply of labor for productive employment. Our main strategy in connection with resettlement is thus to build, in advance of actual settlement, infrastructural facilities and provide basic services based on overall regional development programs in areas where settlement programs are to be conducted. Most of the development work outside this will largely be performed by the settlers themselves. For example, the settlers should be able to build their homes. The government may provide some financial assistance in the first year, but settlers are generally expected to be self-sufficient within a short period of time.

Another aspect of our strategy will be to adopt a phased approach to the settlement of a family. Thus, instead of moving the whole family all at once, it would be more convenient to first settle the household head engaging him/her in development work. In this manner, one family member will prepare the groundwork for the settlement subsequent to which the rest of the household would join the initial settler. It is also advisable to allow would-be settlers to retain user-rights on plots of land in their original localities, as well as on plots in the regions where they are to be settled until such a time as they become reasonably self-sufficient in their new settlement areas. We should draw on our traditional agricultural experiences in this respect where such practices have been allowed. In general, the settlement programme is to be conducted without haste and should be improved on the basis of feedback from practical experience and implementation problems encountered. It should also enable settlers to use their labor power effectively and be self-sufficient within a reasonably short period of time.

We also note that unless the settlement program is carefully executed, it can cause considerable environmental damage. We will therefore pay particular attention that an execution modality ensuring environmental protection and closely integrated with local land use programs be adopted. Hence, each settlement program will be executed in a manner that will promote sustainable natural resource management and that will maximize the benefits from overall regional development. It should enhance and/or develop the protection of forests, wild animals and water resources. Furthermore, comprehensive extension services will be given in all settlement areas. This will help increase yield per unit of land and discourage the extensive use of land, thereby also preventing potential damage to the environment. If the settlement program is implemented as described above, it is possible to enable a large number of people to have access to land where there is adequate rainfall, hence significantly increasing production and ensuring food security. After a few years, settlers may not only be self-sufficient in food, but may also be able

to support relatives and friends who have opted to remain in the drought-prone areas. In this manner, they will make a significant contribution to both food security and accelerated development.

Given that settlement programs will, in most part, be executed in the lowland areas where large-scale commercial farming is to be promoted, it is possible that both settlers and private investors will actively participate in the development of these regions particularly if backed by infrastructural development and integrated with regional development endeavors. Consider that the commercial farms will provide employment opportunities and settlers the required labor. Thus, hitherto undeveloped regions may, in the space of a few years, become growth centers. It is not difficult to imagine the tremendous contribution this will make to the country's overall economic development. The benefits will not be confined to the settlement areas. It is expected also to have a favorable impact in the drought-prone regions as it will relieve the land shortage prevalent in these regions and pave the way for improvements in land use and hence higher productivity.

4.2.3. *Natural Resource Conservation and Development of Animal Resources*

Although insufficient and intermittent rainfall is the chief characteristic of drought-prone regions, the depletion and degradation of natural resources, deforestation, soil erosion and inappropriate hillside farming are also serious concerns in these areas. By reducing the pressure on land, the settlement programs will contribute to more sustainable utilization of natural resources as well as to environmental protection. It will offer an opportunity to regenerate the degraded and depleted natural resource base in these regions. Our strategy for agricultural development in these regions must take regeneration of natural resources as well as soil and water conservation and environmental protection as a matter of great importance. We must do so before these regions deteriorate into areas where no meaningful economic activity can be carried out.

It goes without saying that such efforts should be undertaken in a manner that will maximize benefits to the rural population whose livelihoods depend on these resources. For example, hillsides may not be used for farming, but alternative activities such as pasture development and the growing of a variety of plants for animal fodder may be undertaken together with soil and water conservation efforts. This approach will promote both the protection of the natural resource base and help farmers to derive better incomes from such activities as animal husbandry through pasture development and fodder production.

Forest development may be seen from a similar angle. Interventions in this respect should not be carried out simply as a forest development exercise done for its own sake. As trees are planted, tangible benefits should accrue to the communities where such forests are being developed. We should have in mind agro-forestry in which farmers are able to gather forest products and sell them without damaging the afforestation efforts. Similarly, forests should be managed as income generating activities in which farmers produce and sell wood, fruits and other forest product.

The process of natural resources management (that protects the environment and generates an income for farmers demands patience, time and great effort. There will be periods when farmers have to exert a considerable amount of work without obtaining any concrete, short-term benefits. Hence, it is necessary to sensitize communities about the potential medium term benefits and long term necessity of the sustainable management of natural resources. Furthermore, efforts in this regard require active support by the government including *inter alia* the development and/or selection of relevant technologies to be made available in appropriate packages. We have practically no experience in this field. This makes the development challenge complicated. However, we will draw on the experiences of other countries and on the little indigenous experience we have accumulated over the years.

We feel that focusing on animal resources development in these regions will provide a viable option for expanding agricultural activities and income and, as alluded to above, can be well integrated with efforts towards environmental protection. Animal husbandry is an activity that does not require abundant rainfall and can also be managed on average soils. Thus, it can be adapted to conditions of the drought-prone regions that suffer from lack of adequate rainfall and soil erosion. Some activities, such as poultry and bee keeping, do not even require a lot of land another important constraint in the drought-prone regions. Moreover, the benefits from animal husbandry are multiple, providing a variety of food for domestic consumption (eggs, milk, honey) as well as cash income from the sale of animals and their products. Animal feed can be produced on lands that are not appropriate for farming particularly if the whole activity is integrated with environmental protection programs. Hence, the major development priority in drought-prone regions will be on animal resources development.

The development of animal resources will include the improvement of our animal breeds, as we cannot bring about significant changes in the living standards of people living in these regions unless we succeed in improving the yield from livestock. Improving animal breeds does not necessarily mean importing exotic breeds from abroad. We can use animal breeds from neighboring countries and local high-yield breeds to selectively multiply and improve farmers' stock. Since high-yielding local breeds (and even those from neighboring countries) are likely to be well adapted to conditions in the country, a lot of management will not be required to keep and maintain them. They can also be used by a large number of farmers through out the drought-prone regions. More exotic, high-yielding animals, which require a great deal of care and management may be raised and kept on modern farms (perhaps around cities and towns where there is more infrastructure). Thus, while our strategy for drought-prone regions focuses on animal resources development, one approach towards this will be to introduce and reproduce improved animal breeds from both domestic and foreign sources as a means of developing our animal resources potential.

Whether animal breeds are improved or not, increasing output from animal husbandry demands an adequate supply of animal-feed or fodder. Hence, the production of animal-feed (both in terms of variety and quality) and improvement in feeding practices will also be a priority. Better land use management and agro-forestry programs offer a potential basis for increasing animal feed production, including flowers for bees. Our interventions will therefore focus on enabling proper exploitation of lands that are not cultivated (particularly for conservation reasons) so that such lands may serve for the production of animal-feed and thus satisfy increasing demands that will arise as our farmers engage more extensively in the animal sub-sector.

Thus, in addition to the prevailing practice of using farm residue as animal fodder, we will encourage the actual production of animal-feed. This will not be confined to our conservation and forestry programs. In the highland areas, where backyard farming, water conservation and irrigation may be practiced we will encourage farmers to grow grass varieties suitable for animal feed instead of relying extensively on open grazing on pasture. Furthermore, commercial enterprises that produce animal feed will also play a significant, role in this area. It is expected that regional governments will encourage private investors to participate in the setting up of animal feed factories and, where private investment proves difficult, the regional governments themselves may do so.

Animal resources development will progress as part of the development of the sector as a whole. Thus, we will need to develop related technology and upgrade farmers' skills as well as their productive capacity also in relation to the animal sub-sector. Accordingly, of the development agents assigned to each *kebele*, one will be a technician trained in animal resources development. Additionally, we will deploy veterinarians to supplement animal vaccination services already being provided by regional governments and the animal health care provided by farmers.

We have already mentioned animal resources development will enable farmers to improve their nutritional status as they consume part of their own production and also to increase their cash income as they sell some of their produce; thereby improving their standard to living. In this respect, livestock is basically a cash product and, while the local market is significant, maximum gains may be achieved only as we are able to penetrate the global market. We believe that we have a global comparative advantage in livestock production and market access will therefore be given high priority. An autonomous federal government agency has been set up to improve the marketing of animal and dairy products and to find markets abroad for these products. Its efforts so far have been quite encouraging.

Protection and development of the natural resource base and animal resources development form the two key developmental activities to be carried out within the drought-prone areas with the aim of ensuring food security. We will implement our activities in these areas simultaneously and improve on our interventions over time.

4.2.4. Improving Water Resources Utilization

We have already discussed the importance of water for our agricultural efforts under section 3.3. Although the drought-prone regions suffer from inadequate and intermittent rainfall, there is, nevertheless, sufficient rainfall that all agricultural activity is not abandoned. Furthermore, there is a considerable amount of surface and underground water in these regions. Thus, the main issue is not the lack of water but its ineffective utilization. Yet, unless the problems associated with water utilization are removed, no meaningful agricultural development can take place. This is another area of focus for our strategy of agricultural development in drought-prone regions and it, in fact, forms the centerpiece of all development efforts in these regions. Water resources development in these regions will be accorded the highest development priority.

Our approach will mirror our overall effort for water resources development including water conservation carried out by farmers on small holder plots, medium-size irrigation dam construction and river diversion through community participation at the *kebele* level, and other water utilization methods. These are key elements of the technology packages necessary to accelerate water resources development. The packages are particularly important for drought prone regions, although their contribution to the development of water resources in other regions as well is not in doubt. Training of farmers will command a high priority, as it is necessary to mobilize the entire farming population and provided it with the necessary training to put the relevant technologies into practice.

Furthermore, for farmers to be able to adopt the relevant technologies, we must back the technology packages with technical and credit support services. We will ensure that our agricultural extension services are equipped to give advisory and technical services in this area. Also, water conservation requires a certain degree of construction and channeling water for various uses requires implements and purchased material. Thus, although it is expected that much of the work will be undertaken by farmers, it needs to be supported in terms of availability of credit and the supply of material and implements at affordable prices and in the desired quantity and quality.

4.2.5. Soil Conservation

Closely related to water resources utilization is soil conservation. There is a general shortage of land in the drought-prone regions. Furthermore, when land not suitable for farming is withdrawn from such use, the total supply of land for farming will become even more scarce. We will therefore give special attention to protecting the soil fertility on the remaining land, and significantly increasing its proper exploitation. In this connection, perhaps the more important issue is to develop and select anti-erosion technology packages and to introduce them to farmers. We will intensify our efforts in this area since unless we protect soil fertility, it is evident that

agriculture in these areas cannot be sustained over time. Priority will be given to biological methods that are believed to contribute to the protection of soil fertility within a short time.

Overall, our strategy for drought-prone areas is to ensure food security and, to do so, we combine several different approaches including relief in the face of transitory and chronic food shortages, voluntary resettlement, soil and water conservation as well as environmental protection and animal resources development. Although crop production can be undertaken in these regions, this is not our main preoccupation. As land is scarce, our focus will be on high value products such as vegetables, spices and fruits; and, as discussed above there are significant opportunities in animal husbandry. The question of what kind of product should be produced on a given farm plot is an important development issue and should be addressed according to the conditions prevailing in each region with due attention to multiple cropping and mixed farming particularly where there is scope for irrigation. Market opportunities and the particular conditions in the regions concerned will largely determine the question of what will be produced. All that we would like to emphasize here is that, in view of the scarcity of land, it would be better if greater attention is given to high-value products.

As noted earlier, although activities outside agriculture contribute to ensuring food security, our main emphasis remains within the agricultural sector. This, however, does not mean that food security is equivalent to farmers producing solely for their own consumption. On the contrary, farmers should have a marketable surplus that will provide them with cash income that they can use for the purchase of non-food consumer goods and services. Our strategy is market-based. Therefore due attention will be given to improving the marketing system (this will be elaborated in subsequent sections).

4.3. Development Efforts in Regions with Reliable Rainfall

Constraints on agricultural production and food security issues in regions that receive adequate rainfall are not as severe as in the drought-prone regions. This, however, does not mean the people living in these regions are not exposed to poverty. Neither are they totally free from vulnerability to food shortages. Thus these regions too deserve attention. Also, these regions play a crucial role in national food crop production. Agricultural development is therefore viewed more broadly from the standpoint of national food security. Agricultural development efforts discussed above in the context of drought-prone regions will help such farmers fulfill part of their food requirements. However, much of their food needs will, always be covered from outside particularly by production in the regions with adequate rainfall. Accelerating agricultural development in regions of adequate rainfall is therefore important both for ensuring the incomes of populations in these regions as well as the availability of food in food deficit regions.

In many respects, agricultural development envisaged for regions with adequate rainfall is similar to that of the drought-prone areas. Year-round cropping and improvement of water utilization will be key development tasks. So also will sustainable natural resource management and animal resources development. Development efforts in these regions will, however, be slightly different in terms of priorities. Improvements in water resources utilization and irrigation, although important, are not as urgent in these regions as they are in the drought-prone areas, as they general receive enough annual rainfall at least for single cropping. Production can be greatly increased simply by adopting improved methods for utilizing rainwater. Hence, in these regions, the short-term priority will be to introduce improved methods for effective use of rainwater. In the medium and long term the need for irrigation is well recognized.

Natural resources development, agro-forestry and animal resources development are areas that can be greatly expanded. However, there is no good reason why these regions should particularly concentrate on these development activities as they have the opportunity also to increase crop production. From the perspective of national food security, and also their comparative advantage, it seems appropriate for these regions make crop production their major development priority without, however, neglecting natural and animal resources development. We believe that it will be possible to significantly increase crop production in these regions through application of improved technologies; i.e., improved seeds, fertilizer and tools and by harnessing rainwater. Our focus will lie here.

There are regions that receive adequate rainfall but face serious land shortage. Because of this constraint, crop production may not be the most feasible agricultural activity. Greater attention to the production of high-value products may therefore be necessary. Indeed, it seems that the practical experience of the people living in such areas gravitates towards, this alternative where such products as coffee, spices and false banana (*ensei*) are grown.

There is one basic point that needs to be underscored at this juncture. The government will in no way dictate to fanners that they should produce any specified crops. This will never work and can be considered as a crime against the people. What the government can and will do is to put forward proposals and make available technology packages for products that it feels are most advantages for the various regions. It is up to the farmers themselves to decide on those agricultural activities that they feel are most suitable and to adopt related technology. The agricultural production process will help farmers identify crops, which will yield the maximum gains. The government support comes mainly after such crop identification has been made. Nothing will be done in opposition of this principle.

Farmers in any regions of the country should be able to produce several crops or products in combination, i.e. they should practice mixed agriculture. This agricultural development strategy will receive high priority in regions with adequate rainfall. Some agricultural activities may receive priority, but this does not mean that nothing else will be produced. It is expected that many types of agricultural activities will be undertaken

and auxiliary products will be produced alongside certain key priority products that will command much of the attention of farmers and development workers.

4.4. Development in Pastoral Areas: Approaches and Programs

Food insecurity and poverty are as pervasive and deep in pastoral communities across the country as they are in the traditionally drought-prone locations where sedentary agriculture is practiced. It is true that in these areas there are a number of places with dependable surface and underground water supply. But it is well known that rainfall in these areas is too scanty and too intermittent to support rainfed crop production.

Therefore, rapid and sustainable economic growth that will ensure food security is strongly linked to livestock development. Needless to state that livestock focused development should constitute the base for change and increased welfare among the pastoralists.

Livestock development strategies and approaches elaborated elsewhere in this document are also applicable for the development of pastoral areas. Thus, there is no need to reiterate them here. Attention is, therefore, drawn to other priority development needs that are consistent with and relevant to the agro-climatic conditions characterizing the pastoral areas.

While acute shortage of water both for human and livestock consumption characterize the pastoral areas, specially in the dry season, severe shortage of feed typifies the high altitude areas due to livestock population that is considerably beyond the carrying capacity of the land. This keeps on aggravating the already serious degradation of natural resources. Furthermore, this resource imbalance, that is, water scarcity but availability of excess land for grazing in the pastoral locations, and abundant water but severe land shortage in the higher altitude areas does not only compound the development problem but is also the main cause for the transhumant life of herders. They move their livestock to the places where water is available in the dry period in particular further exacerbating resource degradation.

It is thus imperative and strategic that in the pastoral areas the focus of attention must be placed in the development of water sources both for human and livestock use. In the absence of such an approach:

- Underutilization of grazing land will continue and perhaps increase
- Resource degradation in the lowlands as well as in the adjacent high altitude areas will further aggravate
- Increasing livestock productivity, the basis of livelihood of herders, will not be possible

However, improving the supply of water alone will not solve the shortage of pasture. Pasture land protection and management should be improved. Although there are longstanding community traditions associated with the use of pasture lands, the whole

structure needs change without however losing sight of the traditional practices. Improving the supply of pasture does not mean simply receiving what nature offers, but rejuvenating depleted pasture resources and using such resources prudently. Great effort should be made to improve pastureland administration and protection through the leadership provided by the ethnic chiefs and elected representatives.

Needless to state that the herders have considerable expertise and know-how which they have acquired through experience. It is absolutely essential to make maximum use of the local knowledge and skills in the planning and implementation of development programs. It will be in order to make a detailed assessment of the local know-how and skills with the object of identifying their strengths and weaknesses. The next stage will be to prepare an extension package aiming at building on the strengths and solutions to address the limitations. It is critically important that the training of the development agents and experts, extension services, and its delivery should underlie the preponderance of livestock in the development of pastoral areas, and sufficiently articulate the need to carefully weigh ethnic and transhumant values of herders.

It is evident that efficient and effective extension services will be instrumental to improving pasture and animal health, Animal health services will be more effective if supported with sustained and systemic vaccination services. Designing and delivery of government and other external support need to be cognizant of the herders transhumant way of life.

It will be of paramount importance to change the existing livestock marketing system the herders practice. Improving the livestock marketing structure is also important. As mentioned earlier there is already an effort in this direction at the national level, and this needs to be strengthened. Moreover, there are also development challenges peculiar to pastoralist livelihood systems that should be addressed.

The first is to increase livestock, especially cattle, off take. The tendency of the herders is to increase the number due to several traditional values. There is an urgent need to increase awareness among herders to make livestock raising market-driven. Putting in place an efficient marketing system for animals and animal products is critically important for sustainable development as well as for the improvement of herders' commercial culture. It is therefore necessary to drastically improve the marketing system and organizations set up to operate the system. The Federal Government and regional administrations should identify constraints restraining investments in areas such as cattle fattening, live animal marketing and transport, meat processing, tanneries, etc., with the particular objective of encouraging and facilitating private capital. Government, especially regional administrations, may be involved in areas considered less attractive to private investment.

Second, it should be understood that neither the herders nor their families are in constant movement. The transhumance has its own pattern. In some places herders and family members stay considerably longer in some locations than in others. In other cases, herders may be on the move but the family members may stay behind. These patterns should be studied well in order to design and implement programs that are relatively better suited to the herders and family members' movement pattern.

Although there seems to have no real alternative other than applying a development strategy that focuses on itinerant pastoralism in the short and medium term, in the long run this strategy is not likely to bring about the desired socio-economic growth of the herders on a sustained basis. Rapid economic growth that is capable of ensuring improved well-being for the herders is unlikely to occur outside the framework of permanent settlement of the pastoralist. Settlement as a development strategy seems more appropriate in pastoral communities than elsewhere.

Government tenets to guide the undertaking of a settlement program are elaborated elsewhere in this document. These tenets are to be observed strictly while considering settlement anywhere at anytime. Yet it should be understood that while the requirements to have a successful settlement could be similar for different areas irrespective of their endowment variability, there can be characteristics that are peculiar to an area. This needs to be noted carefully, particularly in pastoral areas. Some of the major factors that should be focused while considering settlement in pastoral areas are mentioned below.

First, considering (1) the strategic importance of limiting settlement in a region within that region, and therefore herders cannot be settled in relatively more rainfall reliable areas and (2) the erratic and (independable rainfall that characterizes pastoral areas makes impossible any attempt at rainfed agriculture. Irrigation becomes an absolute necessity for a successful settlement. Therefore, the availability of surface and/or underground water will dictate the choice of the site for a settlement in pastoral regions.

Second, it is important to aim at labor-intensive technologies while developing irrigation schemes in order to be more cost-effective. This, however, may not be realistic in pastoral areas due to cultural factors and past production history. Since settlement in these areas are unthinkable without irrigation, it should be clear that settlement will be relatively more costly.

Third, there are important distinctions between settling farmers in the traditionally drought-prone areas and herders. The latter:

- Lack experience, skill and knowledge in sedentary mode of life and production
- Require to undergo structural changes both culturally and production-wise.

These distinctions are strong premonitions that settling herders will require huge capacity building initiatives in which training of the settlers should feature prominently. Moreover, it will be strategic to approach pastoral settlement in phases so that the previously settled herders will be involved in experience sharing with and training of new settlers. Such a strategy will help to reduce cost and improve the success rate of settlement.

On the other hand, settling herders could be phased or piecemeal, but not the willingness and interest to be resettled. This is no to meant that the principle of voluntarism to settle should be compromised. It is rather to underscore that settlement should be demand-driven. Therefore, it is essential that all potential settlers must agree to and accept the settlement with full knowledge of what it entails prior to implementation. It is

critically important that settlement planning should be participatory. Ethnic organizations, community and religious leaders should be involved actively in the planning and implementation of a settlement program in its entirety, including any envisaged phasing therefrom. It should be borne in mind again that the ultimate goal is to settle the entire pastoralist population. However, considering the huge cost that will be needed, expected fundamental cultural changes settlement will bring forth, mammoth effort needed to engender interest, settling the whole of pastoral population will take a long time, perhaps decades. It must however be done, since it seems to be the only viable economic and social development option to bring about meaningful and lasting impacts on the lives of herders.

Planning the settlement of the pastoral population should start as early as possible. The work can start with:

- Identification of potentially suitable sites with particular reference to low-cost irrigation, and prioritizing the sites in terms of where to start and how to proceed from there on
- Preparation of agricultural packages that are consistent with the socio-economic realities in the identified sites and the settlers
- Designing of a training system that takes into account the background of the settlers and the likely agricultural packages to be introduced.
- Designing a system that ensures participatory planning in the above task.

The primary beneficiary of settlement is the pastoral population. Since settlement is expected to speed up the socio-economic growth of the country, settling herders is indeed a national program and the entire Ethiopian people will benefit from it. Undoubtedly, the day the last group of the pastoral population is successfully settled will be considered a milestone in the economic history of Ethiopia. The pastoral population and local governments are the principal implementers and owners of the settlement program. It goes without saying that, since settlement of herders is a national program, the Federal Government and the non-pastoral population of the entire country will and should have roles.

4.5 Development in Areas Having Large, Unutilized Agriculturally Suitable Land

There are large tracts of unutilized land, particularly in the western lowlands stretching from north to south, which are suitable for irrigated agricultural development. Developing these areas will have a very significant positive impact on the country's overall economic development. Some of the more fundamental approaches to agricultural development in these areas are elucidated below.

The first point of emphasis is the indispensability of transforming the areas into economic growth poles or centers. The development framework in each center should be based on a plan that fully takes into account the backward and forward linkages of the multifaceted development efforts. The plan needs to be visionary and its ultimate objective should be to achieve accelerated economic growth in the regions of a center in particular and that of the national economy in general. The key strategy is to seek effective sectoral coordination without which the gains from linkages will be unlikely.

The other point that should be underlined with respect to the objective of realizing accelerated and sustainable development in these centers is the question of putting in place the necessary infrastructure facilities and ensuring an adequate supply of labor. It is well known that essential infrastructures such as roads, telecommunications and power supply are lacking or completely absent in these areas. Moreover, despite the fact that the areas are malarious, no health facilities and organizations exist yet. It is the same story with labor availability. There are empirical experiences indicating that severe labor shortage frustrates investment and long-term development in the areas. All of these problems should effectively and systematically be addressed through integrated efforts of relevant federal and regional government institutions. Arguably provision of access roads is the most critical input to promoting development and inviting investment in these areas.

Construction of such roads will be the responsibility of the Federal Government. The task of the Federal Government is to give priority to access road construction already included in the plan to develop such areas, and also to consider the provision of more access roads to give added impetus to development in this respect. Feeder roads are also vital and it will be the responsibility of the regional governments to construct such roads. Telecommunications services should be expanded where feasible. There is need to provide dependable electric power services, especially where economic justifications warrant. Federal institutions having jurisdiction over the development and provision of the infrastructures should be fully aware that infrastructure development in areas under consideration is an integral part of their responsibility and should closely liaise with the concerned regions in respect to their respective roles.

A third point that must be highlighted relates to the necessity of implementing appropriate settlement programs and creating an enabling environment for private investors to set-up large-scale commercial farms and move to the next logical stage, that is investing in agro-based industries. Settlement may have to precede others in the area development programs so that labor supply will be enhanced both for infrastructure development and private investment. Successful settlement programs are expected to induce the supply of migratory unskilled and skilled labor.

Finally, there are other considerations worthy of mentioning at this point. Although it is believed that the current investment policy and related incentives are attractive enough, it

will benefit the cause to critically review the existing provisions in the investment codes (national and regional) with a view to ensure that the policy environment is conducive for private capital. Secondly, some regions under consideration may be sparsely populated, and this may pose a problem to settlement. So, it would be prudent to start development work first in more densely populated areas. The experience from these areas could be useful to initiate programs in the areas where the problem exist. Third, in the case of sparsely populated regions, the possibility of obtaining labor from relatively densely populated areas should be explored on the basis of a common understanding and appreciation of the problem. Without such a common understanding the planned development could be in jeopardy.

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5. Working towards Market - Led Agricultural Development

5.1. Agricultural Development not Driven by Market Forces Cannot be Rapid and Sustainable

It is common knowledge that farmers consume directly a great deal of the agricultural output they produce. In developing economies, it is not unusual that what goes to the market is a small proportion. This is particularly true in Ethiopia. Most farmers do not even produce enough for their own consumption. They are net food buyers. Hence, it is likely that when there is increase in agricultural production, most of it may find its way within the farming communities themselves. Although this is important in itself, it does not allow to lay a foundation for accelerated and sustainable agricultural growth.

In order for the standard of living of farmers to improve, it is not enough that they fully satisfy family food requirements from their own production. They should be able to have excess production to be able to consume essential goods and services, which they cannot themselves produce. Further, they need surplus production to buy improved tools, agricultural equipment and productivity increasing inputs such as fertilizers and seed. In order to induce farmers to produce more than own consumption there is need to actively promote demand for goods and services that mutually benefit agriculture and other sectors, and to improve availability of the goods and services within easy access to the farming communities. Otherwise, it could be argued that farmers would have no motivation to produce more than own consumption.

It should be noted that agricultural development can be judged to have attained its objective only when farmers demonstrate considerable effective demand for manufactured goods and services, and they are able to meet the demand from their own surplus production.

When farmers have surplus production destined for the market, it is logical to look for buyers within the vicinity and other domestic markets. As production specialization evolves among rural communities, farmers will buy agricultural products not produced by them or in their own areas, thereby expanding the domestic market for agriculture. It should be however realized that it will take quite a while for such a production and market system to develop and mature. And in the short to medium term time frame exchange of agricultural produce among farmers would remain small, and towns would continue to constitute the major market for whatever surplus production there will be.

It is well known that the urban population obtains nearly all its food requirement from the farming communities. However, the total urban population is only about 15%, it is thus a small market. As the urban population increases and its standard of living improves over time, it can become a formidable market for surplus agricultural production. Moreover, demand of manufacturing industries for agriculture-based raw materials is expected to grow in time. However, this may not be adequate to absorb the surplus production from the agriculture sector as time goes by, obviating the need to be vigilant about looking for external market now rather than later. The extent to which the country will be able to penetrate external market and improve its market share for its agricultural products will be a major determinant of rapid and sustainable agricultural growth. It should be underscored that widening the market base and diversifying export sources to increase foreign exchange earning is essential for the country's overall growth.

5.2. Tuning Agricultural Sector to Produce Goods Having Demand in the Market

The desire for agricultural development that is market-driven, the ambition to penetrate the international market, and the assertion that accelerated and sustainable agricultural development cannot take place in the absence of such a development strategy are not sheer rhetorics but guiding principles and bases to transform the agriculture sector. They should guide the day-to-day agricultural operation. It is to mean that every agricultural production activity should aim at producing marketable output of acceptable quality and should be competitive in the international market.

Production that is destined for the market calls for a radical transformation in the development strategy itself. It means, unlike the current practice, being proactive in search of markets. It means availability of market should be one of the major factors for determining what to produce, when and where to produce. It underlies that agricultural development will have no full meaning without a sound, visionary and aggressive marketing strategy.

The strategy has to maintain its internal dynamism. World market is volatile. Goods which are in great demand in one year may face extremely low demand or there may not be any demand for them at all a year later. Goods fetching high prices now may experience price collapse a while after and the reverse may happen. This means market-based agricultural development the country pursues needs to be on its guard at all times. The marketing strategy should be inventive, proactive and research oriented. The supply side has to be responsive to the marketing strategy. If farmers are to improve their standard of living, it is not enough to increase their productivity, but they should also be able to shift their production from low to high priced products on a continuous basis. This also calls for following closely market developments and selecting and producing high-priced products without which competitiveness may be compromised.

There should be a clear understanding that it is not enough to opt for the production of goods and commodities that are in demand. It is equally important to ensure the competitiveness of the products and the price range. If only marketability is considered for planning production and choice of products without taking into account price-competitiveness, the result could be frustrating. Moreover, reducing cost of production without any effect on quality and increasing productivity will have an immense contribution to have an edge over competitors in the international market.

In the production process, a farmer will need to use various inputs and production tools in addition to his own labor. If he/she uses these inputs and tools efficiently and produces the maximum amount of output without waste, the results will definitely be rewarding. If he/she produces the maximum output at the least possible cost and sells the products at competitive prices, return will be maximized resulting in high income for the farmer and increased pace of development for the nation. Unless farmers try to minimize their cost of production and maximize their productivity, their incomes will

remain low and they will eventually reach a stage where they can no longer produce competitively. Hence, cost minimization and productivity maximization are elements which must be assiduously followed up both at the level of individual producers and at the national level. Otherwise it would be futile to think about market-led agricultural development and sustainable rapid growth in agriculture.

There is also another point that needs to be underscored here. The subsidy alternative cannot be presented as feasible option for enhancing productivity or reducing cost of production. It has already been indicated that subsidies cannot possibly be used as an alternative to improve the living standards of the people. The more viable approach is to increase the productive capacity of land and labor. Subsidy should be discouraged not only because it could cause distortion and inefficiency in the economy, but also because the Government cannot afford it, especially in the face of a huge amount of resources needed for the provision of essential infrastructures.

It should not be subsidy but production of high quality products at low cost augmented with single-mindedness to raise productivity. This should serve as the basis for market-led agricultural development and penetration into the international market. It should be duly noted that registering an impact in the export market will be a long-term phenomenon. In fact, the transition from the current practice to export-oriented and market-led agricultural development could require a considerable time. While appreciating this, it should be understood that there is no place for complacency, and transiting to wholly or mostly market-based agricultural development in the shortest time possible should be an important objective of transforming agriculture. To accelerate the pace of the transition, it will be appropriate to start with commodities currently produced for the market and move on to other products step by step. In a similar vein, it will be necessary to encourage educated and trained farmers to orient their agricultural activities to market based production from the outset.

Although farmers are to play the central role in the transition to market-based agricultural development, the contribution of the government and its agricultural extension service is very decisive. It is the agricultural research and extension system which prepares and disseminates packages embracing tasks and operations ranging from product selection to post-production technologies. It trains farmers and gives them advisory services. It would be difficult and time consuming for farmers to make the transition to a market-based agricultural system, if the development packages are not carefully prepared, if the constantly improving technologies supplied to farmers enable them to produce quality products competitively, and if, in addition, adequate training and advisory (technical) services are rendered. As making the transition to this agricultural system means increasing the income of farmers, it is something that they are likely to accept based on their own practical experience. Hence, the most important thing is to make sure that the agricultural research and extension service is one which is equipped with the required capacity and vision to transform subsistence agriculture into market-based agricultural development.

5.3. Building an Agricultural Marketing System

All efforts will be in vain, if a marketing system that is capable of delivering the produce at the right time, in the right place and price is lacking. The market price of a given product includes transport and marketing costs. If the marketing system is inefficient, high marketing costs may make the product uncompetitive, thereby negatively affecting sales revenue and farmers' income. Therefore, a marketing system that is efficient and capable of ensuring the quality and price competitiveness of goods is essential for attaining the objective of accelerated and sustainable agricultural development.

(A) Grading Agricultural Produce

Delivery of quality goods through an efficient marketing system requires a product standardization and grading system. One can make sure that any given product or good satisfies acceptable quality standards only when a known quality grade is given to it. Producers can produce goods which satisfy acceptable quality standards only when these standards are known and specified. Similarly, consumers can ensure that they are buying goods of the right quality only when the quality standards are properly specified. It is therefore important to develop quality standards from the point of view of both producers and consumers. At the same time, it is essential to create an acceptable grading system and provide measuring devices befitting the system.

There are two choices as regards standardization of agricultural products. One option is to give domestic standards to these products and make them known to both producers and consumers. With endemic produce like teff, this is the only alternative. The other option is to accept and adopt international standards and make these known to producers and consumers. If the objective of world market penetration is to be realized, the standards must be those that are internationally accepted. Hence, the best thing to do is perhaps to adopt these international standards and enforce them. In view of the huge amount of time and technical expertise that will be needed to develop own standards, it will be much more expeditious to apply international standards and grades to products other than those which have not been standardized and graded internationally.

Standardization is also required to increase the efficiency of the agricultural marketing system. At present a myriad of agricultural products which have not been given standards are being produced in the country. For example, the type and grade of teff vary not only from region to region but also from farmer to farmer. Buyers have to examine each and every quintal of teff bought from each farmer. When this is done at every stage of the marketing system, it is not difficult to imagine how costly and cumbersome the whole structure can be. In addition, because there are not properly identified teff varieties and grades, standardization becomes difficult and cumbersome, implying that no efficient rural marketing system can be established in the absence of well identified grades for the products.

The task can be a lot easier if there are a few varieties with known standards. For example, if there are three or four types of teff and corresponding grades, and teff producing farmers produce only these grades of teff, it would be a lot simpler for each producer and consumer to check the quality and grade of the product. As the price of each grade might be known, there would be no market haggling and buying and selling could be effected quickly. The system would be even more efficient if a procedure could be established whereby enterprises with a good reputation certify the grades of products, package them properly and supply them to the market. This way time wastage and the attendant price increase caused by the attempt each producer and consumer to become a standard setter can be avoided. For instance, if cooperative unions collect farmers' products, grade and supply the products to the market, sellers and buyers will be able to concentrate on

their main task of selling and buying. On the other hand, the government will have the opportunity to set up standards institutes which can gain the confidence of the market and take prompt action in case of fraud. Though the setting up of a standards certification system is essential for the existence of an efficient agricultural marketing mechanism, its implementation is not easy. It takes a lot of time and hard work. Standards setting should be done and grades established at least for major products, and these should be known both to the producers and consumers. Even if in the case where the work involved is simply one of copying international standards and adopting them, the task requires a lot of time and technical expertise.

It will take a great deal of time, energy and money to multiply and promote the grades to farmers until they practice them fully. Research and development institutions should appreciate the importance of this task and develop their capacity to actively participate in the process.

Testing products and setting quality standard for each product is a daunting task. Manpower specially trained for the job should be available. It will also take a great deal of time and resources before cooperative unions and other organizations provide standardization and product grading services competently so that they command the trust and confidence of market participants. The Government should have a definite role in building the capacity of such organizations including the unions. Government will have yet to build its own capacity and develop the mechanism to play its role effectively. In spite of such daunting problems, there is no option but meet the challenge since it is impossible to put in place an efficient marketing system without a standardization and grading system.

The task of standardization and grading should also be closely coordinated with the effort being made to protect and develop biological resources. The objective in this area is to conserve, protect and develop biological resources and develop the capacity to accomplish the task. Attempt should be made to conduct research continuously on biological resources and use the findings for the development of the country and improve the welfare of its people. The research will have to focus on several varieties of different rural marketing system can be established in the absence of well identified grades for the products.

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(B) Provision of Market Information

It is basic for any marketing system, to provide adequate, timely and accurate information. In countries where there is an efficient and developed marketing system, information is readily available on product type, place and price. Such countries have also an information system that is capable of monitoring and reporting price variability on a minute-by-minute basis. Further, price forecasts are made for major goods. Although there can be a difference between projected and actual prices, forecasts usually indicate the trend fairly accurately. The fact that major commodities are traded on well-known commodity exchange markets facilitates the flow of adequate information and makes it possible to know the quality, price and location of commodities without the need to move them first. Transporting the goods can be done after the deal. There are also commodity futures markets where contracts are concluded for the delivery of commodities yet to be produced at some future dates.

A marketing system with efficiently functioning market information has several advantages to producers and consumers:

- Helps farmers to obtain the best possible price for their produce

- Assist farmers to make a decision on what to grow and when to sell
- Provides an opportunity to reduce market cost, especially transport cost, since price information tends to reduce marketing spread
- Improves farmers negotiating position in the case of pre-harvest or future sales

It will definitely take Ethiopia a long time and a lot of effort to reach such a stage of market development. However, it is a pre-requisite in order to achieve rapid and sustainable agricultural development. Starting to lay a foundation for a sound market information system is long overdue.

Commodity exchange centers are very helpful to set up and effectively operate marketing and market information systems. The objective conditions prevailing in the country are suggestive that the evolution of strong service cooperatives and cooperative unions are a prelude to having such commodity exchange centers. It seems thus imperative that the development of commodity exchange centers, marketing and market information systems have to be linked with the emerging cooperatives and cooperative unions in Ethiopia. That is, cooperatives and unions should come first and then the latter. But it is predictable that the emergence of strong cooperatives is a process that is bound to take time and the development of market information system should go on simultaneously, even if it may not be the best of its kind.

Information on commodity prices is normally obtained from a large number of buyers and sellers in different marketplaces. However, the reliability of such information is limited and it is difficult to disseminate the information even on daily basis let alone every minute. It is easier for the government to gather and disseminate such information. The government should therefore create an efficient system to gather reliable information and pass it on to users on a regular and timely basis. World market prices and trends can be obtained from companies providing such services at a cost. The government should therefore obtain and disseminate such information periodically through mass media. It should also facilitate the improvement of information exchange through technologies such as Internet.

While building an efficient system for gathering and disseminating market price information, we should also create commodity exchange centers to facilitate the gathering of reliable, timely and complete information. We should build and strengthen these on a continuous basis. Initially the responsibility rests on the government. Eventually, however, like in other countries, private companies may be established to provide the service at a price.

The government should realize that the private sector can contribute a great deal in building the information supply system and should therefore encourage the participation of the private sector.

The relevance and importance of international market information, especially commodity prices, is quite evident. The Government may have no choice but take charge of this responsibility also. It may have to contract appropriate international networks to obtain the information.

(C) Promoting and Strengthening Cooperatives

In countries like Ethiopia where millions of farmers are engaged in subsistence agriculture on fragmented farm plots, cooperatives play a significant role not only in creating an improved marketing system and providing market information, but also in other agricultural development works. It would be no exaggeration that neither meaningful agricultural development nor an efficient agricultural marketing system can materialize in Ethiopia without having a visible breakthrough in the development of cooperatives.

The assumed decisive role of cooperatives in agricultural development in general and agricultural marketing system in particular is not without reason. It takes a lot of time for farmers to be both producers and merchants simultaneously. Direct transaction between producers and consumers is not practical for many good reasons. It is both costly and time-consuming for merchants to buy commodities from millions of farmers in small lots. If it were to be done this way, the time wasted and the costs incurred in such an intermediary trading chain would be very great indeed. If each buyer and seller also attempt to be a standards setter and a supervisor, the marketing system will be cumbersome and costly. Hence, in countries like Ethiopia, a system whereby the farmer

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attempts to sell his/her products individually can never be efficient and cost-effective. Obviously, such a system cannot possibly be a foundation for accelerated and sustainable agricultural development.

Cooperatives and unions of such cooperatives can in principle provide a reliable solution to the problem. They can have facilities to collect and provide storage services to farmers. Buyers can buy the amount they want from one such cooperative, or a union or from a few of them. Cooperative can also be involved in products standardization and grading. They can standardize and grade products they collect from members, package them properly and supply them to the market. They can fast gain the confidence of market participants as it is very likely that they themselves and Government will institute measures to deal with any cases of fraud. They can also give training to farmers on product standardization and grading. As they base the prices they offer to farmers not only on the quantity supplied but also on the quality, they will be instrumental in instilling the commercial culture of quality-based production.

If farmers attempt to buy their requirements of consumer goods and inputs from merchants individually, the time it takes and the costs involved in such an intermediary trading chain will be excessive. If, on the other hand, cooperatives assume this task and sell consumer goods, agricultural inputs and implements direct to farmers, the time needed and costs incurred will be reduced significantly. Cooperative can also serve as intermediaries for importers and producers of agricultural inputs and implements.

In short, in a country like Ethiopia where millions of farmers are engaged in subsistence agriculture on small and fragmented plots of land, cooperatives could play a very important role in reducing the time required for trade

transactions and in buying and selling goods and services and reducing marketing costs, thereby creating an efficient and competitive agricultural marketing.

Cooperatives can also render vital services other than those related to agricultural marketing. They can play a significant role in the expansion of financial services in rural areas. They can be a vital source for increased rural saving, a medium to greatly increase farmers' access to credit, a means to improve loan recovery from small farmers, and a business opportunity for the banks through expansion of rural banking operation. Cooperatives can go as far as establishing their own banks, taking deposits from the rural population, lending money and rendering other financial services as well, thereby contributing to the strengthening of the rural finance.

Cooperatives can buy agricultural machinery, equipment and implements to lease to farmers who individually cannot access these technologies. In addition to providing collection and storage facilities for agricultural products, they can also set up small agro-processing industries where processed agricultural products with greater value-added may be produced. They can also establish various social institutions to provide different kinds of social services.

Hence, setting up and strengthening cooperatives is critical to agricultural development in Ethiopia. It is, therefore, necessary to identify the various problems which cooperatives in Ethiopia have encountered and to come up with acceptable solutions, bearing in mind that unfavourable experiences of the past should not be repeated.

Cooperatives under the Dergue Regime were not set up on a voluntary basis, and they were managed for farmers by regional leaders and cadres. Thus they failed to produce any tangible benefits for the rural population or impact development. Cooperatives are farmers' economic associations. They can be considered as share companies established and operated by farmers. They are not and should not be considered as political organizations. These associations have unique features, the most important of which is voluntary membership. Every member must have the right to withdraw his/her membership at any time. There must not be even a trace of coercion in the process of organizing cooperatives. Otherwise, there will be no hope of establishing strong and productive cooperatives.

Since the fall of the Derg Regime, cooperatives are organized and operate according to internationally accepted principles of cooperatives. This must be maintained through and through at all times. Any political interference will paralyze the movement. Although political interference is reduced significantly since the fall of the Dergue, it cannot, however, be said that it has been completely eliminated. There is still some political interference the motive of which is principally corruption and parasitism. This problem is prominent in regions where cooperatives are more affluent. A persistent struggle should be mounted to combat parasitic interference. Opportunistic entry point could be to identify causes that tend to encourage those persons in authority to interfere in the affairs of cooperative for personal gains and designing and implementing measures to change the outlook of such authorities. This should be supported with a strict monitoring of the application of cooperative laws. The effort being made to instill behavioral changes to eliminate outside interference in cooperative operation should go along the strict enforcement of cooperative legislations.

Unwarranted political interference in the regions may start innocuously in good faith, with the noble objective of strengthening cooperatives. True, regional leaders should do everything in their power to help cooperatives grow strong. They themselves should first adequately understand the nature and principles governing cooperatives. They should then try to communicate and share the knowledge with farmers with the object of engendering demand for cooperatives. They should provide cooperatives with technical assistance to enable them gain legal personality and recognition. They should try to help leaders of cooperatives to receive leadership and other relevant training. They should show support to the extent possible to the cooperatives in their efforts to have facilities such as storage, transport and finance. They should also provide them audit services.

All of these are well-intentioned support, which will be needed to give cooperative development a push. By any means should the rendering of such services be considered a political interference. Political interference starts the moment regional leaders try to exert their influence in the election of cooperative leaders. It is a political interference

when regional leaders assume the role of cooperatives and become fact-finders, prosecutors and judges all at the same time in cases involving allegations made against leaders of cooperatives, and take action against the leaders. It is political interference when regional leaders tell cooperative leadership what to do and how to do it. It is not only the distinction between political interference and interventions to provide technical assistance that should be made abundantly clear to regional authorities, but also measures that will be taken against those who violate the distinctions.

Although it is necessary to combat even moderate political interference vigorously, the main problem cooperatives confront at present may not be political interference but the lack of administrative and technical capacity. Because the level of education and training of the people is low in general, persons elected to lead cooperatives often lack management skills and technical competence. Professionals cannot be hired to train those leaders, because there are not many such experts trained in the organization and management of cooperatives, and cooperatives do not have the resources to hire the services of such experts when they are available or hire managers to run the operation. Moreover, members have neither the inclination nor the competence to control leaders of cooperatives, and audit and control mechanisms are not strong. Because of this cooperatives are generally exposed to waste and embezzlement.

Cooperatives will not be able to play the role they should unless these basic problems are properly addressed. It is hoped that the increasing education coverage and tailor-made training will prepare better both cooperative leaders and members to meet their respective roles more effectively. Members will be empowered to exercise control on their leaders. This alone will not suffice to attain the desired level of administrative efficiency unless cooperatives can hire professionals and experts. Since the availability of such experts is wanting Government should play its role to increase the supply. The cooperatives on their part should create the capacity and show interest to hire such professionals. In order to strengthen the financial, audit and control system of cooperatives, Government should provide the required legal framework and prepare model directives and guidelines. In fact, an institutional network which provides technical and audit assistance and services to cooperatives at all levels should be put in place and progressively strengthened.

As present, cooperatives in most places are financially weak and are incapable of providing the services expected of them. They do not have the capacities to provide storage and transport facilities; nor are they in any position to collect and sell farmers' products, nor supply agricultural inputs. Government support will continue to be necessary until cooperatives are reorganized and become financially strong. Thus, assistance may take the form of encouraging public participation or provision of technical services. A system should be created whereby cooperatives can serve as agents of farmers in the distribution of agricultural inputs and, by so doing, strengthen their financial position. In order to strengthen cooperatives in terms of finance and administrative efficiency, they should be encouraged to organize into unions after they themselves have been individually and internally re-organized. It will also be necessary to create favorable conditions for them to borrow loans from banks as their financial positions and marketing structure improve over time. These measures will help improve the agricultural marketing system and expand other agricultural development services.

(D) Improving and Strengthening the Participation of Private Capital in Agricultural Marketing

Along with cooperatives, private entrepreneurs have an important role to play in agricultural marketing. In fact, unless private entrepreneurs participate in developing and running the marketing system, it may not work at all, as there are many areas in the chain which cooperatives are not likely to cover. This may involve retail or wholesale trade or processing of agricultural raw materials.

It is evident that a long marketing chain tends to lower farm-gate prices of agricultural produce and increase the cost of agricultural inputs. It is therefore necessary to replace this with a streamlined marketing chain, involving cooperatives, major users, wholesalers, importers and exporters. This, however, does not mean that retailers and smaller entrepreneurs will have no role to play. It is a fact that the principal actors in small local markets will be farmers and small traders including retailers. It is also known that the same actors handle most commercial transactions outside of those involving main agricultural products, inputs and production tools and implements. As farmers' incomes progressively improve, they are likely to demand various kinds of services in addition to basic consumer goods. Entrepreneurs play an important role in locally organizing and supplying these services. Unless these services, which cannot be supplied by cooperatives, are handled by private entrepreneurs, the whole system cannot be expected to be efficient.

The marketing system cannot also be effective unless there are private commercial operators who buy the major agricultural products from cooperatives and in turn supply to them major agricultural inputs and implements. Hence, in addition to strengthening cooperatives, it is necessary to aggressively promote the participation of private operators and encourage them to be increasingly more efficient.

One important point that needs to be underlined here is that private operators should be closely monitored to observe that they abide by the rules of free market! that collusion and monopolistic tendencies are not developing to the detriment of the emerging marketing system.

As reiterated above, agricultural development should be based not only on the principles of free market, but also on the objective of penetrating the global market. To be competitive in the world market, there is need to be particularly conscious of product quality and ensure that labeling and packaging meet international standards. There is also strong reason to pay attention to increasing the added value of products Ethiopia supplies to the world market. Branding is essential for recognition in the world market and move forward consciously in this direction. For example, the fact that the taste of Ethiopian coffee is world-renowned and that it is produced organically are qualities which can be

used to develop a readily recognizable global brand name. This can enable the country to increase sales volume.

While there is no doubt that such measures will help to increase market share globally and fetch higher prices for some export products, the implementation of the measures could be beyond the country's existing capacity. World trade, particularly of major agricultural products and agro-industrial goods, is controlled by giant transnational companies. Needless to state that Ethiopia has yet to develop relationships with and seek the participation of relevant world renowned multinational companies in the effort to widen and diversify export.

There is no doubt that this will make a tremendous contribution to the quality of export products and productivity in general. They can assist in branding of products to strive for higher prices. The task of finding markets for export products could be done much more efficiently and easily, as they have strong international marketing networks. In due course domestic capacity to increase the share in the world market by drawing on the practical experience gained in this process could be significant.

Private investors are expected to have an increasing share in agricultural production. They can organize their own cooperatives through which they can retail or wholesale their products. The idea of setting up cooperatives or similar organizations could be particularly appropriate to relatively small investors. On the other hand, there will be private operators who can sell their output directly to main users, or export or distribute goods on their own. There may also be such private entrepreneurs who can increase the value-added of their products through industrial processing. All of this is consistent with the government Strategy and approach to achieve rapid and sustainable growth in the rural economy.

6. Improving on Rural Finance

The Agricultural Development Strategy in Ethiopia is based on the building of the productive capacity of the people, making the maximum use of the enhanced capacity, and innovative application of the country's inadequate financial resources. Shortage of finance is particularly acute among the millions of farmers. They need to buy improved agricultural inputs and implements to increase their income and break the perpetuity of the poverty cycle they are entangled with. But they cannot do this because they lack finance. The credible solution for this seems to improve vastly farmers' access to rural financial services, notably credit. It is unlikely to achieve sustained agricultural development without sustained use of improved agricultural technologies by small farmers. Farmers' investment in these technologies cannot be real without having in place organizations and system that are capable of adequately providing rural financial services to farmers.

The existence of a strong financial system is essential not only for increased agricultural investment, but also for a strong agricultural marketing system. Cooperatives may be active and functional without requiring a large amount of financial outlay. They can serve as distribution agents for major importers and factories without actually having to buy the agricultural inputs and implements the importers/factories supply. They can settle purchases from farmers after sales. It should, however, be pointed out that such a financing procedure cannot be considered adequate and viable for cooperatives. They need their own finance in order to ensure continued growth, provide more efficient and cost-effective services to their members, and to enhance their own negotiating position with importers or organizations that employ them as distribution agents. The existence of a strong financial system can help cooperatives assume the latter role.

One of the main reasons for Ethiopia to adopt the strategy of Agriculture Development-led Industrialization is lack of capital. It is believed that agriculture, especially smallholder agriculture, can be developed with relatively less capital outlay. This in turn will help the country's capacity to increase capital formation, which is vitally needed to undertake meaningful development in the rest of the sectors. But, the effort to accumulate capital from the agriculture sector will be frustrated without having a strong rural finance base that places the focus of attention on increasing rural saving and expanding access to credit for small farmers.

It is true that there is continuous inter-sector capital transfer. Such transfer from the agriculture sector includes operating margin of private capital through:

- Trade in agricultural products
- Manufacturing /processing agriculture-based raw materials
- Declining prices for agricultural products arising from increasing productivity

The size of capital transfer via these and other means is considered significant. Yet, the capital transfer chain does not end at this.

In the process of agricultural development, the incomes of farmers are expected to increase. While it is inevitable that a portion of the incremental income will be spent on consumption of goods and services the implication of which for the expansion of agriculture, trade and industry is obvious, it is likely that there will, and should be, some savings from the revenue increase. It is hugely important that the saving is channeled into investment to the maximum possible. This, however, cannot occur without having an efficiently operating rural financial system. And without such a system the capital accumulation effort is bound to be compromised.

There is a strong justification to attach considerable weight to the strengthening of institutions engaged in rural finance and create new ones. Because otherwise agricultural development can be sluggish, and its contribution to the development of other sectors will be undermined. Earlier the need to strengthen agricultural cooperatives was overemphasized. The need to focus on the development of rural financial institutions is equally, if not more, important.

6.1. Banks and the Rural Financial System

Strictly speaking, rural development means nothing but the transition from subsistence to market-oriented agricultural economy. Availability and access to financial resources is the key to the transition. Expansion of rural demand for goods and services, increasing rural savings, accelerating rural investment, and accumulation of capital depend on this. Financial institutions should play a special role in this respect. The major financial institutions which can contribute significantly to rural and agricultural development are the existing commercial and development banks, rural banks and cooperatives. The role of each is highlighted below.

The commercial/development banks cannot reach small farmers, because the business is too risky for them. When they provide any financial services to smallholders, it is only through an intermediary and not directly. Their position is well understood, and it is in tangent with international experiences.

Among institutions which can operate as intermediaries cooperatives come first and foremost. Banks can extend loans to cooperatives to on-lend to members. In the same way cooperatives can make use of other services banks offer to clients such as saving. Banking business through an intermediary such as a cooperative could also be less costly to the banks.

It is to be remembered that during the Dergue Regime, banks used to extend loans to cooperatives on direct instructions. This created a situation in which banks had to lend money without applying the principles of creditworthiness, viability and bankability. It was also imposed on the cooperatives and the arrangement was not obviously tenable, and the result was a complete failure. Even after a structural change, the situation has not been able to improve because, on the one hand, banks terminated services as the financial position of the newly established cooperatives was not sufficiently strong and, on the other hand, cooperatives, with stronger financial standings, particularly those established in coffee-growing regions, were weakened because of corrupt and parasitic bureaucracy. The creation of strong banking relationships between banks and cooperatives makes a significant contribution to the strengthening of the rural financial system and to the

development of an internally integrated national financial structure. These relationships will be productive only if they are based on explicit commercial principles. Banks should extend loans and credits to cooperatives only after they have routinely ascertained that the criteria of bankability, prospects for loan recovery and the soundness of the financial positions of borrowers, etc., have been critically assessed. Lending money to cooperatives in contravention of bank operational rules and guidelines will have no effect other than undermining the positions of both parties. So, this must be strictly prohibited. Likewise, cooperatives should not borrow money from banks unless they are financially strong and are sure that they can repay the loans including interest on schedule through incremental revenue generated therefrom. Bank credit, including credit extended by state-owned banks, is a financial obligation that must be repaid on time, and should never be considered a subsidy or capital having ownership.

While agreeing to the practice of lending to cooperatives on market terms, it should be pointed out here that there is room for improvement to make the relationship more productive. Banks should strengthen their lending procedures and operations. They should ensure that credit given to cooperatives is strictly according to their standard loan procedures. Cooperatives which have the capacity to make use of these banking services, should be strengthened. The financial system of cooperatives must be consistent with normal financial discipline. Cooperatives must realize that non-repayment of loans has a huge cost implication for them as well for the society as a whole. They should clearly understand that to have access to bank loans is a right and repaying the loans an obligation. Failing to meet the obligation is punishable in the court of law.

In the past, regional administrations, acting as intermediaries between banks and farmers, have used their federally allocated budgets as security to borrow from banks and on-lend these funds to farmers for the purchase of agricultural inputs. In this way, banks have succeeded to lend a great deal of money. Most of this have been repaid on schedule, and farmers benefited immensely from it. On the other hand, it cannot be denied that there have been cases of default, which have necessitated repayment out of the budget allocations of the regional administrations. Although the procedure has had some remarkable results to its credit, it cannot continue in its current form because:

- Regional administrations are not financial institutions; the banking services they render are confined to on-lending and does not embrace savings or other banking services.
- It has exerted a great administrative pressure on regional administrations to the extent of severely compromising development initiatives other than input credit management
- It has negatively affected the relationship between extension personnel and farmers
- It has shifted the focus of extension away from taking extension messages to farmers to loan collection
- It has enhanced farmers' lingering perception of input credit from formal sources as a subsidy

The procedure needs an overhaul. The task of credit supply to farmers should be separated from the regional bureaucracy.

The creation of a strong working relation between commercial banks and rural banks (inter-bank loaning, i.e., commercial banks lending to rural banks) will help to strengthen the rural financial system and to build an internally well-integrated national financial structure. The creation of an inter-bank money market will also assist in the utilization of temporarily idle funds by forging credit links not only between commercial banks and rural banks, but also between and among the commercial banks themselves. Guidelines and directives have already been issued to this effect, although the degree of implementation leaves much to be desired. There is a felt-need to examine the constraints restraining bank-to bank lending and to take measures to address them. This will strengthen the rural as well as the national financial system. The Government should give special assistance and support to rural banks, as they are key for rural development and for the creation of strong links between agriculture and other sectors. The assistance to be given in terms of training and other capacity-building measures should be oriented towards enabling them to provide good quality services and attain competitiveness and not to make them dependent on subsidies and other such support.

6.2. Rural Banks

As regards rural financial system, noticeable work has been done in establishing and strengthening rural banks during the last several years. There are today quite a few financial institutions that have fulfilled the criteria for becoming rural banks. They are legally registered and are currently operational. In some regions, the rural banks have region-wide organization and serve the entire farming population in their respective regions. They are providing rural financial services to hundreds of thousands of farmers and rural-based micro enterprises. There are elements that characterize the operation of the existing rural banks. These include:

- Loan extended to a person cannot exceed Birr 5,000 annually
- A borrowing individual has to join a group of peers to qualify for a loan, that is, a borrower is held accountable individually and severally for repayment of loans in his/her group
- The loan money is mostly used for agricultural inputs, but there is not any defined restriction yet in this respect
- Saving from a borrower is particularly encouraged
- Services are largely restricted to credit and saving

In some regions, the rural banks are strong and have to their record some remarkable and visible contributions to development. The experience so far with rural banks suggests that they could indeed be key rural institutions in giving impetus to rapid and sustainable rural development.

In spite of this, rural banks are fraught with all sorts of problems. The policy guidelines and directives guiding the operation of rural banks limit the amount of credit they can extend to only 5000 Birr and maximum maturity of one year, thus limiting their operational scope. The National Bank of Ethiopia should study the problem and come up with a solution that will extend their scope and scale of operation. On the other hand, the rural banks themselves should try to strengthen their operations in order to be able to render comprehensive banking services.

As the group credit system has its own advantages, it should be actively promoted and strengthened in the future. However, it should not be seen as being the only option. Rural banks should be able to lend money to cooperatives depending on their financial positions and capacity. In addition, giving merchandise loan to individual farmers should also be considered. Strong links should be forged between rural banks and cooperatives, as this is vital for rural and agricultural development in general.

Rural banks may face financial distress especially in times of drought when farmers, who have borrowed money from them, may not be financially capable to pay their loans because of the effects of the drought. In practice, rural banks usually do well at loan recovery even during bad times. But it must be admitted that in times of drought, whole communities may be affected, loan recovery could suffer. It is believed that such risks may be reduced when crop insurance scheme comes into existence. However, it is difficult to operate such insurance cover in rural areas and will definitely take a long time to materialize. Hence, short and medium term solutions should be found. Expanding the operational scope of rural banks may be helpful in this respect. Extending their credit activities to non-agricultural sectors not exposed to such risks, participating extensively in diversified agricultural activities of farmers, and extending money transfer and payment services would broaden the revenue base of rural banks. They should also make efforts to set aside adequate provisions and reserves against potentially bad loans and reschedule the repayment periods of already extended loans in case of financial difficulties on the part of borrowers. The National Bank of Ethiopia should develop an appropriate legal framework to promote such activities and efforts by rural banks and coordinate their operations.

Apart from the fact that rural banks focus on rural areas, they are really no different from any commercial entity engaged in rendering banking services. Although the government may give them special assistance owing to the crucial role they play in rural development, they must be absolutely free from any kind of political interference. National Bank of Ethiopia is mandated to oversee the operations of rural banks, it is expected of it to ensure that the legal environment in which the rural banks operate is right and the existing guidelines and directives are still sound. It should also provide the necessary technical assistance and support to them. Regional and local authorities should assist rural banks in their loan repayment efforts within the legal provision of the agreements the banks have with borrowers and provision of technical support, notably training. The authorities should see to it that the banks are familiar with regional development programs to help them synchronize their operational activities accordingly.

However, such supports should not serve as a scapegoat to interfere in the operation of the banks.

There have sometimes been cases in which regional administrators attempt to put pressure directly or indirectly on rural banks to advance loans to farmers in good faith. There are observations indicating that farmers tend to view loans from rural banks as a right and/or a subsidy. This has had a negative impact on the credit operations of the banks, and impaired the willingness of farmers to repay loans. Unless these problems are eliminated, rural banks may go bankrupt, with dire consequences to rural development.

6.3. Cooperatives

The role of cooperatives in rural finance is as crucial as it is in agricultural marketing. They serve as intermediaries of commercial and rural banks. They could also set up and operate their own banks. In short, cooperatives have an important function not only in facilitating services rendered by financial institutions but also in filling any gaps that commercial or rural banks are unable to address. Indeed cooperatives can be an important factor in the expansion and strengthening of the rural financial system.

The significance of cooperatives for building a strong rural financial system can have a setback unless they are financially strong. Cooperatives which are not financially strong and are exposed to losses and embezzlement will cause problems not only to themselves, but also to other institutions. Members and leaders of cooperatives who do not appreciate that bank loan must be properly utilized and repaid are serving a great injustice to rural development.

Farmers have a reasonably good reputation in loan repayment. This practice needs to be kept up and further promoted. There have been loose tendencies in this respect and financial supports for farmers were extended without due consideration to repayment. Although well-intentioned, such tendencies do not serve the cause of rural finance. In fact, the lack of willingness farmers demonstrate in some places especially in difficult times, can be attributed to the miss-directed approach of providing financial support to the farming communities, in most cases by some non-government organizations. This must cease, otherwise strong rural finance will be hard to come by.

As repeatedly expressed earlier, rural financial system is a key factor to achieving the desired development objective. Undoubtedly, the development objective cannot be attained unless strong rural financial institutions are in place. Currently, the rural banks are playing a key role. It is, therefore, essential to strengthen them. However, if the financial system is desired to be extensive and deep-rooted, the focus should not be limited to one type of institution and system. Cooperatives and banks should play a significant role in the system. A system which integrates different types of institutions and mechanisms should be built. In order to build strong rural financial system the problems and limitations of each institution and mechanism should be examined and revised.

7. Towards Promoting Private Sector Participation in Agricultural Development

Private investors are already making a significant contribution to agricultural development. But, this cannot mask in anyway the immense potential the private capital has yet to realize in the development of agriculture in Ethiopia. Experiences of developed economies clearly show that as an economy grows there is tendency for some small farmers to quit the sector and seek employment in other sectors, and there are others who accumulate enough capital to go big in the sector. This implies that there is a direct correlation between agricultural growth and the role of private investment in the sector. This in turn means that assuming the objective of accelerated agricultural development is achieved, it is likely that there will be a role change. The key actor in the sector's development will be relatively large-scale private investors and not the semi-subsistence small farmers.

Obviously, this will not happen overnight. In fact, in Ethiopia, it is expected that the shift will be a long-term phenomenon. The smallholder agriculture will remain the decisive force for a while.

One of the inevitable results of sustained agricultural growth will be a substantial proportionate reduction of the sector's contribution to national employment and the GDP. It has already been reiterated that private capital will have an awesome role in the process. It is befitting at this stage to point out issues which have not been treated so far such as the role of foreign investors, the contribution agricultural training makes to increasing the participation of private entrepreneurs, and the linkage which will be established between private capital and smallholder production.

7.1. Attracting Foreign Investors to the Agricultural Sector

There are two investment areas that seem to be particularly suited for foreign investment in the agricultural sector. The first is to develop here-to-for unutilized vast land with high irrigation possibility. These areas are mostly located in the lowland areas of the country where irrigation is a must. In fact, irrigation is the main factor for the anticipated requirement of considerable capital, to develop such areas, particularly so if advantage is to be taken of economies of scale. The second investment opportunity is to produce high-value agricultural products (e.g. flowers, vegetables) where the scale of operation could be small or medium and capital need less than the first option. The second option also requires more sophistication in terms of production methods and marketing, especially the latter. The country's demand for participation in both areas is immense, and assurances are given that government institutions at all levels will do their level best to facilitate and assist foreign investors.

While there is no entry barriers for domestic private investment in these areas, empirical evidences abound to indicate that capital resources of domestic private investment in this sector might not be adequate for the anticipated scale of development in these areas. Moreover, local knowledge of certain agricultural disciplines, especially marketing skills and experience, are limited. Therefore, while underlying the importance of encouraging domestic private investment through well-conceived incentives, the focus of attention should be on attracting foreign investors. Historically, efforts made to attract foreign investment are almost exclusively directed towards non-agricultural sectors. This needs to change if Ethiopia is to achieve its agricultural objectives.

The overriding importance of provisioning infrastructures, improving labor supply and facilitating land acquisition in order to attract private capital in high potential agricultural areas of the country has already been articulated in this document.

There are other factors that need attention. Ethiopia should provide for organization, management and financial resources to establish connections with internationally known companies and consult with them on matters related to what should be done to encourage them to invest in the country. It is a priority matter to ensure that there is a conducive environment for foreign investment. Both the Federal Government and regional administrations will coordinate efforts and work together to constantly review policies and strategies to increase their instrumentality to attracting private investment in agriculture.

7.2. Agricultural Training and the Participation of Private Investors

A large stock of personnel trained in agricultural development at various educational levels are required to establish and expand modern commercial farms. The ongoing agricultural training programs focus on enhancing the productive capacity of small farmers. The focus is in order since smallholder production is the driving force of the sector. Currently maximum effort is being made to train agricultural researchers, the extension personnel animal health experts, and cooperative expert all geared towards increasing government capacity ,to upgrade agricultural production methods and technologies farmers employ. Huge resource is directed towards this task and it is considered that it is money well spent.

In order to maximize return from the training programs, it might be in order to review and streamline them with the intent of benefiting private investment.

The existing skill market may not satisfy the expertise requirements of the private sector. There can be no doubt that this will affect private investment negatively. Government duly notes the gap and seriously intends to fill it. Agricultural training institutions are expected to identify skills and expertise in short supply for commercial farming through consultations with private investors and prepare suitable training programs to effectively address the shortage. Further, these institutions are expected to revisit admission requirements and curricula in anticipation of increasing private sector participation in

medium to large scale agricultural production. This should be done initially on a somewhat modest scale, but should be expanded in the future.

Institutions of higher learning in Ethiopia in the agriculture and other sectors produce job seekers and not risk takers or entrepreneurs. The wisdom and appropriateness of this

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approach in view of unfolding development policies and strategies require a critical review.

In the same vein, there are other considerations that constrain the risk taking tendencies of young graduates and school leavers. It is not enough to create people who have the commitment and capacity to set up and operate agricultural enterprises. They should also be able to obtain the necessary land to establish such enterprises. Although some of them may have their own capital resources, others may not be so fortunate. Regional administrations should put in place an efficient system for the allocation of land to such individuals. This task should be seen as an integral part of the program to expand micro and small-scale enterprises. Training institutes should help students inclined to set up their own enterprises in preparing business plans and other preliminary work before graduation. Furthermore, they can create favorable conditions for their students by consulting with them and with institutions which can assist the students in setting up enterprises. The main point here is to help trainees of agricultural institutes to establish their own agricultural enterprises and to give the matter high priority in the agricultural development efforts.

In conclusion, it should be fully understood that agricultural training has a significant role to play in assisting private investors already engaged in agricultural production. Primarily, it is important to ensure that the training institutions in the country are adequately sensitive to the type and number of trained manpower needs of the private sector. Secondly, it is important that those trained in the agricultural training institutions are encouraged to be engaged in agricultural production and thereby increase the number of trained private investors. The agricultural training institutions should perform these two tasks in addition to their present responsibilities. In fact it should be noted that eventually this would be their principal duty.

7.3. Linkage between Private Investors and Smallholders

Efforts are made here-above to indicate what farmers and private investors should do and how to go about doing it. The development strategy which the Government believes is beneficial has been outlined in some detail. The description may give the impression that there are no links between private investors and farmers as regards agricultural production. Although their links with regard to agricultural marketing and agro-processing are quite strong, the links in agricultural production per se may not be all that clear. However, it does not mean that it will not be beneficial to both if indeed there are close links between them. In fact, there can indeed be links that can maximize benefit for both partners, and contribute meaningfully to make agricultural development efforts more effective.

One such link is the widely known out-grower scheme. Although the system may have several dimensions and facets, the basic tenet hinges on the practice of farmers (outgrowers) supplying agricultural produce to a private investor on pre-agreed terms and conditions. Such contractual system linking private capital and farmers could be useful and perhaps strategic in the densely populated highlands of the country, since it could address the land shortage often encountered by entrepreneurs wishing to engage in the production of high value products particularly exportable products. The outgrow approach could also work in lowland area where land is sufficiently available for private investment. Here also there could be mutual benefits to justify the linkage.

Let us, for example, take a private commercial farmer who grows flowers on his own land using hired labor. He may have contractual relations with local farmers around him. He may make flower seeds or seedlings available to the farmers. He may give them training on how to grow the flowers, i.e., he may regularly give them agricultural advice and technical services. He will tell them in advance at what price he is going to buy their flowers, and the farmers undertake to sell their flowers to him. Sometimes, private entrepreneurs may carry out similar operations without having land holdings of their own simply by coordinating and employing farmers.

Let us take another example. Assume a certain private entrepreneur sets up a tea factory and a tea plantation around the factory. His plantation may not be big enough to supply the tea need for optimal operation. He may strike an agreement with the local farmers around his plantation to produce tea for him. He may provide the necessary inputs and technical services. They will agree on price and other conditions. The entrepreneur will thus be able to get more tea for his factory and the farmers may earn more revenue from other possible alternative uses of their land and labor resources.

The system may not only benefit the investor and farmers, but also may relatively better contribute to the acceleration of agricultural development.

Among the stakeholders, it is likely that it is the outgrowers that benefit most. They have improved access to technologies such as fertilizers, seeds and agricultural advisory and technical services. They may be able to attain increased productivity and higher quality of products, resulting in considerably increased income. They do not have to look for markets to sell their products, or speculate on prices. On the other hand, outgrowers system entails benefits as well as obligations, some of which may be to the outgrowers' disadvantage. For example, farmers may not possess the requisite negotiating skills while agreeing on terms and conditions of contract with the investor. They have no opportunity to speculate to take advantage of any price increases. Because of this there might be foregone revenue.

The system benefits the private investors as well. They can increase the quantity of output they supply to the market simply by making a certain quantity of inputs and some technical services available to farmers, which may require

less expenditure than other possible methods of production. Cost of production could be lower since outgrowers expend more labor than planned to meet schedules or for some other reasons. The investors strictly speaking, don't pay for the extra labor. This will improve profit. The system seems to provide more flexibility to the investors to adjust the scale of operation either way.

There is no doubt that the system is beneficial both to farmers and private investors. It has also a lot of potential to contribute to the overall agricultural development. Therefore, government authorities at various levels should do their utmost to expand and strengthen the production links between farmers and private entrepreneurs in recognition of the potential contribution the system can make to the national economic development.

If the system is to work efficiently, the two parties should first meet and familiarize themselves with one another. They should be ready to build a bond of mutual trust between them and commit themselves to carry out all the obligations stipulated in the contract. The contract should be explicit and should safeguard the economic and other interests of both parties. If either party violates the contract, there must be an independent body which is capable of taking corrective measures. Unless these conditions are fulfilled, it is not possible to create the production and marketing links between the two parties. The government should take the necessary measures to create the preconditions for the expansion of the system in accordance with its mandate to monitor that there is overall economic development.

Research institutes can and should make a positive contribution towards expanding and strengthening production and marketing links between farmers and investors. The latter should obtain products of acceptable quality at reasonable prices from farmers so that they are able to penetrate foreign markets. Farmers can supply agricultural products at reasonable prices only if research institutes are able to supply them with high-yielding crop varieties and improved farming methods, so that agricultural productivity is increased. It is necessary to make sure that agricultural research institutes play this crucial role in the efforts to strengthen the production links between farmers and investors.

Although the contract is between two independent parties, Government can play a crucial role in strengthening the partnership in a way that does not violate the independent and voluntary nature of the contract. It should promote demand for outgrower mode of production through designing and enacting measures that are capable of improving the climate for such a system. It can provide advisory services to ensure that the contract is equitable to both partners, and can also prepare model contract documents to be distributed to interested parties.

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8. Expansion of Rural Infrastructure

The availability of social and economic infrastructures is essential both for agricultural and rural development. It is not possible to attain rapid and sustainable agricultural or overall rural development where there is a lack of services in the fields of: education, training, health, rural road and transport. Rural development and infrastructural facilities and services are almost inseparable. The expansion of rural infrastructural facilities is a major government responsibility in view of its crucial role in expanding these facilities and services in general. In fact, the government's main tasks are to expand rural infrastructure, motivate and coordinate farmers and generally create favorable conditions for development.

8.1. Expansion of Educational and Health Services

It has already been indicated that the development strategy Government is pursuing is based on increasing the productive capacity of the people; that in doing so the expansion of educational and health services play a crucial role; and as such one of the government's development tasks in accelerating rural development is to expand these services. It has also been pointed out how objectives and strategies are to be implemented. The need to centralize these services at selected kebele centers has also been indicated.

The analysis so far presented as regards the expansion of educational and health services has focused on their role in increasing the productivity of farmers and their output in general. Such an analysis is appropriate in view of their contribution to the improvement of the standard of living of the people through output and productivity increases and improvements. However, the significance of the services is not limited to these factors only. The expansion of educational and health services is itself an objective of development and not just a development strategy. Education and health are part of the improvement of the living standards of the people.

The rights of citizenship are protected equally both for the educated and the uneducated. However, the capacity of uneducated citizens to use their rights is limited. That is why most people advocate primary education as a right and obligation of citizenship. It is on the basis of this principle that the government should promote primary education for all. Accordingly, irrespective of the link between education and development, primary education should be expanded in Ethiopia as an end in itself and an instrument for enabling the people to use their rights of citizenship appropriately. Recognizing the underlying mission of education in general to produce people who should become reliable productive agents, the content of education at all levels should be made to reflect this basic objective.

Going beyond what has been said above, education is an instrument which frees the mind and broadens the frontiers of human knowledge and thought. The expansion of education should be seen as a reflection of the improvement of the standard of living of the people and a desirable outcome of development in general, no less than the objectives of getting enough food, clothing, decent housing, etc. Education is an objective of selfimprovement and economic welfare in and of itself. The government is doing all it can to expand education in general and provide primary education for all its citizens on the principles outlined above.

Health services should be viewed in a similar vein. In addition to the contribution good health makes to creating productive citizens, being well or healthy is a development objective in and of itself like being able to live in a pleasant house and having enough to eat. The government attempts to fulfill the objective of health for all citizens through the expansion of primary health care and preventive medicine, as these are the strategies which are consistent with the resources of the country.

8.2. Expansion of Rural Road and Transport Services

It is inconceivable to realize market-based agricultural development in the absence of efficient road and transport services. The supply of various development services to rural areas is possible only when there is an efficient road and transport system. Hence, the expansion of road and transport services is one of the key development measures that must be taken to promote accelerated and sustainable agricultural development.

When the issue of expanding road and transport services is discussed, there is one fundamental point that should not be forgotten. Rural roads become significant only when they can connect various regions to important national political and economic centers and to the global market in general. Rural roads become useful when they are part of the national road network. In the absence of an efficient network of highways, the expansion of rural roads will have little significance for development. It is on the basis of this principle that the Federal Government concentrates on building main roads and highways. The idea behind this objective is not to build an equal length of roads in each region, but rather to create an efficient country-wide network of road arteries. That is why the task of building an efficient national network of main roads in any region is beneficial to all the people living in any part of the country.

While the Federal Government builds main roads that connect all regions of the country to important political and economic centers and to the global market in as equitable manner as possible, regional administrations on their part should construct (rural roads which connect rural areas to these main roads. Even then, Government has the responsibility of building main roads in regions that are not likely to be growth centers on their own in order to open them up for development. This is not something that should be done haphazardly, but rather a task that should be performed according to a well-designed plan. It should have its own development priorities. First, woreda-level centers should be connected to main roads. Then, kebeles should be connected to woreda centers and main roads. Kebeles, with high population density and in which roads can be constructed with relative ease, should be given priority. Roads

connecting kebeles to woreda development centers and main roads should lead to selected kebele development centers where schools, health posts, etc., are being constructed.

Rural roads are assigned grades on the basis of the number of motor vehicles they can carry. Roads which can accommodate from 10 to 50 motor vehicles per day are designated as rural roads. The construction costs depend on their respective grades. One of the problems encountered in the rural road construction program is the practice of building rural roads for traffic of 30-50 motor vehicles per day when in actual fact there is no more traffic than 10 motor vehicles per week. This deficiency is wasteful in terms of scarce financial resources, and is also an obstacle to the attainment of the objective of expanding rural roads of the right grade in all rural areas of the country, and it should, therefore, be quickly corrected.

When constructing rural roads, the start should be made with low-grade roads unless it can be ascertained that there is heavy traffic. When such low-grade rural roads are built, account should be taken of the possibility of increased motor traffic in the future, and should be built in such a way that they could be upgraded when the need arises. In this way, it is possible to adequately expand rural roads in all the rural parts of the country in a relatively short time. Out of the low-grade rural roads built, there is need to upgrade those on which motor traffic has increased. Thus low-grade rural roads could be upgraded to become high-grade asphalt roads.

Rural roads can be expanded within a relatively short period of time when labor-intensive construction methods are employed and when appropriate construction designs can be drawn up. In addition, the follow-up and supervision of the construction work should not require more than middle-level personnel. Another related problem has to do with the drawing up of road construction designs that require capital-intensive approach and highly trained professionals and experts. Hence, there is a need to develop on the basis of the experiences of other countries and local experiences, the practice of preparing rural road construction designs that can be implemented using labor-intensive technologies.

Another problem associated with rural road construction is the problem of repair and maintenance. Lack of repair and maintenance causes rural roads to be out of use within a short period of time. If there is no system that ensures proper and timely repair and maintenance, there is no point in building rural roads in the first place, as it would amount to destroying what has been constructed at considerable cost. The question of road ownership should be addressed if a satisfactory solution is to be found to this problem. The de facto owners of rural roads should be the people who live in the regions and localities where these roads are found. In addition to actively participating in the construction of these roads, the local people should take the responsibility for the repair and maintenance of the roads as de facto owners. The concerned people should realize the importance of this task and should cooperate in accomplishing the work out of conviction and commitment. Kebele leaders should assume the responsibility of implementing this task and mobilizing and coordinating the efforts of the local people to that end. They should also attempt to put in place a transparent and efficient road repair and maintenance system.

It is not enough to indicate that kebeles should be connected to woreda development centers and main roads; the grades of rural roads to be constructed should be consistent with the density of motor traffic, and labor-intensive methods should be employed in rural road construction. In addition, the capacity to design such roads and monitor their construction and to give technical services and training to the people, so that they can satisfactorily shoulder the responsibility of repairing and maintaining these roads and supervising the related work, should be created and developed. This capacity should be created in woredas as soon as possible, and to this end the type of training required should be identified and the necessary personnel should be trained.

In Ethiopia, transportation is associated with motor vehicles or pack animals or human load. Although there are several other alternatives these have not been developed to the desired degree. Even if the mode of transport could be improved significantly by using carts or wagons drawn by horses or donkeys, the practice is not common in rural Ethiopia, except in few places. Similarly, the use of bicycles or motor bicycles is not common outside urban areas. One cannot expand transport services unless one is able to use all these alternatives. Kebele and woreda officials should, therefore, encourage the participation of private entrepreneurs and cooperatives in the expansion of carts and wagons and other alternative modes of transport.

8.3. Improvement of Drinking Water Supply

Supplying enough potable water to the rural population is one of the primary development tasks that should be carried out in order to ensure health services based on prevention and, thereby, create healthy and productive citizens. Ensuring this supply of drinking water means reducing significantly health-related expenditures, in addition to the promotion of the general happiness and wellbeing of the population derived from being healthy, and the improvement of the standard of living of the people. Further, the availability of clean water helps to promote personal and domestic hygiene, to expand various types of local service-rendering institutions and in general to foster regional and local development. Also, availability of clean water at close quarters greatly reduces the work burden on women who traditionally bear the brunt of the work-load associated with fetching water from distant locations. The supply of clean water to the rural population should be high on the list of government development priorities, as doing so means obtaining all the benefits enumerated above, and as the shortage of drinking water in rural areas is chronic and widespread.

In order to expand the supply of potable water in rural Ethiopia as expeditiously as possible, there is need to employ labor-intensive methods that do not require huge amounts of capital expenditures. In this respect, improving springs, digging water holes that are rather shallow, and purification of river water and the like are alternatives that need to be considered. Those who can obtain enough drinking water at low costs should get it in the shortest time possible. There is no reason why such kebeles should wait endlessly until kebeles which can obtain potable water only at high costs get it. From the point of view of equity, the objective should be to make drinking water available to as large a population as possible with the available limited resources, and not to spend large sums of money on a single kebele when the same expenditure can finance drinking water projects for 3 or 4

kebeles. Notwithstanding this objective, priority should be given, in drinking water supply development, to localities which are selected as kebele development centers, as they are administrative and service-rendering regional hubs with expectedly high rates of growth. The drinking water development programs should be in keeping with the expected pace of growth in these centers.

While maintaining the principle of focusing on labor - intensive and low-cost drinking water development strategies, it is important at the same time to be cognizant of the fact that there are kebeles that cannot get potable water through these strategies. Special programs should be designed for such kebeles, and they should obtain drinking water services when it is their turn to do so. Here, too, priority should be given to kebele development centers. Water supply systems should be constructed in proximity to residential areas and at locations suitable for water transport.

The problem of repair and maintenance is prevalent in drinking water supply projects as well. There are a considerable number of instances in which pipes are broken or otherwise damaged, and the water becomes contaminated. The problems associated with repair and maintenance and with ownership observed in water supply programs are the major ones worth mentioning. These problems should be satisfactorily tackled, if to expand drinking water supply services as fast as the situation permits.

In order to solve this problem, the questions of ownership should first be addressed. The de facto owners of these drinking water services are the people who live in the localities concerned, be they villages, parishes, etc. It will be the responsibility of kebele administrations to control and coordinate the services of water supply systems located within kebeles. Notwithstanding this, close monitoring and follow-up should be given by some official administrative unit. As is observed in certain regions, it may be useful to set up a water committee composed of members elected from within the concerned people at large. As experience in regions where there are such committees shows, better results are achieved when most of the committee members are women. As women bear the responsibility for fetching water at the family level, it is believed that they are in a better position to handle the water supply work at the kebele or district level as well. It would also be a good idea to keep watch over water supply points by hiring guards whenever this is affordable.

The water committee and hired guards have the responsibility of ensuring that the water supply is clean and that the necessary repair and maintenance is carried out. The costs necessary for repair and maintenance should be covered by users. Hence, users should pay for water supply services they receive, although the fees charged should be affordable. Users will obtain more benefit out of the clean drinking water services when they are made to have a stake in them through the payment of modest user-charges. The payment may be on the basis of the amount of water drawn at the site of the water supply. This will work particularly where there are hired workers. Alternatively, the payment may be effected by levying a fixed monthly fee on each user family. The main objective is to establish ownership of the water supply, create a repair and maintenance system, levy modest user-charges to ensure the viability of the whole project and improve it on the basis of regular assessment.

One of the problems encountered in the effort to expand drinking water services is associated with (a) identifying low-cost water supply projects, (b) follow-up of their implementation, (c) making available skilled technicians for repair and maintenance who are not available in the particular localities in question and (d) improvement of the entire water supply services on the basis of regular assessment. Rural drinking water supply services can be expanded only if it is possible to succeed in creating such technical capacities in each woreda. The technical training required for studying low-cost water supply services, which can be built by labor-intensive methods, for determining their building sites and for following up their construction work should be identified and given to trainees who should then be deployed accordingly. Likewise, technical expertise needed to repair and maintain water supply systems, which is beyond the capacity of localities, should be developed and used. Such technical expertise at the woreda level should be used to expand, improve and monitor water supply services in the concerned localities. Woredas will have the right to request higher bodies to perform tasks related to water supply services which are beyond their technical capacities.

8.4. Expansion of Other Rural Infrastructural Services

Although the issue of expanding telecommunications and electricity services will be gradual and costly, it is a development task that must be addressed with resolve. True, the priority here is to provide telecommunications and electricity services to woreda development centers and towns, as is being done at present. This work should be expedited. Next should come kebele development centers. These should be adequately provided with such services, since in the long run they are likely to be the growth poles of the kebeles; they may grow into towns, and they are expected to promote the growth of non-agricultural sectors as well. Even in the short and medium term, these kebele development centers are potential sites where educational, health, administrative, agricultural training and extension services, cooperative, institutions, etc., will be located. They will also have to accommodate a considerable number of professionals, technicians and other workers who will be working in these institutions. Telecommunication and electricity services should reach these centers in order to motivate the workers and enable them to perform their duties properly. The challenge is certainly daunting but not unattainable.

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The key development challenge in the next phase is to provide communication and power services to kebele development centers. In this connection, it would be worthwhile to mention that, taking advantage of the favorable conditions created by the expansion of telecommunications services, there is need to improve and strengthen the existing information system. Efforts will, therefore, be made to develop a basic database, improve the flow of information upwards and downwards and use this information as a basis for the preparation of development plans. In general, attempt should be made to use information technology for accelerated rural development alongside the expansion of telecommunication services. In this respect, it will be in order to study options and based on a critical analysis of the options draw a plan that is cost effective, takes less time to implement, and allows a more effective coordination between the Telecommunications Corporation and local or woreda-level organizations such as cooperatives.

With regard to electricity services, although new technologies (e.g. solar energy, wind-driven electricity generation, etc.) which can expedite the expansion of electricity services in rural areas are being developed, it is relatively more difficult to expand these services. In fact, the lack of electricity is bound to retard the expansion of telecommunication services.

The plan being implemented by the Ethiopian Electric Corporation to give priority to woreda development centers and towns in expanding electricity services should be continued. Along this, whenever there is a possibility to provide electricity to rural areas, there should be no hesitation to exploit the opportunity. It is necessary to draw up a plan now to expand electrification to the kebele level. This may be a long-term objective. In the short and medium term, however, somewhat different alternatives for the distribution of electricity should be explored. It would be one alternative to encourage private investors and cooperatives to supply electricity using diesel generators. Another alternative would be to promote the participation of regional administrations and NGO's in the exploitation of other sources of energy such as solar and wind, in addition, effort should be made to expand the supply system by improving traditional sources of energy like woody biomass. This will require a more closely integrated afforestation and reforestation programs to actively combat deforestation.

Human settlement in Ethiopia is unique-too scattered making the development of social, communication and physical infrastructures difficult and costly. To accelerate rural development, they should live in communities. Selecting locations which can serve as nuclei for such congregation and transforming them into development centers in due course would accelerate provision of infrastructural services. The task of accelerating rural development will require the establishment of many development institutions, in each center which will need a great deal of trained manpower. Primary schools, health and agricultural extension training facilities, etc., will have to be set up. Therefore, it would be logical to assume that over ten professional staff would be assigned at each kebele, and that the number could well be higher as the volume and variety of work increases in due course. It would be reasonable to deploy and set up these trained staff and development institutions in selected kebele development centers rather than scatter them in villages and parishes. It should, therefore, be seen as one of rural development strategies to select and develop administrative and service - rendering centers in kebeles, to eventually upgrade them to townships.

This noble rural development objective can be attained only if the technicians and skilled personnel, deployed in each kebele, are ready to serve the people and their country with great commitment. Youths who have not accepted this national call out of conviction cannot help bring about the desired development, even if they are deployed in kebeles on a permanent basis. Hence, it is necessary to explain to the youths the importance and nobleness of the development work assigned to them. In this connection, although according priority to training rural youths who meet the required educational qualifications has its own advantages, the work should not be seen as a task limited to rural areas. The approach could also be applicable to urban situation. Urban-based youths

can participate in this development work. There were examples of similar youth participation during the period of the armed struggle against the Dergue Regime.

Although the important thing is to persuade and motivate the trained personnel to have trust and confidence in the importance of the work, the first obstacle these people may face could be accommodation. The local people and regional administrations should do their utmost to build living quarters for them. Priority in scholarship grants and other educational opportunities should be given to kebele-assigned rural development workers. Additional incentives should also be given, depending on the length of service in rural development. Additional incentives are here proposed not to indicate an exhaustive list of such incentives, but rather to underline the need to encourage a stable work force employed in rural development work, with sufficient experience and expertise and to avoid giving the impression that job assignments in rural areas are temporary sojourns.

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9. Strengthening Non-Agricultural Rural Development Activities 9.1. The Need for Non-Agricultural Rural Development

When the EPRDF Government says that agriculture is the focus of rural development, it should not be construed to mean that there is no need for development outside agriculture, or that no priority need be given to non-agricultural rural development. In the process of development activities, it is inevitable that non-agricultural development initiatives will in due course become important elements of rural development. In fact, it can be stated safely that rural development objective is irreversibly attained only when agriculture ceases to be directly or indirectly the main economic sector, especially in terms of its percentage share in the GDP and employment. Focus on agriculture should be understood to mean seeking accelerated and sustainable agricultural development to end the predominance of agriculture in the national economy. It is reasoned that such a development strategy indeed gives a greater priority to the development of non-agricultural sectors than any other development strategy.

Government attaches great weight to the development of non-agricultural sectors not simply from the long-term point of view. Planning investment and work in the non-agricultural should start now in order for the sectors, to take the lead role from agriculture sometime in the distant future. In fact it will be unlikely to attain accelerated agricultural development; without increased investment in and results from the other sectors.

Education, health, trade, marketing, finance, etc., are all technically outside of agriculture, but all are critically important to agricultural development. Expanding and strengthening these services in the rural economy means developing non-agricultural sectors and increasing the number of people employed there in, which in itself is another factor for assisting development. Agricultural development cannot occur without a visible change in these services.

Farmers employ themselves in agricultural or other activities to improve their livelihoods. They want to increase their income to improve the quality of life. This essentially means increased capability to afford improved and more quantity of needs (food, clothing, shelter, etc.), education, health, transport, entertainment, and the like. It means affording to invest in improved technologies such as fertilizers, seed, and farm equipment. Peasant farmers, although mostly illiterate, are rational people. As rational people they want to keep on increasing income for the purpose of more investment and to further raise their standard of living. Lack of goods and services due to inability of non-agriculture sectors to supply farmers may anest farmers' motivation and industriousness. This is the reason why it is argued that unless non-agricultural sectors are developed right from the outset, it will be virtually impossible to develop the agricultural sector and improve the well-being of the rural people.

Very often, the labor force employed in non-agricultural sectors has higher labor productivity compared to agriculture. Because of this, the work force in non-agricultural

sectors earn higher income. Hence, the development of non-agricultural sectors in the rural development concept means improvement of income of the rural population and, therefore, its standard of living. This is yet another justification for giving immediate priority to non-agricultural sectors as part of the overall rural development.

9.2. Full Utilization of Development Opportunities Created by Rural Development

There are infrastructural and other services that must be provided in order to promote agricultural development. These services create relatively better-income job opportunities. As these services increase in scope in the wake of sustainable rural agricultural development, the manpower employed in these sectors will also increase. The propensity to spend and invest of the increased manpower and income is bound to increase, which needs to be exploited intelligently and productively. One alternative to do this would be to select kebele development centers for the purpose and accelerate their development.

When agricultural support services are centralized and rendered from one development center, the likelihood is high that with people with high income will be pulled to that center. This pool is bound to cause additional investment in various fields giving a tremendous impetus to the overall development.

Another source of growth among the non-agriculture sectors is education. It has already been indicated that primary education will expand in rural areas. It is clear that out of the rural youths who complete primary education, the vast majority will be employed in agriculture. On the other hand, there will be students who will progress to secondary education and be employed in non-agricultural activities. There will also be students who complete their primary education, but do not progress to secondary education, who will be employed in occupations other than agriculture after receiving the necessary technical training. In this sense, it may be safely assumed that the number of youths who will be employed in non-agricultural activities will increase. This opportunity should be used to develop non-agricultural rural development activities. In addition to training masons, carpenters, junior technicians and accountants, etc., and employing them in various rural development institutions, youths may be encouraged to set up small-scale enterprises, which can produce goods and services to meet farmers' demand for various types of products. The availability of credit facilities will be important in this regard.

Another point that should receive special emphasis is the task of increasing the value-added of farm products. There is urgent need to prepare and package agriculture products with the intent to reduce transportation and marketing costs. Small-scale agro-processing enterprises should be encouraged to emerge and grow. Cooperatives can also play an important role in running such enterprises.

9.3. Strengthening Rural-Urban Linkages

Agricultural development contributes to the expansion of non-agricultural sectors not only in rural areas, but also in urban areas. The main agro-processing activity is carried out not in rural but in urban areas. The main marketing, financial and transport centers are also found in urban areas. Urban areas should be organized and developed in such a way that they effectively serve agricultural and rural development. Likewise, urban centers should be organized to enable them attain rapid development, taking advantage of the benefits which accrue from rural development.

Urban development should be guided by a well-designed plan and it should enable to achieve the objectives set out above. Towns should be expanded to service rural development and in turn to fully exploit the benefits arising from rural development. Towns and cities should be given standards on the basis of the services they render for the acceleration of rural development, and the advantages they obtain from rural development, and they should be expanded to render the expected services according to well-formulated town development plans. If these tasks can be accomplished, urban centers will be able to generate employment for the growing number of rural youths. Rural youths can move to towns and cities and engage themselves in non-agricultural activities. There will also be an opportunity for them to produce non-agricultural products and sell them in the expanding markets, without having to leave their rural homes. Hence, they can pave the way, directly or indirectly, for the expansion of non-agricultural activities in rural areas.

An attempt has been made to indicate some of the major strategies that may be employed to expand non-agricultural activities in rural areas. The details will be elaborated in due course. The major point here is to realize that expanding non-agricultural activities is an integral part of the rural development strategy, and that it should be given due emphasis.

Part Three

Managing the Rural Development

It is obvious that in order to attain accelerated and sustainable rural development, it is necessary to set out correct and realistic development objectives, have a clear vision about rural development and formulate appropriate and realistic policies and strategies. To embark on a development in the absence of such vision, objective, policies and strategies is absolutely futile. On the other hand without having a sound and well thought out plan, and putting in place competent management it is unlikely that vision, well defined objective, right policies and strategies will yield results. In short, rural development is a function of competent and efficient management.

1. Democratic Participation and Rural Development

1.1. The Necessity and Indispensability of Popular Participation in Development

Public participation is highly desirable and beneficial to development. It is the right of the people to discuss development issues and decide on all matters that concern them. Participation is not sought for its own sake. Rather it is because rural development is virtually inconceivable without it.

It is befitting here to reiterate that as indicated earlier, the fulcrum of rural development in Ethiopia is agriculture. Yet agriculture is virtually in the hands of small farmers operating fragmented pieces of land. The policies, strategies, technology packages, training capacity building, etc., all revolve around these farmers operating using backward farm management practices. While this in itself can slow results emerging as a result of policies, strategies and support services, the development impact will be more frustrating unless the farmers are actively involved in the process in all aspects and they are at the center of decision-making. This is in essence the meaning of participation. It needs to be understood clearly that there will be no rural development if farmers are not the owners of the program packages.

The main manifestation of the participation of farmers in rural development comes in the form of production and investment activities carried out on their own plots in their own time and by methods freely chosen by them. Of course, farmers should participate in rural development other than in the form of activities on their own farms. However, the most important manifestation of farmers' participation in rural development is the production and investment activities which they undertake on their farms.

This should not imply that farmers' participation outside their farm plots is to be lightly considered. Even if there is a great deal of prosperity and growth in and around the farm plots and the surrounding, it cannot be denied that such growth can actually occur and be sustainable if there are no infrastructural, marketing, etc., facilities and services in the locality. By the same token, the infrastructures and facilities can hardly be complete and continued provision of required services ensured without the active participation of communities in the planning and provisioning of the infrastructures.

It may in principle, be the responsibility of the government to provide infrastructural facilities and services both in rural and urban areas. However, the financial resources of the government are limited. If rural infrastructural development is to be based on government budget alone, the objective of rural development will be compromised immensely. In this connection, it is worthwhile to mention that most of the rural development works are products of labor-intensive development projects in which local resources and inputs play an important role. Infrastructural services can be greatly expanded by making use of these labor and other local resources. After all the main reason for Ethiopia to pursue rural and agriculture-led economic development is because the capital resources the country has relatively more abundantly are labor and natural resources. This is also the reason why it is considered more prudent to opt for labor intensive approach in the effort to develop rural infrastructures. The owners of these resources (labor and natural resources) are the multitude of small farmers. This fact is another strong evidence that participation, that is, active involvement of the public in the planning and implementation of rural development programs including decision making is the people's right.

Farmers should mobilize their own labor and local natural resources and employ these factors of production for regional development. Government resources cannot supplant the resources of farmers and the natural resources available in the various regions. The government can use its resources effectively if it can deploy them to supplement and complement the resources that can be mobilized by the people themselves. The government attains this objective when it can provide adequate technical and advisory services, sets up an efficient system for the delivery of these services, and uses its financial resources to concretize these development tasks. Likewise, the government can be said to have done its part of the development task when it implements key development projects that are beyond the resources of the people and fills development gaps which cannot be handled by the people.

Designing rural road plans and creating an efficient organizational set-up to coordinate the work there-of is within the domain of the government's development tasks. Supplying resources for rural road construction which are beyond the means of farmers is also the government's responsibility. On the other hand, supplying the labor necessary to build these roads and repairing and maintaining them after they are completed are the responsibilities of the people. Training teachers and assigning them wherever they are needed is the government's responsibility. Supplying educational materials is also part of the government's work. However, the people should participate in the construction and repair and maintenance of schools. In some regions, there have been instances where the public have built schools by making financial and labor contributions, while the government covered the costs of buying the corrugated iron sheets for roofing. Some of the people who participated made financial contributions out of incomes earned by selling firewood. The public has a great deal of creative power to show a higher degree of participation. The important point here is to realize that infrastructural development can be accelerated only when the people participate in it extensively, and the government, on its part, fills gaps which cannot be bridged by the people. This constitutes an integrated government - people partnership in the development process.

Stating the importance of the participation of the people in rural development is one thing; addressing correctly the question of what should be done to ensure participation is quite another. Farmers should be involved out of conviction and commitment and not on instructions and orders handed down from above. This should not however mean that government cannot and should not take measures to promote genuine participation in the development process. It can and it should. Enhancing capacity of community-based organizations is a critically important measure in this regard. It should also monitor that participation is genuine and based on conviction and voluntarism.

Participation means that the people should be able to discuss and consult among themselves the various development alternatives presented to them. They should receive clear explanations on issues that are not clear to them. If they think they have better options of their own, they should be able to present and debate them with their partners, including the government. Then, they should have the right to choose, adopt and implement only those alternatives which they think are beneficial to them. In other words, the participation should be wholly based on democratic principles and procedures. Where there is no democracy, there can be no popular participation capable of ensuring accelerated rural development. That is why it is argued that democracy is a key development instrument for combating poverty and backwardness.

Regional administrations should undertake to fill development gaps that cannot be bridged by the people. Here also success can be guaranteed only if the democratic principles of participation are upheld and genuinely encouraged. To try to bridge development gaps in the absence of democratic participation is utterly futile.

In order to motivate farmers to participate in rural development with interest and commitment, the first priority is to present them with a development alternative which they believe will maximize their welfare and gains. It is extremely difficult to persuade farmers of the significance of rural development without forwarding a development alternative which can readily be seen to be of benefit to them. It should be explained to farmers that the alternative presented is the one that maximizes their welfare most. They may not accept even a good alternative if they believe that it cannot be implemented. So, it should be explained to them that alternatives presented are not only beneficial but also practicable, and the way in which they may be put into effect should also be explained in detail. The explanations should be given repeatedly, indicating various scenarios and strategies. One of the yardsticks for competent and efficient rural development management is the ability to make such competent explanations and clarifications on a continuous basis.

Giving such public explanations and clarifications is an important tool for promoting popular participation. But this is only the beginning of the task, not the end. Farmers will not actively participate in development work which may completely transform their lives simply because they have been allowed to freely discuss it or been given detailed explanations and clarifications. They would like to test the development alternative presented in actual practice. The alternatives should be tried out in practice and must be found to be realistic and practicable. This is the main problem with regard to democratic popular participation and it requires competent leadership to handle it effectively. Farmers do not embark on new ventures unless they make sure that these new ventures are practicable. This raises the question of who should take the first practical step if farmers are not going to practice anything they do not think will succeed. Where should the practical experience necessary to convince farmers come from?

There may be several approaches to solve this rather knotty problem. There ought to be a pioneer group of farmers who should be helped to successfully implement the development project in question. Then, farmers in the region should be allowed to see, examine and understand the outcome, and should thereafter be encouraged to follow the newly introduced practice. The pioneer or vanguard groups of farmers should be those who have understood the significance and advantages of the newly introduced development projects and are ready to experiment with these new development ideas. It may be necessary to give these groups some sort of incentives to induce them to participate in these pilot projects. The pilot programs may be composed of such advance groups of farmers or of whole designated villages. The groups may come forward as a result of political support for the government. Whatever their motivation for joining the model groups, the important thing is to select such farmers, give them the necessary technical or other support, encourage them to implement the pilot projects with commitment and thereby demonstrate that this is a key rural development strategy.

Once such pilot groups of farmers or model villages have been identified and given the necessary incentives to successfully implement the pilot projects concerned, the next phase of the development effort will be the last and most decisive one. Effort should be made to convince the people in general of the advantages of the pilot projects by telling them clearly what

the development work done is, what positive results it has produced, how it has been accomplished and why it has been successful. An opportunity should be given to the public to see for themselves what has been accomplished and to receive clear explanations and clarifications from the farmers or model villages which' actually participated in the pilot projects. Such a public forum should be used to explain further the usefulness of the development project in question and its practicability.

Still all farmers may not have full confidence in the pilot projects and their degree of commitment may vary. A considerable number of farmers may want to join with reservation; others may still want to sit on the fence, trying to get more evidence of the value of these projects. Pressing the people too hard does more harm than good; allow them to move at their own pace. Further, effort should be made to persuade people of the advantages of the model projects on the basis of the benefits and gains which have accrued to those who have adopted the development strategies at a faster pace. Once confidence has been built as regards basic issues, the task of convincing farmers of the detailed operations they have to undertake should not be all that difficult. Confidence in the leadership itself can make a lot of difference and farmers may well decide to go the distance. The important thing is to provide competent leadership in order to convince farmers of the benefits of the model projects, and once they are persuaded of the basic issues involved, a situation will be created whereby farmers will willingly and voluntarily execute the development alternatives presented to them.

As in all other development areas, the role of the youth in rural development is decisive. The rural development strategy here is mostly labor-intensive. The employment of the labor of the youth in rural development is decisive as it is the major production force. Educated farmers are expected to employ agricultural technologies. Although it is necessary to mobilize the energies of the entire people to improve personal, domestic and environmental hygiene and sanitation and to change the life-style of farmers and modernize it, the role of the youth, particularly that of the educated youth, is especially important. A rural development strategy that does not encourage the youth to participate in it cannot be rapid and sustainable.

To say the youth should play an important role in transforming the life of the farmer and enabling them to actually play this role are two different things. An integrated effort should be mounted to enable the youth to tangibly play an effective role in rural development. The points raised in connection with enhancing the capacities of the agricultural labor force are relevant in this case also. The measures which should be taken to enable the rural youth to play this role include: (a) provision of at least primary education and making the content of this education relevant to the needs of the rural youths to be employed in rural and agricultural development, (b) provision of agricultural training to the rural youth, (c) providing technology packages consistent with the agricultural training given, and (d) providing the necessary financial services. Although all these measures also apply to farmers in general, they should, however, be implemented in such a way that they have a particular orientation towards the fulfillment of the objective of enabling the youth of the nation to play a special role in rural and agricultural development.

It is not possible to effectively mobilize the youth simply by taking the measures enumerated above. The youth will need to have their own organization through which they can campaign for their own rights and economic interests. Youth associations contribute a great deal to the active participation of youths in rural development. A mechanism whereby youths may be represented in kebele councils, which have decisionmaking power in respect to rural development, approval of development plans and their execution, should be created.

Youth associations should be organized and strengthened like other popular organizations for the purpose of protecting their political rights and economic interests. An association or organization created without such a purpose can be neither strong nor viable. The rights and interests of the youth will be protected only when the rural development strategy is implemented. Youth associations should, therefore, make it a point to actively encourage youths to participate in rural development. Youths should be able to reap tangible benefits from rural development,

Youth associations should, therefore, be organized at all levels, particularly at the kebele level. Like all other popular organizations, their organizational independence should be honored. They should mobilize the youth to improve the latter's development capacity through education and training, health care, technology and financial services. Problems associated with these development endeavors, which can be solved by the youth themselves, should be solved by them, while those which cannot be solved by them should be referred to the relevant authorities. Youth associations should also make a concrete contribution to the solution of the land shortage problem common among the youth. Coordination and mobilization of the efforts of the youth for effective representation in kebele councils is another task that should be performed by youth associations.

The efforts being made to mobilize the entire people to accelerate rural development protects the rights and interests of the rural population. Some fifty percent of the rural population are women. So, women are definitely beneficiaries of rural development. Women's rights and interests will be protected even more when the development strategy designed and popular participation outlined above are effectively put into practice. Trying to protect the rights and interests of women in the absence of these conditions would be a futile exercise. It is necessary to make special development efforts targeting women so that they may gain the benefits of rural development which they deserve.

It is obvious that the efforts being made to widen the participation of women in rural development are made to ensure that women, who comprise half of the population, get their share of the benefits and gains from such development. But this is

not the only reason. Trying to undertake rural development without their participation actually means numerically putting out of use some 50 percent of the potential productive capacity of the country. No meaningful rural development can be realized without their participation.

In order to ensure the participation of women in rural development, it is necessary to increase their productive capacity. We need to make special efforts to put them on a par with men in terms of education. As there are many long-standing harmful traditions which militate against the participation of women in education, a campaign should be mounted against their negative influences. Equal participation of women in education with men is advocated in the belief that they will help themselves and their country through training and employment in agricultural activities and will protect their rights of citizenship properly. In addition, the provision of primary education to women makes a greater contribution to development than a similar provision to men.

It is appropriate that women be employed in all fields of activity on equal footing with men. In addition, providing primary education to women will help them reduce child and early marriage, and practice family planning. In this sense, such education for women carries more weight than in the case of men. Further, in Ethiopia women bear the brunt of housework and assume most of the responsibilities of raising children. This is the reality on the ground, although ideologically and theoretically it could be argued that this state of affairs should be changed. Hence, primary education for women yields additional benefits in terms of family hygiene and health care and support for children's education.

In all this, sight should not be lost of the fundamental principle that equality of women in education should be unconditionally affirmed. The existing inequity in this respect should be rectified not only for the sake of women per se, but also for the sake of national development. Harmful and backward traditions militating against equality of women in education should be eliminated, and women's educational levels should progressively be lifted towards those of men. When underlining the importance of educated women in households, it is not meant that such women are educated solely for the purpose of housekeeping. Quite on the contrary, there is need to combat such an outdated outlook and enable women to be equally employed in agriculture and other activities. Otherwise, the benefits derived from education in general will be minimal. Educated women contribute more to development by being so employed while at the same time they make qualitatively improved contributions in household responsibilities, the main burden of which is already shouldered by women.

When the content of the subjects being taught at schools includes disease prevention, environmental, home and personal hygiene and sanitation, there is no doubt that men as well as women will benefit individually from the instruction given, but women go beyond their own individual advantages and help the whole household in this respect. As soon as women complete their primary education, they should be given an equal opportunity to be trained in agricultural disciplines or other subjects or to advance to the next higher level of education. It would be appropriate to give priority to women in non-agricultural vocational training after the completion of primary education.

It has been indicated earlier on that health services to be expanded in rural areas will be based on disease prevention and primary health care, and men will benefit from all these services. Disease prevention and primary health care embraces family and domestic hygiene. This in turn focuses on mothers and children, although men also benefit from this health education. When argued that emphasis should be placed on mothers and children in disease prevention and primary health care, the idea is not to give the impression that their lives and health carry greater value than those of other people. This is absolutely not the case. The point to be made is that the emphasis given to women's health education is derived from the reality that women care for more people than just for themselves, and as such their contribution to the health of the nation in general carries more weight. Hence, the disease prevention and primary health care programs should be oriented more towards mothers and children and their participation. Women's education carries even more significance when viewed from this perspective.

Unless women's productive capacity is enhanced, and unless they are employed in production and development activities, the desired development outcome cannot be attained. Harmful and outdated cultural outlooks and practices regarding this point should be eliminated progressively. In addition, measures should be taken to lighten women's burden of housework and house-keeping. It is necessary to encourage men to take part in at least some of the household chores. However, looking at this proposition from the point of view of the country's economic backwardness and the negative cultural influences, there is a limit to how far the proposition can really be pursued. In such a social milieu, it is inevitable that the brunt of the workload will be shouldered by women. Hence, great effort should be exerted to make the work burden on women lighter. This may be achieved by improving water supply services, the availability of fuel-wood and its utilization, and by expanding the installation of flour mills and encouraging the participation of other household members in these tasks. A lot of other work of this nature can be done over time once such basic improvements are made.

Apart from giving priority to women in vocational training, it is necessary to promote their employment in the fields in which they have had training in order to enhance their contribution to overall development. In the agricultural sector, women can, in addition to their household work load, participate in backyard gardening, animal breeding (e.g. poultry, bee-keeping, etc.), and so priority should be given to these activities. Also, the importance of credit facilities should not be forgotten. In the case of women who have had non-agricultural training, it would be fair to give them priority in

government employment. Providing credit and technical services to women who set up their own investment ventures is also important.

Another related issue is the question of property acquisition and ownership. In some regions, women have equal rights with men to use land while in other regions this is not the case owing to cultural barriers. Extending such rights to women does not call for re-division or re-allocation of land. Legally ensuring equal user-rights on the plots of land being farmed by men will automatically affirm women's equality with men in land user-rights. Of course, no re-division of land is required here. However, this is not something which can be done by handing down orders or directives. Rather, it is a policy task that should be accomplished by the consent of the people and in accordance with the corresponding cultural changes that may come about. Trying to do it by sending out directives, or doing something similar to that, would be totally counter-productive both in terms of women's equality and national development. However, guaranteeing the ownership rights of women on their production and development ventures is absolutely necessary.

In order to widen the participation of women in rural development, it is necessary to increase their political participation as well. Strategies to increase their participation in kebele councils and committees (e.g. water committees) should be promoted aggressively. It should also be noted that unless men's attitudes in this respect are substantially changed, it will be difficult to go very far in achieving these tasks simply by using different technical approaches. Hence, not only policy and administrative measures, but also attitudinal changes are necessary to enhance the participation of women in political, social and economic affairs of the country.

Women's associations to be organized at kebele level are expected to make a significant contribution to the political and developmental participation of women and the benefits they derive from such participation. Through these associations, women may be able to obtain technical and credit services as well as exchange of views and experiences. Through them, they can discuss problems encountered in political or economic participation and find common solutions to them.

Popular organizations, particularly youth associations, which are expected to play a dynamic role in rural development, should be given special attention. However, taking into consideration their present level of development and evolution and the special contribution which women make to rural development, it is women's associations, especially kebele women's associations, which should be given priority over other popular organizations. Since strengthening public participation forums requires particular attention, it is elaborated in some detail here below.

1.2. Proper Use of Public Participation Forums

Energies of the people can be mobilized only when they are organized, or when they have effective and well functioning organizations of their own. If the people are organized into popular organizations, explanations, clarifications and seminars can be given to farmers using these organizations as public forums. Through these organizations, public forums on which the people can freely discuss and debate issues of common interest, and accept or reject ideas as they deem fit, can be created. They will serve as media for the exchange of views and experiences which will help them assess the development strategies employed, commitment sought for their implementation and propose revisions whenever necessary. It is possible to use these forums to rally the people behind the development objectives and to empower them to participate in the decision - making process. They can also be used to mobilize the energies of the public to actively participate in overall development or in their own backyard gardening. Therefore, the task of convincing people, and having them implement development strategies is closely associated with the task of strengthening popular organizations, making them free and democratic public forums, developing their management independence and efficiency and allowing them to participate freely in the organization and mobilization of the people for overall national development.

However, popular organizations are not the people's sole public forums. Kebele councils and administrations are also the people's forums. Particularly kebele councils should be bodies that can reliably ensure the participation of the people. To this end, the first step would be to increase the number of council members. In this way, it is possible to create the opportunity for a vast number of household heads living in each kebele to participate in the council. The representation format could be so designed as to allow the participation of different sections of the given population in the right proportions. Kebele councils should have a decisive say in the determination of the types of development work to be undertaken in the kebele. Kebele councils should have decision - making power in respect of development activities in kebeles, that is, they should be given decision-making power over the utilization of the labor power in their respective communities.

When kebeles make development decisions, they should make sure that the decisions are based on the right development strategies and that these strategies are consistent with the particular conditions of the kebeles in question. This can be done only if the members of kebele councils are committed to the success of these development strategies. If they are so dedicated to the strategies, they will go beyond commanding the respect and acceptance of the people and play a vanguard role in the implementation of development plans, and mobilize the people by example rather than by precept. Hence, the assembly forums of kebele councils should serve as public arenas for the discussion of such political and development issues. Decisions should be reached through democratic procedures only. Efforts should be made to enable all members of kebele councils, particularly those kebele members with great social influence, to fully understand and appreciate the development path being pursued, to be fully convinced of its merits and to implement it on their own farm plots and backyard horticulture, and also to mobilize the people at large to actively take part in the development work.

Kebele councils deserve special attention not only because they are forums at which socially prominent persons are assembled. It is also because these people make important decisions as representatives of the people. Although it is proper to recognize popular organizations as important political and economic forums, it should be realized that, in respect to rural development, it is the kebele council forums which are decisive in persuading the people and mobilizing them for the execution of development tasks. The persuasion campaigns should be aimed at members of kebele councils. The intention is to encourage members of kebele councils to reinforce development paths and strategies with their own legal decisions, after being convinced of the merits of these development directions, to actively participate in the development efforts as coordinators of the people, and to act as vanguard executors of the development strategies in their own backyard gardening or in collective development ventures.

However much the number of kebele councils may increase, they will not be able to include every family head in the kebele concerned. There ought to be other forums where family heads in villages could be assembled. These forums can make a great contribution in terms of coordinating development efforts at the village level under kebele councils and on the basis of the latter's decisions. These can thus be used as forums next to kebele councils and improve their modus operandi over time.

As would be expected, decision - making powers of kebele councils 'as regards development have to do mainly with the labor force and natural resources of kebeles. Although the government's support here, as pointed out above, does not go beyond filling development gaps, it will make budgetary allocations for kebeles. In addition to current budget allocations, limited amounts of capital budgets will also be made available. Let alone kebeles, even woredas do not at present have the power to decide on when and for what purpose these meager budgetary resources could be spent. This procedure is not correct. It would be appropriate for woredas to be able to decide on how their government budget allocations should be utilized under broad directives from the Federal Government. By the same token, woredas should hand over budget allocations to kebeles under them with similarly broad directives and allow the latter to decide on how this

public money should be spent and how the kebeles' labor and other resources may be combined with these budget allocations and utilized. It would not be appropriate to say that kebeles, which are the owners and organizers of the productive forces within them, cannot have decision - making powers on how this gap-bridging federal funds should be utilized. Hence, there is need to progressively move from the current fiscal practices to rules and procedures which should come into existence to realize genuine fiscal decentralization.

All in all, the main implementation strategy will be to democratically convince the people of the merits of the development path, mobilize and coordinate their energies and efforts, and enable them to actively and widely participate in rural development. This is the major evaluation criterion for efficient rural development management. It is necessary to conduct wide public discussions and give all the necessary explanations and clarifications, and enable the people to appreciate the merits of the development path being followed on the basis of practical experience in order to convince the people, coordinate their efforts and provide effective leadership. To accomplish these tasks, various mechanisms and incentives should be used, and in addition, appropriate forums should be created for the exchange of views and experiences among kebele and woreda residents.

2. *Strengthening and Properly Using Key Rural Development Institutions*

People who will be assigned to manage rural development and provide political leadership will almost inevitably be few in number. If they attempt to do everything by themselves, they will actually end up doing nothing of real value. Such an inclination is anathema to attaining the objective of popular democratic participation. On top of this, it is well-nigh impossible for these leaders to have professional competence in every field of rural development. Unless they can work and coordinate development efforts through professionals and experts, they will not be able to produce satisfactory results. They can provide effective leadership only through the creation and strengthening of key rural development institutions, and through the operations of these institutions on the basis of agreed development paths.

There are political forums which play a key role in rural development. In this connection, kebele and woreda councils and popular organizations may be cited as important examples. There are also other key economic institutions such as cooperatives and rural banks. Rural schools, training and agricultural extension centers, health posts and stations are prominent examples in the social services sector. Rural roads, drinking water and other institutions should also be mentioned here. Rural development is actually realized through these institutions. These are the institutions through which decisions are made and executed.

First, rural development leaders should work hard to assist in the creation of such institutions and equipping them with efficient administrative and organizational systems and structures. Next, realizing that professionals working in these institutions and the officials of the institutions are their development partners and work colleagues, they devise and implement motivation mechanism including persuasion campaigns in order to promote transparency, work commitment and initiative. Depending on the nature of these institutions, they should be allowed to formulate their own development plans according to their own work rules and procedures. Efforts should be made to coordinate these development plans, avoiding any major contradictions and inconsistencies. Attempts should be made to identify shortcomings when implementation problems are encountered by taking time out to assess development plans or commissioning independent bodies to make such an assessment and evaluation. The important thing is to realize that what constitutes good rural development management is creating and strengthening these rural development institutions and implementing and coordinating development Jasks through them.

3. Distinguishing Roles and Capacitating Role-Playing of Government Agencies

Rural development constitutes a vast field of work in which many organs and institutions ranging from the federal government to kebele administrations participate. This work can be done only if the roles of administrative organs at various levels can be clearly discerned. Otherwise duplication of effort that results in time and financial wastage will be rife. Interference in the work of others will lead to confusion and inefficiency. On the other hand, it is not enough for each administrative level to know what it is expected to do and concentrate on that task only. Doing one's job means not only that everybody knows one's work, but also that each person has the ability and capacity to do the work which one's knows. Hence, in order to improve rural development leadership management, one of the reforms which should be introduced is to package clearly the work at each administrative level, to equip each level with the required capacity to perform the assigned work. Thus, at each woreda administration capacities with the required competency should be built that is capable of accelerating regional development on the basis of the woreda's human and natural resources which can be developed and utilized within a relatively short period of time.

All of this under no circumstance should undermine the importance of creating the necessary conditions in which government institutions at various levels can do their work in a cooperative spirit and in a coordinated manner.

To say that all government institutions at all levels should coordinate their work and operate in a cooperative spirit is not in clash with the desire that each institution doing its own assigned work effectively. Unless the close relationship between the two work procedures is thoroughly understood, clashes may well be inevitable. However, these two work principles are not necessarily contradictory, but rather two approaches that are closely intertwined. It is only through such an approach that the synergy can effectively be attained among the agents of rural development in the government organization structure.

It is possible to indicate what the implementation task looks like by basing analysis on these fundamental principles and starting with the kebele organizational structure which is the grassroots executor of local development plans. The tasks of identifying development projects to be implemented, of determining the labor and other contributions to be made by the people, of convincing them of the merits of the development efforts to be made and of coordinating their energies, should be addressed and handled by kebele councils and administrations. As pointed out above, if there is a government budget allocation for each kebele, the decision on how to use its public money rests with the kebele provided its utilization is consistent with the broad government guidelines. In addition to mobilizing the people and coordinating their development efforts, it should be the kebele structure that should also coordinate the work of development institutions within the kebele, provided that their independence and work procedures are not interfered with.

The kebele organizational set-up and manpower capacity at present are not strong enough to accomplish the above-cited development tasks. Therefore, reducing these deficiencies within a

short time should be sought as an objective. At this stage, it is really difficult to say more than stating that a transition should be made to such a system, depending on the pace and volume of reform possible in each kebele, as it is impossible to put into effect such a reform on all kebeles at the same time. Meanwhile, the necessary capacity to effect the transition should be built side by side with all the other development tasks that should be accomplished.

When kebeles undertake their various development tasks, they should be able to receive the necessary support from woredas, and their activities should be integrated with those of the woredas. Although kebeles should perform their duties self-reliantly, without however losing sight of the fact that there will be some development projects that could be beyond their capacities. For example, in the case of rural road construction, kebeles are not expected to have the capacity to prepare designs. Besides, rural roads are often inter-kebele. When such is the case, it is the woredas that should be responsible for the design and layout. Kebeles should know what their contributions and responsibilities in the construction of the road will be. Kebeles will also have to assume the responsibility for repair and maintenance in their respective zones.

Woredas will cooperate with kebeles in providing technical and financial assistance and doing development work that is beyond the capacities of kebeles. Woredas will formulate broad woreda-level development directions and kebeles will base their development work on these guidelines. In addition, woredas are expected to mobilize various development capacities obtainable from different resource bases besides the government allocated financial resources. In this respect, one task that should be accorded priority is the effort that needs to be made to coordinate the development initiatives of NGO's operating in woredas. It would be appropriate to create a conducive environment in which the resources and technical know-how of local and international NGO's can be properly utilized. These NGO's should know the development plan (woreda, kebele), efforts should be made to understand that the plan is consistent with the overall rural development strategy, and their role in the development should be clearly established and agreed upon. Further, efforts should be made on the part of NGO's to mobilize resources from other sources for the implementation of woreda development plans.

The woreda-kebele relationship should be such that the woreda provides capacity building support, coordinates the work of kebeles under its jurisdiction, monitor implementation to ensure that results are evolving and development is taking place.

The principle outlined in the example cited above in connection with rural road construction is applicable to all tasks and at all administrative levels. While noting this the tasks that should be performed by organizational units above the kebele level are briefly elaborated below.

With regard to rural development, the principal authority is the woreda. It oversees and coordinates woredawide activities relating to primary schools, agricultural training and extension institutions, supply potable water, road construction, etc. A woreda has the responsibility of preparing woredawise annual, short-and long-term development programs and the attendant budget. It has authority to oversee, coordinate, control, monitor and evaluate the implementation of the plans.

Woredas can efficiently accomplish these development tasks only if they are able to create strong institutions. Rural road construction, drinking water, agricultural extension, primary education institutions, etc., should be adequately organized and established as woredas can perform their duties only through these development agencies. The existing capacity is not enough and can only serve as a starting point. In due course, the program planning and implementing capacity of the woredas is expected to improve because special weight is attached to the task of building the organizational capacities of woredas and kebeles and reforming their work procedures on the basis of periodic assessments. There is a complete understanding in the government that the management and leadership capabilities at the woreda and kebele levels are decisive factors for the success of rural development.

Next to woredas, regional administrations play a key role in rural development. As regards rural development, the main task to be performed by regional administrations is to enhance and build the capacities of woredas and kebeles. Organizing bodies and organs, which provide political leadership at these levels, and improving their administrative and management capacities on a continuous basis is the task of regional administrations. Zones can also take part in this work under the aegis of regional administrations. It is the responsibility of regional administrations to train professionals and technicians working in woredas and kebeles and to deploy and promote them. Although education and training, particularly at the university level, is the responsibility of the Federal Government, the deployment and skill-upgrading of such professionals is the task of regional administrations. Regional administrations further have the responsibility of preparing regional development packages which are well adapted to the peculiar conditions of their respective regions and presenting and explaining them to woredas, and also of following up their implementation and revising them as required on the basis of agricultural development packages forwarded by the federal government institutions. As regards agricultural marketing and the supply of inputs, regional administrations are responsible for implementing such plans in accordance with the overall development plan elaborated at the federal-government level. Further, regional administrations are tasked with the job of providing financial support to woredas, and, in collaboration with zones, implementing infrastructural projects, which are beyond the implementation capacities of woredas.

At the federal government level, the main development tasks to be performed are (a) building the rural development capacities of regions, (b) setting up universities and research institutes oriented to rural development, and (c) providing financial and technical support. The Federal Government also has the responsibility of preparing country-wide technology packages and improving these in collaboration with the regions. Further, the Federal Government performs the task of coordinating agricultural marketing and the supply of inputs on a countrywide basis. It performs these development tasks without any compromise to the decentralization policy of the Government.

4. Roles of Government Agencies in pastoral Regions

As regards rural development, similarities dwarf differences between sedentary and pastoral regions. However, since herders live a transhumant life and ethnic structures and relations exert a great deal of influence on their daily lives, it is inevitable that some changes need to be made to the system of management in the pastoral areas.

In education the option of setting up boarding schools to enable the students to settle at one place while the rest of the family members continue their pastoral way of life need to be examined. This option, although it has its own merits, could be extremely expensive. The other option is to put up a mobile school system. This also has some merits, but its negative effects on the quality of education, particularly at higher levels, could be considerable. Yet another option is to make maximum use of the time especially when a family stays at one place for a considerable period of time. This gives the opportunity to give training for a reasonably adequate period of time, and it may also allow to encourage the pupils to stay behind as their families move. All of this should be looked into for feasibility.

Agricultural extension services in pastoral regions must of necessity focus on livestock-feed, health and related activities. Extension workers to be assigned to these regions should be given training mainly on livestock development and related subjects. Extension services may be given at the time and place where the herders usually stay longer. It is also possible to make the agricultural extension service scheme mobile to some extent.

With regard to community-based organizations and kebele organizational structures, there is no need to make them the same as those to be set up in other regions. The important thing here is really to be able to mobilize the people for development. If this development work can be performed more productively under the ethnic structures, it should be done that way.

The points raised above may have their own implications for the woreda political leadership structure and those above. Here also it will be necessary to introduce changes that are consistent with the prevailing situation. Be this as it may, the civil service operational system starting from the regional level down to the lowest administrative rung should be the same in terms of both organization and manpower. The reforms and changes might be more relevant at the political level rather than at the operational level.

Attempt is made to explore options as regards management and leadership. It is not possible to go beyond that in the presentation of a plan of action of this kind. Each region should do this work, taking into account its own particular conditions. The important point that should be underscored here is that the political leadership and organizational structure could change depending on the particular conditions prevailing in each region.