Agriculture and Rural Development Department  
Dak Lak Province  

AGRICULTURE & FORESTRY DEVELOPMENT PROGRAM  
FOR PERIOD 1996 - 2000  

PART I:  

Agriculture Production  

I. Cultivation  


Agricultural production of Dak Lak province was rapidly developed. Since 1991, cultivated area crop yield and productivity were continuously increased. Value of total agricultural production amounted at 379 billion VND (1991) and 814 billion VND (1995).  

a. Total food production of Dak Lak province can be described as follows:  

- Period 1991: 268,000 tonnes  
- Period 1992: 175,000 tonnes (rice in equivalent)  
- Period 1993: 284,000 tonnes (rice in equivalent)  
- Period 1994: 300,000 tonnes (rice in equivalent)  
- Period 1995: 320,000 tonnes (rice in equivalent)  

In addition, food per capita of province has reached at 250-260 Kg which is considered as an essential food level. However, in order to speed up the increase of food production of the province the provincial authority has carried out several programs to improve or to rehabilitate the infrastructure of water resources and cropping pattern as well. Moreover, investment capital for production is also provided.  

b. Industrial crop  

Coffee production: cultivated area of coffee were expanded and productivity of coffee also drastically increased in period 1992-1993. The main reason for this was coffee price went up and extensive farming were applied by coffee growers and state farms respectively.  

Cultivated area of coffee and productivity are shown as follows:  

<table>
<thead>
<tr>
<th>Period</th>
<th>Area (Ha)</th>
<th>Productivity (Tonne)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>52,277</td>
<td>34,061</td>
<td></td>
</tr>
</tbody>
</table>
Rubber production: in the past, rubber production sector was under the state farms only, but now rubber is jointly produced with farm households or rubber is cultivated by various private sectors. Cultivated areas are expanded yearly as indicated in the following table:

<table>
<thead>
<tr>
<th>Period</th>
<th>Area (Ha)</th>
<th>Productivity (Tonne)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>18,000</td>
<td>4,000 (Dry latex of matured rubber tree)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18,000 (including 6,500 ha of matured rubber tree)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>22,000</td>
<td>10.6 % increase (compared with 1991)</td>
<td>Planned</td>
</tr>
</tbody>
</table>

Mulberry and Cotton:

In Dak Lak province, mulberry and cotton were developed in the past several years. Cultivated area of mulberry was about 1,150 ha (1991) and cotton was 3,421 ha (1991). Unfortunately, the continuous development of the two crops are shown not a bright future for the producers because in 1991-1994 the price of the two crops was not stable and without assistance of the government in supporting price policy for produce.

Other industrial crops (soy bean and sugarcane):

In period 1991-1994 cultivated area of soybean reached at 6.8 % per year and sugarcane also attained at 9.9 % per year. And productivity of two crops increased 11 % per year.

Annual crop:

New improved varieties such as rice, beans, maize, etc. were cultivated and appropriate cropping patterns were applied in production in order to increase productivity. Cultivated area of annual crop increased 7.17 % per year, especially in this period cultivated area of annual crop increased from 8,000 ha (1991) to 12,000 ha (1994).

In period 1991-1995 agriculture of Dak Lak province rapidly developed, cultivated area was expanded and productivity of crops increased. With assistance of extension service new strains of crops were applied in production. Revenue of state farms and farmers’ income increased drastically like some state enterprises (Thang Loi coffee farm and Cuor Hдержан rubber farm, etc.) and one private enterprise (Quyet Thang co-operative, BMT City). And many coffee growers have become better-off.

2) Constraints:

- In the rural areas of ethnic minorities, pattern cropping has been not improved yet. In some remote areas new farming technique has been not adapted by cultivators. Crop productivity is still low. Swidden farming is dominant. Water resource infrastructure has been not improved.
- Agricultural potential (labour, land) has been ineffectively utilised.
- Deforestation rate is still high.
- Processing industry has been not developed.
- Incentive policy for production development is not available. Investment capital for production is inadequate. Transfer of know-how is still limited.
- Agricultural sectors and relevant agencies has not closely co-ordinated in implementing agricultural development program.

II Animal production:

1 Achievement of animal production:

<table>
<thead>
<tr>
<th>Period</th>
<th>Cattle (head)</th>
<th>Pig</th>
<th>Poultry</th>
<th>Honey Bee (tonne)</th>
<th>Honey (tonne)</th>
<th>Fresh water fish (tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>133,652</td>
<td>236,298</td>
<td>-</td>
<td>-</td>
<td>--</td>
<td>-</td>
</tr>
<tr>
<td>1992</td>
<td>138,269</td>
<td>238,200</td>
<td>825,400</td>
<td>25,000</td>
<td>400</td>
<td>1,500</td>
</tr>
<tr>
<td>1993</td>
<td>140,000</td>
<td>308,000</td>
<td>866,000</td>
<td>30,000</td>
<td>450</td>
<td>1,800</td>
</tr>
<tr>
<td>1994</td>
<td>135,000</td>
<td>332,000</td>
<td>-</td>
<td>20,000</td>
<td>300</td>
<td>-</td>
</tr>
<tr>
<td>1995 (planned)</td>
<td>152,000</td>
<td>358,000</td>
<td>-</td>
<td>35,000</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

2. Remarks:

Head of cattle increased by 3.45% per year (1991-1992). In 1993, head of cattle increased only 1.96% (compared with 1992) whereas in the first 6 months of 1993 number of pig increased drastically by 8.76%. However, the number of pig declined later due to selling price went down.

In period 1994-1995, number of cattle and pig was continuously increased. In addition, livestock’s strain improvement program was also carried out. The improvement program co-ordinated with on-going government programs (327, 120). However, investment capital for carrying this program was inadequate. Poultry raising was developed both in the state small-scale enterprise and in private enterprise. However, livestock’s feed processing industry has been not developed yet. Therefore, quality of livestock’s feed is low. So far livestock’s feed has been imported from HCM City or from southern provinces. The price of feed is normally high and unstable which does not incentive farmers to practice. This strongly impacts on livestock production of province. At present, livestock products (Pork, beef, etc.) are capable to provide for domestic market (in province) and not for exporting to neighbouring provinces.

B. Forestry sector:

I. Achievements of forestry:

1. Forest classification:

Forest has been classified by Forestry Organisation of the Dak Lak province as follows:

a) **Protection forest**: In Dak Lak, this forest accounts for 370,280 ha, with purpose of watershed protection, natural lake protection and environment protection.

b) **Special used forest**: this forest occupies about 154,600 ha, including national parks and forests for nature reserve.
c) **Production forest**: Dak Lak has 831,800 ha of production forest, managed by 51 forest enterprise farms.

Over the past 5 years, forestry sector of Dak Lak contributed 725,000 m3 of timber and other forest products to central forestry sector for creating budget.

2) **Plantation forest and forest land allocation program**:

Over the past several years Dak Lak province planted 11,411 ha of forest, and has maintained 17,821 ha of forest and also nourished 14,650 ha of forest. In addition, through fund of 327 program the forestry organisations have allocated natural forest and forest land annually to farm households to protect and manage as shown in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Allocated Forest (ha)</th>
<th>Agency/H. H</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>5,362</td>
<td>Agencies/H. H</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>167,168</td>
<td>Agencies/H. H</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>255,546</td>
<td>Agencies/H. H</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>na</td>
<td>na</td>
<td></td>
</tr>
</tbody>
</table>

3) **Timber processing enterprise**:

At present, Dak Lak has 3 main centres for timber processing of Gia Nghia, Buon Ma Thuot and Buon Ho. And 46 timber processing units under the above treecentres have produced timber, plank and various construction materials, serving domestic use and export and settlement program of the Dak Lak province. The processing units has gained success in business.

4) **Social forestry**:

In Dak Lak, 51 state forest enterprises were established and located at existing forest areas. Inhabitants who are living near the forest, serving as worker or participated in social forestry organisation. Ethnic minority people (Ede and Mnong groups) have involved in this organisation. The 327 program provided fund for implementing activities of social forestry. Forest allocation program was carried out. Forest destruction declined. Shifting cultivation practice was also banned. And at the same time agro-forestry activities and development of industrial crops (coffee, cashew) were seriously concerned. Activities of extension service were also strengthened. The following forestry enterprises of Boun Ja Warn, Cu Prong, Ea Wy, Quang Khe and Thuan An have succeeded in implementing social forestry.

II. **Existing constrains in Forestry Sector**:

1) **Degradation of forest in terms of quantity and quality**:

In Dak Lak, thousand hectares of forest have been destroyed annually. Degradation of forest have mainly caused by clearing forest for cultivation, forest fire, and over-logging or non-technical logging. This caused forest of Dak Lak poor in quantity and quality. According to Dak Lak Forestry organisation indicates that forest reserve reached at 104 m3 per hectare (1980) and at present, only 95m3/per hectare of forest reserve was found.
2) Plantation forest:

Reforestation program have been carried out, but variety of tree and tree pattern or introduction of suitable agro-forestry for each region have been not clearly determined yet. Furthermore, management of plantation forest and forest fire control have been not succeeded. Area of matured forest is still small (accounted for 40-50%) if compared with planted forest area.

3) Timber processing industry:

All timber processing units have applied old processing line. Therefore, wastage of forest products is still high. Processing forest product is considered as semi-manufacturing products which do not meet exporting standard.

4) Managerial mechanism of forestry enterprise:

As Vietnam changes its economic policy - central economy shifts to oriented market economy forestry enterprises are unable to show their ability to cope with the new business system. For now, Forestry enterprises have become independent in doing business. And some of these enterprises do not succeed in operation.

5) Although allocation of forest land and agro-forestry program have been carried out, however, deforestation is still occurred. And in general, living standards of local people are still not improved.

III. Existing constraints caused by the following reasons:

1) Business of agriculture and forestry industries has not well organised. Therefore, forestry enterprises fails in doing business. Furthermore, forest area 'under management of forestry sector is too large for them to control and manage.

2) Forest land allocation program has not synchronised implemented.

3) Infrastructure of forestry enterprise has been not developed.

4) Staff capabilities for organising and operating of forestry sector are not strengthened. Especially, in implementing of new policies relevant to forestry sector.

PART II


A. AGRICULTURE:

I. Cultivation

1. Food production
Dak Lak province has planned to produce 450,000 - 460,000 tonnes of food by the year 2000. Planting area of crops will be 105,000 ha (in total).

Food production planning is described as follows:

<table>
<thead>
<tr>
<th>Season/Crop</th>
<th>Planting Area (planned)</th>
<th>Productivity (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring-Winter rice</td>
<td>22,000</td>
<td>121,000</td>
</tr>
<tr>
<td>Summer-Autumn rice</td>
<td>25,000</td>
<td>140,000</td>
</tr>
<tr>
<td>Dry rice</td>
<td>20,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Maize</td>
<td>25,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Cassava</td>
<td>10,000</td>
<td>60,000</td>
</tr>
</tbody>
</table>

2. **Food stuff production**

Planning is described as follows:

<table>
<thead>
<tr>
<th>Crops</th>
<th>Planting Area (planned)</th>
<th>Productivity (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green bean</td>
<td>15,000</td>
<td>24,000</td>
</tr>
<tr>
<td>Soy bean</td>
<td>15,000</td>
<td>27,000</td>
</tr>
<tr>
<td>Ground nut</td>
<td>25,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Beans</td>
<td>5,000</td>
<td>7,500</td>
</tr>
<tr>
<td>Vegetables</td>
<td>5,000</td>
<td>125,000</td>
</tr>
<tr>
<td>Sugar</td>
<td>10,000</td>
<td>800,000</td>
</tr>
<tr>
<td>Cotton</td>
<td>10,000</td>
<td>18,000</td>
</tr>
</tbody>
</table>

3) **Industrial tree production and exporting products:**

Coffee and rubber are two prime crops for generating export turn-over for the Dak Lak province. Existing coffee area is continuously farmed with intensive farming. In addition, coffee arabica will be developed in districts of Dak Nong, Dak Lap and Dak Mil. At present, with existing coffee area of 60,000-70,000 is expected to produce 200,000-250,000 tonnes. Coffee processing industrial zone will be established in Buon Ma Thuot, Krong Pach, Dak Mil and Krong Ana.

Rubber tree is planned to cultivate on barren land/hill. Mobilisation of investment capital from domestic (e.g. 3.27 program,...) and abroad for rubber production is seriously concerned. Participation of smallholders in rubber cultivation will be encouraged. Also, state rubber enterprises (including rubber processing) will be in charge in marketing products. According to development planning, planting area of rubber will be increased from 80,000-100,000 ha.

In addition, mulberry, fruit trees (e.g. durian, rambutan, mango, longan), ornamental plants and cashew are also developed under farm households with assistance of 327 program. This is expected to improve income generation for the inhabitants and meet purpose of barren hill re-greening program as well. Processing plant
is planned to established and further developed for serving export.

II. Animal husbandry:

Cattle raising is planned to develop, especially cow raising. Number of cow will be increased from 180,000-200,000 head by the year 2000. Special priority will be given to hibreed cow raising with purpose of increasing beef ratio of 30-40%. Also, dairy cow raising under farm households is planned to develop in Buon Ma Thuot and surrounding districts of Krong Pach and Buon Ho.

Pig and poultry raising are also continuously developed both under farm households and state pig farms. The state incentive policy will be given to all animal production units in order to boost production. Animal product processing plant will be built in both Buon Ma Thuot city and M'Drak district.

B Forestry sector:

I. Objective of forestry development for period 1996-2000:

1. Environmental protection:

The existing forest of 1,243,882 ha is strictly protected both in quantity (area) and quality. For the classified forest (protection forest, special used forest and production forest) is planned and also determined the proper solutions of protection of watersheds, reservoirs, hydropower and environment. Forest cover is expected to reach 69 % over provincial wide.

2 Development of forestry economy:

a. Land resource-based forestry development:

- Total area of forestry land: 1,540,189 ha.
- Forest: 1,243,552 ha.

185,811 ha of barren land is planned to develop agro-forestry and divided into:

- Agriculture: 73,079 ha
- Maintenance, natural regeneration and reforestation: 112,732 ha of which 34,112 ha for regenerating forest and 78,610 ha for reforestation

b. Reforestation:

Firstly, this program will re-green barren hill/land with mixture of various tree species including fruit trees and value trees. Secondly, environmental improvement with scattering trees in the city is seriously concerned. Thirdly, plantation forest with purpose of producing timber for domestic use will be developed.

Target for period 1996-2000 is summarised as follows:

- New plantation forest: 10,000 ha/year.
- Natural regeneration & maintenance of forest: 15,000 ha/year.
- Scattering trees in the city/district townships: 3 million per year.

c. Maintenance and enrichment of forest: all poor forest areas will be enriched and maintained under technical norms. 20, 000 ha of poor forest will be enriched of period 1996-2000.

d. Logging: logging will be increased up to 150,000 m3 per year of period 1996-2000.
e. **Timber and bamboo processing:** Processing plants will be built in the province, creating employment for inhabitants. 70% of logging product will be processed under technical norms.

f) **Socio-economic development:** Implementation of settlement program for ethnic minority of 23,744 households (158 hamlets) is basically completed. Also, developing home garden and agro-forestry will provide local employment for both indigenous people of 45,774 households and new migrants of economic zone. 25,000 ha of forestry land will be allocated to households with an average of 30 ha per household. This plan is expected to increase household’s earning by 1.5 million VND per year. Furthermore, to assist farmers in cultivation a loan without interest of 2 million VND per household will be provided. It is believed that by this means deforestation will be halted and living standard of people will be improved.

C. **Policies/solutions for executing development program:**

I. **Agriculture:**

For period 1996-2000, economic structure of rural area is essential to improve in order to develop agriculture. For effectively executing the development program the following policies/solutions should be carried out:

- Organisation, planning and management of production is innovated (reformed).
- Encouraging development of private sectors/farm household’s economy,
- Reforming/consolidating the existing state farm systems.
- Strengthening extension service network from province to district levels.
- Instructing implementation of propagated policies such as land ownership for farmers (issuing land title/certificate of land ownership).
- Development of credit for assisting production. Priority is given to rural areas.
- Agricultural tax is properly collected under current regulations. Accumulated fund from the tax will be funded for improving rural infrastructure.
- Policy for science and technology: the Dak Lak province will provide annually fund for conducting scientific researches and application of know-how in agriculture,
- Mechanisation of agriculture will reach 5% of agricultural economic structure.
- Establishing a centre for upland crops development and research.

II. **Forestry:**

1) **Organisation, management and operation of forestry sector:**

Forestry sector will be reorganised and general forestry company will be established in Dak Lak with broad functions such as reforestation, forest protection, logging management, timber processing and export of forest product. In addition, the forestry company is responsible for organising science & technology service and trading service and extension service.

2) Forestry organisation is responsible for developing mountainous economy and implementing forestry land allocation program with sponsored by 327 and 120 programs.

3) **Scientific research and application of Know-how in forestry development:** conducting scientific research on adaptation of indigenous tree species and developing of adapting trees in the Dak Lak should be seriously concerned.

Old processing line should be replaced by new modern processing line in order to meet high quality product.

4) Forestry land allocation program: appropriate measures for management and protection of allocated forest (Protection forest, Production forest and Special used forest) should be thoroughly determined. And extension network should be strengthened in order to assist farm household in production reducing dependence of forest resources and halting shifting cultivation.

5) Investment capital for forestry development and marketing:
Capital source: investment capital will be mobilised within people. In addition, through domestic joint venture company or economic agencies will provide fund for operating production of forestry. And other sources such as 327 and 120 programs.

2) Marketing: Potential markets for export:

**Japan:**
- for forest products (e.g. processing timer, rattan, plank, etc.)
- for agricultural products (variety of meats, marine products),
- Mineral products.

**South Korea:**
- Soya bean, ground nut, beans.
- Beef, poultry meat.
- Marine products.

**Singapore:**
- Coffee, tea, ground nut, pepper,...

**France:**
- Rubber, coffee.

**Germany:**
- Coffee.