

**THE 5-YEAR PLAN FOR
THE AGRICULTURAL AND RURAL
DEVELOPMENT SECTOR**

Period 2006 -2010

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INTRODUCTION

In order to implement the Prime Minister's Directive No. 33/2004/CT-TTg dated 23 September 2004 on building the 5-year economic - social development plan for period 2006-2010, the Ministry of Agriculture and Rural Development (MARD) issued Directive No. 52/2004/CT-BNN on 21 October 2004 to instruct Departments of Agriculture and Rural Development of provinces and cities directly controlled by the central government and its units to prepare 5-year plans 2006 – 2010.

By this time, the MARD has incorporated agriculture and rural development plans of cities and provinces all over the country and those of its units. And on the basis of forecasts on the market for agro-forestry products, scientific and technological advances in the coming years as well as potential resources, the MARD has completed its 5-year plan on agriculture and rural development as presented in the parts below.

PART I – PRELIMINARY ASSESSEMENT OF SECTOR PERFORMANCE OVER THE LAST PERIOD, 2001-2005

I/ ACHIEVEMENTS

After 4 years of implementing the Resolution of the Communist Party's Congress No. IX, in spite of many challenges such as natural disasters, including droughts, extreme cold, storms and floods, widespread of the avian influenza, and unfavorable market changes, especially those of the international market, and influence of the war in Iraq, the Communist Party and the Government of Vietnam could maintain their focus on agriculture and rural development, by issuing a lot of new policies to create more motivations mobilizing internal resources, expanding the international cooperation relations, etc. Therefore the agricultural and rural development sector could maintain its remarkable development steps on a wide scale, the most notable of which are:

1. The structure of agriculture and rural economy has been actively moving towards stronger production of valued and profitable agricultural products on the market's demand.

1.1 The rice growing area has been reduced to increase aquaculture and promote cultivation of other crops of higher value; however, rice growing has been developed for better quality and higher efficiency in close linkage with the market's requirements. Therefore, though the rice growing area has seen a considerable reduction, the rice yield and production has increased and food security has been assured.

According to preliminary assessment of provinces, the rice growing area in 2004 continued to reduce by more than 8,000 ha. This area of land is now used for aquaculture and growing other crops of higher value and which have favorable consumption market. Over the 4 recent years, the rice growing area has decreased by 222,000 ha, from 7.666 million ha in 2000 to 7.444 million ha in 2004.

However, thanks to various new varieties of rice which are pest-resistant and supported by fertilizers and other agricultural inputs, including water supplies provided by more effective and efficient irrigation systems, the rice yield has been increased from 42.4 quintals/ha/year in 2000 to 48.2 quintals/ha/year. The rice production continued to increase from 32.5 million tons in 2000 to 35.9 million tons, i.e. an average annual increase of 800,000 tons (2.4%/year increase). The target set up by the Communist party's congress No. IX, which is to reach the rice output of 34 million tons, was already achieved in 2002. The quality of rice has also been quickly improved to meet demands of the domestic market and export, in particular from 15% in 2000 to 30 – 35% in 2004. Also thanks to higher investment in milling and polishing technologies, the ratio of rice of 0% to 5% quality range has been notably increased from below 10% in 2000 to 30% in 2004.

Due to high demands of materials for animal feed processing, maize production has been developed rapidly as well, from 2 million tons in 2000 to 3.45 million tons as expected for the year 2004, i.e. an average increase of 350,000 tons per year (or 14.35% increase).

The output of grained crops was increased from 34.5 million tons in 2000 to 39.3 million tons in 2004, i.e. by 1.2 million tons a year (or 3% increased a year). The target of export of 3.5 – 4 million tons of rice per year has been gained while the output has been interruptedly increased, and the national food security has been maintained.

1.2 Production of industrial crops and fruit trees has been aligned with the market's demand, and many concentration areas of commodity production have been established in close linkage with the processing industry.

Under quite favorable conditions of the market, with strong investment in intensive farming and sound implementation of harvesting technology, most of cultivated area of industrial crops was expanded, and the yield and production were also considerably increased. Compared to 2000, in the year 2004 the area of rubber trees was increased by 39,000 ha (by 9.5%), that of black pepper increased by 23,000 ha (83%), and cashew nut – 86,800 ha (1.44 times). Though the tea market saw some challenges especially in 2003, the area of tea growing was still increased by 31,000 ha in 2004 vs. 2000 (i.e. increased by 35%). Outputs of these crops were increased by 37%, 90%, 3 times and 45%, respectively. Coffee was the only crop that the price in 2002 went down to the lowest level in the last 100 years. The area of coffee growing therefore was reduced in spite of increased export price in 2003. The coffee area in 2004 was 503,000 ha, i.e. reduced by 59,000 ha compared to 2000 (10.5% decrease).

The area of short-term industrial crops was also extended very quickly. That of soybean in 2004 was increased by 58,400 ha (47%) compared to 2000, peanuts – increased by 14,000 ha (5.7%), cotton – 8,000 ha (43.2%). The area of sugarcane however remained at 300,000 ha. Outputs of these crops were also increased by 62.1%, 27%, 57.4% and 5.5%, respectively.

Due to the increasing trend of domestic consumption and export, the area of all fruit trees was extended over the last 4 years. From 565,000 ha in 2000, it increased continuously to 747,800 ha in 2004, i.e. by 182,800 ha. The average increase therefore was about 45,000 ha a year (8%). Many concentration areas of fruit trees have been formed, such as longan gardens in Hung Yen, litchi gardens in Luc Ngan (Bac Giang) and Hai Duong, orange and mandarin gardens in Ha Giang, Tuyen Quang, etc., mangoes in the South East, rambutans in the Mekong river delta, etc. A lot of fruit tree farms and farm clubs have been developed. The pineapple area was increased from 37,000 ha in the year 2000 to 44,000 ha

in the year 2004 and is expected to reach 50,000 ha in 2005. Processing factories are also closely working with local provinces to invest in developing material zones for the processing industry.

Vegetable and food crops have also been developed over the last 4 years, from 662,300 ha in the year 2000 to 799,600 ha in the year 2004, i.e. increased by 137,300 ha (20.7%). Models of clean vegetable producing households and cooperatives that provide vegetable of good quality through a network of distribution agents and vegetable shops in big cities appeared to be successful and very effective, with the output valued up to 50 – 100 million VND a year. In some provinces and cities, vegetable are also produced with high technology or technology that does not need land. These products ensure food safety and high quality as well as high productivity, about 7-8 times higher than that of traditionally grown vegetable. For example, cucumber produced under high technology of Hanoi Vegetable Research Centre can provide 240 – 250 quintals/ha, i.e. 8 times higher than the current productivity.

1.3 Animal husbandry continued to develop with high growth rate to meet the increasing domestic consumer's demand of meat, eggs and milk products.

To meet the increasing demand of meat, eggs and milk products in the country, the animal husbandry sector continued to develop with high growth rate and in a quite comprehensive manner. Large scale animal farms are developed in most areas, which are using industrial methods, good breeds and industrial feed that ensure safety against diseases and rather high efficiency. By this time, in the country there have been 197 animal feed factories with the total capacity of 5.4 million tons. Compared with the year 2001, there have been 71 new factories, adding 2.1 million tons to the total capacity. Along with this increased number are better breeds of animals and stronger veterinary system. These are the reasons why the animal husbandry sector could reach quite good growth rate in spite of widespread occurrence of the avian influenza. The value of the animal husbandry sector in the agricultural structure has been increased from 19.3% in the year 2000 to 22.4% in the year 2004. Compared to the year 2000, the number of pigs was increased by 29.5% in 2004, that of beeves increased by 18.9%, milking cows – 2.2 times, and poultry – 11.3%.

Thanks to changes in the agricultural production structure that are towards better quality, higher efficiency and responsiveness to the market's demand, the production value of one ha of agricultural land in the year 2003 reached 19.4 million VND, increased by 2.4 million VND a year compared to the year 2000. This value is expected to reach 22 million VND in 2004, and 25 million VND in 2005. Some models have even brought the production value of 50 million VND/ha/year. In some districts, the production value of 50 million VND/ha/year has been seen in the whole district, such as Cho Moi (An Giang province), Gia Binh (Bac Ninh province), Tu Liem (Hanoi), An Hai (Hai Phong province). That in the entire Mekong river delta is 38 million VND/ha/year, and in the Red river delta – 37 million VND/ha/year. The agricultural value in the country was increased by 5.1% a year, higher than the target given by the Communist Party's Congress (4.8%).

1.4 Forestry has made greater contribution to agro-forestry economy. Natural forests have been better protected and restored, while man-made forests have had initial and positive signs of quality and efficiency improvements.

Forestry activities have moved from reliance on state owned agencies to social forestry development with participation of many economic sectors. The forestry sector has seen a lot of strong changes from exploitation, as the major activity in the past, to protection of

natural forests and promotion of giving forest lands to people and increasing the sense of ownership of forests. As a result, natural forests were restored quite fast.

Economic afforestation was also strengthened on the basis of new technologies and techniques that bring higher productivity for man-made forests. Exploitation of natural forests therefore has been limited and man-made forests are now greater resources to ensure the domestic demand of wood, as well as the requirements of “socializing” forest protection and development.

Apart from investment in forest development and restoration-oriented protection, many localities have followed integrated exploitation by combining business with ecological tourism, creating new jobs and increasing income for people doing forestry business.

Restrictions have been imposed on exploitation of natural forests. By this way, only 20 provinces, instead of 36, are still exploiting wood now. The output of wood exploitation in 2005 was reduced to 150,000 m³ a year (equivalent to 6.25% of the forest capability of growth). Wood exploited from man-made forests accounted for 42.4% of the total wood output in 2001, and was increased to 58% in 2002 and 2003. From 2002 by now, the average output of wood exploited from man-made forests has reached 2 – 2.5 million m³ a year.

Initial steps have been taken to linking afforestation to the market. Forestry development plans are now linked more closely to job creation, improvement of income and living conditions of farmers, and poverty reduction in mountainous areas. The export revenue of forest products was increased from 376 million USD in 2000 to 1,123 million USD in 2004 (3 times higher) and is expected to reach about 1,310 million USD in 2005.

Restoration-oriented protection and restoration-oriented protection for filling of blanks have reached 676,000 ha over the years 2001 – 2004, achieving 70% of the target set for the period from now until year 2010. In 2004, 2.673 million ha of forest land were given to people for their protection, that was 130% of the planned target. 768,000 ha of new concentrated forests were grown in the period 2001 – 2004; tending and maintenance of forest plantations were done on 443,000 ha. The quality of plantations has been improved and some effective forestry farms have appeared. The forest coverage therefore was increased from 34.2% in 2000 to 36.7% in 2004, and is expected to be 37.3% in 2005.

1.5 Salt production has been improved in terms of productivity and quality to meet the domestic demand and reduce import.

In the recent years, more attention was paid to invest in improving the existing salt fields. Over the last 5 years, 2001 – 2005, 25 projects were initiated in 15 provinces, of which 24 projects invested in improving rural infrastructure in the salt field areas and the last project involved construction of an industrial salt field in Quan The, with the total investment capital of more than 200 billion VND provided by the state budget.

Apart from investment in the existing salt fields to improve their quality and productivity, as well as increase income and enhance living conditions for salt producers, the MARD also closely coordinated with other Ministries and sectors to manage salt importing activities according to the Prime Minister’s decision No. 46/2000/QĐ-TTg. Therefore, the volume of imported salt was substantially and continuously reduced from 563,000 tons in 2001 to more than 100,000 tons in 2004 – 2005. Other measures were also taken, for example, buying about 10,000 tons of salt a year for national reserves (which have reached

50,000 tons by this time), and buying 70,000 tons for circulation reserves. These measures have contributed to resolving difficulties in salt consumption and ensuring profits for salt producers.

As reported by provinces, in 2004 there were 14,200 ha of salt fields, reduced by 800 ha compared with the year 2002 (when salt production was very good). However, the production has reached about 820,000 tons, i.e. increased by 220,000 tons compared with the year 2000. The salt quality has also been improved and some industrial factories have bought domestically-produced salt to use as production materials.

1.6 Agro-forestry product processing industry and rural industries have seen positive developments, especially in processing forest products.

The MARD has instructed its agencies to cooperate with provinces to do studies and apply advanced post-harvest techniques, invest more in the preservation industry to reduce the ratio of loss of rice and paddy products to less than 9%, and reduce that of vegetable and fruits to less than 10%. Investments are also encouraged to do processing of vegetable, bean, and meat products to improve the product quality. Initial investments have also been made to develop processing of coffee, tea, silk, post-sugar and salt products.

The agro-forestry processing industry has received continuous investment, that helped to increase the capacity of vegetable and fruit processing, in particular processing of pineapple to make pineapple juice has been increased by 12,000 tons/year compared to the year 2000, that of beverage increased by 10,000 tons/year, and canned products increased by 8,000 tons/year. Movement and relocation of 3 sugar factories – Tra Vinh, An Khe and KCP (which have daily capacities of 1,500 tons of sugar, 2,000 tons and 2,500 tons, respectively) have been completed. The Gia Lai MDF Fiber Board Factory with the capacity of 54,000 m³/year and Thai Nguyen Particle Board Factory with the capacity of 16,500 m³/year, both using materials from plantations, have been put into operations.

At present, some agro-forestry processing factories, especially vegetable and fruit processing or sugarcane factories, are facing a lot of difficulties due to lack of materials and low operational efficiency, apart from big pressure due to depreciation, high cost price and low competitiveness. These are common difficulties of the factories during the initial phase of industrialization, which will be overcome gradually to achieve efficiency in operations. Investment in the processing industry is the unavoidable way to quickly and significantly increase the value of agricultural products. This is also a crucial factor to ensure sustainability and efficiency of agricultural product import and export. However, many factories have been working well in far and remote areas, and even become “focal points” of science, research and technology, as well as commercial, cultural and social centers that contribute to job creation and assurance of national security in the mountainous regions.

Rural industries and services, especially traditional handicraft villages, have experienced fast developments over the last 5 years, with the average growth rate of about 11%/year. At present, there are 2,971 villages and 11 groups of jobs involving 1,423 million of households, of which 2,017 villages deal in one of 11 groups of traditional handicrafts and attract 1.35 million workers with the average annual value of 7 to 9 thousand billion dong. Export revenue of handicraft products has been continuously increased from 235 million USD (in 2001) to 327 million (200), 367 million (in 2003), 450 million USD (in 2004) and expected to be about 600 million USD.

Throughout the country there are about 1.35 million premises dealing in various rural industries of all economic sectors, creating jobs for million people at the average income

level of more than 300,000 VND/person/month. This is an important catalyst to promote shifts in the rural labor and economic structure, increase income and create a pre-condition for the agricultural sector to move to commodity production at an increasing scale.

2. The agro-forestry sector has followed the intensive development trend towards improved productivity, quality and efficiency (most of agro-forestry products now have had better quality and higher output).

2.1 Most of crops and animals have gained higher productivity, output and quality, compared to that in the previous years.

New sciences and technologies have been widely applied in agriculture. The new varieties program has appeared to be highly effective and contributed to the increase of agricultural productivity and quality over the last 5 years. So far, more than 90% of rice growing area, 80% of maize growing area, 60% of sugarcane area, cotton, fruit trees, etc. have used new varieties. Compared to the year 2000, the annual rice yield in 2004 was increased by 5.8 quintals/ha, that of maize increased by 7.4 quintals/ha, vegetable – 16 quintals/ha, soybean – 1.3 quintals/ha, peanut – 3 quintals/ha, sugarcane – 56 quintals/ha, cashew nut – 5 quintals/ha, and so on.

In animal husbandry, new breeds have been used to improve the productivity and quality of meat, egg and milk products. The live weight of pork sold out of farms has been increased by 30 kg per head, on the average.

In forestry, many new and advanced techniques and technologies have been applied and helped to improve the forest productivity and quality, especially such technologies as selection and creation of new varieties of trees, quick multiplication by cell culture s or cutting. The success rate of plantations has reached 80%, instead of 50% in the past years. In many plantations, the productivity is up to 15 – 20 m³/ha/year.

The output of rice has been increased by 3.4 million tons, maize – 1.45 million tons, vegetable – 2.5 million tons, soybean – 93,000 tons, peanut – 96,000 tons, sugarcane – 0.84 million tons, fresh tea buds – 150,000 tons, rubber – 109,000 tons, and live weight of meat of different types – nearly 600,000 tons.

2.2 Weights of commodities have increased and become more strongly export-oriented.

The shift in the rural and agricultural economic structure has led to rapid increases of commodity weights in the agricultural sector. The ratio of exported products to total products has been increased to 20% in terms of rice, 95% (coffee), 85% (rubber), 75% (tea), 90% (cashew nut), and 98% (black pepper), etc.

The value of agricultural production is increased annually by 5.1% on the average, compared to the target of 4.5 – 5%, and the value of products gained from one hectare of agricultural land has been increased from 17.5 million VND in 2000 to 19.4 million VND in 2003, and 22 million VND in 2004.

2.3 There have been positive developments in consumption of agro-forestry commodities, accompanying with strong growth in export.

Export of agro-forestry products continues to be expanded. Some products have earned large market shares in the region and in the world, such as rice, rubber, coffee, black

pepper, cashew nut, furniture, etc. The export revenue of agro-forestry products in the 5-year period 2001 – 2005 is estimated at 17.5 billion USD, i.e. about 3.5 billion USD a year on the average, and increased by 10% a year. The actual export revenue in 2004 was 4.35 billion USD, more than 1 billion USD higher than that in 2003, i.e. increased by 34%. In particular, the export revenue of forest products was increased quite strongly, reaching 1.123 billion USD, i.e. 1.77 times higher than in 2003.

In addition, the domestic market for agro-forestry products has seen positive changes, and enterprises of all economic sectors have found every measure to develop transportation and circulation of commodity. Provinces and local areas have paid more attention to improve market places, especially those for wholesale. Litchis, longans, plums, pork, etc. are transported to the South, while on the opposite direction to the North are mangoes, dragon fruits, rambutans, etc.

Prices of many agricultural and food products have been increased significantly: the rice price in 2004 was more than 2,000 VND/kg on the average, increased by 50% compared to 2001; the average price of rubber in the whole year 2004 was 19,400 VND/kg, increased by nearly twice compared to 2001. Prices of many other agricultural products, such as cashew nuts, meat, etc. have also gone up remarkably, and helped to improve the farmer's income.

The Government has issued an incentive policy to encourage enterprises of all economic sectors to sign contracts with farmers on consuming agricultural commodities (Decision No. 80/2002/QD-TTg by the Prime Minister). On this basis, the MARD has coordinated with other ministries, sectors and provinces to vigorously launch an extensive and intensive emulation movement in the entire agricultural sector to develop linkages among 4 stakeholders – the state, scientists, enterprises and farmers. This aims to help in consuming up agricultural commodities for the farmers. So far, enterprises have entered in contracts with farmers to consume more than 50% of the output of commodity rice, 80% of the maize output, 80% of the sugarcane output, 70% of the tea output, coffee, rubber, cashew nut, black pepper, and 80% of the cotton output, etc.

3. Production arrangements in the agro-forestry sector have had new developments.

In implementing Decision No. 65/2003/QD-TTg and Directive No. 11/2004/CT-TTg by the Prime Minister on reorganizing and reforming working arrangements, as well as improving performance of enterprises under the line Ministries, four (4) corporations were reorganized into 2 corporations to increase the capacity. The other two corporations (Sugarcane Corporation, and Silk Corporation are being restructured to facilitate the privatization process). By the end of 2004, 199 enterprises had been valued, of which 191 enterprises had been transformed to shareholding companies (reaching 80% of the planned target); 8 enterprises had been merged/incorporated (88.9% of the planned target); many enterprises had been sold (75% of the planned target), and 2 enterprises had been changed to one-membership limited liability companies.

For state owned agricultural or forestry farms, the MARD has worked with provinces to do review and assessment of their land use situation and production/business activities, and formulate plans on organizing, reforming and developing state owned agro-forestry farms. This provided a basis for the Government to submit to the Politburo for issuing Resolution No. 28 NQ/TW. The MARD has also coordinated with other ministries, sectors and provinces to draft and submit to the Government for issuance two Decrees No. 170/2004/ND-CP and 200/2004/ND-CP on reorganizing and developing state owned agro-forestry farms. The Ministry is now guiding provinces and its corporations (general

companies) to make plans on reorganizing, renovating or transforming activities of state owned agro-forestry farms according to these two Decrees.

The MARD and provinces have worked to classify and transform existing co-operatives, as well as launch propaganda programs to encourage establishment of new ones. So far, out of 9,069 cooperatives throughout the country, 90% have completed transformation process, and 2,137 new co-operatives have been established under the Cooperative Law.

The household economy has made new development steps, with larger scale, which is based on increased and extended premises of small industries, handicrafts, services and rural side jobs. The farm economy has also increased fast in terms of quantity, and enlarged its scale, as well as invested more in improving productivity, quality and efficiency. Now there are more than 80,000 households doing agricultural production under the form of agricultural farms. Especially large scale animal husbandry farms have been developed in almost every region. Many farms are raising hundreds of sows, thousands of porkers, and tens thousands of chicken or other poultry.

Over the past years, the private sector made strong steps forwards through small and medium enterprises. Many private enterprises have invested in processing rice, cashew nut, tea, coffee, vegetable and fruits, and salt.

4. Rural infrastructure has been strengthened and improved.

The rural socio-economic infrastructure has been improved and developed, especially those for irrigation/drainage, contributing to promoting production and improving the population's living conditions.

4.1 Irrigation/drainage facilities

a) Water supply and irrigation

Water supply and irrigation have basically met the demands on socio-economic development, including in the agricultural and rural sector. Over the last 5 years, the Government has invested 21,511 billion VND (excluding investment in dykes and embankments), of which 9,874 billion VND managed by the MARD and 11,637 billion VND managed by provinces. Over the same period of time, the Ministry has also invested in constructing 244 facilities, of which 156 facilities have been completed and put into operations, creating more 94,000 irrigated hectares, 146,000 drained hectares, preventing salinity intrusion for more 226,000 hectares, providing bulk water for 206,000 hectares, and improving quality of water supply for 1 million hectares. The total irrigation and drainage capacities by 2005 have reached 8 and 1.7 million ha of cultivated land, respectively.

These efforts were concentrated in the following programs:

- ❖ Rehabilitation and upgrading of existing irrigation/drainage facilities in the Red river delta and northern uplands: these regions developed irrigation/drainage a long time ago, and many facilities were constructed after 1975, having been seriously degraded and needed maintenance and repairs for improvements.
- ❖ Dam/reservoir safety: focus was placed on large reservoirs in the Central Region and Central Highlands. Reservoirs with more than 50 million m³ in capacity and reservoirs with high dams were strengthened and rehabilitated to ensure safety and resistance against floods and storms, as well as assure water supply security, such as Dau Tieng reservoir (Tay Ninh province), Ke Go, Kim Son reservoirs (Ha Tinh

province), Nui Coc reservoir (Thai Nguyen province), Yen Lap reservoir (Quang Ninh province).

- ❖ Canal lining: so far 15,000 km of canals all over the country have been strengthened/lined, increasing the irrigation capacity for 350,000 ha and drainage capacity for 400,000 ha. Provinces of Thanh Hoa, Nghe An, Tuyen Quang, Son La, etc. have implemented well the canal lining program on the principle “joint efforts by the central and local levels, by the State and the people”.
- ❖ Investment in capital construction of irrigation facilities: focused was placed on new construction of reservoirs in the Central Region and Central Highlands to reserve water for combating droughts for disadvantaged areas. Examples are Song Sao reservoir (Nghe An province), Nui Ngang reservoir (Quang Ngai province), Van Hoi reservoir (Binh Dinh province), Dong Tron reservoir (Phu Yen province), Suoi Dau reservoir (Khanh Hoa province), Long Song reservoir (Binh Thuan province), IaSoup reservoir (Dak Lak province), and Daklo reservoir (Lam Dong province).
- ❖ In coastal zones: a lot of sluices were constructed to prevent salinity and keep fresh water, e.g. Song Nghen sluice (Ha Tinh province), Thao Long sluice (Thua Thien Hue province), Duy Thanh sluice (Quang Nam province). Many large and multipurpose irrigation projects were also initiated, such as Phan Ri – Phan Thiet project (Binh Thuan province), Phuoc Hoa (Binh Duong province), Dinh Binh (Binh Dinh province), Ta Trach (Thua Thien Hue province), Cua Dat (Thanh Hoa province), etc.
- ❖ In the Mekong river delta: many programs were implemented for flood control, fresh water keeping, acidity leaching. More than 20 flood control facilities were completed in the Long Xuyen quadrangle area and the Plain of Reeds, where embankments and culverts in deep flooded areas were strengthened, and new embankments were constructed in shallow flooded areas to protect orchards and short term industrial trees. The coastal water resources development programs were promoted through financial assistance of the World Bank in Omon – Xano, Quan Lo – Phung Hiep, South Mang Thit, where keeping fresh water were linked with aquaculture in saline and brackish water, as well as development of aquaculture in the flood season.

b) Dyke protection and flood control

Over the last 5 year period, 2001 – 2005, 896 billion VND managed by the MARD were invested to rehabilitate dyke systems in 19 provinces in the North, Northern Central Coast, and support a part of similar efforts in the central coastal provinces. The amount of excavation and earthfill works were more than 10 million m³, and 880,000 m³ of rock were used to construct bank protection works. The state's finance for dyke maintenance was 197 billion VND. Minor repairs of dykes and bank protection works were done, requiring 1.4 million m³ of soil and 13,700 m³ of rock, respectively. As a result, the dyke system in the North and Northern Central Coast has been strengthened and upgraded over the last 5 years. A more remarkable achievement was that this dyke system was maintained throughout the period of 34 years by that time. The flood control program in the Mekong river delta has successfully launched its short term phase, which gained initial encouraging results and ensured 2 reliable rice crops a year (spring and summer crops). The program also contributed to development of new rural appearance in flooded areas and reduced losses of life and property caused by floods.

However, there were some overlaps in responsibilities and duties of various Ministries and sectors involving in water resources exploitation and management, especially between the MARD and MONRE.

4.2 Rural water supply and sanitation programs

Rural water supply and sanitation programs were effectively executed in many provinces by joint efforts of the MARD and the provinces, thanks to financial assistance from international organizations, contributions from local budgets and the public, and thanks to renovated management and utilization of public water supply facilities (which became the people's responsibility).

To create conditions for many rural residents to have access to clean water supply for their domestic use, the Prime Minister issued Decision No. 62/2004/QĐ-TTg on 16 April 2004 regarding credits for implementing the national strategy on rural water supply and sanitation. The maximum credit level for each type of facilities was set to be 4 million VND per household.

As a result, over the last 5 years, more 1.6 – 2 million people had access to water supply every year, which increased the rural water supply coverage from 42% in 2000 to 62% in 2005.

4.3 Other infrastructure systems

Other infrastructure systems in rural areas, such as transport, power supply, have also been improved. So far, 98% of rural communes have had automobile roads to their centers and more than 90% of the communes have had power supply.

5. There have been strong developments in rural areas, the people's life has been improved, and poverty reduction has been promoted.

Rural economy has achieved significant development, with the average agricultural growth rate of 5%/year; rural industries and services have developed quite well, especially the agro-forestry and marine product processing industry has grown at 11 – 12% a year in the recent years.

Infrastructure in many rural areas have been improved, irrigation schemes have been able to irrigate 90% of the rice cultivation area. Tens thousands of subsidiary crops, industrial crops and fruit trees have been grown, the dyke system has been strengthened. So far, 98% of communes have had automobile roads linked to the centers. More than 90% of the communes have had access to power supply, 58% of rural population have had domestic water supply, 99% of the communes have had health care stations, and 100% of the communes are now in the service area of national television.

Production relations have stepped forwards to develop household economy, farm economy, reformed cooperative economy and state owned enterprises; encourage private economy and establish agriculture with participation of multiple economic sectors.

Farmer's living conditions in most of rural areas have been visibly improved, with the average income increased from 11 million VND per household in 2000 to 14 million VND per household in 2004. The poverty rate was reduced from 19% in 2000 to less than 8% in 2004. Housing, travel, learning and health care conditions have been all improved.

Many villages and communes have been recognized as "cultural villages, communes" with developed economy, where ecological environment is protected, traditional typical cultural features are restored and developed, and the people's knowledge is enhanced.

6. Administrative reform and human resources training have been promoted for agricultural and rural sector

Administrative reform has been promoted over the recent time and shown positive results, firstly in implementation of the state management function, advising on dealing with macro-level governance, issuance of policies to overcome difficulties in production and consumption of agricultural products, mobilization of resources for agricultural development.

The actual process of dealing with natural disasters (droughts, floods, forest fire), avian influenza, foot and mouth diseases, and pests in crops has shown clear and significant improvements in the sense of responsibility and executive capacity of the entire management system.

Administrative reform has been implemented simultaneously and brought about initial good results in 4 areas: institutional reform, organizational reform, human resources development and public administration reform. Some issues in these areas were put under very active and regular programs, such as one-stop-shop program, application of ISO standards in administrative works, application of information technology in executive works by the MARD, etc.

Coordination with agricultural universities/colleges under the Ministry of Education and Training has been strengthened and at the same time, efforts have been made to increase capacity of universities under the MARD. Post-graduate training has also been linked more closely with focal research programs and agricultural extension activities; and short term vocational training for farmers, especially the rural young laborers, has been strongly promoted. In the 5 years 2001 – 2005, we had 286 new doctors, 1,362 masters, 19,896 students graduating from universities/colleges and high schools, 45,100 students graduating from professional tertiary schools, 75,450 technical workers graduating from long-term training programs, 58,800 others graduating from short term programs and 4,000 incumbent officers participating in capacity building programs.

Major reasons for the above achievements

The Communist Party and Government have always paid attention to agricultural and rural sector, and issued many new policies to conform to the reality and the people's desires. Close and regular guidance from the Government has helped to take many measures to timely resolve difficulties and challenges, giving assurance for development of production. Other reasons include active and effective support from Ministries and sectors and close guidance from party committees and authorities of various levels, in addition to the unit-level initiatives and determination to overcome difficulties as well as enormous efforts from farmers all over the country.

There have been complete and simultaneous impacts of many mechanisms and reform policies towards market orientations and increased investment by the Government in agricultural and rural development. These policies include in particular: cooperative economy reform; state owned enterprises reform; private and individual economy encouragement; encouragement and creation of conditions for shifting the agricultural and rural economic structure in linkage with the market and towards higher productivity, quality and efficiency; prioritized investment in science and research to bring breakthroughs and increase competitiveness of Vietnam's agricultural products and develop rural infrastructure; trade promotion and international economic integration.

Many advanced techniques and technologies have been applied. So far, more than 90% of rice growing area, 80% of maize area, 60% of sugarcane area, cotton, fruit trees, etc. have used new varieties. In animal husbandry, new breeds have also been used and helped to increase significantly the productivity and quality of meat, eggs and milk products. In forestry, many new technical advances have been applied, especially the techniques of quick selection and creation of new varieties, and quick multiplication by cutting and cell culture techniques. As a result, the productivity and quality of forest plantations have got extensive improvements. Salt production by clean technology has been extended to wider scale. Many provinces in the Mekong river delta have used the method of intensive farming that reduces the cost price to 600 – 700 VND/kg in some places. The agricultural extension system is working effectively, instructing farmers on how to apply the measures of “3 increases – 3 reductions” in the south and “2 reductions – 3 increases” in the north. Mechanization, new farming techniques, harvesting/preservation and processing techniques for agro-forestry products have been used widely and extensively, and new side jobs have also been developed.

The Government has invested a lot in irrigation/drainage schemes as well as rural infrastructure and services. Over the 5 years 2001 – 2005, the Government spent 21,511 billion VND in irrigation/drainage facilities, creating more 94,000 irrigated hectares, 146,000 drained hectares, preventing salinity intrusion for more 226,000 hectares, providing bulk water for 206,000 hectares, and improving quality of water supply for 1 million hectares. These are all the favorable conditions for reclaiming virgin lands, increasing the cropping intensity, improving productivity and quality of agricultural products.

II/ WEAKNESSES AND REASONS

However, there are a number of issues that the agricultural and rural sector is facing, such as:

1. Slow progress in restructuring the agricultural sector and rural economy. Slow development of the breeding, industry and rural sectors.

While most of the regions have clearly defined their direction in restructuring the process of agricultural production and rural economy, certain regions are still puzzled. The delta regions focus mostly on rice cultivation, while horticulture remains dispersed and in most of the cases it is developed spontaneously. The breeding sector progresses slowly, while the forestry sector has not been able to contribute appropriately to the regional economic development. The processing industry of agricultural and forestry products, as well as services in the rural areas have not created strong changes regarding job creation and revenue's increase for the farmers. Agricultural production in highland and remote areas has not yet registered a significant development.

Agricultural production continues to be the major component of the rural economy (65%), in which cultivation represents 78% and breeding occupies only 22%.

2. Low productivity, quality and efficiency of certain agricultural products, as well as a weak competitiveness of agricultural products.

The research and science-technology transfer process is yet to be accelerated. In certain sectors, there is no technological breakthrough in order to increase the productivity and the

quality of products, such as tea, mulberry trees, vegetables and certain fruit trees, breeding... In other sectors, new technologies have been introduced. However, the transfer process takes place very slowly. The productivity and the quality of many agricultural products remain low and the competitiveness is weak such as: sugar canes, many vegetables and breeding products...

The establishment of the quality control system for agricultural products and agricultural materials was slow. In addition, the problem of excessive residues of pesticide and antibiotics in agricultural products is so serious and urgent that needs to be resolved promptly.

3. The infrastructure investments have not yet met the demand of the agricultural and rural sector's restructuring process; the infrastructure in many regions are still poor.

The development of infrastructure in many rural areas has not yet met the demand of the economic restructuring process, in order to ameliorate the quality of life of the population, especially those in mountainous regions (particularly transportation, irrigation and telecommunication infrastructure).

A large volume of investment has been put in irrigation/drainage, however, these resources have been used inefficiently and managed poorly. Consequently, existing irrigation schemes can only use up to approximately 70% of their designed capacity. Irrigation projects that serve production in certain areas remain inefficient, and the percentage of irrigated area is still low: 65% in the Central coastal areas, 49% in the Northern mountainous areas, 20% in the Central Highlands, and 54% in the South East region.

357 communes have not yet possessed automobile roads to their central areas, and 38% of the rural population have not yet disposed of clean water for their daily living...

The investment structure has been adjusted very slowly to cope with the development needs of the new economic structure. With regards to investment for development, according to the data on the real volume of investment, investment for irrigation projects continues to occupy over 50%; investment for other categories of infrastructure, for enhancing science and technology resources as well as for training related to agriculture and forestry represents less than 50%. Due to the need of finishing incomplete schemes, investment in irrigation still heavily concentrates on irrigation and drainage facilities for rice cultivation. Within the five-year period 2001-2005, investment has been put only in about 20 irrigation projects for industrial plantation and horticulture, accounting for merely 3% of the total investment on irrigation.

4. The production relations in the agricultural and rural sector evolve slowly.

The process of changing the operational mode and conducting PR campaigns on establishment of new co-operatives according to the Co-operative Law is slow, although the Central Party Committee's Session IX has issued the Resolution No. V and the Government has issued various policies aiming to ease the process. Many regions are still puzzled in the process. The implementation of the Resolution 28 of the Central Party Committee and the Government's Decree on agricultural and forestry co-operatives was very slow.

Although there have been significant developments in the last two years in the renovation and re-organization process to improve the effectiveness of the operation of state-owned enterprises by equitizing (privatizing), selling, contracting and leasing operations, the MARD has not yet met the target set forth by the Government. It is expected that the Ministry will achieve over 60% of this plan. State-owned enterprises have not yet fulfilled their mid-wife role in assisting and creating necessary conditions for the development of the household economy.

The development of rural industries, small industries, handicrafts, side jobs and services evolves slowly, and therefore, has not been able to generate a strong change in the rural labor structure so as to create the opportunity for household agricultural production to dispose of more land and extend their production scale. The private sector has not yet been able to gather the necessary momentum for development.

5. The rural sector progresses slowly, the income remains low, the living condition of certain groups of farmers have not yet been ameliorated, particularly in the mountainous areas; the gap between the rich and the poor is widening and job demand is more and more increasing.

Although the living conditions in most rural areas have been improved, in certain areas, further improvement is still needed. The disparity in terms of income and living conditions between the rural and urban areas, as well as amongst the regions, has been reduced but remains significant (in 1998 the disparity ration was 3.26 times, in 2002 it was reduced to 2.2 times). Job demand is increasingly high and the environment pollution is becoming more and more problematic, and yet no remedies have been applied in order to overcome these. The occupational time in the rural areas reaches only approximately 75%, and there are about 1 millions new jobs on the average created every year. These factors further increase the pressure on job creation for the rural areas, especially jobs for the young population.

The causes of this weakness are:

- (1) From an objective point of view, this weakness are due to a low point of departure of our economy, combined with the limited resources of the State and the population.

The restructuring process in the agricultural production and rural economy was conducted in the context where the departure level of the Vietnamese economy is low, particularly that of the rural areas. The agricultural sector in one hand, has to produce material goods, and on the other hand, has to resolve social problems, and many of the household farmers' production is just for the sake of meeting their consumption needs.

On the other hand, the restructuring of the agricultural production needs to follow biological rules, especially perennial crops and cattle will need a long time to grow and bring benefits.

Due to a geographical location that is characterized by a tropical and semi-tropical climat, Vietnam has to face many natural calamities, floods, draughts, pest and epidemic diseases, which have a significant impacts on the agricultural, forestry and halophyte production; while the capacity and the resources for preventing and countervailing these impacts are limited.

(2) From a subjective point of view,

- Given the lack of awareness of and the superficial understanding about the need for a continuous development of the agricultural and rural sector toward industrialization and modernization of a group of official and Party members, and of certain sectors and local entities, there are insufficient directions and lack of an appropriate and competent policy framework that permit the realization of the set forth objectives. In many local entities, there exists the mentality of self-indulgence and laxation.

- A number of policies that need to be brought into conformity with the needs of the restructuring process of the agricultural and rural area have not been adjusted. The agricultural production is facing a harsh competition in the market economy context and it should also be taken into account the biological characteristics of the sector. Nevertheless, no additional studies on introduction of new policies aiming at generating the motivation for the sector's growth were carried out. For example, there is a lack of credit policies encouraging the investment on the creation of regions specialized in the production of raw materials, processing industries; integration and export policies, policies aiming at assisting and encouraging the development of private economic sector in the rural areas, particularly of small and medium enterprises...

- The development of science and technology is slow and is not really attached to the production, which impedes the creation of the break-through in the productivity, quality and effectiveness of the restructuring process of the agricultural production. The network of agriculture, forestry and labor extension in local entities is still weak and there is a lack of technicians able to conduct science and technological transfer in order to better serve the restructuring the agricultural production and rural economy.

- The infrastructure is under developed, non-uniform, and not able to respond to the needs of the agricultural goods production and restructuring of the rural economy, particularly the transportation and irrigation systems in resource zones.

- The sector has to face the requirements of the industrialization and modernization process, and the rapid development of science and technology, but the majority of the human resources are not trained, and the ratio of the labor force in the rural areas that have professional training is merely 22%.

- The organizational management and direction is not up-to-date, many regions are still puzzled with regards to the content of the restructuring process on the agricultural and rural areas. The content of developing the rural area toward modernization and industrialization is not yet clear and the assignment of responsibilities among the Ministries, sectors is unclear and uncoordinated.

The State has issued many directives and policies but they have not been implemented correctly. Plan adjustments have not been carried out timely and there is usually a lack of mechanisms, policies, directions and surveillance on the realization of this plan, which has led to a situation where enterprises lack raw materials or do not have the capacity to develop raw material resources and are obliged to change their location.

The organizational and managerial system from the Ministries to the provinces and cities is inconsistent, which causes negative impacts on the operational management in the sector, especially in the area of prevention and fight against natural calamities, epidemic diseases, resource management... and has undermined the enforcement and the effectiveness of the

State management mechanism. The competency and the educational level of governmental and local officers do not respond to the high demand of the market economy system which is in the process of further integration into the world economy.

PART TWO

OBJECTIVES AND DIRECTIONS FOR AGRICULTURAL AND RURAL DEVELOPMENT IN THE NEXT FIVE YEAR PERIOD, 2006 – 2010

I/ FORECASTS ON THE ECONOMIC ENVIRONMENT IN GENERAL AND THE WORLD'S AGRO-FORESTRY CONSUMPTION MARKET

1. Forecast on the economic environment in general:

1.1. Domestic environment

- In the years to come, in order to accelerate the industrialization and modernization process in the agriculture and rural sector, it is necessary to create the link between the restructuring of the agricultural production and the development of the processing industry, the expansion of the domestic and international consumption market, the diversification of the occupations in the rural area. Based on this, restructure the labor force of each region, each province.
- The process of renovation of the economic management mechanism and policies of the agricultural sector as well as of the other sector continue to create the favorable conditions for the development of the agriculture and rural sector, including the economic restructure.
- The large investment projects of the State will have strong impacts on the restructuring of the production structure in the agricultural, forestry and fishery sector of all regions.
- On the other hand, the international economic integration process of Vietnam in general, and of the agricultural sector in particular, enters the final stage: Vietnam has to fulfill its commitments in the Bilateral Trade Agreement between Vietnam and the United States; in 2006, Vietnam would have to basically comply its commitments within the ASEAN Free Trade Agreement (AFTA) with a market of 500 million inhabitants; in 2010, Vietnam will basically accomplish its commitments within the ASEAN-China Free Trade Area (6 old ASEAN members, China and Vietnam will have to fulfill their commitments in 2010, while Laos, Cambodia and Myanmar will have to do so by 2013). This would be one of the largest free market area in the world with more than 1.7 billion inhabitants. Vietnam is currently negotiating the establishment of the ASEAN-Japan Free Trade Area and the ASEAN-India Free Trade Area within the next 10 years. Vietnam is also expecting to join the WTO by the end of 2005... The participation in different regional and world trade liberalization initiatives will bring to Vietnam's agro-forestry products new market access opportunities, and create a fair domestic business environment, more transparent for domestic businesses and attract more foreign investment. However, given the low level of development and the weak competitiveness of certain sectors and enterprises, the reduction of tariffs and opening of the domestic market will create many difficulties and challenges for the agricultural sector.

1.2. International environment

The world's science and technology revolution, especially in the field of information and biological technologies; the globalization process; the stabilization and recovering of the regional and world economy in the coming years will all have positive impacts on the agricultural sector. The international economic integration process will open new cooperation opportunities, allow us to take advantage of our comparative advantage, benefit from foreign resources in order to bring into play the domestic resources for the development of the agricultural and forestry sectors.

However, there also exist negative factors, which are putting an increasing pressure on the agro-forestry production in the coming years.

2. Forecast on the world consumption market for agricultural and forestry products

According to FAO's forecast, there are a number of information regarding the world consumption market for agricultural products that needs to be taken into consideration:

- With regards to rice and paddy: there are 20 exporting countries all over the world and 80 rice importing countries. The volume of rice being exchanged in the market occupies approximately 4-5% of the total volume of rice produced in the world. The price of the rice in the coming years will not experience any major fluctuation given that paddy can be cultivated 2-3 times/year. It is necessary to follow up closely the information so that countries are able to switch from rice cultivation to the cultivation of other plants. A number of countries will augment the volume of exported rice compared to the current volume, such as Cambodia and Myanmar.

- With regards to certain industrial and fruit plants: Given that it is impossible to impose quotas on the biggest world coffee producers, and that these countries are intensifying the application of new technologies that increases the productivity of the coffee plant, a lot of pressure will be put in the coffee price and volume of production. The price of exported rubber in the recent years increases rapidly, and in the long term it would continue to remain high thanks to the large consumption of China, the United States and Japan. On the other hand, as the price of crude oil increases significantly, the price of artificial rubber also increases strongly. This has encouraged the consumers, especially China, to give more and more preference to the use of natural rubber. It is also expected that the demand for cashew nut will augment every year. Therefore, the price of exported cashew nut in the coming years will benefit the producer and exporter countries of cashew nut. In the coming years, it is possible that the surplus on the demand of pepper will continue to increase, and this will contribute to maintain the exported price of pepper. According to many forecasts, in the coming years the world's supply of tea will continue to exceed the demand, as a consequence, there is little change that the price of tea will be improved. According to FAO's forecast, during the period 2001-2010, the demand for vegetables and fruits in the world will be increasing with a rate higher than the production growth rate, e.g. while the consumption demand increases an average of 3.6% /year, the production growth rate increases only by 2.8%/year.

- With regards to the export of forestry products, furniture possesses the biggest advantage in large markets such as the United States, the EU, Japan. On the other hand, the world's biggest importers such as the United States, EU and Japan have started to diversify

their markets of imported furniture that were dependent on the merely number of producers, and this has created an opportunity for forestry products.

3. The domestic consumption market for agricultural products in the coming years

Vietnam has more than 80 million inhabitants, and it is expected that in 2010 this number will reach approximately 85-87 million. In addition, the average economy growth rate is above 7% per year. These factors will contribute to increase the demand for the consumption of agricultural products and food staples. Given this, the domestic market for these products will be very promising and will increase quickly in the coming years, especially for products such as vegetables, meats... and import-substitute products such as cotton, soybeans, maize, tobacco leaves, milk... On the other hand, as the processing industry for agricultural and forestry products will develop strongly in the coming years, it is necessary to have a large volume of high quality raw materials. These factors are the motive forces and the main foundation for the restructuring of the agricultural, forestry and salinity production in the coming years.

II/ OBJECTIVES FOR AGRICULTURAL AND RURAL DEVELOPMENT

1. General objectives

The overall and long-term objective of the agricultural and rural sector in this period is to build up a agriculture and forestry production that has a large scale of production, modern, efficient and sustainable, and that have a high productivity, high quality and competitive based on the application of advanced science and technology achievements so that they are able to meet the domestic and export demand.

To build a rural sector that has an appropriate economic structure, with a convenient labor relation, disposing of a modern economic and social infrastructure, where everyone has jobs to do and can earn money; and where living conditions of the population are better, aiming at building a more prosperous, fairer, democratic and more civilized society.

2. Specific objectives to 2010

1. To achieve a growth rate of 4-4.5%/year for agricultural value, GDP: 3-3.5%;
2. To achieve an average growth rate of the rural economy of 7.5 - 8%/year;
3. To expand the forest coverage rate to 43 -44% of the total area of natural forest, in which, the percentage of coverage of specialized and preventive forest would occupy 43-45% of the total forest area.
4. To ensure national food security and respond to the diversified needs of the population in terms of food and food stuffs; pay an especial interest to the ethnic minorities in the mountainous and remoted areas. To obtain a production volume of 45 million tonnes for seed plants; in which rice represents 39 million tonnes and maize 6 million tonnes.
5. To highlight the comparative advantage that has been established, to promote and increase the export effectiveness and bring the total value of agro-forestry export to 7 billion USD by 2010 (with an average growth rate of 12%/year).
6. To take advantage of the existing potentials, combined with the application of new sciences and technologies in order to develop a variety of plants, animals which will substitute import; to exploit the domestic market with regards to the

- following products: cotton, tobacco leaves, maize, soybeans, vegetable oil, raw materials for the production of paper, milk...
7. To achieve a rural economy with the following structure:
 - ❖ Agriculture: 50%;
 - ❖ Industry, small industries and services: 50%;
 8. The value per ha of agricultural land should be 30 million VND/year;
 9. GDP per capita in the rural area should be the double of that of the year 2000;
 10. Decrease the number of labour in the agricultural sector to 50%.

III- DEVELOPMENT DIRECTIONS

1- The modernization program in the agro-forestry sector

1.1. To implement the modernization program in the agro-forestry sector in the view of increasing the productivity and the output; improve the quality, the effectiveness and the competitiveness of the sector on the market orientation.

With regards to paddy and rice, in order to continue to put in value the comparative advantage on rice cultivation in the delta areas, especially in the Mekong Delta area; to concentrate in increasing the productivity and the quality of rice by utilizing new varieties with high productivity and quality that meet the demand of the domestic and export markets; to apply in a uniform manner measures aiming at reducing the production costs of paddy to less than 1000 VND/kg, the target is to expand the program of cross-bred varieties so that the total rice production reaches about 39 million tons in 2010, and to export 3.5 – 4 million tons of rice per year.

In the mountainous areas, especially in remote and highland areas, it is necessary to invest on small irrigation infrastructures together with the establishment of terrace fields, intensify activities aiming at encouraging agriculture development and assisting the farmers in the production of food and food staples for local demand.

- As for maize, to popularize new variety of maize with high productivity, concentrate on intensive farming and on the creation of large scale production regions in the South East region, Central Highlands, the northern uplands, the Mekong Delta and winter maize in the Red River Delta.

- As for coffee, to continue to reduce the area of coffee cultivation in the regions that are not appropriate for growing coffee, where there are not irrigation systems and consequently, the productivity is low. To stabilize the remaining 450 thousand hectares of coffee cultivation, in which 40 thousand hectares are Arabica coffee, mainly cultivated in regions that are suitable, such as: the Central Highlands, North West and North Central Coast.

- As for rubber, to continue to sustain the cultivation area of 500 -550 thousand of hectares, which will be allocated as follows: 300 thousand hectares in the South East, 100 thousand hectares in the Central Highlands; it is possible to reduce the rubber cultivation area in the South East near the urban areas, where the land is fertile, and introduce new varieties of plants that are more cost-effective, and concentrate on intensive farming and improving the quality of plants.

- As for tea, to sustain the current 125 thousand hectares, to be allocated as follows: 85 thousand hectares in the northern uplands, 30 thousand hectares in the Central Highlands, and 10 thousand hectares in the North Central Coast.

- As for cashew nuts, it is planned to obtain an approximate of 350 - 400 thousand hectares by 2010, in which 120 thousand are newly extended; to cultivate 70 thousand hectares in the South East region, 30 thousand hectares in the Central Highlands, 20 thousand hectares in the South Central Coast.

- As for black pepper, to maintain the current cultivation area, which is approximately 50 thousand hectares, and to concentrate on improving the quality of the products.

- As for peanut, it is planned to cultivate about 400-500 thousand hectares of peanut by 2010, with the average output of 20 quintals/hta, and the productivity of 900-1000 thousand tons. The cultivation will be concentrated in the North Central Coast - 100,000 ha, in the South East – 80,000 ha, and the northern uplands – 50,000 ha; and the production is mainly for export.

- As for sugarcane, it is planned to maintain the current 290 thousand hectares of sugarcane cultivation. Implement the intensive farming policy in addition to using appropriate varieties with high sugar content and various harvest times. Investment will also be focused on developing the raw material regions and enterprises according to the planning that local authorities have approved.

- As for cotton, it is planned that by 2010 there will be 35 thousand hectares of cotton cultivation, located mainly in three regions: the Central Highlands: 15 thousand hectares; South Central Coast: 5 thousand hectares; South East: 15 thousand hectares; and other regions: 5 thousand hectares. 60% of these areas will be irrigated.

- As for soybeans, it is planned that by 2010 there will be approximately 400-500 thousand hectares, including 200,000 ha specially used for subsidiary crops, and the rest being land for 2 rice crops and 1 subsidiary crop cultivation.

- As for tobacco, in order to meet 80-90% of the demand on raw materials for the existing enterprises, it is planned that an approximate 40 thousand hectares of tobacco plants will be cultivated and located mainly in three regions: the northern uplands, the South Central Coast and the Central Highlands.

- As for fruit trees, in the coming years, the cultivation of fruit trees that have advantages in the market will be expanded, and will be concentrated mainly in the raw material regions serving processing enterprises. Varieties of longan and litchi with various harvest times and high quality will be used. It is planned that by 2010 there will be 1 million hectares of fruit trees cultivation.

- As for vegetable, it is planned that investment in developing of vegetable-specialized regions will be concentrated on introducing clean technologies, high quality vegetable, and ensuring food hygiene security. The focus will be the cultivation of bamboo shoot, mushrooms, and ornamental trees and flowers for the domestic and export market.

1.2. Develop the cattle breeding at large scale following the form of farming, industrial grown; ensure the epidemic-free, in order to meet the domestic and export demands.

To develop different breeds of cattle and poultry in the view of establishing concentrated breeding regions in the form of farms, industrial grown, and linked to processing premises and waste treatment.

- Pigs: Concentrate on pig rearing that meets consumer's demand and the investment capacity of each region. Concentrate on rearing high quality pigs in certain regions that have advantages in order to develop industrial pig rearing, preventing epidemic diseases for export purposes. The number of pigs by 2010 should reach 35-40 millions.

- Cows: Concentrate on the development of meat cow herds with high productivity and high quality of meat in order to meet the demand on meat and hide. The total number of cow herds should reach 6.5 – 6.7 millions; and buffalo herds should reach 2.8-3 millions. Classify and evaluate in order to implement measures aiming at improving the quality of the existing milk cow herds; increase the number of milk cow herd on the basis of planning and improving the productivity with the aim of substituting part of current imported milks as raw materials. It is planned that by 2010, there will be 200 thousand milk cows, in which 100 thousand cows producing milks. The expected fresh milk production will reach 300 thousand tons/ year.

- Poultry: To develop poultry raising, mainly chicken and ducks in order to meet the domestic demand for poultry meat and eggs. To develop breeding of high quality chicken and ducks in order to export meat, eggs and feather. It is expected that by 2010 the number of poultry will reach 380-390 millions.

1.3. Implement a high socialization of activities regarding protection and development of forest resources; increase the forest coverage to 43-44%; increase the forest quality and efficiency.

By 2010, conduct national and regional forestry plannings for different types of forests as a basis for identification of investment projects, especially economic afforestation projects.

- Implement land allocation, forest contracting in a sustainable and long-term basis toward the objective of socializing the forestry sector; issue policies that ensure the living conditions of people working on the forestry sector. Concentrate on the protection of existing forests, and continue restoration-oriented protection in combination with forest enrichment and development of industrial forests.

- Develop economic forests of high quality and efficiency to create sources of pitwood, raw materials for paper production, wood processing industry as well as fabrication of fine handicraft products for export. With regards to production forest plantations, it is necessary to establish raw material forests linked to processing centers, and application of cell culture and cutting technique aiming at increasing the productivity and quality of forests. With regards to natural production forests, the plan is to do restoration-oriented protection, and forest enrichment and protection.

- Specific tasks of the five-year plan 2006-2010 are to contract the management and protection of 2.5 million hectares of forests, restoration-oriented protection in combination with additional plantation on 900 thousand hectares of forests, afforestation of 2 million hectares of new plantations (in which, specialized and preventive forests occupy 390 thousand hectares, raw material forests and industrial

forests and fruit trees represent respectively 1.570 million of hectares and 40 thousand hectares).

1.4. Concentrate on application of measures aiming at improving the productivity and quality of salt

The plan is to stabilize the salt production area of 15.000 hectares, invest in modernizing salt production by clean technology in the view of increasing the productivity and the quality of salt, to provide sufficient materials for the chemical industry and meet the domestic demand, with an annual production of 1.5 million tons by 2010.

2. Strongly develop rural industries and services to accelerate the economic restructuring process and the labor repartition in rural areas

- Develop the processing industry for agricultural and forestry products in order to create a stable consumption market for producers and increase significantly the value of agricultural products. The processing industry for agricultural products will be focused on leading export products that are worldwide competitive and can bring a high export value to Vietnam, such as rice, coffee, rubber, cashew nut, vegetable, meat...in order to ensure a growth rate of at least 12% per year.

As for the processing industry of forestry products, the focus is on in-depth investments; renovation of technologies in existing processing factories for forestry products; construction of factories that are specialized in manufacturing man-made boards, particle boards, paper ...; at the same time, create favorable conditions and assist labor intensive handicraft premises that utilize limited resources and achieve high productivity; maintain and develop processing premises for forestry specialties, such as resin, lac/benzoin, cinnamon, anise...

- Implement policies aiming at assisting actively the farmers in the process of restoring and developing traditional handicraft villages, encouraging households, individuals, co-operatives, small and medium enterprises to invest in the development and diversification of handicraft industries, such as processing of agricultural and forestry products, production of construction materials, terracotta, glass-ceramic, forging and molding, mechanical, garment, v...v... in order to meet the local demand and to export. It is planned that by 2010, the export value will reach approximately 1 billion USD.

- Implement the socialization of services in rural areas, attract participation of all economic components in order to ensure that services will be provided to production and the life of the population in the rural areas. Develop the agricultural extension system, irrigated agriculture, veterinary, phyto-protection, communication, culture and society, material supply chain, and product consumption system... so that in 2010 there will generate 25% of the GDP in the rural areas.

3. Construction and development of the rural infrastructure

3.1. Irrigation

- Concentrate on investments aiming at modernizing and improving the management efficiency and the exploitation of irrigation projects. Apply new and advanced technologies on the design, building and management of irrigation projects; implement the socialization

in the investment and management of irrigation projects; develop co-operatives and the organizational management of agricultural irrigation for farmers.

- Concentrate on investments aiming at restoring and ameliorating, upgrading and renovating the management of irrigation projects so that to enable to increase at least 10% more of the utilization performance of the output of existing projects and augment the area of land irrigated by 700 thousand hectares.

- Continue to develop irrigation by taking advantage and exploiting the valley of rivers in order to provide water to the agricultural production, salt production, aquaculture, tourism, prevention and minimization of calamities. Move towards the allocation of investments on irrigation projects that aim at watering coffee, tea, sugar cane, and vegetable plantation, as well as producing salt and developing aquaculture. Give priority to investments on developing irrigation systems for mountainous, central coastal areas, Central Highlands; resolve promptly the situation of lack of fresh water for agricultural production and daily life of the population in these regions.

- Implement vigorously the canal strengthening program; together with applying water saving technologies in irrigation process, improve the efficacy of utilization of irrigation projects.

3.2 Dyke management and flood control

- The task of flood control and natural disaster relief have to meet the requirements of sustainability and security in the face of natural disasters to mitigate the damages caused by the natural disasters. The assurance of dikes security must be considered as that of the national security especially in the context that the economy is increasingly open and developing.

- Increase protection measures of project development, the task of forecast and warning of floods with the view to enhancing the possibilities of the prevention to reduce the damages by the natural disaster; find the solution to distribute and slow down the flood to ensure the security of dike system in Red river delta; intensify the forestation of riverhead, the density of trees in the forest to keep water and soil against sweeping floods; clear the river-beds and river-mouths to let the flood out under the Ordinance on Dyke management and flood control.

- Red River Delta: continue the investment in consolidating and upgrading dike 5700 km in length belonging to the system of Red river and Thai Binh river to increase its security level in fighting the designed flood level; and improve the capacity of dikes in the North Central Coast region (i.e. the northern part of the former fourth strategic zone) to resist historical floods.

- Mekong river delta carries out the program of flood control, strengthening existing embankments and sea dykes, with the view to living together with floods and ensuring the safety of lives and assets of the State and people, stabilizing lives, developing the production and building the rural areas increasingly prosperous.

- The Central region strengthens the structural and non-structural measures to prevent and reduce natural disasters, stabilize lives and the production in disaster-prone areas.

Reinforce the sustainability of the system of sea dykes and salinity prevention dykes in coastal areas against storms of 9th or 10th level with the combination of average tidal water and take structural measures in landslide areas near river banks and seashores in order to prevent losses of lives and assets of the State and People.

- Annually soon finish the procedures of dike investment and place priority on advancing the capital to take the opportunity of dry season to finish rehabilitation projects of dikes, structures under dikes and landslide prevention structures before the raining season aimed at actively preventing natural disaster.
- Concentrate investment on lining the surface of dikes and planting trees against waves to protect dikes and increase the security level in flood control.
- Build the new system of sea dikes in the central coastal areas, and the flood control embankment system in the Mekong river delta.
- Map out plans to prevent floods and storms, ensuring availability of materials and resources under the motto of “four on-the-site” to respond timely in emergency cases of natural disasters.

3.3 Rural water supply and sanitation

- Implement socialization of the investment in the development and management of exploiting and using water supply facilities in rural areas to mobilize a lot of investment capital and use effectively as well as intensify the sustainability of the projects; encourage and support rural households to invest in rural sanitation projects (animal sheds, latrines, bathrooms, biogas pits).
- Use effectively the capital supported by the government in combination with the capital contributed by the locality and people to invest in the project providing clean running water in rural areas in the modernized concentrated form managed and exploited by the people.
- Increase the rural water supply coverage to more than 75% in 2010 and the percentage of rural population having access to hygienic latrines to 70%.

3.4 Rural transport

The Government will assist to meet a part of capital and technical needs; taking advantage of financial assistance from international organizations and foreign countries; mobilizing contributions of the people (in cash or in kinds) to quickly develop the rural transport system to meet the demands of agro-forestry commodity production and people’s travel. Ensure that most of the communes have automobile roads to their central areas; reach the 95% rate of paved roads in districts and communes, of which 60% being concretized roads; and ensure that 90% of roads are safe for travel in all 4 seasons around the year. Reach the 50% rate of constructed permanent bridges and sluices, and eradicate rope bridges.

3.5 Development of the information system

- Increasing the investment in the information networking system from the ministries to localities and enterprises; regularly providing information on production, market & prices, plague and disaster prevention.
- Developing the application of information technology in agriculture and rural sectors as a breakthrough in the transition of production, management and business method in this area.

4. Building the new production relation

- The Government continues its policy to facilitate the development of household economy to both higher level and wider range. Encouraging households with enough financial capacity, labour and experience to develop farm economy. Supporting and creating favourable condition for the poor households to develop their production to eradicate hunger, reduce poverty and enrich themselves.

- Deploying the programs which allocates, renovates and enhances the production and business activities of state-owned farms and plantations according to the Decree 170/2004/NĐ-CP and 200/2004/NĐ-CP. Completing the transformation of state-owned enterprises to joint-stock enterprises; or the handing over, sale, lease, dissolution and bankruptcy of enterprises in order to increase the production and business capacity of the enterprise system, which acts as the mid-wife of the development of cooperatives and households.

- Supporting and facilitating the quick, effective and sustainable development of cooperative economy based on the voluntary cooperation between households and farms in different forms and various levels to increase the effectiveness of household and social-rural economy.

- Cooperatives focus on the input and output services for agricultural production, organizing plans, guiding farmers to apply science – technology and transform the production structure, establishing linkage with enterprises to sell materials and buy goods for farmers. The Government assists the cooperatives by training officials and granting suitable policy for the services provided by the cooperatives.

- Encouraging the individual economy to develop a variety of business lines, especially at the medium and small scale. Encouraging and creating conditions for individuals and households to establish small and medium enterprises. This is an important force to increase the capability of processing and consuming agricultural & forestry products, technical & social services in the rural area.

5. Building and developing a new rural area

5.1. Building new villages and urbanizing the rural area

- Implementing the rural planning in accordance with the structural transition and sustainable environmental and social development.

- Establishing the institution and mechanism to coordinate the major national programs, international humanitarian aids project and inter-sectoral policies to collectively and effectively implement the poverty reduction and hunger eradication strategy. Establishing the farmer community organizations in villages to actively control and receive the rural development as well as poverty reduction and hunger eradication projects.

- For villages, building plans and instructing the people to implement these plans to gradually develop to civil and modern residential areas which are favorable for the living and production, harmonizing with the environment , suitable with the people's customs and habits, in order to maintain the beauty of Vietnamese village.

- Accelerating the movement of building cultural village & the village's principle, improving the self-management of the community in the process of building a civil lifestyle, developing and improving the operation quality of local cultural institutions. Restoring and developing cultural traditions, the sense of neighborhood, helping each other to develop and overcome difficulties caused by the disasters.

- Making residential clusters in the Mekong River delta safe zones in the flood season; building sustainable coastal residential areas against the storms, reallocating the highland and border community, emigrating and resettling the residents in the Son La hydroelectric plant project, ensuring the better conditions for the people to produce goods and access cultural and social services and meet the national security requirements.

- Developing small towns into modern urban residential areas as well as industrial, service and cultural centers to assist the process of industrialization and modernization in the suburban areas in accordance with the ecological condition and cultural identities of each area. The urban planning of towns will meet both the need of short term and long term industrialization. The priority will be given to traffic, electricity, water, communication in towns, as well as the creation of a favorable environment for investment to develop industries and services, especially SMEs.

- Implementing pilot projects of building rural social welfare system, establishing the insurance services combining with risk prevention, long term and sustainable disaster-preventing investment in the rural areas.

5.2. Implement poverty eradication and reduction program

- Prioritize methods of subsidizing areas in difficulties, especially mountainous and remote, ethnic areas, supporting poor families for the goal of social equality in the cause of rural and agricultural industrialization and modernization.

- The State makes investment in or providing loans to people for going to reclaim new land, forestation, planting industrial or fruit trees, developing cattle breeding and seafood catching for the development of industries and services. Meanwhile, the State promulgates favorable policies to encourage enterprises to invest in rural area for the shake of providing more rural employments.

- Give priority to investment in infrastructure, particularly traffic roads, small irrigational works, markets and communication, electricity, water systems. To allocate projects of agricultural expansion and processing, programs of agricultural, forestry and aquatic development to difficult areas for further development.

- Give priority to develop public health, education and culture bases in difficult areas for poor people. Especially, to attach special importance to the training of staffs who are ethnic people to be able to carry out programs, projects and the government guidelines in their areas.

- Set up a strategy and specific solutions to develop small and medium size enterprises, industries for job creating in rural area.

5.3. Take the advantages of each agricultural investment area for bridging the gap of income and living standards between different areas

a/ The northern uplands

- Develop continuously small irrigational works, in parallel with building fixed terraced fields and gardens in favorable areas. Encourage using new and high-yield varieties (including upland rice) to reach higher capacity of in-place food production. Expand the

cultivation area in combination with apply intensive farming to increase products replacing imported goods, such as maize, soybean and tobacco.

- Develop crop plants of exports: tea, coffee tea, tropical and Asian tropical fruits and the breeding of dairy cows, buffalo, and slaughtered cows. Raising and protecting forest, especially that produces industrial materials of wood, paper. To invest intensively in the recovery of forest in Da river basin for the serve of significant irrigational works.

- Develop processing industries of tea, fruit trees, cattle-feed, paper making, pulp, wood, wood products...

b/ Red River Delta

- Cultivate rice intensively, grow special rice in the way of building an area of high quality rice, enlarge the area of winter harvest, and establish concentrated producing zones of vegetables, flowers, ornamental plants for urban needs and exportation. Changing 60 or 70 thousands ha of rice plains and tree areas into the area of raising aquatic products, maize soybeans, vegetables, flowers, grass for the purpose of farm-breeding, fruit -tree planting.

- Develop processing industries of fruit and vegetables, cattle-feed meat, seafood, handicrafts...

- Upgrade the existing projects, ensuring the irrigation for high-quality rice growing area, specializing area of vegetables for materials and export.

c/ North Central Coast

- Continue restructuring harvests of rice production, avoiding natural calamity; growing maize, establishing the concentrated producing zones of sugar-cane, rubber, tea, fruit trees. Promote slaughtered cow, buffalo and pig raising. Protect the existing forest area, planting new forest for producing raw materials of paper, ivory bamboo, pine, forest...

- Develop processing industries of sugar, fruit- trees, tea, paper, pulp, aquatic products.

- Invest in upgrading existing projects, reconstruct drainage and irrigation canals for effective use, building focused projects, major projects of multiple purposes...

d/ South Central Coast

- Intensively cultivate grain plants, especially rice, maize, cassava. Establish concentrated areas for producing fruit trees, sugar cane, groundnut, cashew, rubber, cotton, tobacco. Develop cattle breeding of pig, slaughtered cow, poultry. Protect and do reforestation and afforestation of production and protective plantations. Expand the production of industrial salt, clean salt of high-quality.

- Develop industries of processing sugar, fruits, cashew nuts, meat, aquatic products, wood furniture for export...

- Invest in building water reservoirs, sluices for salinity prevention, fresh water keeping or draining at big river mouths, giving priority to projects of irrigating dry crops e.g. sugar canes, cotton, ... and canal lining.

e/ Central Highlands

- Cultivate intensively the area of growing rice, expanding the maize area. Change a part of coffee growing land of bad quality and low productivity into the area of growing maize, rubber, pineapple, cotton of those the consumption markets are on the rise. Establish concentrated areas of producing rubber, tea, cashew, pepper, sugar cane, cotton, vegetables and flowers of high-quality. Promote the breeding of pig, slaughtered cow, milky cow (Lam Dong). Do restoration-oriented protection of 3.47 million ha of forests, afforestation of concentrated plantations.
- Develop the industry of processing coffee, tea, rubber, cotton, sugar cane, board manufacturing industry, paper, wooden furniture...
- Invest in building water reservoirs, dam for rising and keeping water for production of rice, maize, coffee industrial tree, pepper, sugar cane...

f/ South East

- Intensively cultivate rice, maize, cassava; to establish the concentrated areas of producing rubber, cashew, pepper, sugar cane, groundnut, soybeans, cotton, fruit trees, vegetables; to expand the breeding of pig, poultry, milky cow, slaughtered cow of high quality in farms for meeting the demand of cities, industrial zones, and for exportation. Do restoration-oriented protection of forests and afforestation.
- Develop industries of processing agricultural, forestry and aquatic products with high-quality products for export. To act as focused point for getting agricultural, forestry and aquatic products of other areas.
- Invest in building water reservoirs, weirs to keep water for rice, vegetable, industrial plants, domestic and industrial uses.

h/ The Mekong River Delta

- Stabilize the area for rising, watering rice for the production of two crops of good productivity, high and sustainable quality, of which there is 1 million ha of high-quality rice for export. Establish the areas of producing maize, soybeans, sugar canes, coconuts, pineapples, fruit trees. Promote the breeding of pig, poultry as commodity. Recover quickly the area of coastal mangrove forest, and do economic afforestation in acid soils.
- Promote the development of processing industries of sugar, variety of fruits, meat, aquatic products...
- Revise and produce additional water resources planning to serve rice production, aquaculture, horticulture and flood drainage, acidity leaching, salinity prevention, keeping fresh water, embankments and landslide prevention facilities.

PART III

SOME MAJOR SOLUTIONS

In order to achieve the 2006-2010 five-year plan, the following major solutions should be intensively invested and implemented:

1. Development of science-technology as bases for high yield – quality – efficiency and competitiveness

Confronting with pressing demands on fast increasing yield, quality and ensuring food safety and hygiene, and increasing competitiveness of the agricultural sector; increasing scientific and technological potentials is one of the most important tasks of the entire agricultural sector that is embodied through the following contents.

1.1. Arrangement of scientific research system

Implementing the program on systematic arrangement of institutes on science research and management under MARD aims at:

- Formulating a scientific research strategy based on the practical scientific analysis, future production requirements and investment capacity of the sector.
- Building up a strong agricultural scientific and technologic system that is capable to acknowledge and master foreign modern science and technologies, create more and higher quality technical progresses, and meet the demand on agricultural and rural industrialization and modernization cause.
- Increasing a proportion of scientific and technological contribution in the value added in agricultural production by application and renovation of technologies (the contribution proportion is 40-50%).

1.2. Main research orientations

- Studying to choose seeds, seedlings, animal breeds with high quality and yield, suitable with various ecological areas, to meet the demands on the bio-diversity and sustainable development. In immediate future, priorities are given to choose and create market-oriented seedlings and animal breeds.
- Researching and studying the biotechnological science; microorganism fertilizer reproduction technology, bio-organic fertilizer, bio-pesticide, rich nutrition feeds, new veterinary and vaccines; applying cell culture technology, microsporangium culture technology, zygote replanting technology, and gene technology in selecting and creating varieties.
- Studying on intensive farming techniques, livestock breeding techniques, food safety, hygiene and quality. Firstly it is more concentrated in applying integrated pest management (IPM) measures; studying development rules of pests and preventive and eliminative measures with bio-techniques (biomedicines, botanic medicines); studying irrigation techniques for industrial plants and fruit trees; Setting up epidemic free-zones,

studying technical measures and organizing to control the foot-and-mouth disease, eliminating barbore, cholera, and New Castle diseases; and studying nutrition and breeding mechanisms for livestock and poultry, etc.

- Studying and developing post-harvest technologies, focusing on researching and universalizing technological equipment for preservation and packing of agricultural products, especially fresh products such as vegetables, flowers, fruits, meat, etc. Investigating to study, selecting advanced agro-forestry products processing equipments and machines in other countries in order to universalize and import for production. Studying to manufacture the home-made improved and innovated tools and mechanical equipment and facilities such as tea, maize, and rice drying machines; maize and rice husking and milling machines, sugar squeezing machines, machines to make noodle, vermicelli, etc.

- Undertaking researches on economic issues and management in the market mechanism, especially researches on domestic and oversea markets of agricultural products.

1.3. Renovating science and technology management

- Renovating science management mechanism, especially financial and human management mechanisms, in order to create motivation to encourage scientific personnel to devote to work and not only stop the brain-drain situation but attract more talented persons to joint the system; associating scientists with businessmen and farmers. Annually, the State reserves 1% of agricultural GDP to invest in agricultural science and researches (at present it is 0.3%), facilitating to establish applied science and research centers that are strong and capable to achieve scientific and technological breakthroughs; the State shall serve adequate budgets to import advanced technologies from foreign countries, especially seeds and seedlings, machines, equipment, etc. serving the production; having policies to encourage all economic sectors to participate in science and technology development.

- Implementing technological renovation in production, services and infrastructures mainly in trends of modernization in certain chains and areas by importing technologies, and strengthening research capacity in order to facilitate to acknowledge and master new technologies; Focusing on advanced, modern and intellectual intensive technologies that help deal with pressing tasks of the country, in immediate future as effective management of natural resources and environmental protection, natural disaster prediction and prevention, improvement of yield and quality of plants and animals, and increase in proportion of agricultural commodities, meeting with requirements on quality and reducing cost prices of products.

- Changing the investment structure in science and research towards the key technologies which Vietnam has advantages, key commodities that are prioritized to develop, and scientific areas that are in need and have potentials to develop (post-harvesting technologies, economic, social, environmental and marketing, etc. technologies).

- Promoting all economic sectors to participate in investing in applied science and technology and research.

- Combining research to training and agricultural extension, formulating feedback mechanism, i.e. feeding back the scientific and technological requirements from the

production level to the research organs; Establishing mechanisms for objectively evaluating the research benefits against research investments, and mechanisms for procurement on implementation of research subjects; Mobilizing scientists and research organs to train in universities and encouraging universities to participate in doing researches.

1.4. Intensification of science and technology transference to production

- In coming years, the science and technology transference should focus on: fast introducing new breeds and forest plants; instructing farmers to apply new cultivation techniques, clean technology, high technology, intensive cultivation, livestock breeding, epidemic preventive technologies applicable to livestock and poultry, pest control, agro-forest product preservation and processing technologies, information technology, etc.

- Renovating and widening agricultural, forest, and industrial extension systems to grass-root level, expediting the socialization of this activity; effectively recruiting technicians in science and research organizations, job training colleges and universities to participate in the agricultural, forest, and industrial extension.

- Establishing science and technology transference organs, consulting organs that earn fees, do business or are financially autonomous within the research institutes, universities or training centers.

2. Continuous renovation in agricultural and rural development policies and mechanisms

The cause in agricultural and rural development in our country in the next 5 years requires an integrated, clear, and consistent policy that can attract all resources of all economic sectors, deploying farmer's resources, providing favored conditions and supporting local or foreign individuals and organizations to invest in agriculture and rural development; in parallel using effectively the state budget to retain the high and sustainable growth rate in agriculture and forestry sectors, targeting to a rich beautiful and civilized rural development. Details are:

- In agriculture: Our agriculture has been developing in diversified bio-geographic conditions, featuring a very rich agricultural economic structure. To increase the efficiency of the agricultural production, applying policies and instructing localities and farmers to select key commodities which have advantages and potential to expand, relate to the employment of majority of farmers, and enable to have sustainable competitiveness in the international market.

Deploying to well execute new regulations on land; focusing to implement guidelines on providing residential and production land for ethnic minorities locally; Having policy to encourage and support farmers to plan their agricultural production and forestial production; promoting some advantaged sectors such as fruit trees, livestock and poultry breeding.

Building up polices to support enterprises in applying more modes on buying materials by installments, or advancing capital to farmers to invest in material production; encouraging economic sectors to establish an insurance fund for commodity production in order to assist producers at risk.

- **In forestry:** continuing to allocate lands and forest in forestry, adjusting policies to encourage farmers to participating in protecting natural forests.

Encouraging local and foreign individuals and organizations to expand economic forests to satisfy the demands on industrial materials, timbers in mining industry, wooden furniture for domestic use and for export; executing policies to encourage people to buy and process timbers of planted forests.

- **In rural industry:** Adjusting policies to encourage private domestic or foreign investment in industries, careers and services in rural areas, especially the small and medium enterprises; Police promoting investment in industrial development and processing industries in rural areas.

Building up policies on supporting enterprises to apply more modes allowing households to buy by installments of materials, machines, equipment for agricultural and forestial product preservation and processing.

- **In rural areas:** Mobilizing all domestic and foreign economic sectors to invest in agriculture, industries, careers and services; developing and trading in socioeconomic, cultural and educational infrastructures in rural areas.

Reviewing, adjusting, supplementing tax policies in the extent to encourage enterprises to invest in improving production, processing and trading in agricultural, forestial and aquaculture products in rural areas.

It is required the relevant localities prepare suitable land use plan, build up infrastructures to lease to enterprises with preference policies in order to develop the industries, business sectors and services, and develop husbandry farmsteads, etc.

Promoting to develop traditional careers villages, applying policies on technical assistance, land, vocational training, and buying products in initial years in order to develop new career villages.

Policies on mobilizing capital resources and human resources with Government support to invest in developing rural socioeconomic infrastructures; Investment policy on education and training, health care, and enhancement of human capacity, cultural and vocational levels, formulating civilized lifestyle with industrial manner, and protecting good habits and customs and abolishing social devils in rural areas.

- **In irrigation and drainage:** Socializing the investment and management of irrigation and drainage structures; developing cooperatives and irrigation management organizations of farmers in order to increase utilization efficiency and sustainable utilization of investment projects.

Renovating management mechanisms, improving efficiency of irrigation systems; innovating policies on science and technology management, closely associating between science and production.

3. Human resources development

In coming years, training of human resources is considered one of key task, aiming at adequately staffing for management of production, processing, consuming agricultural and

forestry products in a commodity-oriented agriculture that is more and more integrated in the international economy. Main requirements are:

- Continuing to implement the program on assigning talented, good, young, and virtual cadres to be professionally trained overseas, preparing for a panel of high-qualified scientists, technicians, and managerial cadres in the agriculture and rural sector in the future. Meanwhile, enhancing domestic trainings; it is planned to train over 12,000 persons graduated from technical secondary schools, 9,000 persons graduated from colleges and universities, 500 persons graduated from post-universities, 10,000 persons participated in re-trained programs, and 850 persons participated in cadre fostering programs.

Through short-term trainings, agricultural extension courses, and other types of training, farmers are provided with technical trainings in production, about 1 million participants a year.

- Expanding vocational training schools, diversifying job training models for rural laborers, especially young laborers, to work in industrial sectors and services, developing new career villages. It is targeted to train about 1 million laborers a year, increasing the skilled laborers in rural areas from 22% as present to 33% by year 2010.

- Training managerial cadres, firstly cooperatives cadres, farmstead owners, owners of small and medium enterprises, about 10,000 trainees a year.

- Training technical workers to supply for processing industries and industrial zones, about 50,000 trainees a year.

Facilitating to provide jobs for about 1.1 million rural laborers, and labor time is 85%.

4. International economic cooperation and integration strengthening

Strengthening to cooperate with international organizations and with other countries in order to expand markets of agricultural and forestry products, making use of available scientific and technical progresses and advanced management skills at world-wide, and seeking more investment funds for agricultural and rural development. First of all, the following main issues are focused on:

- Concentrating to execute commitments on regional and international trade liberalization such as AFTA, ASEAN-China, Vietnam – American Bilateral Trade Agreement, food security, trade promotion, veterinary, plant protection, forestry; preparing to execute commitments with WTO in agriculture, animal and plant quarantines, investment and services; continuing to sign Agreements on plant protection and quarantines, and veterinary with countries that import agricultural products from Vietnam.

- Supporting and instructing enterprises to expand markets to export agricultural and forestry products; coordinating with localities to organize trade promotion activities; building up and controlling commodity- agricultural products; and instructing enterprises to register and protect trade names.

5. Intensive investment in development of commodity-oriented agricultural production and rural economy

In the next 5 years, 2006-2010, the entire agriculture and rural development sector shall strongly change the investment structure in trend of continuing to invest in irrigation structures, mainly serving in industrial plants, fruit trees, and increasing investment funds for agriculture and forestry.

5.1. Irrigation and drainage

The investment for irrigation development in the next 5 years shall mainly focus on upgrading existing structures, strengthening canals, modernizing management of irrigation exploitation; implementing measures and irrigation technologies to save water, improving efficiency of invested structures. It is only newly constructed urgent structures, creating irrigation water sources for the South Central and mountainous provinces.

5.2. Agriculture

Intensifying to invest in physical structures serving agricultural production, firstly investing in modernization of agricultural science and research system, producing and supplying seeds, breeds, and technical materials; training system; improving post-harvest technologies and agricultural and forestry product processing industries; agricultural inputs and outputs quality control and testing centers, feed for livestock and poultry, etc.

5.3. Forestry

Investing to develop forestry, firstly in implementing major projects such as 661 program, projects in Groups A and B funded by ODA funds; modernizing research and training bases, seedling producing bases; investing in technical materials and furnishing sufficiently research equipment and facilities, etc. for national parks; forest protection centers.

5.4. Salt industry

Investing to develop salt industry; concentrating to build up sea salt research bases; building up infrastructures in salt making areas; gradually modernizing salterns; investing in storage system through the cooperatives in order to buy and store salt at peak time for later consumption; modernizing bases producing fine salt and iodized salt.

5.5. Investment in development of trade supporting infrastructures

Investing in development of agricultural trade supporting infrastructures; concentrating to complete rural market system, building up whole-sale centers in commodity-production area; constructing river ports and sea ports serving in the agricultural and forestial products import-export; building up certain transit warehouses, transaction and showrooms for agricultural and forestial products, and handicrafts from rural areas in large markets. First of all, it is targeted to invest and bring in operation the Tea auction center in Hanoi, transaction markets of coffee, cashew nuts, etc.

5.6. Investment in development of rural transportation and communication

The State prioritizes to support the development of rural transportation, establishing transportation networks to ensure circulating agricultural products and commodities in all weather, especially in goods-production areas; sugarcane, pineapple, tea, coffee materials, forestial, salt materials, etc.

It is targeted to fast extend telephone networks to each village and communes, expanding to communes that have access to Market Information Center via internet, especially in concentrated commodity-production areas.

The investment fund is estimated for the next 5 years, 2006-2010, as below:

Total investment in 5 years: VND 157,143 billion, of which:

- for irrigation and drainage: VND 67,347 billion
- for agriculture: VND 48,016 billion
- for forestry: VND 38,451 billion
- for salt industry: VND 3,000 billion
- for science research: VND 1,259 billion; and
- for training: VND 738 billion.

6. Improvement of state administration over agricultural and rural sector

6.1. Renovation of legislation and organization to execute

In the last 5 years, the State has stipulated Law on Land (revised), Law on Cooperatives (revised), Law on forest protection and development; and 5 Ordinances: Dike management, Flood control, Veterinary, Seedling, Breeds, and 2 Resolutions, 11 Governmental Decrees, 71 Decisions and 81 Directives of Prime Minister, and many Circulars of relevant Ministries and in line Ministries related to agricultural and rural sector.

The aforementioned documents represent the policies, guidelines, and lines of our Party and State in the issues in agriculture, rural areas and farmers, providing bases for the renovation of the agricultural and forestial sectors. In addition, the MARD also has promulgated 551 legal documents, regulations, procedures, sector norms and standards, formulating an important legal framework for the renovation and reformation of management and production in the whole sector.

The preparation and promulgation of legal documents and regulations have strictly complied with the procedures on preparation, appraisal, verification, and promulgation; and well brought into play the democracy, and timely guided to execute, thus, the quality is improved, and the guidelines and policies of the Party and the State are promptly realized in the real life.

The implementation organization, however, proves with shortcomings and relaxations and some documents are backward to the requirements of export-oriented commodity agricultural development, agricultural and rural industrialization and modernization. In near future, it is required to strengthen the legal education and propaganda, and to organize the legal execution.

In the next 5 years, in addition to the finalization of existing legal documents, it is planned to formulate Law on Agriculture, Law on dike management and flood control, 4 Ordinances on livestock and poultry feed, salt, fertilizers, exploitation and protection of irrigation and drainage structures (revised); and other bylaw documents and guidance.

In order to have the legal system matched with the demand of the commodity-production agriculture, and export-oriented agricultural production, and in compliance with

the international practices, it is required to continue with the renovation in formulation and promulgation process, from formulating, appraising to verifying procedures in order to mobilize intelligence and brainpower of many people and agencies, to promulgate timely and systematically in order to enforce the Law upon its stipulation.

6.2. Rearrangement, improvement of sector administration and management organizations from central to grass-root levels

Improving the state administration organization of the whole sector, consistently from the Ministry down to the localities, ensuring a prompt, thorough, active and effective direction; continuing to rearrange organization structures of departments, institutes, universities and colleges, management boards, and organs, pursuing to improve the efficiency of management, production direction, natural disaster management and control, and quick repair in the whole sector.

Coordinating with other relevant Ministries, authorities and localities to review consistently and strengthen the specialized management structure; strengthening the state administration capacity in the assigned area; coordinating with the Ministry of Interior Affairs to clarify responsibilities and authorities in executing the rural development functions.

Further delegating more power to provinces and cities in line in developing and managing processing industries, irrigation and drainage structures, and services in the production area, aiming to direct closely, actively and timely, and providing a clear framework from the production, processing to market; MARD shall focus on improving macroscopic administration, organizing the science, technology and market development; further concentrating on studying and building a legal system and policies on agricultural and rural development; improving the inspection and monitoring to ensure a fast, sustainable and effective development in agriculture and rural sector.

It is recommended the localities care about establishing relevant DARDs and divisions of agriculture and rural development with adequate professional capacity and staffing to undertake the functions and roles as the state administration and management in agriculture, forestry, salt industry and rural development, focusing in its functions in marketing, managing agricultural inputs and outputs quality in the locality. Each commune shall assign one manager in charge of agriculture and rural development, and organizing agricultural extension clubs.

6.3. Improvement in evaluation, planning, training, circulating and appointing officers

Human capacity of officers shall be improved to meet the demand on the cause on agricultural and rural industrialization and modernization; periodically assessing the penal of officers, first in organs directly under MARD. It is required to prepare plans on training, fostering and improving existing human capacity, professional proficiency with good knowledge on foreign language and computer proficiency, timely supplementing qualified, competent and virtual cadres to meet the new demands.

Regularly implementing the personnel planning; choosing potential, confident cadres actively and timely to train, foster, strengthen and prepare to take over the jobs of the predecessors in retire age.

Continuing to implement the program on selection of talented young and virtual cadres to train professionally in oversea countries, preparing human sources comprising of high quality scientists, technicians and managers for future use.

To improve the practicability in professional assignments, it is required to frequently execute the circulation of officers, strengthening capacity and improving managerial and operational skills for the cadre panel in order to enable them to work thoroughly, effectively and to comply with the law and State regulations and procedures.

Personnel appointment must comply with the planning, procedures and personnel standards as regulated, respecting the principles on publicity, equity and democracy.

6.4. Management modernization

The direction and regulation must be legalized by monthly, quarterly and annual work plans, and must be open, effective and consistent in the whole sector.

Further modernizing offices, modernizing information and communication system from MARD to the localities and enterprises, frequently updating and supplying information and communication both ways; practicing to send correspondence and documents online that is incorporated in the email-government structure.

Continuing to pursue the administration reform in areas that relate directly with farmers, especially in the basic construction procedures, management of administrative fund; animal and plant quarantines, import-export of agro products, and agricultural materials; dike management, water sources management; and forest management, etc.

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Implementing the aforementioned development orientations, by year 2010, our commodity-oriented agriculture and forestry keep growing fast towards the orientation on quality improvement, efficiency and sustainability; and the agricultural, forestial and rural economic structure has significantly changed. Many key production sectors have been developed in size, growth rate, productivity, product quality, and enable to have high competitiveness in the intensive integration in the regional and international economies. Living standards of farmers have been improved and increased. The rural socioeconomic situation has substantially changed to the goals on agricultural and rural industrialization and modernization.

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

Annex 1: Comprehensive targets

Annex 2:

AGRICULTURE AND RURAL DEVELOPMENT 5 YEAR PLAN LOGFRAME

OVERALL OBJECTIVE: Achieve high sustainable and equitable growth, improve social environment and living conditions for rural people, especially the poor, protect and sustain natural resources and environment through effective and dynamic sector management emphasising decentralization and inclusion of stakeholders in decision-making, regulation, service delivery and monitoring.

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|--|---|---|--|--|
| Goal 1. Ensure high, sustainable and high-quality economic growth of the sector through improved productivity, competitiveness and product quality | 1.1. Agricultural income and production increased | <ul style="list-style-type: none"> Increase agricultural production and productivity by emphasizing cash crops, livestock and timber species of high value, and by exploiting the strength of ecological systems | MARD's Departments, institutes and research centres, agro-forestry stations and farms | <ul style="list-style-type: none"> Annual agricultural - forestry GDP growth rate: 3.4 - 3.5% Production volume of various agricultural products (million tons), and productivity Agricultural - forestry added value Animal husbandry growth rate higher than average agriculture GDP Total agricultural output growth: 4.2 - 4.3% Weight of agricultural commodity: 60% Increased sustainable supply of wood and non-wood forest products from natural forests and plantations Increased area of forest brought under sustainable management |
| | | <ul style="list-style-type: none"> Stimulate growth of non-farm businesses that use local materials | MARD's Departments, institutes, research and technology transfer centres | <ul style="list-style-type: none"> Rural non-farm production increased by 10% a year Non-farm household income increased by region/income group Investment growth of agro-forestry business Proportion of rural non-farm labour accounting for 50% of total workforce |
| | | <ul style="list-style-type: none"> Prioritize investment in science, technology and extension through: (i) Strengthening linkages between research and extension, (ii) re-orientating extension services to better satisfy customer's demands in order | Department of Science and Technology, Department of Agro-forestry product processing and Salt industry, research | <ul style="list-style-type: none"> Annual investment in agriculture and forestry science & technology reaching more 1% of agricultural sector GDP Increased proportion of land under high yielding and/or high quality varieties Increased proportion of new breeds of total livestock |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|-------------------|---|---|--|---|
| | | <p>to create key crop varieties and animal breeds of high productivity and quality, and increasing linkages with processing to increase the added value chain;</p> <ul style="list-style-type: none"> • Concentrating investments in processing and post-harvesting technologies to increase the product value and competitiveness | institutes, technology transfer and extension centres, agricultural and forestry schools | <ul style="list-style-type: none"> • Percentage of processed agro-forestry products: 70 - 80%, of which fine processed products account for 30 - 40% |
| | | <ul style="list-style-type: none"> • Ensure that rural producers have reliable access to irrigation/drainage and water supply through <ul style="list-style-type: none"> ◦ upgrading and improvement of irrigation and water supply systems, dam and dykes in priority list; ◦ Promotion of irrigation, water supply technologies suitable to every ecological zone (AEZ); ◦ Establishment of participatory mechanism in rural infrastructure and water supplies system management for higher operational efficiency | Department of Water Resources, Department of Dyke Management and Flood Control, Institute of Water Resources Research, Institute of Water Resources Planning, irrigation management companies, water user groups | <ul style="list-style-type: none"> • Increased number of dams and reservoirs, rehabilitated or newly constructed ; • Added capacity of irrigation & drainage system; • Proportion of systems brought under sound management • Increased coverage area with active irrigation & drainage; • Increased proportion of dykes and canals lined with concrete |
| | | <ul style="list-style-type: none"> • Ensure rural producers have secure access to land types <ul style="list-style-type: none"> ◦ through issuing of secure land titles ◦ improved land administration involving all stakeholders | Policy planning agencies, land using communities | <ul style="list-style-type: none"> • Stable area of land titles by land type • Proportion of households expressing satisfaction of their land requirements • Proportion of SMEs and household enterprises having permanent land rental |
| | 1.2. Strengthened competitiveness and international integration of agricultural sector | <ul style="list-style-type: none"> • Industrialisation / modernisation of the agriculture and forestry sectors by (1) enhancing access by all rural producers to production technology and extension aimed at raising product quality and reducing cost price; (2) promoting post-harvest and processing services by application of high and appropriate technologies; and (3) promoting market information and marketing channels | Department of agro-forestry product processing and salt industry, other MARD's Departments, institutes and research centres, extension centres, information centres, DARDs, producers and businesses | <ul style="list-style-type: none"> • Proportion of investment in modern machinery and equipment in agricultural and forestry sectors • Proportion of investment coming from production sectors • Increased application of biotechnology to improve productivity of plantations (e.g. cell culture technology, etc.) • Proportion of recovery of end-products in processing main agro-forestry products • Proportion of fine processed agro-forestry products |
| | | <ul style="list-style-type: none"> • Promote processes of granting product | Department of Science | <ul style="list-style-type: none"> • Number of products meeting international and regional |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
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| | | certification and trademarks in line with regional and international standards | and Technology, Extension Centre, Information Centre, Institutes | standards <ul style="list-style-type: none"> Percentage of exported products having trademarks and certificates of origin |
| | | <ul style="list-style-type: none"> Increase investment in trade promotion to strengthen agricultural marketing | Information Centre, Agriculture and Trade Promotion Exhibition Centre, | <ul style="list-style-type: none"> Increased value of exported agro-forestry products Ratio of agro-forestry goods |
| | | <ul style="list-style-type: none"> Promote private sector investment in the fields of production, processing and consumption | Department of Co-operatives and Rural Development, policy making agencies | <ul style="list-style-type: none"> Volume of private domestic and FDI investment in the agricultural and forestry sectors (including processing of agriculture, wood and non-wood forest products) |
| Goal 2. Improve quality of life and living conditions for rural people, especially the poor, through increased participation | 2.1. Percentage of poor and hungry households reduced | <ul style="list-style-type: none"> Ensure food security, income and employment for vulnerable regions and households through increased priority program investments towards vulnerable regions Generate incomes and diversify rural livelihoods through sustainable management of natural resources, especially forest, and promotion of rural industries and services; Strengthen policies and specific programs targeting poor regions to enable these regions to exploit their comparative advantages, including: (i) ensure poor communities and remote areas have access to basic infrastructure; (ii) implementation of Government policies/programs regarding subsidy for mountainous agriculture, timber for housing and land (Program 135, 132, 134, etc.) | MARD's Departments, research institutes, Extension Centre, provinces | <ul style="list-style-type: none"> Reduced rate of poor households living below the national poverty line based on food poverty definition Increased number of new jobs generated in agricultural and rural sectors Rural working time co-efficient increased to 85% in 2010 Proportion of household income from different income sources Proportion of poor households with access to program services Differentiated geographical development policies Promoted allocation of forest land, extension and credit support to rural households for increased income from forest resources Increased proportion of investment for irrigation/drainage and other infrastructure going to poor communes |
| | | <ul style="list-style-type: none"> Vocational training and production guidelines for rural work force, especially the poor; | Vocational schools, Institutes, Agricultural Extension centre | <ul style="list-style-type: none"> Proportion of trained rural labourers from 15% to above 40% in 2010 |
| | | <ul style="list-style-type: none"> Strengthen support to generation of non-farm jobs to move rural labor from agricultural to | Department of Co-operative and Rural | <ul style="list-style-type: none"> Increased proportion of trained rural labourers New jobs created in rural industries and rural services |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|-------------------|--|--|--|---|
| | | non-farm sectors; | Development, Department of agro-forestry product processing and salt industry, other MARD's institutes and Departments | |
| | | <ul style="list-style-type: none"> Improved access of rural population to rural clean drinking water and sanitation facilities | Centre of Rural Water Supply and Sanitation, provinces, | <ul style="list-style-type: none"> Percentage of rural households with access to clean water increased to 85% ; Percentage of rural households with access to clean latrines increased to 75%; 70% of rural households have hygienic sheds for livestock 100% of handicraft villages have waste treatment systems |
| | 2.2 Reduced adverse impacts to vulnerable regions | <ul style="list-style-type: none"> Strengthen support to diversification of rural household income sources through provision of diverse extension services, and access to agricultural inputs and markets | MARD's Departments, Agricultural Extension Centre, institutes and research centres, service providers | <ul style="list-style-type: none"> Rural household income by groups Proportion of household incomes from different sources Increased proportion of investment for infrastructure in vulnerable communes |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|-------------------|---|---|--|--|
| | | <ul style="list-style-type: none"> Increase access to rural financial services that assist rural households smoothing their incomes, such as saving, insurance for crops and animals, price stabilisation | Department of Agriculture, Agricultural Extension Centre, Department of Co-operative and Rural Development | <ul style="list-style-type: none"> Insurance mechanisms established Agricultural insurance fund established Rural credit models |
| | | <ul style="list-style-type: none"> Implement strategies to prevent and control crop and livestock diseases and safely control agricultural products | Department of Science and Technology, Department of Plant Protection, Department of Animal Health, Department of Plant and Animal Quarantine | <ul style="list-style-type: none"> Incidences of diseases reduced Financial losses due to animal and crop diseases reduced Proportion of vaccinated animals |
| | | <ul style="list-style-type: none"> Strengthen mechanisms to prevent and cope with natural disasters, including (1) mechanisms for early warning; (2) investment in protection infrastructure and maintenance; (3) relief and recovery after natural disasters; and (4) improve watershedforest protection and water basin management | Department of Dyke Management and Flood Control, Department of Water Resources, Department of Forestry, Department of Forest Protection | <ul style="list-style-type: none"> Systems established Number of people affected by flood and drought reduced Early disaster forecast Time for recovery of life and production after natural diseases |
| | 2.3 Equity and involvement of all rural institutions created | <ul style="list-style-type: none"> Enhance equal opportunities for all classes of the population, especially women and different ethnic groups to participate in and benefit from rural development, including (1) Strengthen efforts to implement the MARD Gender Strategy; (2) Strengthen efforts to ensure women have access to services, land, production inputs and information | MARD's Departments | <ul style="list-style-type: none"> Proportion of Government staff who are women or belong to ethnic minorities; Proportion of women given newly created jobs; Proportion of women and ethnic minority groups with access to training in different forms |
| | | <ul style="list-style-type: none"> Feed-back mechanisms in place to ensure that MARD and DARDs activities meet the needs of different rural constituencies and communities | MARD's Departments, centres, research and knowledge transfer institutes, | <ul style="list-style-type: none"> Mechanism for receiving feedback |
| | | <ul style="list-style-type: none"> Establish and institutionalize participatory mechanisms for planning, implementation | Agricultural Extension Centre, MARD's | <ul style="list-style-type: none"> Establish demand-driven extension and investment planning systems |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
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| | | and management of rural extension and infrastructure systems; | Departments, communities | |
| | | <ul style="list-style-type: none"> Establish participatory rural resource management systems | MARD's Departments, research institutes | <ul style="list-style-type: none"> Resource management system established |
| Goal 3. Ensure sustainable and effective protection and use of natural and environmental resources | 3.1. Biodiversity and environmentally critical areas and endangered environmental resources are effectively conserved | <ul style="list-style-type: none"> Identify criteria for determining environmentally-critical forest, inland water and coastal areas through: (1) Completion of comprehensive assessment and inventory of biodiversity and ecological zones that need protecting; (2) Identify and reclassify 3 types of forest for establishment of permanent national forest estates; and (3) Prepare sustainable management plans for priority areas with involvement of all stakeholders | Department of Science and Technology, Department of Forestry, Department of Forest Protection, Department of Agriculture, Department of Water Resources, research institutes, extension centres, planning institutes | <ul style="list-style-type: none"> Criteria established for determining priority areas Results of natural resource assessments and inventories Permanent forest estates established Proportion of management plans prepared with stakeholder participation |
| | 3.2. Participatory systems for sustainable natural resources management improved | <ul style="list-style-type: none"> Promote participatory multiple-use sustainable management of natural resources (all types of forest, wetland areas, etc.), including various types of management schemes, with clear responsibilities and benefits clearly identified, especially for forest and water resources | Department of Science and Technology, Department of Forestry, Department of Forest Protection, Department of Agriculture, Department of Water Resources, research institutes, extension centres, planning institutes | <ul style="list-style-type: none"> Proportion of different natural agricultural resource types brought under sustainable management Proportion of poor and ethnic minority groups participating in co-management schemes Household income from co-management of natural resources Areas of forest land allocated to local people and communities for sustainable management, conservation, and use |
| | 3.3 Environmental management capacity by rural service providers and rural infrastructure enhanced | <ul style="list-style-type: none"> Establish Environmental Management Systems (EMS) for rural service providers Establish assessment system for infrastructure and new material development | Department of Science and Technology, Department of Construction Management, research institutes, universities | <ul style="list-style-type: none"> Increase in rural service providers adopting pollution management Increase in the number of water supply schemes meeting environmental protection requirements |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
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| | | <ul style="list-style-type: none"> Enhance support to waste water management in handicraft villages and waste management related to human and animal waste | Centre of Rural Water Supply and Sanitation, Department of Science and Technology, research institutes | <ul style="list-style-type: none"> Increased proportion of waste water and wastes treated in line with accepted standards Proportion of handicraft villages and animal farms with adequate waste management and treatment facilities in place |
| Goal 4. Enhance institutional capacity for effective and dynamic sector management | 4.1. Efficiency of the execution and management apparatus enhanced | <ul style="list-style-type: none"> Prioritise implementation of the public administrative reform program | Department of Personnel, all agencies and institutions in the sector | <ul style="list-style-type: none"> Proportion of state management agencies at all levels reorganized (roles, functions, and responsibilities clarified, administrative systems renovated) |
| | | <ul style="list-style-type: none"> Reform State Owned Enterprises (SOEs) in the entire sector | Department of Personnel, Steering Committee on SOE reform, Department of Cooperative and Rural Development | <ul style="list-style-type: none"> Number of SOEs and State Forest Enterprises (SFEs) privatized Proportion of SFEs reorganized in accordance with Decree 200 |
| | | <ul style="list-style-type: none"> Improve planning and management of resource allocation and public spending within the sector, including: (1) Improved prioritization of public spending through development of public expenditure management program; (2) Introduction of Community Development Planning and demand-driven planning frameworks for service delivery; (3) Introduction of cost-recovery systems for non-poor areas for infrastructure development, operation and maintenance and other service delivery | Department of Finance and Accounting, Department of Planning, other MARD's agencies | <ul style="list-style-type: none"> Increased share of total budget resources delegated to local authorities Medium-term financial framework & medium-term expenditure framework institutionalized Public expenditure information system consolidated Establishment of demand-driven planning frameworks Institutionalization of Regional and Community Development Planning Recovery of service delivery costs in non-poor areas |
| | | <ul style="list-style-type: none"> Comprehensive framework of appropriate policy and regulatory promulgated, supported by planning systems and implemented (e.g. land use, infrastructure, credit, tax, forest, institutional development, stakeholder involvement) | Department of Planning, Department of Legislation, other MARD's Departments | <ul style="list-style-type: none"> Government decrees, Prime Ministerial decrees, Minister's Decisions and Circulars issued to support implementation of new/revised laws Sector strategies established and reflected in planning and implementation frameworks |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|-------------------|--|---|--|--|
| | | <ul style="list-style-type: none"> Improve resource mobilisation and efficient use of ODA and FDI in the sector, including: (1) Strategic use of ODA to create enabling conditions for increased diversified investments; (2) Step-by-step development of comprehensive approaches | Department of Planning, International Co-operation Department, Department of Finance | <ul style="list-style-type: none"> Increased investment preparation and disbursement rates FDI increased faster than ODA declines |
| | | <ul style="list-style-type: none"> Enhance staff capacity and motivation through (1) establishment of human resources development plan that conforms to administrative reform and integration; (2) development of appropriate staff incentive systems (closer research-extension-training-education (RETE) linkages) | Department of Personnel, MARD's agencies, provinces | <ul style="list-style-type: none"> Human resource development plans Improved satisfaction of farmers and other clients in terms of research and extension |
| | | <ul style="list-style-type: none"> Improve planning and information systems, including: (1) Introduction of demand-driven planning systems; (2) Electronic information systems established (3) Information consolidation linked with the MARD's management, information and M&E systems | Department of Planning, Information Centre, other Departments, institutes | <ul style="list-style-type: none"> Instructions on result-based and demand-driven planning within the entire system Outcomes-oriented planning information (sectoral M&E) systems gradually established Proportion of computerized transactions |
| | | <ul style="list-style-type: none"> Improved capacity for effective involvement in international cooperation, conventions and agreements | International Co-operation Department, MARD's agencies | <ul style="list-style-type: none"> Improved reporting and compliance with international agreements Increased participation in international fora, seminars and workshops Network of national focal points developed for more coherent engagement in international fora |
| | 4.2 Involvement of private sector, stakeholders and users in decision-making, management and budgeting enhanced | <ul style="list-style-type: none"> Promote private sector involvement in productive and service delivery activities | MARD's Departments, centres, institutes | <ul style="list-style-type: none"> Increased number of SMEs and household enterprises involved in the sector More economic efficient cooperatives and cooperative groups Increased domestic private investment, FDI and joint venture investment in the agricultural sector |

| Overall Objective | Specific objective | Strategic Action | Key involved Agencies | Monitoring and evaluation indicators |
|-------------------|--------------------|--|--|--|
| | | <ul style="list-style-type: none"> Institutionalisation of participatory mechanisms for user planning and management of rural infrastructure to increase effectiveness of operations; | Department of Water Resources, Department of Co-operative and Rural Development, Centre of Rural Water Supply and Sanitation | <ul style="list-style-type: none"> Demand-driven investment planning systems strengthened User management systems for infrastructure strengthened User-managed infrastructure systems established |
| | | <ul style="list-style-type: none"> Decentralisation and promotion of different types of community-based natural resource management | MARD's agencies | <ul style="list-style-type: none"> Increased number of community-based natural resource management (CBNRM) systems established to ensure financial viability |

ANNEX 3

PROGRAMS TO BE IMPLEMENTED UNDER THE 5-YEAR PLAN 2006 – 2010 MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT (MARD)

| No. | Name of program | Objective | Main activities | Responsible agency(ies) |
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| I/ | <i>National programs</i> | | | |
| 1 | 5 million ha afforestation | Complete effective and sustainable 5 million ha afforestation program | <ul style="list-style-type: none"> • Strengthen forest protection and forest fire prevention, pest control; improve quality of protective and special forests; enrich natural forests; • Develop economic afforestation; • Establish community-based forestry model and appropriate agro-forestry model; • Amend/supplement forest development and protection policies. | Department of Forestry |
| 2 | Rural Water Supply and Sanitation | Improve the proportion of rural population having access to clean water supply and improved rural sanitation | <ul style="list-style-type: none"> • Support construction of water supply and sanitation facilities in rural disadvantaged areas; • Renovate mechanism of management, operation and maintenance of facilities; improve responsibility of the beneficiary community; • Give instructions on rural sanitation through IEC measures. | Department of Water Resources, CERWAS |
| II/ | <i>Ministerial level programs</i> | | | |
| 1 | Structure shifting and intensive farming to increase crop productivity, quality and | Shift the cropping structure to conform to regional markets and | <ul style="list-style-type: none"> • Adjust planning and cropping schedules; • Establish system of crop varieties; • Establish, and support farmers to | Department of Farming |

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| | efficiency | conditions, increase productivity, product quality and cropping efficiency | implement, advanced farming procedures that provide high productivity, high efficiency and high product quality | |
| 2 | Animal husbandry development | Increase the weight of animal husbandry in the sector's structure to 25%, even 30% in some provinces | <ul style="list-style-type: none"> • Establish a system of animal breeds; • Establish an animal feed production system; • Establish a slaughtering system and animal product processing system | Department of Animal Husbandry |
| 3 | Reform and improvement of agricultural science and technology system | Make agricultural science and technology become the major motivation to accelerate fast and sustainable development of agriculture in the coming time | <ul style="list-style-type: none"> • Restructure the agricultural science and technology research and transfer system; • Establish agricultural science and technology development policy and strategy which are suitable to the market mechanism; • Concentrate on biological technology development; • Establish hi-tech agricultural models. | Department of Science and Technology |
| 4 | Crop varieties, animal breeds, forest trees and hi-tech agricultural production zones | Rapidly improve the quality and cost price of major export agricultural products and domestically consumed agricultural products that can be competitive during the integration process | <ul style="list-style-type: none"> • Create key sets of varieties/breeds for major agricultural products; • Develop a Mekong Delta's export rice zone; • Support producers to improve the quality of agricultural products for major export lines of goods (tea, coffee, rubber, cashew nut, black pepper, vegetable, meat cows, pork); • Hi-tech agricultural zones in 3 focal economic zones; • Apply measures of "3 reductions, 3 | Department of Farming, Department of Animal Husbandry, Department of Forestry |

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| | | | increases” | |
| 5 | Renovation and improvement of agro-forestry extension system | Achieve an effectively working agricultural extension system, which shortens the time to extensively apply results of studies in production | <ul style="list-style-type: none"> • Develop and expand the agricultural extension system from the central to local level; • Establish mechanism of cooperation and coordination of activities; • Training and capacity building for agricultural extension staff systems of different levels | National Agricultural Extension Center |
| 6 | Program “One village, one profession” | Restore and develop rural handicraft villages to create jobs and income from non-agricultural sources | <ul style="list-style-type: none"> • Support to develop rural handicraft villages; • Provide vocational training and support to move labor from agricultural to non-agricultural jobs; • Establish mechanism for waste management in handicraft villages. | Department of Agro-forestry processing and Salt Production |
| 7 | Trade promotion and agro-forestry product marketing | Improve the competition and integration capability of agricultural sector, create quick adaptability in the free and competitive market | <ul style="list-style-type: none"> • Establish data system for investigations and analysis of agricultural product’s competitiveness; • Establish market development strategy for key agricultural products; • Establish an analysis and warning system on agricultural product market; • Support agricultural producers to access to WTO’s regulations; • Support to establish and publicize trademarks of agro-forestry products. | Department of Planning as the leading agency, Institute of Agricultural Economics, Information Center, Marketing Center |
| 8 | Plant protection improvement | Improve efficiency and effectiveness of pest control in crops and limit | <ul style="list-style-type: none"> • Improve system and working mechanism of pest control; • Establish models on inspection, | Department of Plant Protection |

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| | | adverse impacts of agricultural chemicals | <p>monitoring and warning on pesticide use;</p> <ul style="list-style-type: none"> • Establish mechanism and procedures of plant quarantine and using plant protection chemicals. | |
| 9 | Strengthening system of epidemic prevention and control and animal feed safety | Improve effectiveness and efficiency of animal disease control and limit adverse impacts of veterinary medicine and additives in animal feed | <ul style="list-style-type: none"> • Improve system and working mechanism of animal disease control; • Strengthen veterinary medicine management system; • Establish mechanism and procedures to control slaughtering, chemical use and veterinary medicine | Department of Veterinary |
| 10 | Computerized management in the agricultural sector | Form IT-based transaction and management modalities | <ul style="list-style-type: none"> • Strengthen the MARD's Information Technology (IT) infrastructure; • Standardize information processing; • Support to increase capacity of IT using for all MARD's staff | Information Center |
| 11 | New rural development | Develop a new rural sector to improve living conditions and working environment to conform to the shifting process of rural socio-economic structure | <ul style="list-style-type: none"> • Set up village models; • Support the development of essential infrastructure in poor areas; • Support vocational training and instruct the way of doing business in rural areas; • Establish village community-based regulations. | Department of Co-operative and Rural Development |
| 12 | Development, renovation and increase of efficiency in irrigation system management | Improve the working capacity of irrigation/drainage systems by appropriate and effective technologies | <ul style="list-style-type: none"> • Invest in expanding and upgrading facilities; • Apply modern and water-saving irrigation techniques; • Establish mechanism of management and coordination of water use, which is appropriate and participatory | Department of Water Resources |

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| 13 | Natural disaster control and mitigation | Increase efficiency of natural disaster control and minimize losses | <ul style="list-style-type: none"> • Strengthen dyke systems to achieve the allowable safety level; • Improve dyke management and protection; • Set up early flood and disaster warning system; • Relocate people in high-risk areas; • Prepare emergency relief system. | Department of Dyke Management and Flood Control |
| 14 | Administrative reform | Increase the management and execution capacity of the sector's management apparatus to meet demands of the market economy and requirements of international integration | <ul style="list-style-type: none"> • Eradicate cumbersome and bureaucratic procedures; • Increase transparency and openness in public administration, especially in areas relating to planning and financial allocation; • Continue reforms and re-structure of the management apparatus, clearly define functions and mandate of the sector's state management agencies and among the MARD's units, along with staff capacity strengthening and "regularization of assignments"; • Complete management decentralization between the MARD and provinces to strengthen accountability and activeness of lower levels; • Make plans on revising/amending/issuing documents and issuance procedures | MARD's Office, Department of Legislation |
| 15 | Human resources training and development in the agricultural sector | Increase the quantity and quality of managerial staff, experts and skilled | <ul style="list-style-type: none"> • Capacity building for managerial staff; • Training for experts, technologists and | Department of Personnel |

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| | | workers | <p>scientists in the sector;</p> <ul style="list-style-type: none"> • Training for business administration and co-operatives management staff; • Vocational training and technical training for producers and businesses; • Establish a training strategy linked with employment strategy. | |
| 16 | Reform of production relations in the agricultural and rural sector | Continue reforms of production relations to conform to mechanism of the market economy | <ul style="list-style-type: none"> • Develop household economy involving in producing goods; • Develop farm economy; • Reform and increase the economic efficiency of co-operatives' operations; • Reform and increase efficiency of state owned enterprises; • Develop private domestic and overseas enterprises; • Reform and re-structure state agro-forestry farms. | Department of Co-operative and Rural Development, Steering Committee for Enterprise Reforms |

ANNEX 4:

LIST OF INVESTMENT PROJECTS FOR THE FIVE-YEAR PLAN