

THE PRIME MINISTER

Decision No. 775/QĐ-TTg of June 2, 2010, approving the detailed master plan on radiation development and application in agriculture through 2020

THE PRIME MINISTER

Pursuant to the December 25, 2001 Law on Organization of the Government;

Pursuant to the June 3, 2008 Law on Atomic Energy;

At the proposal of the Minister of Agriculture and Rural Development,

DECIDES:

Article 1. To approve the detailed master plan on radiation development and application in agriculture through 2020 (below referred to as the master plan) with the following principal contents.

I. VIEWPOINTS

1. Radiation development and application in agriculture must be associated with the process of agricultural industrialization and modernization and bring into play the preeminent properties of radiation techniques for rapidly creating products with high productivity, quality and competitiveness.

2. Radiation development and application in agriculture must be based on selective and comprehensive investment in increasing physical foundations and human resources for research and application institutions, and mobilize the participation and coordination of branches and association of different economic sectors, especially science and technology enterprises and organizations.

3. To closely combine radiation techniques with modern biotechnologies for shortening the research process to create products in the domain of radiation application for agricultural development.

II. OBJECTIVES

1. General objectives

To step up radiation application to contribute to sustainable agricultural development along the line of producing commodities with high productivity, quality, efficiency and competitiveness and assuring food security in the immediate future and long term as well.

2. Specific objectives

a/ To create and develop plant varieties and microorganisms of high economic value and processes and preparations from radiation techniques and radioactive isotopes for agriculture.

- To annually create and put into production 3-4 mutated varieties for each type of agricultural plants; 1-2 mutated varieties for fruits, industrial perennials and forestry plants; and 3-4 new strains for each type of microorganisms, so that mutated varieties or strains will account for at least 40% of total new plant varieties and microorganisms;

- To build and develop a process of insect multiplication on an industrial scale and sterile insect techniques (SITs) for major harmful insects so that by 2020 this process will help manage 50% of major harmful insects on plants with SITs;

- To build and apply a process of post-harvest radiation for major vegetables and fruits, some kinds of livestock and poultry meat and fresh and live or frozen aquatic products so that by 2015 and 2020 this process will help treat at least 35% and 70%, respectively, of exported agricultural products with radiation techniques.

b/ To increase physical foundations and equipment for radiation development and application in agriculture. By 2020, to build 2 centers for researching and applying nuclear techniques in the selection and creation of plant varieties; 10 laboratories for applying radiation

and radioactive isotopes for research activities; 2-3 factories for producing sterile insects; and 9-12 radiation institutions with gamma Co-60 sources on a complete industrial scale for radiation, preservation, quarantine, hygiene and safety of agricultural products and food.

III. PRINCIPAL CONTENTS

1. Radiation development and application in agriculture

a/ Selection and creation of plant varieties and microorganisms

To apply radioactive mutation methods in combination with traditional methods and biotechnologies for selecting and creating new plant varieties (paddy, maize, bean, tuber plants, vegetables, flowers, fruits, industrial plants and forestry plants) which are of high productivity and quality and resistant to major harmful insects and severe conditions and suitable to different eco-zones; to select and create new varieties of microorganisms for producing fertilizers and environmental treatment preparations and protecting plants, livestock and fisheries.

b/ Plant protection

To apply radiation and radioactive isotopes for sterilizing male insects, determining the movement of insects and studying residues of plant protection drugs in products.

c/ Fertilizers and soils

To use radioactive isotopes in studying and managing soil nutrients for a number of plants (vegetables, tea, coffee, pepper, etc.), studying soil erosion and producing soil reconditioning bio-materials and fertilizers.

d/ Husbandry and animal health

To use radiation techniques to create strains of microorganisms for producing vaccines and

kill parasitic larvae.

e/ Aquaculture

To use radiation and radioactive isotopes for assessing residues of heavy metals in aquaculture and treating environmental pollution in consolidated aquaculture zones.

f/ Preservation and processing

To study, develop and apply radiation for treating and preserving a number of major vegetable and fruit products, livestock and poultry meat and products thereof, fresh and live or frozen, and fresh and live aquatic products for domestic consumption and export.

2. Laboratories and radiation institutions for research and application activities

a/ Centers for researching and applying nuclear techniques to selecting and creating plant varieties and microorganisms

By 2020, to upgrade 2 existing laboratories into centers for researching and applying nuclear techniques to selecting and creating plant varieties and microorganisms, based at the Agriculture Heredity Institute and Vietnam Atomic Energy Institute, with modern and complete physical foundations and equipment and capable of applying radiation techniques and radioactive isotopes to the settlement of agriculture-related matters.

b/ Laboratories for research activities

- To build 2 laboratories for researching SITs with radiation at the Plant Protection Institute and Mekong River Delta Rice Institute;

- To build 2 laboratories for analyzing radioactive isotopes in fertilizers and soils at the Soils and Fertilizers Institute and Southern Agricultural Science and Technique Institute;

- To build 2 laboratories for analyzing radioactive isotopes in husbandry and animal

health at the Animal Health Institute and Southern Agricultural Science and Technique Institute;

- To build 2 laboratories for analyzing radioactive isotopes in fisheries at Aquaculture Research Institute I and Aquaculture Research Institute III;

- To build 2 laboratories for inspecting radiated agricultural products and food at the Agricultural Electro-Engineering and Post-Harvest Technology Institute and the Agricultural Electro-Engineering and Post-Harvest Technology Sub-Institute;

- From 2010 to 2015, to furnish 15-17 gamma rooms, one room for each institute or university, for upgrading laboratories to select and create plant varieties and microorganism strains for institutes and universities.

c/ Radiation institutions serving production

- By 2020, to build 2-3 factories to produce harmful sterile insects of economic significance in the Mekong River delta, the Red River delta and/or central region for mass production of sterile insects to be released into the natural environment, control 2-3 species of harmful insects of economic significance, and keep under control the most dangerous pesticides to serve the program on integrated pest management and agricultural safety;

- By 2015, to support the construction of 2-3 radiation institutions for preserving agricultural products and food on an industrial scale in each of northern, central and southern regions. By 2020, to support the construction of 3-4 radiation institutions in each region for the preservation, quarantine, hygiene and safety of agricultural products and food. Radiation institutions' capacity must suit each type of agricultural products and volume of agricultural products

subject to radiation in the region.

IV. SOLUTIONS

1. Increasing investment in physical foundations and equipment

The State prioritizes allocation of budgets to increase physical foundations and equipment for radiation research, development and application in agriculture under investment projects according to the contents specified in Section III, Article 1 of this Decision.

2. Performing scientific and technological tasks

The Ministry of Agriculture and Rural Development shall assume the prime responsibility for, and coordinate with the Ministry of Science and Technology and concerned ministries and branches in, setting, approving and performing specific scientific and technological tasks based on the tasks on radiation development and application in agriculture specified in this Decision.

3. Training human resources

a/ Overseas training: During 2010-2020, to send 150-200 persons overseas for master or doctoral training; to provide short-term training for 200-250 technicians and managers in radiation development and application in agriculture;

b/ Domestic training: To annually train 150-200 technicians at the Vietnam Atomic Energy Institute and a number of other specialized science and technology organizations, in radiation application techniques in agriculture and radiation safety assurance;

c/ Theme- or project-based training: Each state-funded scientific and technological theme or project on radiation application to agriculture

will reserve funds for overseas training of 2-3 persons for a maximum period of 6 months, suitable to its approved objectives, contents and tasks.

4. International cooperation

To expand international cooperation in research, development and human resource training on radiation application to agriculture, especially with other countries, territories, foreign organizations and individuals with an advanced scientific and technological level under international cooperation protocols and projects.

5. Capital sources

To diversify capital sources for radiation development and application in agriculture, including:

a/ Scientific and technological funds for the performance of approved scientific and technological tasks;

b/ Training funds for overseas and domestic training of human resources;

c/ Capital construction investment capital sources for investment in infrastructure facilities and equipment for science and technology organizations and enterprises;

d/ Other capital sources from international cooperation, contributions and financial supports of organizations and individuals.

6. Mechanisms and policies

a/ Policies to support radiation development, research and application in agriculture

- Organizations and individuals that research and apply radiation in agriculture may receive the State's highest incentives and supports for scientific research, technological development, technology experimentation and transfer under law;

- Public science and technology organizations and other organizations may receive the highest state budget supports for investment in building infrastructure facilities and furnishing equipment for laboratories and production establishments that apply radiation to agriculture under approved investment projects.

b/ Policies to support human resource training and employment

To implement policies to prioritize and support the training and employment of human resources in radiation research and application in agriculture under law.

V. ORGANIZATION OF IMPLEMENTATION

1. The Ministry of Agriculture and Rural Development shall assume the prime responsibility for, and coordinate with concerned ministries and branches and provincial-level People's Committees in, organizing the implementation of this master plan, and annually report implementation results to the Prime Minister; and directly organize the performance of the tasks on radiation research and application in agriculture in the domains under its management.

2. The Ministry of Planning and Investment shall assume the prime responsibility for, and coordinate with the Ministry of Finance, the Ministry of Science and Technology and concerned agencies in, allocating state budget capital for implementation of this master plan under the State Budget Law.

3. The Ministry of Science and Technology and concerned ministries and branches shall, within the ambit of their functions and tasks, direct and organize the implementation of this master plan's relevant contents.

4. Provincial-level People's Committees shall, based on this master plan, implement its contents in their localities.

5. Organizations and individuals that wish to participate in implementing the contents, tasks and projects under this master plan shall register their participation with concerned ministries and branches and provincial-level People's Committees in charge of relevant tasks for consideration and permission.

Article 2. This Decision takes effect on the date of its signing.

Article 3. Ministers, heads of ministerial-level agencies, heads of government-attached agencies, chairpersons of provincial-level People's Committees, and concerned agencies shall implement this Decision.-

For the Prime Minister
Deputy Prime Minister
NGUYEN THIEN NHAN
