

Socialist Republic of Vietnam

- Estimated / measured: To provide 30 million seedlings per year of timber species to serve as high quality raw material for forest and timber forests;

After 10 years, 70% of forest seeds are created can reach quality and technical standards.

- The problems / challenges that may arise:

- Technology transfer can have trouble on the mechanism and method;
- Difficulty in raising capital cost;
- Vietnam still lacks qualified staff expertise on this technology.

- The responsibilities and coordinate in the implementation: MARD has the acting part, other ministries related are MOST, MOP, MOF.

5 The project idea on agro-forestry technology with which has the international support.

a) Title of project proposals for technology development

"Develop the agro-forestry ecosystem combined with improvements on livelihood and environment in the two arid provinces of Ninh Thuan and Binh Thuan".

b) Project's information

- Introduction / Background:

Current status of desertification is a challenge in Ninh Thuan and Binh Thuan. The income of local people is low, mainly based on agriculture with low productivity.

The Project is expected to build 30 eco-villages with specific activities as forest protection and development of agro-forestry models in two provinces of Ninh Thuan and Binh Thuan.

- Goals and objectives:

- Goals: To assist people in arid regions in Ninh Thuan and Binh Thuan develop agro-forestry model;
- Objective: To improve ecological sub-regional climate and restore the fertility of degraded land areas in 30 villages participating in the projects.

- Relations of project with the priorities in sustainable development of the country:

- Suitable with the program of new rural construction;
- Serving poverty reduction programs, national programs to combat desertification prevention.

- Things that are obtained from the project as the value / benefits / messages:

- After 5 years, 30 typical eco-village are built in which farmers will actively integrate farming in adaptation to climate change;
- Setting up integrated farming system according to eco-village model in the project area in order to recover vegetation, improve the fertility of the soil and restore ecological environment.

- The scope and feasibility of the project:

- The scope of the project impact and feasibility of it: Creating jobs for local people in the project. Annually, thousands of worker are attracted to forestry, tourism and raise their income;
- To develop awareness of forestry in the community, environmental consciousness, landscape and improve the general forest as well as protection forest in particular.

- Timeline: 2014 – 2018 and divided into 3 components

- The first component: To develop criteria for classification, selection and design of eco-village;
- The second component: To construct eco-villages;
- The third component: To develop farming capacity, consumption and improve livelihoods.

- The requirements for budget / resources: \$ 18 million USD with local budget is \$ 2 million.

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- Estimated / measured:

- Increased productivity of agricultural crops by 20-50% compared to current, contributing to increased revenue GDP per capita in the project area increased from 266 USD / person / year now up to 484 USD/ person / year after 5 years;
- 30 typically ecological villages are built.

- The problems / challenges that may arise:

- Lack of overall planning and system link among modules of model;
- Requires high initial investment;
- Lack of forestry staffs and limited in level of ability.

- The responsibilities and coordinate in the implementation: MARD co-operates with National Target Program in Desertification and the two provinces of Ninh Thuan and Binh Thuan.

6 The project idea on rainfall and surface runoff collection technology to serve the community with which has the international support.

a) Title of project proposals for technology development

" Building 15 pilot rainwater collection systems for residents in the Northern mountainous of Vietnam"

b) Project's information

- Introduction / Background:

In some residential areas in Northern Vietnam, there are severe shortage of water for living and farming in the dry season, while redundant rainfall in the rainy season. The terrain is fine for construction rainwater tanks with big volume and low cost. Investigation and survey to locate and construct rainwater collection system for runoff that help improving the lives of residents in areas is essential.

- Goals and objectives:

- Goals: To study a number of technologies for gathering rainwater runoff in accordance with geological and hydrology conditions in a mountainous are of Northern Vietnam;
- Objective: To build and put into use a rainwater collection system for daily runoff and agriculture for some residential areas in a mountainous are of Northern Vietnam.

- Relations of project with the priorities in sustainable development of the country: Diversification of water sources.

- Things that are obtained from the project as the value / benefits / messages: To do poverty reduction in some mountainous residential areas.

- The scope and feasibility of the project: Some projects have been implemented in Vietnam.

- Timeline: 5 years

- The requirements for budget / resources: The cost of surveys, models, equipment installation, consult experts, building a collection system are estimated as 15 million USD.

- Estimated / measured: Build 15 rainfall collection systems. Each system cost 1 million USD according to the price \$20/m³ and volume of each system is 50,000 m³.

- The problems / challenges that may arise: Some reservoirs can be affected due to infiltration. Normally reservoir bed or walls depending on reservoir type and its location.

The responsibilities and coordinate in the implementation: MARD, Irrigation Department, local People's Committees.