# VJU OPEN CAMPUS 2019

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Ministry of Agriculture and Rural Development International Cooperation Department

# 1. Introduction of International Cooperation Department, MARD

- International Cooperation Department is a department under the control of the **M**inistry of **A**griculture and **R**ural **D**evelopment (MARD)
- Promoting the collaboration in term of agriculture and rural development with other countries
- Governing the project with international stakeholders in the field of agriculture and rural development
- Cooperating with other organization (domestic and external organization) in trading product of agriculture

- Agriculture and climate change are deeply intertwined. The effects of global warming on food supply are dire, whilst world population is increasing. It's time to change the way agriculture affects the environment, and vice versa.
- The relationship between **agriculture and climate change** is problematic to say the least, and it is putting food safety at risk. Over time, has the **effect of global warming on agriculture and food supply** been to decrease crop production or has intensive agriculture contributed to climate change by causing average global temperatures to increase

At the Ministry of Agriculture and Rural Development, there are some body parts which has the job related to climate change, such as:

- Vietnam Disaster management Authority: department of disaster safety control; department of community disaster management; department of disaster adaptation and responsibility.
- ➤ Institute of Policy and Strategy on agricultural and rural development

#### 2.1. New Trend in Vietnam: Smart agriculture to adapt to climate change

- The global warming leading to climate change causes direct impacts on climate resources, land resources, water resources and biological resources, thus, enormously influencing agriculture, aquaculture and livestock husbandry. Climate smart agriculture (CSA) is one of adaptation measures to climate change impacts on sustainability.
- High-tech farming utilizes technology to produce more efficient, environmentally-friendly farming processes and better quality crops. Effective high-tech farming operations for farmers and potentially higher returns, better quality and unchanged quantity, and better environmental conditions for the people in the region.
- Climate-smart agriculture, which is rather analogous to high-tech agriculture, presents innovative farming methods to alleviate some of the volatility in the agriculture sector because of climate change.
- Enhances resilience and adaptation: this produces hardier crops that can better withstand natural disasters and fluctuations in weather, quality of soil, and quantity of water. This also encourages farmers to diversify their cash crops, rather than to rely on a single crop, such as rice
- Mitigates and reduces greenhouse gas emissions: its purpose is to address climate change and reverse negative environmental impact

#### **Many opportunities**

To adapt to climate change and ensure food security and agricultural sustainability, the government adopted the "National Target Program to Respond to Climate Change and Rising Sea Level" and "Green Growth Strategy in 2011-2020, with a vision to 2050" as well as developed organic farming methods and safe agriculture in Vietnam.

To develop green agriculture, sustainable agricultural development usually focuses on such technologies as preventing soil erosion, protecting soil and soil moisture, calculating farming possibility and terrace field methods for sloping terrains to increase vegetation covers; adopting active irrigation by building reservoirs and applying more effective methods like spraying and dripping; designing complete processes of fertilization, nutrition and wastewater treatment.

Vietnamese companies also have opportunities to take part in locally planned agricultural development as well as opportunities to access soft loans or non-refundable aids for agricultural practices towards environmental protection and adaptation to climate change.

**New Trend in Vietnam: Low-carbon Agriculture** 

With the increase of greenhouse gas (GHG) emissions in the atmosphere, global greenhouse effects have intensified, thereby contributing to climate change. Agriculture contributes to climate change by increasing GHG emissions, and climate change in turn affects agricultural production. Agriculture affects climate through emissions of greenhouse gases (GHGs) such as carbon dioxide, methane and nitrous oxide. These emissions come directly from use of fossil fuels, tillage practices, fertilized agricultural soils and livestock manure in large proportion.

Conversely, agriculture could be a solution for climate change by the widespread adoption of mitigation and adaptation actions. This happens with the help of best management practices such as organic farming, agroforestry practice and manure management etc..

Sustainable and organic agricultural systems can help reduce agricultural GHG emissions through energy conservation, lower levels of carbon-based inputs, lower use of synthetic fertilizer and other features that minimize GHG emissions and sequester carbon in the soil.

# Q & A