

# Viet Nam

IAEA Member State since September 1957

## Selected achievements

**2024:** Through a series of triangular Practical Arrangements with the IAEA, Viet Nam organizes and hosts fellowships, scientific visits, workshops and training courses benefiting approximately 40 Cambodian and Laotian experts working in the areas of animal health, cancer care, food irradiation, safety and industrial applications.

**2021:** Using nuclear and isotopic techniques, scientists at Viet Nam's Institute for Nuclear Sciences and Technology (INST) successfully identify agricultural fertilizers as the source of the Nhue River's excessive nitrogen and phosphorous pollution.

**2018:** Over 3 million farmers benefit from the new 'DT-10' variety of rice which has 40 per cent higher yields than traditional varieties.



New rice varieties bred using nuclear techniques are planted and cultivated at agricultural stations like this one in Van Giang, north Viet Nam. The new varieties are developed by scientists at the country's Institute of Agricultural Genetics.  
(Photo: L. Wedekind/IAEA)

Since its introduction in 1999, irradiation increased from 259 to 14 000 tonnes of food annually in 2017.

The IAEA supported Viet Nam in the procurement of gamma and electron beam irradiators in 1999 and 2013 by providing capacity building and guidance.

The Research and Development Centre for Radiation Technology (VINAGAMMA) in Ho Chi Minh City, which was established as a result of this collaboration, now sterilizes medical products, pasteurizes food, and conducts agricultural research.

Today, the centre provides national and regional training opportunities in radiation technology and works with international partners to identify ways to improve irradiation technology.

## Insect pest control

Fruit flies damage crops and the livelihoods of farmers. To help counter this problem, Viet Nam, in collaboration with the IAEA and the Food and Agriculture Organization of the United Nations (FAO), launched an integrated pest management pilot project in 2016 which was tested on 1500 hectares of dragon fruit crops.

The IAEA and FAO supported the collection of baseline data, the establishment of a fully equipped laboratory, and facilitated training, fellowships and scientific visits. Only three years later, Viet Nam was able to observe a substantial decrease in fruit fly populations.

The next phase involves incorporating the sterile insect technique, a radiation-based

## National priorities

- Nuclear power infrastructure
- Human resources capacity
- Radiation safety and radioactive waste management
- Industrial applications of radioisotope technology
- Human health
- Food and agriculture sector
- Environment protection

## Main areas of IAEA support

- Radiation and nuclear safety
- National nuclear infrastructure
- Human health
- Food safety

## Project successes

### Radiation processing

Viet Nam has enhanced its food safety and agricultural competitiveness by expanding the use of irradiation for improving food quality.

pest control method, for the sustainable and environmentally friendly management of further fruit fly suppression.

### Human health and nutrition

In Viet Nam, the double burden of nutrition is a matter of concern for the health of the entire population. With the support of the IAEA, Viet Nam is building capacity to apply stable isotope techniques to promote healthy growth in children under five years of age and to help fight the causes of malnutrition and obesity.

This is expected to inform the development of a national intervention programme and impact future human health policies and strategies in the country.



State-of-the-art technology used to produce radiopharmaceuticals in Viet Nam. (Photo: IAEA)

### Participation in the major initiatives

- NUTEC Plastics
- ZODIAC

### Date of imPACT Review(s)

2006

### IAEA support received in the 21st century



### Contributions to South-South and triangular cooperation

