

## ***Enhancing vegetable production in the Seychelles***

### ***The challenge...***

The Seychelles is an archipelago of 115 islands and atolls with limited land and soil resources. In recent years, the islands' soils have exhibited very low organic matter content, a diminished capacity for water retention and high salinity. These factors mean that the soil is less fertile and less productive.

The infertility of local soils has affected the livelihood of Seychellois farmers and the food security of the country. As the archipelago's population grows, it is becoming increasingly urgent to increase farm productivity to ensure food security and income generation.

The IAEA, through the technical cooperation programme and the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, have been providing support to the agriculture sector of the Seychelles since 2007, training local experts to assess soil fertility, and outfitting local laboratories with necessary equipment. These activities have been successful, but support for human resource development and physical infrastructure is still needed in farming communities, and in the less-populous islands of the archipelago.

### ***The project...***

Following a request by the Government of the Seychelles, the IAEA launched a technical cooperation project in 2012 to enhance the productivity and crop yield of Seychellois farms.

Previous projects had focused efforts on the country's main island, but this project aimed to expand capacity building efforts to islands in an earlier phase of development. Because these islands, such as Praslin, have more coastal soils, the project sought to train counterparts in the use of the neutron probe. This measures water content in soil without being affected by salinity.

Through the project, four Seychellois nationals received training through fellowships, provided in Austria, Kenya, Turkey and the UK. One fellowship resulted in a Master's thesis on developing measures to address and reduce soil salinity. Expert missions were also organized, and laboratory equipment was procured to facilitate the study of soils locally.



*Local Seychellois farmers receive training in the use of a neutron probe.*

### ***The impact...***

In cooperation with counterpart institutions, such as the Seychelles Agricultural Agency and local stakeholders, the IAEA was able to establish the first soil and plant diagnostic laboratory in Seychelles' history. This laboratory can analyse 400 soil samples per month. In addition, leaflets are being published to promote awareness of soil salinity among farmers, and soil quality is growing.

The project was able to successfully equip coastal and inland farmers with the tools, knowledge and guidance necessary for the effective management of their soils, which has in turn buoyed financial prospects and strengthened local food security.

**Technical cooperation project SEY/5/006: Implementing Nutrient and Water Management Practices Using Nuclear and Related Techniques to Enhance National Vegetable Production through Sustainable Agricultural Management.**