

# IPMA and Collaborators Respond to Threatened Coconut Production in Bangladesh

Coconut, *Cocos nucifera* L., belonging to the family Arecaceae, is an important plantation crop predominately in tropical and subtropical parts of the world. It is often called the 'tree of life' because of its versatility and importance to rural livelihoods. Coconut provides food for millions of people and it is considered as the one of the top 10 most useful trees in the world. Based on the total production, Bangladesh is the 12<sup>th</sup> highest coconut-producing country, producing 442,708 metric tons (BBS, 2022) from 25,334 hectares of land. Coconut farming is an important occupation in Bangladesh, providing a consistent income stream to the growers on a regular basis. There are a number of coconut-based industries in the southern part of the county, and thousands of people lead their livelihoods across the coconut value chain.



Figure 1: Present Production Scenario



Figure 2: Mr. Anada Biswas, the Founder of Renaissance Enterprise, in the inauguration of ToT

Due to different factors, including lack of proper nutrition management, and native and invasive pests (both insects and diseases), production of coconuts has recently declined drastically. Recent demand of green coconut, however, has increased significantly due to both dengue and COVID. As a result, industries producing different products like coconut oil, coco-piths, and coir have found it difficult to survive in their business. To help increase the productivity of coconut and support these industries in improving their business, the Horticulture, Fruits and

Non-Food Crops Activity funded by USAID established partnership with Renaissance Enterprise to increase the productivity of brown coconut. Under this initiative, the Horticulture Activity supported Renaissance Enterprise to support 2,000 coconut farmers through building capacity of 50 local service providers locally called "Gachi." Horticulture Activity approached the Feed the Future Bangladesh Integrated Pest Management (IPMA) to take responsibility of building technical capacity of Gachi.

Though coconut is not a priority crop for the IPMA, the activity had organized an international webinar to gather information on the biology, ecology, and management of the invasive pest rugose spiraling whitefly (*Aleurodicus rugioperculatus*), which affects coconut. Based on the information gathered through the webinar, IPMA developed a flyer containing a brief description on the life cycle of the pest, including control measures. Based on a request from Horticulture Activity, IPMA also offered to lead the technical component of boosting the overall productivity of coconut. Accordingly, a triparty (Horticulture Activity, Renaissance Enterprise and IPMA) MOU was established. As part of the responsibility, IPMA developed an IPM package on coconut and conducted a hands-on Training of Trainers (ToT) workshop on coconut IPM for 50 local service providers from



Figure 3: *Gachi* were taught on the identification of insects & diseases



Figure 4: Demonstration of setting pheromone trap against Red Palm Weevil

September 19-22, 2022. Renaissance Enterprise is expected to support *Gachi* to train coconut farmers on both nutrition and pest management, including supply of quality inputs (fertilizers and bio-pesticides) as credit. Coconut producers can even pay the cost of inputs by providing coconut.

Though *Gachi* has long provided services related to pruning of coconut plants, they lack the technical knowledge on nutrition and pest management. IPMA addressed three major constraints contributing to

declining coconut production, including nutrition management and insect and disease management through use of bio-pesticides and pheromone traps.