Low-cost Automation for Higher Productivity

In 1995, with a special grant from the Government of Japan, the APO launched the "Supporting Industry Assistance Program through South-South Cooperation" (SSC) to help selected member countries develop their supporting industry, among others. Expert input in the projects under this program is sourced from the more developed countries in the APO membership. As of the end of April this year, 43 projects had been implemented since 1995, and a total of 817 people were trained. The latest SSC project implemented this year was the workshop on "Low-cost Automation for Supporting Industry." Held in Thailand from 29 April to 3 May, it was attended by 17 participants from 10 APO member countries, and three from the two non-member countries, Cambodia and Laos.

Low-cost automation (LCA) involves the introduction of standard equipment, mechanisms, and devices to convert manual operations to automatic ones. Investment cost is low, as the term itself implies, and the ROI in terms of improved productivity and better work efficiency is high. In the workshop, participants see LCA as automation that assures

Participants being briefed on a new environment-friendly scooter made with LCA technology

quality, provides flexibility, increases productivity, and reduces cost. At the same time, it is easy to implement and affordable for small and medium enterprises (SMEs), the main users of LCA. Common areas in the manufacturing process for LCA application are machining, cold extrusion, grinding, material handling, quality inspection, dimensional accuracy, surface finishing, and assembly and packaging.

The workshop was declared opened by Mr. Pansak Kummalue, Director of Consulting and Training of the Thailand Productivity Institute. In his address to the participants, he said that supporting industries are important to the economic development of many countries as they contribute to income generation and revenue in foreign currencies. He added that financial and technological factors are major obstacles to the adoption of full automation by the SMEs. As such, LCA provides a way out of this dilemma.

In the workshop, participants considered and deliberated on the following topics: The different means of automation; The concept and practice of LCA; Problems relating to introducing LCA; Planning and designing for LCA; Cost-benefit analysis of LCA: and Process for implementing LCA. For field study, they visited the Thai-German Institute.

Among the benefits of using LCA, the participants believed that it contributes to process improvement, cutting machine downtime, cost reduction, better product quality, more precision manufacturing, on-time delivery, greater job safety, reduction in manpower requirements and human error, and environmental protection. The key success factors for the implementation of LCA were identified as: management leadership, trained and skilled manpower, appropriate product types, availability of the requisite hardware and software, and financial support.