UN, MIT plan to educate farmers via PDAs

ROME - The United Nations Food and Agriculture Organization (FAO) and the Massachusetts Institute of Technology Media Laboratory have agreed to cooperate to make digital information available even to the poorest farmers living in remote areas of the developing world, FAO announced Wednesday.

"For the first time, farmers and rural communities in remote and least developed areas will be able to use advanced information technologies for accessing e-mail and the Web using pocket-sized, battery and solar energy-powered wireless communicators at a very low cost," FAO said in a prepared statement.

The farmers will have unlimited access, through Internet and other innovative technologies, to agricultural advice and information on food safety, market access, nutrition and public health, FAO said. "Even illiterate farmers in remote and isolated areas will be able to collect and share information relevant to their day to day work: information and even training will be conveyed through voice and images provided by wireless communicating devices," the Rome-based organization, which is tasked with combating hunger, said.

"Traditionally information technologies driving the digital era have used expensive computer equipment," said Francisco Pérez Trejo, manager of FAO's World Agricultural Information Center (WAICENT). "MIT has broken through that by developing devices that cost less than US$20 and which are designed to improve information acquisition and exchange," Pérez Trejo said.

The agreement with MIT Media Lab provides for WAICENT to serve as a platform for disseminating and supporting programs initiated by the Media Lab, the FAO statement said. The two organizations will cooperate on the joint development of tools, workshops and training courses, it said.

MIT has been working with rural communities in Thailand to develop simple technologies to assist farmers in their work, Pérez Trejo said. In one Thai community, a 13-year-old schoolgirl was provided with tools that enabled her to design and develop a system that switched on a neon light at night to attract insects to her fish pond, using a light sensor and timer, the FAO official said. Other MIT devices enable farmers to monitor the temperature and water content of soils, he said.

"In Asia, women farmers are currently using wireless devices to exchange information on levels of irrigation water to improve food production," the FAO statement said.

MIT has been working on a variety of small devices such as digital radios, electronic books, handheld organizers and Internet-enabled cell phones to try and help bridge the digital divide between the advanced industrialized nations and the technologically-backward developing world, Pérez Trejo said. Using the Logo programming language, which makes use of images and sounds, it will even be possible for illiterate farmers to program their own devices, he said.

It is still too early to say which manufacturing companies might become involved in the production of these new low cost devices, Pérez Trejo said, but he pointed out that MIT already collaborates with many major industrial companies. "MIT's vision is that the devices will not only be used but should also be built in the rural communities," he said.

MIT has 170 corporate sponsors which include major hardware manufacturers such as Compaq Computer Corp., Hewlett-Packard Co., Sony Corp. and Nokia Corp., according to the MIT Website. "Our sponsors have first access to all the technologies that we develop and they can produce them under license, paying a royalty to MIT," a MIT Media Lab source said. "I don't know how this general principle will apply to the FAO project though. We would never develop the ideas and turn them into products ourselves. The main priority is that ideas should be turned into useful products for people, regardless of who the manufacturer is," the source, who asked not to be identified by name, said.

"Wireless technology developed by MIT Media Lab tends to level differences between rich and poor, because it works as well in remote regions as in modern cities, and is cheap enough to be spread everywhere," the FAO statement said. Pilot projects using the new devices will be introduced in a number of developing countries in the near future and the equipment will be demonstrated at the World Food Summit in Rome in November, it said.

FAO is encouraging the international community, national governments and nongovernmental organizations (NGOs) to collaborate in making digital devices available at affordable prices to the poorest sectors of the world's population which have so far failed to benefit from the Internet revolution, Pérez Trejo said. "FAO cannot do this on its own."