

## Malaysian Villagers Impressed by Locally-developed Waterpump

For the past two years about nine hundred villagers in the Kuala Pilah district have been enjoying a continuous supply of clean water from a number of Malaysian developed plastic pumps installed in their villages.

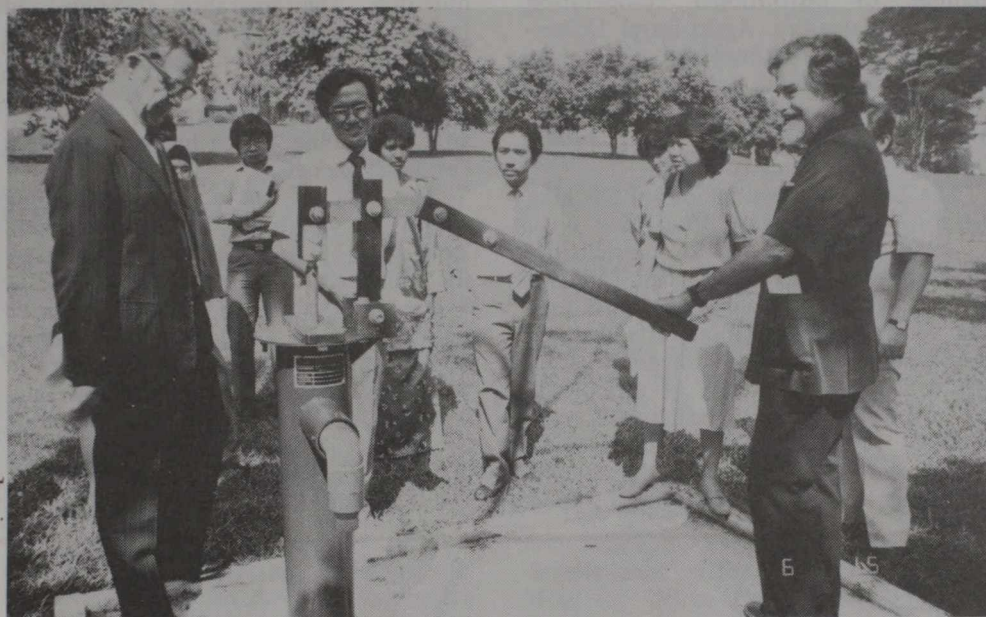
They recently told members of a survey team gauging user response to the pumps how impressed they were with the locally made model. It needed almost no repair during the two years of constant usage. The pump was so light and easy to operate that even children encountered little difficulty in using it. Because the handpump is made from plastic the water is never affected by rust, unlike traditional metal pumps which after some time will begin to deliver "yellow" rust contaminated water.

The Malaysian researcher behind the development of this new and efficient plastic pump is Professor Goh Sing Yau, a faculty member of the University of Malaysia at Kuala Lumpur. He is one of a group of researchers from Asia and Africa who in 1978 began testing a lightweight PVC handpump developed in the late 1970s by the Health Sciences Division of the International Development Research Centre (IDRC) in collaboration with mechanical and chemical engineers at the University of Waterloo, Canada.

With a research grant from IDRC, Prof Goh redesigned the prototype and came out with the Malaysian model.

The University of Malaysia (UM) design has three major advantages over the traditional cast iron designs. First, the handpump is easy to fabricate because PVC parts can be solvent-welded together and worked on with light hand tools. This opens up the important possibility of widescale local manufacture, thereby avoiding the need to import.

Secondly, it is feasible for villagers to maintain the pump themselves because PVC is light and the main components — the footvalve, piston, and piston rod —



*Royal Professor Ungku A. Aziz, Vice Chancellor of the University of Malaysia, trying his hand at the water pump. Looking on are High Commissioner Mr. Charles John Small and members of the faculty.*

can be removed, inspected and repaired with relative ease.

Thirdly, plastic parts do not rust.

The UM pump performed so efficiently in its field tests that Prof Goh's team, now joined by colleagues from the Malaysian Ministry of Health, are taking research on the pump to a second phase.

This phase aims to develop mass production techniques for the manufacture of the pump on a commercial basis. IDRC is supporting the second phase with a research grant of \$297,500 which, together with the grants made for the first phase, brings the Centre's contribution to the project to a total of \$409,500.

The Canadian High Commission in Kuala Lumpur has also recently contributed seven machines, costing about \$40,000 to the project. These machines will be used by the research team in the fabrication of 550 prototype pumps for more intensive field-testing in Malaysia.

Apart from developing commercial fabrication methods, the second phase of the research project will also include a socioeconomic survey of potential handpump users to identify problems which may arise in its adoption. It will also develop appropriate manuals providing detailed guidelines and instructions for setting up manufacturing units; establishing quality control, installation and monitoring maintenance procedures.

The project is an intermediate step in the transfer of technology from basic research to commercialization; at the same time the team of Malaysian researchers are conscious that the success of the project depends on more than viable technology. The integration of the pump in the lives of those who need it will depend on a dynamic health education program. Villagers must understand how the pump functions and be aware of the benefits of clean water to good health.

## Social Welfare Conference in Canada Attracts Malaysian Participants

From July 31 to August 11, 1984 social workers, professionals and volunteers of social welfare and social development communities from 78 countries, spanning 3 continents, will gather in Montreal, Canada for the International Conference on Social Welfare.

Participants of the six-week programme will have the opportunity to share experiences, discuss the challenging issues facing social development in the 80's and establish the basis for new co-

operation between members of the international community.

In addition, the participants will also be involved in specialized training programmes as guests of selected Canadian social welfare institutions and institutions of higher learning, under a four-week study programme commencing in early July.

Malaysia's participant at the conference will be Mr. Wong Sin Leong of the Ministry of Social Welfare. After the

conference, he will be a guest at York University's Department of Social Work in Toronto.

The conferences and study programme are being organized and funded by the International Council on Social Welfare, National Health and Welfare Canada, including various provincial and national agencies and institutions, in co-operation with the Canadian International Development Agency (CIDA).