

dealing with all major food crops of importance to the Third World and covering the majority of the planet's ecological zones. CIDA has also contributed to ten of these research units in the year 1976-77.

One might also mention the non-government organizations. CIDA has provided matching grants in support of many NGO's to a total amount of \$38 million during the fiscal year, and at least 30 per cent of this total was spent on projects for agricultural development. These, then, are some of the tools that are at our disposal, and we must remain firm in our commitment to use them.

Hunger remains a vicious assault on the well-being and dignity of mankind, but perhaps an equal threat to the dignity of human beings is to be constantly dependent. Hence, our solutions to dealing with hunger must include ways of helping people help themselves.

[*Translation*]

Mr. Albert Béchard (Bonaventure-Îles-de-la-Madeleine): Mr. Speaker, my colleagues the hon. member for Peel-Dufferin-Simcoe (Mr. Milne) and the hon. member for Trinity (Miss Nicholson) gave a detailed description of the Canadian food aid programs intended for the developing countries and of the aid that Canada is giving to those countries to help them attain a higher degree of self-sufficiency where food is concerned and improve the welfare conditions of their rural communities.

I would like, in turn, in the few minutes that are left to give a general picture of the main problems relating to rural development in third world countries and the role that Canadian technology is expected to play in those parts of the world.

It is important at the start, Mr. Speaker, to distinguish between two types of technological changes in agriculture: first, there are the innovations with respect to plant biology and soil improvement; the second, the introduction of various types of farm machinery. Obviously, there is a clear difference from the functional point of view. The inputs where soil improvement is concerned are precisely those that are intended to increase the production yield per land unit whereas the various types of machinery are intended to replace human or animal energy or both with mechanical energy. Taiwan and Japan are two examples of countries having experienced the former type while the agricultural revolution in Mexico went for the second type. With rural communities that represents 70 per cent to 90 per cent of their population, most third world countries must necessarily rely on agriculture to get them going economically. A few exceptions such as Algeria, Nigeria and Zambia are lucky enough to have their own mineral resources, but the commodities that are thus produced are generally exported and rarely serve as a basis for local industry.

Because of the population explosion those countries have experienced in the last 20 years, they are all facing a very

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serious problem of underemployment. To solve that problem, many efforts and investments have been made in the last 20 years to industrialize the urban areas—I am still talking about third world countries. As a consequence, several underdeveloped countries are now faced with a series of serious and now well-known dilemmas, whether economic, social and cultural, political, or even environmental.

The recent oil crisis, among other benefits, has forced us to review the relationship between technology and development. Such a policy of urban industrialization having failed to create the employment that was anticipated, third world countries, particularly those with little or no mineral resources, opted for rural development as a basis for their economic development. Generally, the objectives of that rural development are as follows:

First, to make the country as self-reliant as possible as concerns food production and second, to create employment and improve the standard of living of rural communities. However, the basis of rural development in underdeveloped countries remains agricultural development and the marketing of the resulting products on the home and foreign markets. Apart from food production, the areas of food and irrigation as well as low-cost housing are those where proper technology can make the greatest contribution at the present time. Since these are priority areas in the developing world, it follows that the research and development of appropriate technologies must be concentrated first on those areas. I shall come back later to the area of food production, but for the moment, I would like to talk about the problem of water supply for domestic and agricultural purposes.

Mr. Speaker, in too many areas throughout the world, this supply is on the decrease or only sporadic. A series of technological devices to collect rain water and develop underground water sources is required in addition to simple distribution and pumping systems. In spite of their surprising power of survival, rural communities have the major inconvenience of not being able to increase their production with their present basic and even primitive tools and technology. This technology is just sufficient to allow a farmer working with his wife and two or three children to cultivate, under difficult conditions, over half an hectare, often with no other tool than a pickaxe, and if climatic conditions are favourable, this can provide the strict minimum for the family to survive.

To improve the social and economic conditions of agriculture and farmers and to give back their former prosperity as much as possible, to rural areas, which are constantly losing their leaders to the cities, we must improve the efficiency of agricultural equipment and technology. These equipments and technologies will be adequate as long as they allow small farmers to stay on their farms and increase their production without a corresponding reduction in farming employment. Second, this equipment must be easy to maintain and durable