



©David Rooney

Food for innovative thought

Jessica DeWalt, International Food Policy Research Institute (IFPRI)

New initiative will offer a fresh take on agricultural investment.

More than two billion people in developing countries rely on agriculture to meet their basic food and income needs. While the development community has long recognised the importance of investments in agriculture to fuel economic growth, the strategies employed have been erratic, sometimes misdirected, and often ineffective. As a result, benefits that poor people might have derived from a vibrant agricultural sector have not materialised.

Of late, however, the poverty and hunger focus of the UN's Millennium Development Goals, plus the high profile accorded to agriculture by the African Union's New Partnership for Africa's Development (a region in which the overwhelming share of the rural population depends on agriculture for both sustenance and livelihoods), and bold new initiatives such as the Alliance for a Green Revolution in Africa, backed by the Bill and Melinda Gates Foundation (BMGF) and the Rockefeller Foundation, are all putting the spotlight on the need for greater and more sustained investment in enhancing agriculture's role in hunger and poverty alleviation. But capitalising on this renewed

interest raises some challenging questions: To provide significant benefits to the poor, how much should be invested in agriculture? Where and in what? It is these questions that the new research initiative, HarvestChoice, seeks to answer.

Supported by the BMGF, HarvestChoice is a three-year project to generate new knowledge on investment strategies for enhancing the productivity of the cropping systems on which poor people most depend. Ultimately it will provide the poor with a greater share of the overall benefits from agricultural growth. As a complement to this effort, an international roundtable, also sponsored by the BMGF, was convened in Minneapolis on 4-5 April 2007, to assess the potential role of improved information systems in helping to transform crop production. The results of this dialogue, to be published in summer 2007, will feed into the design and implementation of HarvestChoice, and articulate a broader agenda for greater investment in critical knowledge and information systems.

HarvestChoice researchers will use an extensive set of analytical tools, including household surveys, detailed poverty and

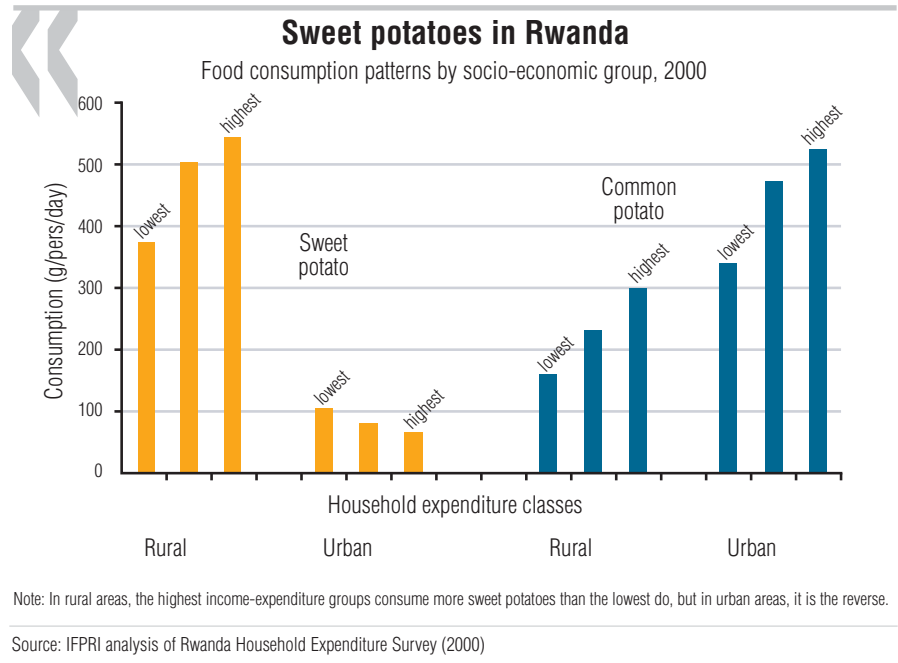
production system maps, crop growth simulation, and multi-market and multi-sector economic models. These tools will be applied to pinpointing the most promising investments for raising cropping system productivity and delivering improved outcomes for the poor.

“By better understanding the degree to which different types of households—rich, poor, urban, rural, female-headed, male-headed—engage in the production and consumption of different types of agricultural products,” notes Stanley Wood, senior research fellow with the International Food Policy Research Institute (IFPRI) and one of two HarvestChoice principal investigators, “we will be better able to target investments in raising productivity in ways that deliver the most benefits to poorer households.” Our graph, from a national household survey in Rwanda, illustrates the kind of data used and some of the issues to be taken into account.

The sweet potato is an important staple food in the diet of rural populations, who increase their per capita consumption at higher income levels. In urban areas, however, consumption is much lower and falls as incomes rise. With other higher-value crops, such as the common potato, urban consumption is higher than in rural areas and increases with incomes. In other words, improving sweet potatoes (e.g., the significant efforts currently being made to improve the vitamin A content of the sweet potato as a means of improving health status) will generate a much larger share of benefits for poor rural consumers, but those benefits can be expected to decline over time with increasing urbanisation and rising incomes. The evaluation framework attempts to value and compare such shifting patterns of economic benefits to different socio-economic groups.

As in the sweet potato example, researchers will also compare the geographic location of poor people with the location of major crop production systems within focus countries. The goal here is to better gauge where specific technologies, developed nationally or in similar locales in other countries, might be of most relevance to local communities.

To learn how to make efficient and effective use of new investments, HarvestChoice



researchers will undertake economic assessments of potential crop production, consumption, prices and trade, and will study the likely hunger and income consequences of investing in a range of technology options used to address specific productivity conditions of poor farmers. What, for example, will be the relative payoffs to the poor of improved drought or weed tolerance in maize, stronger mosaic virus resistance of cassava, or better storage quality of potatoes? Researchers will also assess the potential benefits of alleviating constraints that currently undercut crop output and quality, such as drought, declining soil fertility, and pest and disease problems. Their findings will help investors and managers draw up a balance sheet of the likely benefits to poor people from different components of their research and development programmes. And because the evaluations will be made using disaggregated information, researchers and investors will be able to make more informed decisions about specific circumstances on the ground and avoid the pitfall of over-generalisation that has plagued agricultural development to date.

While the geographic focus of HarvestChoice is sub-Saharan Africa and south Asia, research findings are likely to be relevant to other regions, such as Latin America, where trade and technology spillovers may also be significant.

“Despite the buzz surrounding a myriad of new agricultural technologies,” said Philip Pardey, director of InSTePP* and the other principal investigator for HarvestChoice, “the lag between investing in innovation and reaping the rewards is still substantial.” By generating strategic information as a basis for future investments, HarvestChoice will open the way for policymakers, researchers and investors to further advance agricultural technology in developing countries. Poor people will then be able to reap the benefits of development aid. After all, as Stanley Wood puts it, “educated investments yield both higher economic returns and better lives.” ■

* HarvestChoice is implemented jointly by IFPRI and the Center for International Science and Technology Practice and Policy (InSTePP) at the University of Minnesota and is supported by a distinguished, independent advisory panel. Implementation partners include the Food and Agriculture Organization of the United Nations, several centres of the Consultative Group on International Agricultural Research, plus universities, and individuals from public and private sector institutions.

References

- For more information about HarvestChoice, see: www.harvestchoice.org
- For OECD work on agriculture in emerging and transition economies, see: www.oecd.org/agr/ete/