

Investing in Sustenance

The end of cheap food

By Hans R. Herren

For most people in the industrialized world and the middle and upper class in the developing countries, modern agriculture can be considered an unprecedented success story. Between 1960 and 2000 the world population doubled from 3 to 6 billion people, yet food production - **far from becoming more constrained** - increased 2 ½ times. The beneficiaries of this bounty know that their food supplies are secure, safe, varied, season and weather independent, plentiful and cheap in relation to income levels. Unfortunately, though, these benefits are spread unevenly and the wellbeing comes at an increasing price, paid by small farmers, rural communities, and the environment which sustains us all. **Change is needed in the science and technology of agriculture.**

Modern agriculture, as practised in the developed world, means we are devouring our capital. It is mining the soil, our natural resource base, and it is unsustainable, because it is both fossil energy- and capital-intensive, while not based on full accounting for the externalities. The developing world is headed in the same direction, except that it is less capital-intensive and uses mostly human energy.

Agriculture is also facing new challenges - climate change, for instance, a growing population, and demands for better food quality and diversity, while most developing countries are expected to be impacted over-proportionally by these challenges. Business as usual is no longer an option. We need very rapidly to develop the new knowledge that will let us face up to these challenges, that will shape an agriculture that is productive, sustainable, equitable and that offers farmers a route out of poverty. We have not a minute to waste.

A four-year study, the International Assessment of Agricultural Science and Technology for Development (IAASTD), was launched

at the World Summit for Sustainable Development in Johannesburg in 2002 by the World Bank and the UN's Food and Agricultural Organisation. Its final report is due out at the end of January.

Our brief was to look not just at the production of food in isolation, but to consider hunger, poverty, the environment and equity together. So we set out to analyse how our accrued agricultural wisdom - knowledge, science and technology - has led us over the last half-century to the present situation and suggest options for it to address the identified challenges on how to feed ourselves in a way that is both socially and environmentally sustainable in the next 50 years. We have concluded that without radical changes in the way the world produces its food, the planet will suffer lasting damage.

Our report is avowedly pro-poor: that was our brief. The whole assessment rotated round the goals of reshaping agriculture to reduce poverty and improve rural livelihoods and human health. That does not make us anti-rich. But we do recognise that some people are consuming more than their fair share of the Earth's resources. We say explicitly that China and India are now seriously competing for ever-larger shares of global natural resources, as developed countries have for many decades. The reality is that every country needs to live according to its means, so North America and Europe may have to make adjustments and learn to do more with less. It may sound daunting, but it need not mean an impoverished lifestyle for us, on the contrary.

Perhaps some people will take our advocacy of collectivism over an individual approach as a hankering after Soviet methods, a call for a return to state collectivism and planning. Far from this, science and technology should identify means for countries and their economies to adapt to changing conditions, with agility and flexibility. The tools to do so lie mostly in the hands of the farmers themselves, who have always worked with uncertainty and unpredictability. If they can organise themselves to work together they will achieve far more than they ever can separately.

One of our conclusions is that the poorest developing countries

are net losers under most trade liberalisation scenarios. We identify some “contentious political and economic stances”. Specifically, this refers to the many OECD member countries who are deeply opposed to any changes in trade regimes or subsidy systems. Without reforms here many poorer countries will have a very hard time, because they need to protect their own development first. Resistance to change by developed nations is likely to mean there is heated debate over the shape of our report before it is finally agreed.

We are also critical of corporate, profit-oriented agriculture, field to fork food, which continues to thrive on the unreformed system we have today. It holds sway in the North, and now it is increasingly being exported to the poor countries of the South. In an attempt to redress the balance we suggest the possibility of taxing unhealthy and unsustainable but profitable food production.

One of the criticisms levelled against the findings of the IAASTD is that it will damage the prospects of attracting funds for agricultural research. On the contrary, we believe that raising awareness of the need for the science and technology field to find better solutions will actually attract funding for the multifunctional agriculture we now realize we need, **capable of feeding us all, sustaining rural communities, building a more equitable society and caring for our shared natural resources**. Our report offers no prescriptions, but options for action, and we do remind its readers that business-as-usual is now finished.

The report is aimed at the policy-makers who have to take funding decisions, and also at ordinary non-expert readers. In many countries food is very much taken for granted, and farmers are poorly rewarded for their role in putting food on the table, while not recognized at all as stewards of almost one-third of the earth’s land. Investment in agricultural science, and its extension to farmers has decreased over time, yet sustainable, environmentally sound and equitable solutions for food production still urgently need to be developed and disseminated.

What we have tried to do is to raise awareness of the issues to show that change is inescapable. Continuing with current trends will exhaust our resources and put our children’s future in jeopardy.

Investing in our sustenance should be the most basic human endeavour.

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