

THE SECOND HALF OF THE WORLD FOOD CONFERENCE, AND THE PRIORITY OF THE 'THIRD' AGRICULTURE

Three broad types of agriculture can be distinguished. First, industrial agriculture in the rich countries; second, green revolution agriculture in well-watered high potential areas of the Third World including the irrigated plains and deltas of Asia; and third, 'low-resource' agriculture in the remainder of the Third World - usually rainfed, often on undulating terrain and less fertile soils, and including most of sub-Saharan Africa and the hinterlands of Asia. Compared with industrial and green revolution agriculture, 'low-resource' agriculture is complex, diverse and risk-prone.

The first half of the World Food Conference is concerned with reducing unsustainable overproduction in industrial agriculture. This is vital. But beyond this, deprivation and hunger depend less on how much is produced, and more on who produces and where, and who has the means to buy food. For poor households, 'sustainable livelihoods' captures much of this - secure and stable stocks and flows of food and cash adequate for basic needs and emergencies.

This points more than ever towards the third, 'low-resource', agriculture as the priority. Perhaps as many as 1.4 billion people, collectively the poorest and most vulnerable quarter of the human population, depend on it for their livelihoods. The production successes of industrial and green revolution agriculture have served national food security but often not the household food security of poor 'low-resource' producers. For them, normal agricultural research has failed to produce a green revolution, and their land and tree tenure is often insecure.

Fortunately, a growing mass of evidence indicates a paradox: 'low-resource' agriculture is underdeveloped, with a potential for far higher percentage increases of its current production and livelihood-intensity than either overdeveloped industrial agriculture or developed green revolution agriculture.

Much of this potential lies in combinations within farming systems such as agroforestry, land shaping, water harvesting, concentrating soil, water and fertility, and crop-livestock-tree linkages. These stress and exploit complexity, diversity, and adaptability. They often require long-term investment in land improvement and tree planting. And they are poorly served by the simplifications which flow from most normal agronomic research.

May I urge the World Food Conference to recognise the potentials and priority of this third, under-developed, agriculture as a means of generating production and sustainable livelihoods, and to put its weight and authority behind two practical thrusts:

(i) Security of land and tree tenure. Many of the poorest struggle to survive without secure tenure. Security is a precondition for farmers to take the long view and to invest in soil conservation, water harvesting, tree planting, and fertility enhancement. Sustainable livelihoods are built upon secure rights.

(ii) Farmer-first approaches in agricultural research. The transfer of technology from research station to farmer often fits badly with complex, diverse and risk-prone 'low-resource' agriculture. Professional specialisation often misses key linkages and potentials in farming systems. Evidence is showing that 'farmer-first' or 'farmer participatory' approaches are also vital, with research starting with farmers' own analysis and priorities, and with scientists supporting and strengthening farmers' own experiments and adaptations. The wide adoption of farmer-first approaches needed to realise the potentials of low-resource agriculture requires a professional revolution in national and international agricultural research systems.

Unless these two thrusts are resolutely pursued now and in the 1990s, I fear that difficult and well-meant reforms to restrain production in industrial agriculture will make rather little difference to the marginalised quarter of humankind whose livelihoods depend on this third, very different 'low-resource' form of agriculture.

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THREE TYPES OF AGRICULTURE SUMMARISED

	FIRST	SECOND	THIRD
	INDUSTRIAL	GREEN REVOLUTION	'LOW-RESOURCE'
Main locations	Industrialised countries	Irrigated and high rainfall, high potential areas in the Third World	Rainfed tropics, hinterlands, most of sub-Saharan Africa, etc
Condition	Overdeveloped	Developed	Underdeveloped
Use of external inputs	Very high	High	Low
Farming system, relatively	Simple		Complex
Environmental diversity relatively	Uniform		Diverse
Relative stability	Low risk		High risk
Land tenure security = incentive to invest	Very high	High	Low
Appropriate main agricultural R&D approach	On-station research and transfer of technology		Farmer-first
Generating	Package of practices		Basket of choices
Current production as percentage of sustainable production	Far too high	Near the limit	Low
Priority	Reduce production	Stabilise production	Raise production

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