



ICRISAT
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Overcoming Policy Bias against Dryland Agriculture



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Favoring the favored

Agriculture should be an engine for economic development. The dryland engine though, is struggling against a headwind of policies that are biased in favor of the “favored lands” (those with plenty of water). They also favor the influential urban populations that are concentrated in coastal mega-cities, and the familiar cereal grains that they consume: rice, wheat and maize.

The bias is expressed in grain price supports for the heavily-traded commodities, export subsidies by many nations, preferential research and development investments, and others. By artificially reducing the prices of the major grains, these policies inadvertently hobble poor dryland farmers in their struggle to compete in the local and regional marketplace by growing the drought-hardy grains: sorghum, millet, and food legumes.

A lesson of 2008 is that dependence on just a few globally-traded crops can expose developing countries to risks that originate far from their shores. Skyrocketing maize and rice prices caused food shortages and high prices in poor, import-dependent countries. Over-dependence on a few crops also creates agro-ecological risks, such as vulnerability to climate change (which may increase drought frequency) and crop disease epidemics (such as the new Ug99 strain of stem rust currently threatening wheat).

Our widespread and long-term village-level studies have revealed two important impacts of this bias: i) an increasingly tenuous outlook for rainfed dryland grain farming, aggravating rural poverty and hunger; and ii) a struggle by dryland farmers to overcome this bias by diversifying into higher-value alternative crops and livelihoods.

High-value crop diversification

Fruit, vegetable, livestock and fish products are in increasing demand by urban dwellers as their incomes rise. By selling into these markets, dryland farmers are beginning to tap a portion of this growing wealth for themselves. High-value crop culture also earns more “income per drop” of water used, an important consideration in water-scarce areas. It is also more labor-intensive, increasing employment opportunities for the poor.

Experiences reveal important lessons about which development models work, and why.



Even without irrigation, many indigenous and exotic high-value fruit trees can thrive on the sandy soils of the Sahel.

Industry-driven models

Rewarding connections have been built between central highland farmers in Kenya and urban markets in Nairobi and worldwide, as elucidated in research by our colleagues at IFPRI. Traditional cultivation of maize as well as industrial crops (tea, coffee) since the 1970s has been supplemented with horticultural fresh-produce crops and dairy products. Investments in roads and other infrastructure were key to success. Farmer incomes are now substantially higher than in neighboring countries within the same agro-ecosystems.

Industrial contracts from food processing and marketing enterprises are also examples of private sector-driven crop diversification. Contract farming is increasingly successful in many developing countries as legal frameworks are liberalized to encourage private-sector investment, but inclusion of smallholder farmers has to be ensured.

Marketing boards and cooperatives

While industry-driven models of crop and livestock diversification have produced impressive results, by their nature their priority is to maximize profits for the industry rather than for farmers. In recent decades, governments have launched marketing boards and farmer cooperatives to advance farmer interests. Many of these initiatives failed though, due to managerial and operational shortcomings.

However, a few were resounding successes, such as the 'White Revolution' in India sparked by dairy farmers in Gujarat State and expanded nationally by India's National Dairy Development Board (NDDB); and the growth of the Kenya Cooperative Creamery (KCC). Both initiatives have been remarkable in overcoming the challenges of collecting mass quantities of highly perishable products over enormous rural areas, adding value and increasing sales through disciplined logistics and cooperation, impressive marketing, and major technical innovations. However, even these successes have evolved over time to ensure more involvement by smallholders.

Producer marketing groups (PMGs)

A model building on these successes is that of producer marketing groups (PMGs), currently being pioneered widely across Africa and Asia. PMGs are owned and run by the farmers or jointly with private-sector partners, often with assistance from NGOs, research partners, government agencies and others. ICRISAT has engaged closely with PMGs to study their potential and constraints. We've worked with partners to stimulate ten PMGs in Kenya since 2003/04, and in Asia we are closely engaged in consortia to develop sweet sorghum bioethanol and for the integrated management of watersheds.

Research on PMGs has found that they hold high promise, for example increasing farmer incomes by 23% in Kenya. To fully reach their potential, supportive steps are urgently needed in areas such as legal status, crop insurance, credit access, infrastructure, management skills, and market intelligence-gathering capabilities.



Members of the PMG "Gendi Rural Cooperative Society" in Babati, Kenya export high-value pigeonpeas to India, using improved varieties bred by ICRISAT.

Helping farmers drive change

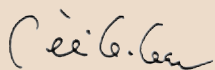
We suspect that the world may come to regret its under-investment in dryland grain crops as climate change kicks in, increasing the need for more robust, drought-hardy crops and crop traits for plant breeding. Arguably, the dryland crops should receive extra attention from public-interest groups, since the more favored grain crops will be well-covered by many private sector and government agencies.

The failure of international trade negotiations aiming to reduce subsidies and trade barriers suggests that inadvertent policy biases against the drylands will continue for some time to come. But the dryland poor cannot wait. They must adapt to the conditions they face today, in order to survive to tomorrow. Policymakers and others in the international development community must assist them in their struggle.

We have a long way to go in increasing that assistance to a rational level. Less than 10% of public spending in developing countries goes to agriculture even though this sector commonly accounts for about half of their Gross Domestic Product. And less than 1% of public spending goes to agricultural research, which is vital to the innovation that opens new livelihood opportunities. Of that 1%, only a small proportion is invested in dryland agriculture.

We at ICRISAT will continue to draw attention to the policy challenges facing these dryland poor. We consider it a privilege and an honor to work side-by-side with them to overcome these challenges.

Sincerely yours,



William D. Dar
Director General



Integrated watershed management in Asia provides a good growing environment for diverse, high-value fruits and vegetables.

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe. ICRISAT's mission is to help empower 600 million poor people to overcome hunger, poverty and a degraded environment in the dry tropics through better agriculture. ICRISAT belongs to the Alliance of Centers of the Consultative Group on International Agricultural Research (CGIAR).

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