

IAASTD Fact Sheet

Feeding the World, Greening the Planet

Summary of Findings of the International Assessment of Agriculture Knowledge, Science and Technology for Development (IAASTD)¹ by Marcia Ishii-Eiteman PhD, Lead Author, Global Report of IAASTD.

Agriculture is at a crossroads; which path we choose today will have far-reaching consequences for our ability to feed ourselves while regenerating the imperiled ecosystems of the world. The convergence of today's climate, energy, food and economic crises urgently calls for reorienting our food and agricultural systems towards sustainability, health, bio-cultural diversity, ecological resilience and equity. These were the central findings of the recently-concluded, first-ever comprehensive global assessment of food and farming.

Akin to the Intergovernmental Panel on Climate Change (IPCC), but focusing on agricultural practices and policies, the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) addressed the central question: What must we do to overcome persistent poverty and hunger, achieve equitable and sustainable development and sustain productive and resilient farming in the face of mounting environmental crises?

The IAASTD, sponsored by the UN Environment Programme (UNEP), UN Food and Agriculture Organisation (FAO), the World Bank and other institutions, represents four years' work by more than 400 scientists and development experts from over 80 countries who examined the intertwined problems of global agriculture, hunger, poverty, power and influence. Their findings, approved by 58 governments in 2008, sent shockwaves through the conventional agriculture establishment.

Call for Global Agricultural Revolution

"Business as usual is not an option," declared IAASTD Director Robert Watson, echoing the IAASTD's call for a radical transformation of the world's food and agricultural system, practices, institutions

and policies. "If a large part of the world isn't to go hungry in the 21st Century," Watson explained, "the focus must be on a more rational, ecologically-based use of scarce land and water resources, an equitable trade regime, and widespread recognition and action on climate change."²

The IAASTD reports concluded that chemical-intensive industrial agriculture has degraded the natural resource base on which human survival depends and now threatens water, energy and climate security. The report warns that continued reliance on simplistic and often expensive technological fixes—including transgenic crops—is not a solution to reducing persistent hunger and poverty and could exacerbate environmental problems and worsen social inequity. Technologies such as high-yielding crop varieties, agrochemicals and mechanization, for example, have primarily benefited transnational corporations and the wealthy, rather than the poor and hungry of the world. Little solid evidence exists to support claims that transgenic crops have contributed to equitable or sustainable development or will do so in the future, but substantial questions about their social, health and environmental impacts remain. The IAASTD pointed towards inconsistent performance of transgenic crops in the field; surging use of chemical weed-killers in conjunction with herbicide-tolerant crops; genetic contamination of wild and native seed resources and of organic farms; lack of transparent communication by manufacturers of the technology; and threats to social equity posed by intellectual property rules and increasing corporate ownership of genetic resources. The IAASTD reports also critiqued transnational agribusinesses' influence over public policy and the unfair global trade policies that have left more than half of the world's population malnourished.

Reorient Towards Sustainability

Fortunately, the IAASTD affirmed, we have options. By increasing investments in the agroecological sciences and creating policy and economic incentives for sustainable farming practices, we can establish more ecologically resilient systems while maintaining productivity and improving profitability for small-scale farmers. Mechanisms for supporting a transition towards agroecological farming include establishing national frameworks for agroecological research, extension, education and production; provision of financial incentives and rewards for resource-conserving practices (i.e. credit lines, crop insurance, payment for environmental services); and encouragement of geographic, fair and sustainable production labels. A reconfiguration of agricultural research, extension and education is also needed, one that recognizes the vital contribution of local and Indigenous knowledge and innovation, and that embraces equitable, participatory processes in decision-making.

Small-scale farmers – and women in particular – require secure access to land, water, seeds, information, credit and markets. By revising laws of ownership, supporting the establishment of women’s, farmers’, Indigenous and community-based organizations, and investing in local infrastructure, community-based businesses, local agro-processing and farmers’ markets, small-scale farmers will have the legal, economic and social security to invest in longer-term resource-conserving farming. In this way, more of the benefits of farming stay in the community and can rejuvenate local ecosystems.

The establishment of more equitable regional and global trade arrangements is critically important to enabling rural communities and developing countries to meet their own food and livelihood security needs. Revision of intellectual property laws to a more equitable system that recognizes farmers’ rights to save and exchange seed can begin to address equity goals and biodiversity issues. Enforcement of strong codes of conduct to guide public-private partnerships improves corporate accountability and helps ensure that public sector research meets public interest goals. International

competition rules and anti-trust regulations are additional mechanisms for breaking up monopoly control of the food system; meanwhile, establishment of local food policy councils supports the revitalization of local and regional food systems.

Pesticide Action Network delegates in Johannesburg hailed the IAASTD report as a “wake-up call for governments and international agencies to act now to ensure the survival of the planet’s food systems.” For the first time, an independent, global assessment had tackled the complex issues around agriculture, and it concluded that small-scale, low-impact, ecological farming offers a powerful and promising way forward, and that nations and peoples have the right to democratically determine their own food and agricultural policies.

Food Crisis vs. Food Sovereignty

Today’s global food crisis has been exacerbated by a number of factors: the large-scale conversion of food crops to agrofuel production; price volatility driven by rampant commodity speculation; changing diets; and production shortfalls related to climate stresses and over-exploitation of the agricultural resource base. However, as documented by the IAASTD, the deeper political and economic roots of today’s crisis lie in decades of government neglect of the small-farm sector; structural adjustment policies imposed on developing countries by the World Bank; grossly unfair trade arrangements; and Northern governments’ practice of dumping their food surpluses in developing countries at prices far below local cost of production. These factors, along with heavy reliance on environmentally destructive industrial agricultural practices, have destroyed rural farm communities around the world, undermining their ability to produce or buy food and contributing to environmental pollution, water scarcity, increasing poverty and hunger. Rather than a food crisis, we now have a food system in crisis.

The IAASTD presents compelling options for confronting today’s food system and climate crises. By strengthening farmers’

organizations, creating more equitable and transparent trade agreements and increasing local participation in policy-formation and other decision-making processes, we can begin to reverse structural inequities within and between countries, increase rural communities' access to and control over resources, and pave the way towards local and national food sovereignty.³ The IAASTD concludes that ensuring food security and recognizing food sovereignty necessitates ending the institutional marginalization of the world's small-scale producers. It thus requires engaging communities – both rural and urban – in the democratization of our food and agricultural systems.

An Inconvenient Truth

The IAASTD was precedent-setting for its bold experiment in shared governance. Civil society groups (along with government, academic, research and private sector representatives) played a key role, not only in authoring the report, but also in providing oversight and governance. History shows that governments and transnational corporations, acting on their own, have not been successful in meeting broad societal goals. The IAASTD's success has proven that active civil society participation in intergovernmental processes is critical to meeting the challenges of the 21st century.

The radical shifts proposed by the IAASTD will inevitably shake up the status quo. Indeed, the IAASTD's findings immediately rankled some participants, including the U.S. government and the agrochemical industry (Syngenta walked out of the IAASTD process in its final days, complaining that their synthetic pesticides and transgenic products had not been sufficiently valued). Of the 61 governments participating at the final plenary review of the IAASTD reports, only three – the U.S., Canada and Australia – did not approve the full text of the reports. The U.S. and Australia were especially stung by criticism of their trade liberalization policies, which were found to have had adverse social and environmental impacts while doing little to alleviate hunger and poverty.

Like reports on the climate crisis, the IAASTD's findings are likely to be considered an “inconvenient truth” for the industrial agricultural establishment and the world's dominant economies. Nevertheless, a growing number of forward-thinking governments, leading academics and researchers, and international agencies such as UNEP and the UN Conference on Trade and Development (UNCTAD), are joining food and social justice movements around the world in calling for a thorough overhaul of our agricultural systems.

Pesticide Action Network is calling on governments, international agencies, private foundations and leaders in the private sector to embrace the IAASTD's bold vision and work closely with all segments of civil society to adopt more sustainable food and farming practices. The new development path outlined in the IAASTD represents our best chance to apply the lessons of climate change to agricultural policy—and to take a decisive step towards advancing the productive, healthy and resilient farming on which our future depends.

¹ McIntyre, Beverly D., Hans R. Herren, Judi Wakhungu and Robert T. Watson (ed). 2009. *International Assessment of Agricultural Knowledge, Science and Technology for Development*. Island Press, Washington DC.

² Watson, R. 2008. *Do we have a food crisis: are the recent price increases a harbinger of the future?* Testimony to the Financial Services Committee of the US House of Representatives, Washington DC, 14 May 2008. www.agassessment.org/docs/WatsonTestimony514082.pdf

³ Ishii-Eiteman, M. 2009. *Food Sovereignty and the International Assessment of Agricultural Knowledge, Science and Technology for Development*. *Journal of Peasant Studies*, Vol 36 (3): 701-712.

Seven Key Findings

1. Multifunctionality

Agriculture involves more than yields: it has multiple social, political, cultural and environmental impacts and benefits. The choices we make in agriculture – and the policies we enact – directly affect our livelihoods, our children’s nutrition and development, community health and well-being, cultural heritages and ecosystem function and services (such as nutrient and water cycling, pollination, etc.) without which we could not survive on this planet.

2. Focus on Small-Scale Farmer

The future of agriculture lies in supporting small-scale farmers around the world. This can be achieved by investing in rural health, education and infrastructure; providing technical assistance in production, local value addition, marketing and responding to climate change and other system shocks; ensuring secure access to resources; and building farmers’, Indigenous and women’s participation into priority-setting, research, and policy-making processes.

3. Harms of Industrial Agriculture

Reliance on resource-extractive industrial agriculture has had high social and environmental costs, including natural resource degradation, chemical pollution and loss of biodiversity. Benefits have been inequitably distributed, with most national and international research and investment priorities privileging better-resourced farmers and agribusiness firms. A narrow focus on yields and on expensive, short-term technical fixes such as genetically modified crops does not address the root causes of poverty and hunger; diverts scarce resources away from more robust and appropriate solutions; and can exacerbate social inequity and environmental harm.

4. Ecological Resilience through Agroecology*

Overcoming interconnected global crises of climate, water and energy requires strong support for and investment in the agroecological sciences, and in multifunctional, biodiverse, sustainable farming, including organic and low-input methods. Indigenous knowledge and community-based innovations are an invaluable part of the solution.

5. Food Security

Agricultural policies, along with private sector growth strategies, have contributed to corporate concentration and vertical integration of the food system. Achieving food security and sustainable livelihoods for people in chronic poverty depends on ensuring access to and control of resources by both small-scale farmers and farmworkers, and rebalancing power in the food system. This can include support for local and regional food policy councils; local agro-processing and rural-urban linkages; local and regional food procurement; workers’ health, safety and rights; and enforcing strong anti-trust rules to eliminate monopoly controls of food and agricultural systems.

6. Fair Trade

Fair trade. Unrestricted trade liberalization has harmed the poorest and their environments, and threatens the food security of developing countries. Equitable regional and global trade rules – and policy flexibility to allow countries to meet their domestic food security needs – are necessary to build local economies, reduce poverty and improve livelihoods.

7. Food Democracy

Achieving equitable development requires better governance; transparent, democratically governed institutional arrangements; and participation in all stages of decision-making by the full range of stakeholders. Effective allocation of public resources requires transparent participatory decision-making processes to set priorities, evaluate potential tradeoffs and monitor the impacts of investments and public policies.

**Agroecology is the science and practice of applying ecological concepts and principles to the study, design and management of sustainable agroecosystems. It includes social, political, cultural and economic dimensions and integrates state-of-the-art formal science with traditional and community-based knowledge; local food system experiences; and innovations that are low-cost, readily adaptable by small and medium-scale farmers and likely to advance social equity while conserving biodiversity, natural resources and ecosystem function.*

Contact

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