

SUBCOMMITTEE JOINT HEARING NOTICE
COMMITTEE ON FOREIGN AFFAIRS
SUBCOMMITTEE ON INTERNATIONAL ORGANIZATIONS, HUMAN
RIGHTS AND OVERSIGHT
and
SUBCOMMITTEE ON AFRICA AND GLOBAL HEALTH

Statement
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1. Feed The Future Guide

Feed the Future Guide (FTF) is a forward looking document, which demonstrate the will to move forward in terms of global food security.

The policy approach considers sustainable agriculture and small-scale farmers, but falls short on the key issues that are at the center of a new paradigm for sustainable agriculture: **multi-functionality**. The operating paradigm remains a productivistic one -- along the lines of "we must increase production to feed the world and that this can be done with "new science & technologies" breeding for increased yields under different stress conditions in particular. As evidence that the full impact of the present approach to food production has not yet been internalized is showcased in the FTF statement, "As food supplies increase [from our new technologies], prices to consumers will drop [and there will be less hunger]." All the evidence shows that there is a disconnect between these assumptions and that there is a need to reconsider totally the "more food - lower prices - less hunger" paradigm.

The summary text for FTF is quite vague as to what technologies will be employed to achieve this production gains and thus reduce hunger--and this of course makes all the difference. However, the very first sentence in the Implementation Guide under how to *improve productivity* (which itself is the first section under "*agriculture-led growth*") states: "Increase access to affordable agricultural inputs and improved techniques and technology, *including agricultural biotechnology*, high quality seed, livestock feed, fertilizer, and best management practices." To have the last cited component first, would indicate a true understanding of the problem, and a will to tackle the issue from ground up --so to speak, rather than using the old "more input" paradigm, which we have learned has serious limitations in time of climate change, water shortages and high energy prices . This is confirmed in the supporting document mentioning a drought-resistant maize project now underway as an example of what FTF would support — very likely the "WEMA" GMO maize project. To emphasize a reductionist approach over an agroecological one is shortsighted and bound to replicate the earlier mistakes of the green revolution. There are many great examples of highly productive and sustainable systems that could serve as example to be mainstreamed, but there is no indication that such approaches

will be considered, despite a very favorable cost-benefit and implementation time frame.

More revealing than what is said (or not said) in Feed the Future, is it is interpreted. According to USAID, FTF will “build on breakthroughs in science and technology,” to be “delivered to” small-scale agricultural producers - which seems to belie the words about participation and recognizing local and Indigenous knowledge that appeared in the Summary document (the Country Investment Plans). There is no mention of agroecological farming or ecological agriculture and neither any of the IAASTD, the most comprehensive assessment of agricultural knowledge, science and technology published in the past couple of years, or actually anytime. There is no mention of addressing inequity in trade arrangements or within or between countries. Rather, the emphasis is on “agriculture-led growth” through “trade and other mechanisms,” “seeking reductions in government controls on commodity prices,” and “protecting intellectual property.” The focus throughout is rather vaguely on building partnerships with everyone -- with the World Bank, IFAD, private sector, NGOs, etc. Special emphasis is given to investing in the WB's Global Ag & Food Security Program (GAFSP) which allows only minimal and carefully controlled inputs from civil society and which many see as the WB's way of funneling more investments towards transgenic, nanotech & other converging technologies.

Further, given the consistency with which the high level US food/ag/foreign aid policy leaders refer to biotech/GMOs and nanotech as the way forward, particularly when speaking about Feed the Future and global food security, while passing over the more salient and promising approaches to food security that are also mentioned in the FTF. Therefore the concern that the quick techno-fix approach still prevails in the FTF over the true “sustainable agriculture” paradigm as called for in the IAASTD report promoting the environmentally, socially, economically sustainable agriculture that is needed to assure food security in the long term and under the multiple challenges ahead.

2. The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD).

The objective of the International Assessment of **Agricultural Knowledge, Science and Technology for Development** (IAASTD) was to assess the impacts of past, present and future agricultural knowledge, science and technology on the:

- **reduction of hunger and poverty,**
- **improvement of rural livelihoods and human health, and**
- **equitable, socially, environmentally and economically sustainable development.**

The IAASTD was initiated in 2002 by the World Bank and the Food and Agriculture Organization of the United Nations (FAO) as a global consultative process to determine whether an international assessment of agricultural knowledge, science and technology was needed. Mr. Klaus Töpfer, Executive Director of the United Nations Environment Programme (UNEP) opened the first Intergovernmental Plenary (30 August-3 September 2004) in Nairobi, Kenya, during which participants initiated a detailed scoping, preparation, drafting and peer review process.

The reports draw on the work of over four hundred experts from all regions of the world who have participated in the preparation and peer review process. As has been customary in many such global assessments, success depended first and foremost on the dedication, enthusiasm and cooperation of these experts in many different but related disciplines. It is the synergy of these interrelated disciplines that permitted IAASTD to create a unique, interdisciplinary regional and global process.

The final Intergovernmental Plenary in Johannesburg, South Africa was opened on 7 April 2008 by Achim Steiner, Executive Director of UNEP. This Plenary saw the acceptance of the Reports and the approval of the Summaries for Decision Makers and the Executive Summary of the Synthesis Report by an overwhelming majority of governments.

The IAASTD report, **Agriculture at a Crossroads**, captures the complexity and diversity of agriculture and agricultural knowledge, science and technology (AKST) across world regions. It is built upon the Global and five Sub-Global reports that provide evidence for the integrated analysis of the main concerns necessary to achieve development and sustainability goals.

It addresses the primary animating question: how can AKST be used to reduce hunger and poverty, improve rural livelihoods, and facilitate equitable environmentally, socially, and economically sustainable development?

The report identifies current conditions, challenges and options for action that shape AKST and eight cross-cutting themes. These include: bioenergy, biotechnology, climate change, human health, natural resource management, trade and markets, traditional and local knowledge and community-based innovation, and women in agriculture.

The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) responds to the widespread realization that despite significant scientific and technological achievements in our ability to increase agricultural productivity, we have been less attentive to some of the unintended social and environmental consequences of our achievements. We are now in a good position to reflect on these consequences and to outline various policy options to meet the challenges ahead, perhaps best characterized as the need for food and livelihood security under increasingly constrained environmental conditions from within and outside the realm of agriculture and globalized economic systems.

This widespread realization is linked directly to the goals of the IAASTD: how AKST can be used to reduce hunger and poverty, to improve rural livelihoods and to facilitate equitable environmentally, socially and economically sustainable development. Under the rubric of IAASTD, we recognize the importance of AKST to the multifunctionality of agriculture and the intersection with other local to global concerns, including loss of biodiversity and ecosystem services, climate change and water availability. The IAASTD is unique in the history of agricultural science assessments in that it assesses both formal science and technology (S&T) and local and traditional knowledge, addresses not only production and productivity, but also the multifunctionality of agriculture and recognizes that multiple perspectives exist on the role and nature of AKST.

For many years, agricultural science focused on delivering component technologies to increase

farm-level productivity where the market and institutional arrangements put in of new technologies. The general model has been to continuously innovate, reduce farm gate prices and externalize costs. This model drove the phenomenal achievements of AKST in industrial countries after World War II and the spread of the Green Revolution beginning in the 1960s. But, given the new challenges we confront today, there is increasing recognition within formal S&T organizations that the current AKST model requires revision. Business as usual is no longer an option. This leads to rethinking the role of AKST in achieving development and sustainability goals; one that seeks more intensive engagement across diverse worldviews and possibly contradictory approaches in ways that can inform and suggest strategies for actions enabling the multiple functions of agriculture.

In order to address the diverse needs and interests that shape human life, we need a shared approach to sustainability with local and cross-national collaboration. We cannot escape our predicament by simply continuing to rely on the aggregation of individual choices to achieve sustainable and equitable collective outcomes. Incentives are needed to influence the choices individuals make. Issues such as poverty and climate change also require collective agreements on concerted action and governance across scales that go beyond an appeal to individual benefit.

At the global, regional, national and local levels, decision makers must be acutely conscious of the fact that there are diverse challenges, multiple theoretical frameworks and development models and a wide range of options to meet development and sustainability goals. Our perception of the challenges and the choices we make at this juncture in history will determine how we protect our planet and secure our future.

Development and sustainability goals should be placed in the context of

- (1) current social and economic inequities and political uncertainties about war and conflicts;
- (2) uncertainties about the ability to sustainably produce and access sufficient food;
- (3) uncertainties about the future of world food prices;
- (4) changes in the economics of fossil-based energy use;
- (5) the emergence of new competitors for natural resources;
- (1) increasing chronic diseases that are partially a consequence of poor nutrition and poor food quality as well as food safety; and
- (2) changing environmental conditions and the growing awareness of human responsibility for the maintenance of global ecosystem services (provisioning, regulating, cultural and supporting).

Today there is a world of asymmetric development, unsustainable natural resource use, and continued rural and urban poverty. Generally the adverse consequences of global changes have the most significant effects on the poorest and most vulnerable, who historically have had limited entitlements and opportunities for growth.

The pace of formal technology generation and adoption has been highly uneven. Actors within North America and Europe (NAE) and emerging economies who have captured significant economies of scale through formal AKST will continue to dominate agricultural exports and

extended value chains. There is an urgent need to diversify and strengthen AKST, recognizing differences in agroecologies and social and cultural conditions. The need to retool AKST, to reduce poverty and provide improved livelihoods options for the rural poor, especially landless and peasant communities, urban, informal and migrant workers, is a major challenge.

There is an overarching concern in all regions regarding poverty alleviation and the livelihoods options available to poor people who are faced with intra- and inter-regional inequalities. There is recognition that the mounting crisis in food security is of a different complexity and potentially different magnitude than the one of the 1960s. The ability and willingness of different actors, including those in the state, civil society and private sector, to address fundamental questions of relationships among production, social and environmental systems is affected by contentious political and economic stances.

The acknowledgment of current challenges and the acceptance of options available for action require a long-term commitment from decision makers that is responsive to the specific needs of a wide range of stakeholders. A recognition that knowledge systems and human ingenuity in science, technology, practice and policy is needed to meet the challenges, opportunities and uncertainties ahead. This recognition will require a shift to nonhierarchical development models.

The main challenge of AKST is to increase the productivity of agriculture in a sustainable manner. AKST must address the needs of small-scale farms in diverse ecosystems and create realistic opportunities for their development where the potential for improved area productivity is low and where climate change may have its most adverse consequences.

The main challenges for AKST posed by multifunctional agricultural systems include:

- How to improve social welfare and personal livelihoods in the rural sector and enhance multiplier effects of agriculture?
- How to empower marginalized stakeholders to sustain the diversity of agriculture and food systems, including their cultural dimensions?
- How to provide safe water, maintain biodiversity, sustain the natural resource base and minimize the adverse impacts of agricultural activities on people and the environment?
- How to maintain and enhance environmental and cultural services while increasing sustainable productivity and diversity of food, fiber and biofuel production?
- How to manage effectively the collaborative generation of knowledge among increasingly heterogeneous contributors and the flow of information among diverse public and private AKST organizational arrangements?
- How to link the outputs from marginalized, rain fed lands into local, national and global markets?

Options for Action:

Successfully meeting development and sustainability goals and responding to new priorities and changing circumstances would require a fundamental shift in AKST, including science, technology, policies, institutions, capacity development and investment. Such a shift would recognize and give increased importance to the multifunctionality of agriculture, accounting for

the complexity of agricultural systems within diverse social and ecological contexts. It would require new institutional and organizational arrangements to promote an integrated approach to the development and deployment of AKST. It would also recognize farming communities, farm households, and farmers as producers and managers of ecosystems.

This shift may call for changing the incentive systems for all actors along the value chain to internalize as many externalities as possible. In terms of development and sustainability goals, these policies and institutional changes should be directed primarily at those who have been served least by previous AKST approaches, i.e., resource-poor farmers, women and ethnic minorities.

Such development would depend also on the extent to which small-scale farmers can find gainful off-farm employment and help fuel general economic growth. Large and middle-size farmers continue to be important and high pay-off targets of AKST, especially in the area of sustainable land use and food systems.

It will be important to assess the potential environmental, health and social impacts of any technology, and to implement the appropriate regulatory frameworks. AKST can contribute to radically improving food security and enhancing the social and economic performance of agricultural systems as a basis for sustainable rural and community livelihoods and wider economic development. It can help to rehabilitate degraded land, reduce environmental and health risks associated with food production and consumption and sustainably increase production.

Success would require increased public and private investment in AKST, the development of supporting policies and institutions, revalorization of traditional and local knowledge, and an interdisciplinary, holistic and systems based approach to knowledge production and sharing.

Success also depends on the extent to which international developments and events drive the priority given to development and sustainability goals and the extent to which requisite funding and qualified staff are available.