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Defining the Future of Agriculture

The UN Agriculture Assessment may well herald the end of the Green Revolution era

Next week, nothing less but the future of agriculture is up for debate. Governments and scientists from all around the world will gather in Johannesburg to debate the final report of the UN Agriculture Assessment. Several hundred scientists worked for three years to take stock of the current state of farming, globally. Their final report – still to be adopted by government delegates – is a sobering account of the failure of industrial farming. It calls for a systematic redirection of agricultural research, to better address hunger, severe social inequities and environmental problems. This report, if adopted, will become a key reference point for the future of agriculture and may well be the beginning of the end of industrial agriculture as we know it.

All relevant UN institutions are involved, hundreds of the world's foremost agricultural scientists wrote the report, and it will be formally adopted by government delegates in Johannesburg. It is hard to imagine that any national or international institution will ignore its major findings in future decisions on agriculture research and development.

One obstacle, however, remains. Governments still have to adopt the report. As we all witnessed time and again with other scientific endeavors such as the Intergovernmental Panel on Climate Change (IPPC), governments have a tendency to mend scientific findings towards their political interests. Some of the usual suspects are already lining up their diplomats and spin-doctors to water down the scientist's findings in the upcoming Johannesburg meeting.

A look at the undistorted conclusions in the current version of the draft report, as summarized by the scientists, is revealing. While the scientists disagreed on a few controversial issues, they found common ground on some principles that challenge the very basics of industrial farming and the agribusiness paradigm. Key findings include:

- The emphasis on increasing productivity in the past decades is not sustainable and came at the expense of degrading natural resources and (key finding 3).
- The future of farming is agro-ecological (key finding 6).
- Agriculture provides more than yields and money. It is multifunctional and comprises important cultural, social, and environmental aspects that are necessary to sustain rural and urban livelihoods (key finding 5).
- Agricultural research must be redirected to address social inequities and environmental problems (key findings 6 and 7)
- Not only university style science, also local and indigenous knowledge have some important answers to the challenges ahead (key finding 9).
- Opening national markets to unregulated international competition can have long-term negative effects for food security, poverty alleviation and the environment (key finding 16).

For decades, the science and politics of agriculture was dominated by the Green Revolution paradigm that is based on high chemical inputs and that treats soil, water, air and farmers as expendable

resources. It is indeed a revolution if now the global scientific community concludes, in the Summary for Decision Makers of their draft report, that "the ecological footprint of industrial agriculture is already too large to be ignored."

The US, World Bank and other Green Revolutionaries are now criticizing the report as unbalanced and one-sided. The genetic engineering industry even ran away from the process. But their allegation of an unbalanced assessment is perfidious: they themselves selected all scientists and editors of this report, together with a multi-stakeholder Bureau comprising industry, governments and international organizations.

The strength of the UN Ag Assessment is the fact that all stakeholders were involved and thus a balanced selection of scientists was guaranteed. Now the US is crying foul just because this report was not written and spin-doctored by a small crowd of handpicked, one-sided industry scientists.

The jury was fairly picked, the jury was out, and the jury came back with a clear vote for a fundamental change in the way we do farming. The future of agriculture lies in a biodiversity- and labor-intensive farming that works with nature and the people, not against them. Millions of farms on all continents already prove that ecological and sustainable agriculture can provide sufficient food, increase food security, replenish natural resources and provide a better livelihood for farmers and local communities.

Today's chemical-intensive agriculture is more like mining than farming, trying to extract as much economic value as possible from each piece of land. While it may provide short-term gains in production, it is not sustainable in the long term and compromises the dwindling agricultural area upon which our future food supply depends; and it fails to meet the needs of local communities for livelihoods, food security and a healthy, diverse diet.

Food security will not be achieved through technical fixes such as ever increasing amounts of chemical fertilizers or pesticides, or genetically engineered crops. All too often, the chemical-intensive agriculture results in a downward spiral of soil and water depletion, decreasing yields, environmental destruction, poverty and hunger.

To fully exploit the potential of a healthy and biodiverse-intensive agriculture, a sea-change in research priorities is needed: from now on, the majority of all expenditures – nationally as well as internationally – on agricultural research and knowledge dissemination must be invested into farming systems that are biodiversity intensive, do not pollute the biosphere nor deplete natural resources, and which enable communities to feed themselves and others with a nutritious diet and to secure their livelihoods through productive work.

The time has come to recognise the false promise of the agriculture industry and genetic engineering. It is time to support the real revolution in farming that meets the needs of local communities and the environment, restores the land and enables the poor to combat hunger, displacement and depletion of their resources and culture. The time has come, next week, in Johannesburg, South Africa.

The draft reports of the UN Agriculture Assessment are online available at www.agassessment.org.

The plenary of the UN Agriculture Assessment (also known as IAASTD – International Assessment of Agricultural Science and Technology for Development) is being held in Johannesburg, South Africa, from 7-12 April 2008.