

Hans Rudolf Herren, a Swiss agronomist and entomologist, is a pioneer in biological pest control and the Co-chair of the IAASTD. In 1995, he received the World Food Prize for fighting a cassava pest in Africa. Until 2005, he led the International Centre of Insect Physiology and Ecology (icipe) in Kenya. Today, he is president of the Millennium Institute in Washington and the Swiss 'Biovision Foundation'. In 2013 he won the 'Right Livelihood Award'.

“We need a radical transformation of agriculture”

Benedikt Haerlin: *The IAASTD has become a milestone in the debate on sustainable agriculture. Where do you see the main impact of the report today, seven years after its initial publication?*

Hans Herren: The key option for action that came from the IAASTD report is that agriculture, on a global scale, needs to transition to agroecology as the way ahead to deal with the challenges of sustainable and equitable development. It is very satisfying to see that the debate and action around agroecology has picked up momentum, not least with FAO's 'overture' towards agroecology with an international symposium in Rome in September 2014 and three regional meetings in 2015. The report is gaining traction at many different levels. Its essence that business as usual is not an option and agroecology is the answer has been reflected in several paragraphs of the Rio+20 declaration, which has found its way into the now universally approved Sustainable Development Goals (SDGs) and further into the COP21 Climate Conference in Paris in December 2015.

Which of the messages have made it to the mainstream of international discussions?

Herren: The recognition that present agriculture and food systems are not in line with the need for a sustainable world. Agriculture must transform from being a contributor to a solver of problems such as climate change, public health, environmental degradation, loss of farmers and rural to urban migration. The need for a radical reset towards sustainability in all three dimension, environmental, social and economic – these messages have been heard and made their way into the debate around food and farming systems. They are now slowly moving into mainstream, despite a very strong pushback by vested interest, agro-industry and large foundations.

... and which of them have been the most ignored?

Herren: What has been most ignored is the need to also radically transform industrial food systems. It is still assumed that developed countries, with their unsustainable industrial agriculture and food systems have to “feed the world”. The message that countries need to maximize their own capacity to produce food and protect their own farmers, also addressed as food sovereignty, has yet to be taken into account in the agriculture and food policies of developed countries. Along these lines, developing countries still need to make more efforts to implement the options for action outlined in the IAASTD, rather than go the “easy” way and follow productivist models promoted by the World Bank, the Bill & Melinda Gates Foundation, etc., which are doomed from day one and do not follow the IAASTD's insightful recommendations. For example it was suggested that all countries carry out an assessment “a la IAASTD” to evaluate the transformation needs and pathways but little or nothing has happened, except a Biovision and Millennium Institute project in Senegal, Kenya and Ethiopia, which aims at the development of guidelines for efficient national ag and food system assessments.

“We reaffirm the important work and inclusive nature of the Committee on World Food Security (CFS), including through its role in facilitating country-initiated assessments on sustainable food production and food security.”
(\$115, Rio+20 declaration “The Future We Want”)

Many of those participating in the first report have suggested a follow-up IAASTD. But this seems not to be an option any longer. Do you have an explanation for that?

Herren: With the establishment of the Intergovernmental Panel on Biodiversity (IPBES), which is in some ways in competition with the original IAASTD, there is little chance that the IAASTD can be revived. Perhaps the best way forward is to have the national assessments recommended by the IAASTD. This was taken up in the Rio+20 declaration suggesting that FAO's Committee on Food Security (CFS) assists countries in developing guidelines for efficiently carrying out these assessments.

Do you see other international efforts or even institutions that have taken up the spirit of the IAASTD?

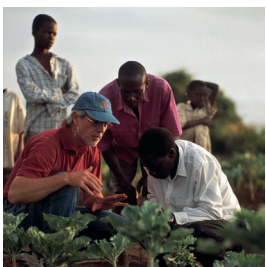
Herren: The IPBES is certainly one of the processes which has a lot to do with agriculture but covers it from an ecosystem and biodiversity angle. I think this is very unfortunate as the two processes should be one. It should also be noted that the IAASTD would have had room to grow and expand, so as to cover, in a very integrated and holistic manner, what the IPBES is now doing out of context. For me this is the greatest missed opportunity to agriculture, the food system and the environment.

How do you assess the Sustainable Development Goals (SDGs) adopted in 2015? My impression would be that quite a bit of the IAASTD messages have actually been taken up there.

Herren: Yes, lots of what the IAASTD, the Rio+20 declaration and the last two UN Secretary General reports on agriculture have highlighted is now part of the SDGs, not only in goal 2 but across all goals. There is a tremendous opportunity to create synergies, given that agriculture and food are so closely linked to all sectors and sustainable development dimensions. It is now imperative that they are implemented without delays focusing on the food system, sustainable agriculture and agroecology.

The implementation and even the evaluation criteria of the SDGs are still to be seen...

Herren: We are still at the very beginning of the implementation. We have 17 goals, 169 targets



Herren with farmers in Kenya

and 304 indicators, the latter still being discussed. The targets relating to agriculture and food are many and very relevant to support the needed transformation as was recommended in the IAASTD. The main effort will be to carry out the national assessments to inform about the policies that are required to achieve these targets. More work is needed to localize the indicators for goal 2 on hunger and others linked to food and agriculture and it is important that this work includes the relevant stakeholders.

What role is assigned to agriculture in the Paris Agreement on climate change and its follow-up?

Herren: Much too little importance has been given to agriculture and food systems to address climate change, in particular when it comes to mitigation. Ahead of COP21, France launched the 4/1000 initiative whose aim is to take carbon out of the atmosphere by increasing soil carbon content by 0.4 percent each year. The idea behind it is that reducing emissions is not enough, we also need to reduce the amount of carbon already in the atmosphere if we want to have a small chance of keeping global warming below 2°C. That initiative received too little attention and is now part of the COP22 agenda.

Is 'Climate-Smart Agriculture' a lesson learned from the IAASTD?

Herren: Climate-Smart Agriculture could also be called Green Revolution 2.0. It is just more of the same old model some want to maintain given the huge vested interests the agribusiness has in selling inputs to farmers, be it seeds, fertilizers or precision agriculture gadgets. With all we know about the need for holistic and systemic approaches to agriculture, this is clearly wrong-headed and diverts too much attention from what needs to be done, i.e. embracing agroecological/regenerative practices. The latter two are going hand in hand, as the basic premise is to work with nature, not against it, using natural processes to regenerate soils and seeds and work in highly diversified systems, with diverse crops and animal breeds of very distinct genetic makeup.

Bioeconomy and sustainable intensification are also buzzwords that seem to point in a totally different direction than the IAASTD. Is there a counterreform under way, also within the academic world?

Herren: Yes, there are many ways of keeping the status quo while pretending to make changes. One of the main excuses for not making more radical changes is that it is too expensive. The truth is that it is irresponsible not to spend money to transform the system *now* to agroecological and regenerative practices and science. In its Green Economy Report in 2011, UNEP clearly demonstrated that IAASTD's recommendations can be implemented by 2050 with spending only about a third of the total agricultural subsidies paid today. We would still produce enough food in the quantity and quality needed to nourish well nine to ten billion people, while using less land and water.

Looking back at the period of agricultural development since the 1980s, do you see more light or darkness?

Herren: I think that there is light at the end of the tunnel *but* we have to keep watching the politics that undermine the urgently needed transformation of agriculture. Positive developments can be seen in many places, more good science is being produced in support of sustainable agriculture as defined by the IAASTD but governments are still not ready to pay the bill for R&D in the area of agroecology, organic, regenerative agriculture, leaving the work to NGOs. This is one of the main reasons why it is so difficult to get these modern and efficient agricultural practices to farmers. As long as the CGIAR, regional and national R&D organizations only pay lip service to agroecology, we will not see a change in the near future. Governments need to live up to their responsibilities now and fund R&D with public funds to create public goods and accelerate the development and extension of sustainable agriculture practices.

The world has not become a safer place since the IAASTD was adopted; war and terror combined with utter ignorance have resulted in the largest number of refugees since World War II. What role do you see for subsistence farming and small-scale farmers in this new area of globalization?

Herren: Smallholder farmers need to be better supported with information, market access and also land rights, so that they can move on from their present subsistence, smallholder condition to viable units. In some areas of the world we do need more farmers, in others some farmers will need to move on to sell and repair farm machinery, to become food processors, etc. There is not one recipe for all situations. But the one element that will make a change possible and sustainable is to change the price structure of food. The constant push on food prices to accommodate the poor is wrong-headed. We need to eliminate poverty instead and deal with the growing inequality. This will allow farmers to move on and up. Realistic food prices include externalized costs, both positive and negative. The present pricing system for food is actually at the root of most problems on farms and in rural areas.



Hans Herren is the author of the chapter on agriculture in UNEP's Green Economy Report.