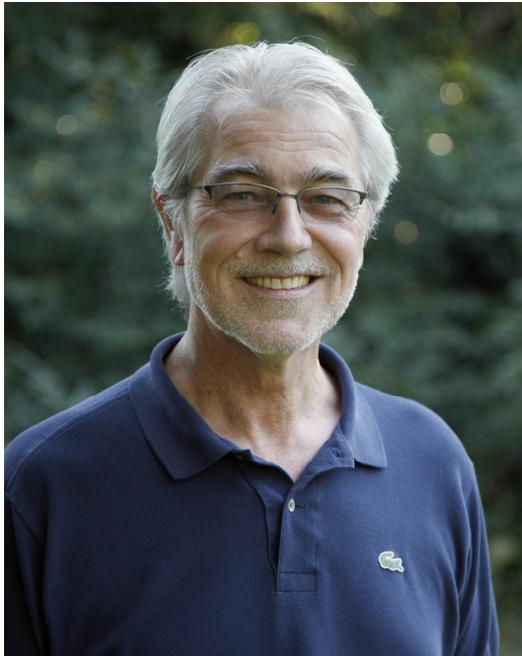


**Hans Rudolf Herren**

## **Sustainable Ecological Development in Agriculture**



The persistence of hunger and poverty, food insecurity and malnutrition has remained despite remarkable increase in production and productivity of agriculture around the globe, even if an uneven pattern.

The increases in productivity have however come at a great expense in the social and environmental dimensions of sustainable development.

Therefore the call, at the Johannesburg Sustainable Development Summit in 2002 to engage in a major assessment of agriculture, as the bases for a reshaping of agriculture and the food system, at global and regional level.

The ensuing International Assessment of Knowledge, Science and Technology for Development (IAASTD) provided a clear direction for the transformation of the present and predominant agriculture and food systems:

There is a need for a “paradigm change” and “business as usual is not an option”.

The IAASTD’ s call that a transformation of agriculture and the food systems across the globe is urgently needed to address the food and nutrition security issues with a strong emphasis on ecological sustainability was loud and clear and substantiated with evidence on the problem as well as solution side.

It is by far not enough to continue with the reductionist approach championed through the green revolution to assure sufficient, safe and nutritious food for the decades ahead.

The existential problems that are affecting agriculture are mostly self inflicted, this not being restricted to the industrial agriculture model, which is strongly dependent of external inputs, but as well the more traditional practices, which often are mining the natural resources, thus not sustainable either.

Part of the problem is short term thinking, profit orientation, technology and consumer driven actions. The huge pre and post retail wastage of food, added to the pre harvest losses would more than make up the extra food needed by 2050. The recognition that consumer food consumption behavior is closely linked to the production patterns is leading to new measures to tackle that end of the system’s transformation towards ecological sustainability. Change, even if slow, is now becoming a reality thanks to the wording in the Rio+20 declaration, which makes the case for a transformation of the agriculture and food systems, supported by national multi-stakeholder systemic and holistic assessments that will inform new and transformative policies at all levels.

Furthermore, the transition from the MDGs to the SDGs is presenting a new opportunity to set new goals and targets, this time universal, leveling the playing field and assuring that all will have to play under the same rules, which has so far been one of the main blockage, aside from true costing through inclusion of the externalities, for making real progress in the implementation of agro-ecological principles across the board.