

Agroecology: a (not so) new approach for a sustainable food production system.

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In the present environmental, energetic and social conditions, agriculture is under an increasing stress to respond to the world demands for food production. The world food system has come to its limits and cannot guarantee the provision of a healthy diet for an increasing population that will come to 10 billion souls by midcentury. Despite an initial success in increasing yields since the midcentury, the so called “Green Revolution” has showed structural flaws that are making it unsustainable. The pressure of energy costs since 1973 have made evident that a system that have a very negative balance in terms of input/output calories (ten to one, in average) cannot survive. In the same line, fertilizer costs are increasing continuously, pressing food cost. On the other hand, impacts of agricultural operations on soil and water are destroying natural resources relentlessly. And, finally, the intensive use of biocides is contaminating food, soil, water and agricultural workers, with impacts on the health of producers and consumers. Among all human activities, agriculture (and the food system as a whole) is one of the most important contributors to greenhouse gas emissions. And it has the greatest impact on biodiversity losses worldwide.

Time has come to put an end to the present food system and adopt alternatives that do not have the above-mentioned flaws. Experiences all over the world demonstrate that agroecology can sustainably produce enough food for all humanity, increasing the quality of diets to guarantee a healthy existence.

The question now is not if agroecology can feed the world without destroying the planet but how it can be supported for a quick and successful adoption by all producers. And the first condition in agroecological transition is the recognition that the world will have to change the social fabric of the agricultural operations. As a system based in very diversified production designs agroecology cannot be applied in large scale operations and so, the agrobusiness approach, with extensive monocultures with intensive use of heavy machinery must be abandoned. Agroecology is at its most efficient results when operated by small and middle-sized family farms. This fact implies a radical change in the land distribution and in the numbers of workers employed, which means a rural world very different from the one we have on the more advanced economies, with the (re)creation of a peasant society. The present urban concentration of the population must be reversed and the whole economy will be affected with the distribution of wealth being radically changed.

How to promote agroecological transition is the key question for the survival of humanity not only because food is a basic need for all but because the agroecological way of production can significantly help the efforts to control global warming.