

Comments on the ‘Zero draft’ of the Voluntary Guidelines for Sustainable Soil Management

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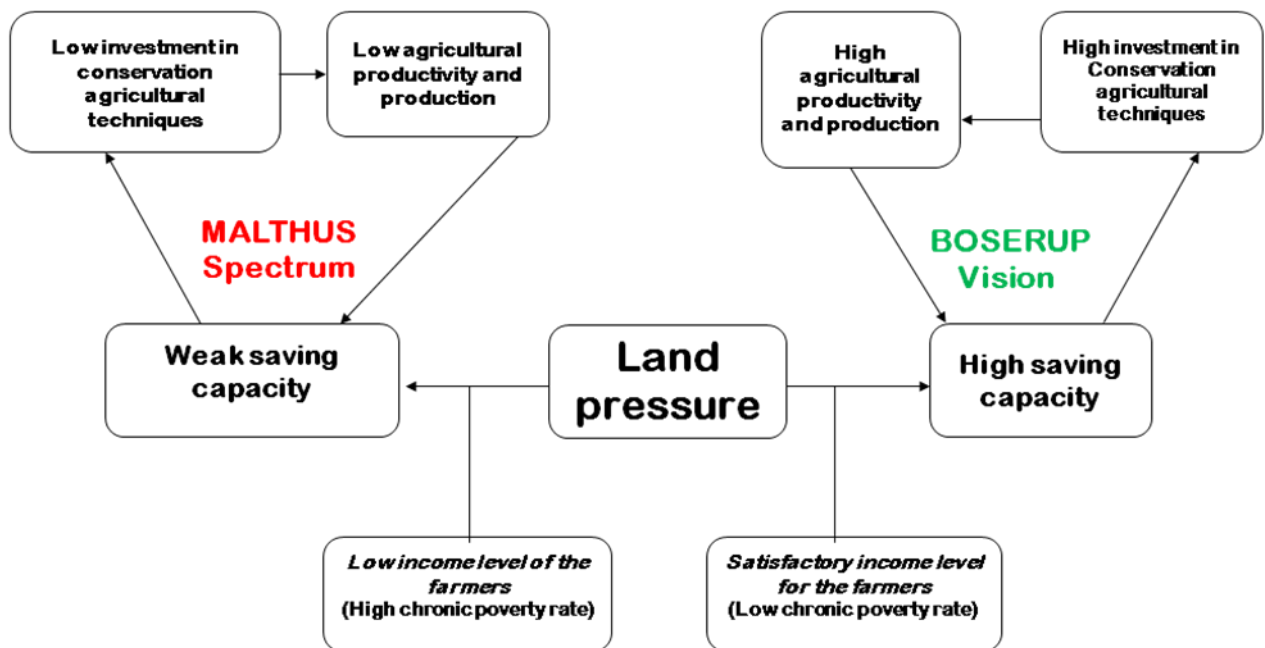
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This document on the guidelines for sustainable soil management is interesting as far as I'm concerned but, it can be improved. First, I suggest that there's no section named 1.0, 4.0, 5.0, 6.0. Just name them 1., 4., 5., 6. Second, I think it's important to present the causes of bad soil management observed through the world. For, the guidelines should indicate how to face the obstacles to sustainable soil management worldwide.

In fact, human life is highly dependent on soil quality. That's why the quality of soil management is very complex. It's linked not only to the level of land pressure, but also to the farmers economic status, and their knowledge on agricultural techniques of soil conservation, such as natural fallow, improved fallow technologies, planting perennial crops, agroforestry, cover crop use, drip irrigation, lowland crop development, salt tolerant crop adoption, etc. Sustainable land management has been the focus of my thesis presented in November 2008. This thesis, entitled "**Poverty Dynamics and Agricultural Practices for Environment Conservation in African Rural Area: The Case of Adja plateau in Southern Benin**", (see <https://tel.archives-ouvertes.fr/tel-00680042>), has developed a complementary theory to the two former theories on soil management in the situations of high land pressure; the theory of Malthus (1798), and that of Boserup (1970).

On one hand, the pessimists, mainly represented by Malthus (1798), think that land pressure is associated to negative effects on agricultural production and leads to famine, soil degradation and rural exodus. On the other hand, the optimists, mainly represented by Boserup (1970), think that land pressure is an essential factor for technological change and sustainable soil management. Although in general the demographic and food evolution in Africa presents a Malthusian trend, like the cases of Yatenga in Burkina Faso, Serer district in Senegal and Adja plateau in Benin Republic, it was even though observed some Boserupian evolutions like the cases of Bamileke district in Cameroon and that of Machakos district in Kenya. One wonders if it's still possible to presage in Africa a generalised optimistic evolution of Boserup (1970) and in which conditions. This thesis, from a temporal analysis of 122 households on the Adja plateau in the southern Benin, developed a theoretical intermediary position between Malthus theory and that of Boserup. It's demonstrated that in land pressure situation, the farmers' welfare state was an important determinant of sustainable soil management and agricultural productivity improvement. Land pressure does not induce *ipso facto* technological change and agricultural development. The Malthus spectrum and the optimistic vision of Boserup represent the extreme situations induced by a higher chronic poverty rate in the first case and a lower chronic poverty rate in the second case (see figure below).



In order that the farmers can develop sustainable agriculture, sustainable soil management techniques in land pressure situation, it's necessary to reduce significantly (or eliminate) chronic poverty among them by facilitating a truly profitable agriculture. The situation on the Adja plateau, where the chronic poverty rate is estimated at 28.7 %, followed the Malthusian spectrum. The Zero draft proposed should then take into account actions for chronic poverty elimination among the farmers. Efficient agricultural policies are then necessary.