

**Master thesis – Division of Organic Farming
WG Transdisciplinary Systems Research**

Topic	Potential revitalisation of agricultural machinery and their application under different agro-ecological conditions and cropping systems in Ethiopia
Objective	Analysis of unused, partly damaged machinery and the potential and costs of repairing and use under different agro-ecological conditions
Description	Over the last decades a considerable amount of agricultural machineries was provided by international donors as well as purchased by governmental institutions. Observations by experts lead to the conclusion that there is a high number of unused machinery in the possession of different Ethiopian organisations. These machines are partly in a good shape, partly to be repaired and others completely destroyed (however useful to provide spare parts). Furthermore, the mode of utilisation of the machinery needs to be reconsidered – not every machinery size and type is useful in all kinds of agricultural settings and soil-climate-crop combinations.
Methods	An evaluation model is to be developed to document and assess this kind of “abandoned” machinery. A survey in selected districts (Woredas) should inform about the existing machineries that lie idle, the costs of repairing and recommendations on how to deploy them. It is further to assess how far the machineries are adapted to the specific soil types and dominating crops in the respective Woredas. The number of organizations to be visited is to be specified by the Master’s student. The study should serve as a method for analysing the issue Ethiopia-wide, i.e. in other regions. This master thesis is embedded into a project of GIZ / Ethiopia, guided by Velten Hebermehl and will be financially supported by GIZ
Region	Tropics (Oromia / Ethiopia)
Focus	Natural Science
Time frame	From now on
Supervision	Bernhard Freyer, Velten Hebermehl, GIZ / Addis Abeba / ET
Requirements	Very good knowledge in agricultural technology / engineering (preferably with a practical farm background), knowledge in soil sciences and crop production; economy; English language
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