

**1<sup>st</sup> International Conference on Agroecology  
Transforming Agriculture & Food Systems in Africa**

Reducing Synthetic Fertilizers and Pesticides by Scaling Up Agroecology  
And Promoting Ecological Organic Trade

Thematic Area:

4: Strengthening Ecological Organic Trade, Markets and Economy

Abstract Title:

The Importance of Digital Transformation for a  
Sustainable Economic Development of the Organic Sector

Authors:

Gerald A. Herrmann, Ina Hiester

The organic sector worldwide grows at fast speed, and so does the administrative burden that is supposed to maintain its functionality and credibility. The use of information and communication technologies (ITC) plays a key role in facing this challenge. Farmers, farmer groups, contract farmers, processors, exporters, importers, wholesalers, retailers, certifiers and accreditation bodies: all parties need to consistently file proof that organic products and processes comply with national and international standards and regulations. Competitive markets demand professional organizational structures that yield high organic quality at low cost, based on transparent and smooth processes, with the help of reliable partners.

The administrative burdens that emerge with organic certification processes lead not only to higher costs, but also to the exclusion of many smallholder farmers, especially in rural areas of developing countries. These comprise about 90% of all farms worldwide and produce a substantial proportion of the world's food. Their inclusion in organic markets is not only a sustainable development aid measure, but essential to organic food supplies. In order to successfully participate in these markets, smallholder farmers need to organize themselves in groups and manage their certification processes together, whilst using reliable ITC tools.

But not only smallholder farmers need to modernize substantially. All supply chain participants, including organic certification and accreditation bodies, need to leave ancient paper-based documentation methods behind and invest heavily in digital transformation. The use of modern ITC should in this context not be restricted to serve certification purposes only. ITC has to, wherever possible, serve multiple purposes including farm management and production, training and education, marketing and finance. If the organic sector intends to grow further in a sustainable manner, digitalization is key. This presentation will focus on concrete, easy-to-use ITC solutions that facilitate certification and documentation processes along supply chains.