

# SYPROBIO

## CATEGORY:

POLICY RESEARCH FIELD CLIMATE

## LOCATION/SCALE:

Mali, Burkina Faso, Benin (International)

## IMPLEMENTING ORGANISATION:

FiBL (Research Institute of Organic Agriculture Switzerland)

## PERIOD:

2010 - now

## IN A NUTSHELL

SYPROBIO is active in three West-African countries and seeks to combine and strengthen the knowledge and creativity of researchers, technicians and local farmers to **address problems related to food security and adaptation to climate change**. They set up ten representative circles of concerted actors (CAC, 10 organic farmers, 3 technicians/extensionists, 2 researchers) to **find sustainable solutions** in order to enhance resilience based on the principles of agroecology and prove that they work. Together **they defined 27 innovative practices for on-farm research**. Those innovations came from different domains like soil fertility, seed, plant health, cultivation and socio-economy. Through these farmer-led innovation platforms new practices are tested and introduced and comparative research on the economic and agronomic differences is done.

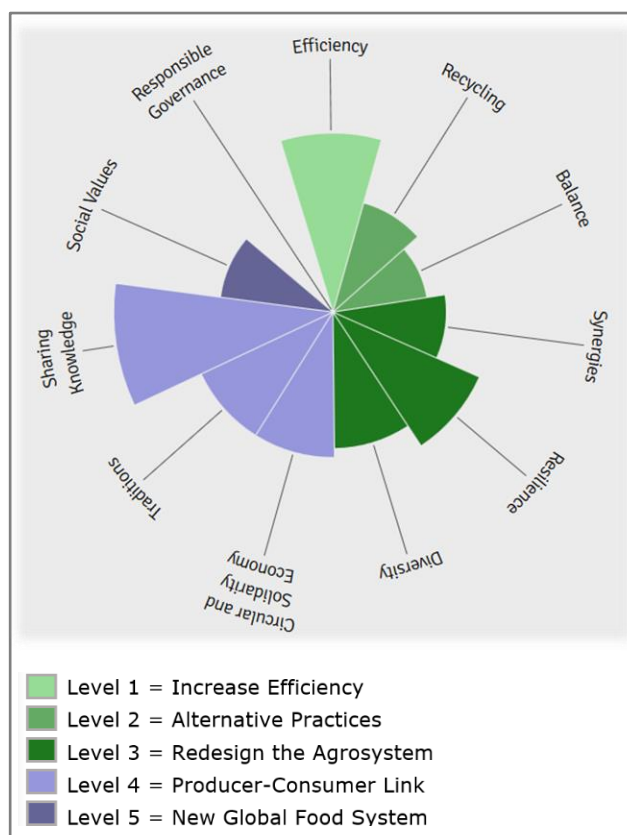


Figure: Assessment of Syprobio based on FAO Elements of Agroecology and Gliessman's five levels of food system change

## CONTEXT

The current social, economic, climatic and ecologic situation in West Africa constitutes both practical and intellectual challenges. Soil degradation, pests, food insecure farmers, climate change, rural-urban inequalities and fragile societal structures are just a few problems that the region has to deal with. Agriculture is in the middle of this multidimensional complex.

## OBJECTIVE

The innovations shall improve food security and climate change adaptation. The national research partners conduct on-station research in order to complement the on-farm research to provide further evidence on scientific differences between various farming practices, categorized into organic simple and diversified, conventional low and high input farming.

## KEY RESEARCH

### FARM LEVEL:

- Introduction of varieties more resilient to pests and weeds
- Usage of bio pesticides and organic manure to reduce synthetic inputs
- Intercropping using local varieties and trap plants to increase nutrient efficiency and reduce application of pesticides

### REGIONAL/NATIONAL LEVEL:

- Self-organized farmer groups to improve capacities to analyse and make decisions
- Circles of concerted actors (CCA) to bring together different stakeholders and to develop practicable sustainable solutions (based on the research)
- Innovation platforms (IP) as social systems to promote appropriate technologies (that enhance resilience and solve its member's problems).

## LESSONS LEARNED/CHALLENGES

The main concern of the farmers is the low soil fertility with low potential to yield increase without external inputs. Also producing sufficient compost is difficult with a lack of animals little water, few machines.

Farmers also struggle with lacking means of communication, institutional instability and high costs for field visits by researchers. In order to scale up the practices of SYPROBIO communication between science, economy and politics needs to improve.

## RELEVANT LINKS & REFERENCES

- FiBL: "Agroecology applied. The case of the SYPROBIO project"  
<http://www.fao.org/3/a-at088e.pdf>
- FiBL/IER-CRRA: "Syprobio: Farmer-led innovation platforms to address food security, poverty alleviation and resilience to climate change in West African cotton-growing communities"  
[http://orgprints.org/28765/1/Syprobio\\_Farmer\\_led\\_IP\\_%20Nicolay\\_AISApaper.pdf](http://orgprints.org/28765/1/Syprobio_Farmer_led_IP_%20Nicolay_AISApaper.pdf)