

DIVECOSYS

Biological diversity and agroecological systems
Soil and crop health



- To enhance the diversity of cultivated or associated plants and the recycling of biomass to improve biological activity and soil fertility in a context of climate change and increasing water scarcity
- To mobilize biological interactions to promote the natural regulation of pests and diseases and limit the impact of invasive species
- To fuel the design of innovative and sustainable agroecological systems through a multidisciplinary approach combining agronomy, ecology and social sciences.

A platform in partnership for research and training (dP in French) is a long-term strategic alliance made up of a critical mass of partners and researchers around a shared program and portfolio of projects. Managed collectively, the Platform is open to members of civil society to facilitate its impact and also interacts with public policy decision makers in order to generate changes and transformations.



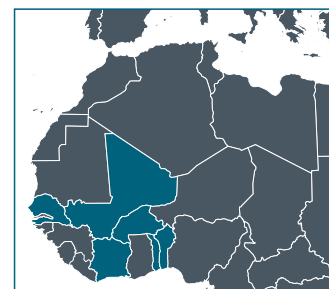
@ R. Babin, Cirad

Climate change and agriculture expansion across natural areas threaten ecosystems whose biological components maintain soil health and facilitate the natural regulation of crop pests and diseases. In a context of increasing demand for chemical inputs in line with population growth, the platform multi-partner and multi-local anchorage helps develop crop protection strategies to boost farm productivity and reduce farmers' reliance on chemical inputs for the well-being of populations. With this in mind, Divecosys has been assigned three main missions:

- The production of new scientific and technical knowledge to serve agroecological engineering
- The capacity building of the new generation of researchers and engineers through initial and professional trainings in the principles of agroecology
- The support of stakeholder networks across agroecological transition of food and agricultural systems.

■ DIVECOSYS IN A NUTSHELL

- Created in 2010
- 6 countries in West Africa
- 15 members
- + 150 researchers and teachers
- 27 PhDs in progress
- 15 ongoing research projects
- 20 scientific publications / year



■ SOME PARTNERS

NGOs: Agronomes et Vétérinaires Sans Frontières (AVSF), Eco from Africa in Senegal; Nitidae, Fert in Côte d'Ivoire; Terre et Humanisme in Burkina Faso.

Farmers organisations and agricultural unions: Fédération Nationale pour l'Agriculture Biologique (FENAB), Conseil National de Concertation et de coopération des Ruraux (CNCR) in Senegal; Agneby Program and Organization of Producers and Exporters of Bananas, Pineapples, Mangoes, and other Export Fruits of Côte d'Ivoire (OBAMCI)

Private sector: Eléphant vert, Albizia, SODEFITEX, SODAGRI in Senegal; BioTradeMark in Burkina Faso; SODIPEX in Côte d'Ivoire.

Decision-makers: Ministries of agriculture and higher education in Senegal and Burkina Faso; National Academy of Sciences, Arts and Letters of Burkina Faso.

Donors: European Union (EU), Agence Française de Développement (AFD), French National Research Agency (ANR), International Fund for Agricultural Development (IFAD), U.S. Agency for International Development (USAID), Food and Agriculture Organization (FAO).



@ R. Belmin, Cirad

■ MEMBERS

Benin

- National Institute of Agricultural Research of Benin (INRAB)
- Abomey-Calavi University/ Faculty of Agricultural Sciences (UAC/FSA)
- International Institute of Tropical Agriculture (IITA, CGIAR)
- Institut de Recherche sur le Coton (IRC)
- National University of Science, Technology, Engineering and Mathematics - National School of Applied Biosciences and Biotechnologies (ENSBB/UNSTIM)

Burkina Faso

- Joseph KI-ZERBO University, Doctoral School of Science and Technology (UJKZ- ED/ST)

Côte d'Ivoire

- Félix Houphouët Boigny University, African Center of Excellence on Climate Change, Biodiversity and Sustainable Agriculture (UFHB-CEA-CCBAD)
- National Centre for Agricultural Research (CNRA)
- Centre Suisse de Recherches Scientifiques (CSRS)

Mali

- Institute of Rural Economy (IER)

Senegal

- Science and Technology Faculty, Cheikh Anta Diop University (FST-UCAD)
- Gaston Berger University of Saint-Louis-du-Sénégal (UGB)
- Senegalese Agricultural Research Institute (ISRA)

Togo

- Togolese Institute for Agricultural Research (ITRA)

France

- French Agricultural Research Centre for International Development (Cirad)

■ EXPERIENCE AND TECHNICAL KNOWLEDGE

- Technical advice and methods for good cropping practices, ensuring product quality while minimizing chemical input use, especially pesticides
- Contribution to the development of technological tools
- Diagnoses for pests and diseases and development of monitoring and evaluation methods
- Coordination of projects on integrated and sustainable pest and disease management
- Methodological support for the design of research and development programmes in the field of agroecology
- Agro-economic and environmental diagnosis of tropical agricultural production systems and modeling of their functioning

■ BENEFICIARIES

Farmers benefit from the implementation of agricultural practices adapted to crop conditions, based on targeted and localized control practices.

Village communities can develop mosaics of plots to encourage pest and disease antagonists, parasitoids, pathogens, or predators, and reduce pest and disease dispersal.

Policy makers have access to analyses, methods and tools to support the dissemination of such strategies.

Scientists and students strengthen their skills through training and through the dissemination and sharing of tools and methods from the disciplines of agronomy and ecology (ecological intensification, ecosystem services, landscape ecology, etc.).



© R. Belmin, Cirad

INVOLVEMENT IN NATIONAL AND INTERNATIONAL NETWORKS

Divecosys participates in the technical, steering and communication committees of the Dynamique pour une transition agroécologique au Sénégal (DyTAES). DyTAES is a structured network of NGOs, farmers' organizations, local authorities and research institutions, whose goal is to promote the agro-ecological transition in Senegal through advocacy, awareness raising, experience sharing and support for territories in transition.

Divecosys also participates in the steering committee of the National Platform for Ecological and Organic Agriculture (PNAEB).



@ R. Belmin, Cirad

■ SOME PROJECTS IN PROGRESS

Agro-ecological transition in the cotton zones of Benin (TAZCO2) – 2021– 2025, funded by the Agence Française de Développement (AFD)

The project aims to support farmers in northern Benin in the adoption of more sustainable cropping practices to contribute to the long-term increase of their incomes.

SAFEVEG “Safe locally-produced vegetables for West Africa’s urban consumers”, Benin, Burkina Faso, Mali – 2020 – 2025, funded by EU and the Ministry of Foreign Affairs of the Netherlands
The SAFEVEG project is coordinated by WorldVeg and aims to improve the diets of thousands of West African consumers through the adoption by vegetable producers of improved vegetable seeds, sustainable growing practices and reduced post-harvest losses.

Project to support the Agro-Ecological Transition in the cotton-growing regions of Mali (AgrEco) – 2020 - 2024, funded by the Agence Française de Développement (AFD)

The Research & Development component of the AgrEco project aims to co-design efficient and more sustainable production techniques and strategies, from the plot to the territory, to support the agro-ecological transition of production systems in the cotton-growing regions of Mali.

Cocoa4Future « Sustainability of production systems and new dynamics in the cocoa sector», Côte d'Ivoire, Ghana – 2020 – 2024, funded by EU, AFD

The Cocoa4Future project aims to strengthen the sustainability and resilience of cocoa production in West Africa through agro-environmental diagnosis of monoculture or agroforestry plantations and characterization of farmers' agroforestry strategies.

Fostering Agroecological Intensification for Improving farmers' Resilience in Sahel (FAIR Sahel), Senegal, Burkina, Mali – 2020 - 2024, funded by EU and AFD

The operational objectives of the FAIR Sahel project are to diagnose and identify groups and situations of innovation, to co-design innovative systems, and to create favourable conditions for agroecological intensification through training and knowledge sharing.