

# SUSFISH to be continued

## APPEAR Advanced Academic Partnership

SUSFISHplus started on December 2016 for another 36 months

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### SUSFISHplus Project Description:

In response to threats of chronic water scarcity and episodes of severe drought, since 1950 hundreds of reservoirs were created to provide a dispersed network of water storage facilities throughout Burkina Faso. As fisheries, these reservoirs also became important new sources of food. However, pressures of overfishing, intensive agriculture and sedimentation threaten the services, fish water quality and ecological integrity these reservoirs provide. To establish **sustainable management of natural and man-made aquatic systems**, Burkina Faso governance requires methods and tools for standardized assessment methods of water and river network health as well as a tool to measure the environmental impacts on riverside society. From November 2011 to 2014 the project SUSFISH was implemented first steps to strengthen national capacities to manage fisheries by providing reliable data and information to be used in the formulation of policies and consolidating higher education and research. The success of SUSFISH was the **close cooperation between university and ministries in terms of policy formulation and the providing interdisciplinary national data on biodiversity and ecological water quality for the first time**. As a result it showed a lack of information sharing between experts, stakeholders of water and fisheries management. Second there is a need for an applied education program, on several scales - bottom up and top down - for academic and fisheries communities to use scientific knowledge in theory and practice. This has encouraged partners to pursue further cooperation within the frame of advanced APPEAR partnership. In the core of this cooperation the project will respond to these two needs: by

- a) establishing an innovation platform and
- b) developing an integrated education and research program.

Consequently we will build on capacity building, development and research on scientific and policy basis to study and contribute to sustainable fisheries, water and river health when society meets ecology in Burkina Faso.

All main activities are summarized in outcomes, clustered into **five work packages (WP)** and their specific activities, **WP1 is focusing on River Networks Health and Protection**, which will include in activity 1 sampling, monitoring biodiversity of fish and benthic invertebrates. Activity 2 will link biology and waters environmental parameters as well as hydrology, climate change aspects and other human induced pressures. In activity 3, based on a public data-base, newly

adapted environmental flow impact assessment methods as a diagnostic tool will be developed for further local and national mitigation strategies.

Beside the ecological components we will focus on sustainable fisheries enhancement in **WP2 Capacity Building on Fisheries and Society**, Fisheries sustainable practices support by value chain analyses will improve food security and explain economic and gender values. An integrative water management and governance means in general the continuation of socio economic adaptive management research to identify and synthesize lessons learned in both SUSFISH partnerships. This mean also capacity building in terms of a new policy, stakeholders and scientists. We will firstly include integrative local and national analyses for a sustainable fisheries and water management will be completed by policy recommendations for (1) mitigation and restoration measures, and (2) for a sustainable environment and food security. **A fisheries and water management Innovation Platform** (networking, radio, TV) will be an implemented tool for mitigation and restoration measures strategies for ecological improvement a better governance, **realized in WP3**.

In **WP4 Education in Environmental Water Management** means a top down – bottom up educational approach (level 1 University) enhancing existing (BTEM) and complementary (MoRAP) Master Curricula available at the University Ouaga 1 Professeur Joseph Ki-Zerbo (former University of Ouagadougou) and supervise students on Master and PhD level from North and South. In level 2 (national) we will teach at high school (forester) and governmental officials. Level 3 (local) is dedicated to workshops with fishermen, authorities and stakeholders and NGO's responsible for water. These steps will be directly linked to results and network of the innovation platform.

Finally all SUSFISH outcomes, will be published as a book "Current questions in water management for Burkina Faso", building on projects outputs from SUSFISH and integrating results from SUSFISH-plus. The book will be edited by the SUSFISH coordinators (WP5 Coordination and Dissemination).

All former **Key Partners** (university-, ministry- and NGO-institutions) and their Principle Investigators are still involved in SUSFISH\_plus:

1. BOKU - University of Natural Resources and Life Sciences, Vienna
  - IHG - Institute of Hydrobiology and Water Management
  - CDR - Centre for Development Research
2. UNI VIE - University of Vienna, Department of African Studies
3. INERA - Ministry of Research, Institute for Environment and Agricultural Research
4. UO - University Ouaga I Pr Joseph Ki-Zerbo. LAEB Department of Biology
5. PUB - Polytechnic University of Bobo Dioulasso. RDI Rural Development Institute
6. IUCN - International Union for Conservation of Nature, Burkina Faso
7. GDFR - Ministry of Animal and Fish Resources. General Directorate for Fish Resources

There remains a clear need to continue, strengthen, improve or validate some of the promising initial results, such as the validation of the red list of fish species, the bio-monitoring of waters and of the impacts aquatic ecosystems under pressure on society. Our experience in SUSFISH will help to save time in **implementing new activities that are socially, politically and**

**scientifically relevant**, such as the contribution to higher education, assessment and improvements in capacity building.



Andreas and Raymond in 2012 when SUSFISH started

