



Institut de Recherche  
pour le Développement  
FRANCE

French National Research Institute for Sustainable Development

# INCEPTION WORKSHOP

Western Indian Ocean Strategic Action Programme Policy  
Harmonization and Institutional Reforms (SAPPHIRE) project

**Potential support and collaboration  
from IRD into SAPPHIRE**

Seychelles

Date: 16 November, 2017

# The French National Research Institute for Sustainable Development (IRD)

- ◆ A French public multidisciplinary organization working primarily in partnership with Mediterranean and inter-tropical countries on the science of global development issues.

an original approach to **research, expertise, training and knowledge-sharing** to the benefit of countries and regions that make science and innovation key drivers in their development

**A RICH COMMUNITY OF OVER 7,000 PEOPLE INCLUDING**



**820 IRD RESEARCHERS**      **1,228 IRD ENGINEERS AND TECHNICIANS**



**35%** OF AGENTS WORKING OUTSIDE MAINLAND FRANCE



**56** JOINT RESEARCH UNITS under IRD co-supervision



**ALMOST 4,000 PUBLICATIONS PER YEAR**  
over half of which are co-signed with partner scientist in developing countries



# An institute working for development network and presence in fifty or so countries



# Working in partnership : tools for collaborative Research

## An equitable scientific partnership

Examples of joint capacity building and research instruments co-designed and co-developed with local partners

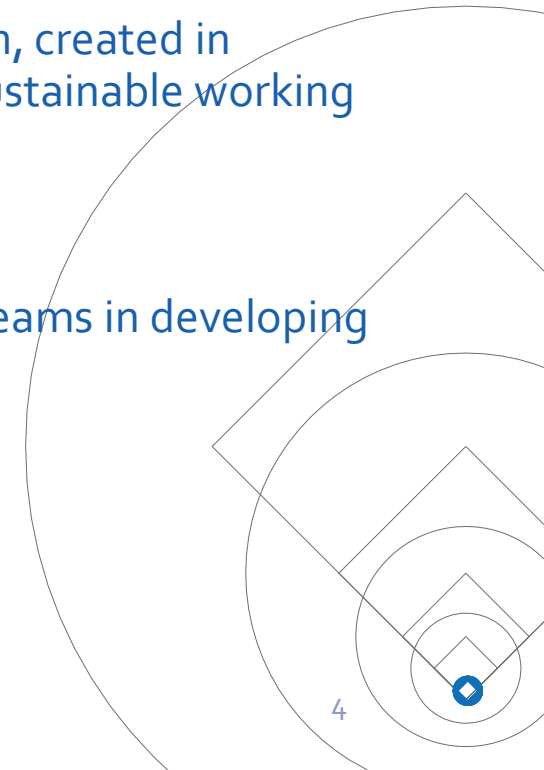
- **International Joint Laboratories (IJL)**

**IJL** are operational research structures located in a partner institution, created in conjunction with the IRD's partners to develop solid and long term sustainable working relationships (e.g. ICEMASA, in South Africa).

- **Young associated teams (JEAI)**

This program is designed to promote and strengthen new research teams in developing countries through partnership with IRD research units.

**Primary goal:** building long-term research capacity & ownership in developing countries



# Main flagship initiatives in the WIO region

## 1- Ongoing

- ◆ **SEAS-OI:** Satellite-based environmental monitoring in the Indian Ocean (since 2012). A centre for excellence in remote sensing. Capacity building and applications on oceanic and coastal/land interface, coastal ecosystems (pollution, landscape occupation, etc. );
- ◆ **Observatory for Tropical Ecosystems:** scientific knowledge to sustainably manage tropical tuna stocks with due consideration to the ecosystem effects of high seas fisheries. Data warehouse with on-line query tools (partnership with Seychelles, Mauritius, Madagascar).
- ◆ **ICEMASA** (International Centre for Education, Marine and Atmospheric Sciences for Africa), Cape Town (South Africa). Inter-disciplinary research, capacity building in climate change impacts on ocean circulation, marine ecosystems and fisheries.
- ◆ **JEAI-ACOM:** Aquaculture and Ecosystem Management in Madagascar – leading partner “*Institut d’Halieutique et des sciences marines Toliara*”;
- ◆ **PSTBS-IO:** Understanding stock structure of tuna and tuna-like species in the Indian Ocean using genetics techniques and microchemistry (co-PIS : Australia-Indonesia-France-Spain);
- ◆ **Seamounts ecology** project in the SWIO: biodiversity patterns, regional connectivity (France-South Africa). Three research cruises performed in 2016-2017.

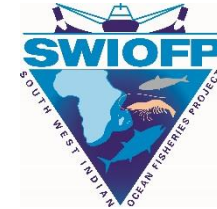
# Main flagship initiatives in the WIO region

## 2- Completed

- ◊ **MOZALINK project** : Linking marine science, traditional knowledge and cultural perceptions of the sea in the Mozambique Channel to build tomorrow's marine management using spatial simulation tools and educational games – in partnership with WIOMSA
- ◊ **CANAL Project**: understanding changes in the biochemical composition and spatiotemporal variability of tropical tunas and its effects on meat quality for human consumption in the Mozambican channel (Seychelles-Madagascar-France)
- ◊ **GERMON Project** : study of the spatial structure of the albacore tuna stock in the South West Indian Ocean for better management of this resource (France-Seychelles-South Africa).
- ◊ **UE FP7 MADE Project** : Mitigation of Adverse Ecological Impacts of Open Ocean Fisheries (France (leader), Spain, Portugal, Seychelles, Maldives, Brazil)
- ◊ **JEAI-MOCA**: Mozambique Oceanic Atmospheric sciences, including capacity building in studying marine ecosystems along the coasts of Mozambique - leading partner "University Eduardo Mondlane" – Maputo
- ◊ **JEAI-SEYSHA**: From behavioral ecology to spatial management for the conservation of coastal sharks in the Seychelles (IRD France, SFA Seychelles)

Several training activities (both short and long term) are also set up to reinforce capacity building among IRD partner countries, including long and short term mission of French IRD scientist in partner institutions.

# IRD contributions to SWIOFP/ASCLME



- IRD: French representative within ASCLME's Steering Committee and coordinator of the French component of the SWIOFP project
- SWIOFP project: lead on 3 major SWIOFP project components (out of 6):
  - ◆ Establishment of a regional fisheries database (StatBase)
  - ◆ Habitat of large pelagic fish exploited in the region
  - ◆ and assess the sensitivity of iconic species (marine turtles and marine mammals) to fisheries activities.
- IRD organized training workshops in design of ecosystem indicators and processing of both instrumented longline data and bio-logging data
- IRD also organized or participated in multidisciplinary oceanographic cruises using French, South African and Norwegian research vessels, including capacity building activities on-board.

# Niches for cooperation and potential support of IRD to SAPPHIRE

- ◆ **Component 1** : support to the SAPPHIRE Scientific and Technical Advisory Panel (**STAP**) and/or WGs and mobilizing its local network to contribute to the science/policy interface at several levels.
  - ◆ Example : Setting up an interoperable database of legal instruments to highlight similarities/dissimilarities between countries of the region
- ◆ **Component 2** : support regarding stress reduction through ecosystem-based practices
  - ◆ especially outcome 2.2 via study and assessment of local social, political and economic contexts
  - ◆ Several similar approach developed in Madagascar by IRD
  - ◆ Fishery-system modelling with strong emphasis on societal dimension



# Niches for cooperation and potential support of IRD to SAPPHIRE

## ◆ Component 4 on innovative ocean governance:

- ◆ Outcome 4.1. regarding high seas areas
  - follow-up on IRD's contribution to the FFEM-IUCN project on the SWIO Seamounts – exchange on key findings and innovative management options
  - Strong implications in the ecosystem and management work of the Indian Ocean Tuna Commission (IOTC)
- ◆ Outcome 4.2: Marine Spatial Planning, using integrated tools

## ◆ Component 5 on Capacity Development and training, especially for outcomes 5.1

- ◆ Marine spatial planning
- ◆ Close connection with GOOS and International Indian Ocean Expedition II

## Supporting regional capacity building approach

- ◆ France/IRD's membership to the:
  - ◆ **Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA)**
  - ◆ **Western Indian Ocean Marine Science Association (WIOMSA)** – IRD scientists in the Board and in the Editorial Committee of the WIOMSA Journal

### **French GEF proposal on science–policy interface in the WIO, led by IRD (8 co-funders), 1.7 M€**

- ◆ **Innovative processes in integrated management and resilience of coastal zones**
  - ◆ **Enhancing the dialogues with decision makers** (incl. knowledge transfer follow on the multidisciplinary IUCN/FFEM project and Walter Shoals)
  - ◆ **Capacity building activities** - summer schools and workshops (incl. ICZM and innovative solutions, MSP supported by the Mozalink Project)
  - ◆ **Awareness rising** (innovative tools :E-POP, Mareco, etc.) and oceanographic campaigns (Monaco Institute of Oceanography - Yersin)

## Main IRD partners in the WIO region

### ◆ Comores

- ◆ Institut de Recherche pour l'Agriculture, les Pêches et l'Environnement IRAPE

### ◆ Kenya

- ◆ Kenya Marine Fisheries Research Institute (KMFRI)

### ◆ Madagascar

- ◆ Centre National de Recherche Océanographique (CNRO)
- ◆ Institut d'Halieutique et des Sciences Marines (IHSM)
- ◆ Unité Statistique Thonière Antsiranana

### ◆ Mauritius

- ◆ Albion Fisheries Research Centre (AFRC)
- ◆ Mauritius Oceanography Institute (MOI)
- ◆ Commission de l'Océan Indien (COI)

### ◆ Mozambique

- ◆ Institute for Fishery Research (IIP), Maputo,
- ◆ School of Marine and Coastal Sciences at the University Eduardo Mondlane (UEM), Maputo

### ◆ France

- ◆ Institut français de recherche pour l'exploitation de la mer (Ifremer)
- ◆ Université de La Réunion
- ◆ Hydro-Réunion

### ◆ Seychelles

- ◆ Seychelles Fishing Authority (SFA)
- ◆ University of Seychelles (Unisey)

### ◆ South Africa

- ◆ University of Cape Town (UCT), Ma-Re Institute
- ◆ Nelson Mandela University (NMU), Port-Elizabeth
- ◆ Nansen-Tutu Centre for Marine Environmental Research (NTC), Cape Town
- ◆ Department of Environmental Affairs (DEA)
- ◆ Department of Agriculture, Forestry and Fisheries (DAFF)
- ◆ Oceanographic Research Institute (ORI), Durban

### ◆ Tanzania

- ◆ Institute of Marine Sciences, University of Dar es Salaam
- ◆ Tanzania Fisheries Research Institute (TAFIRI)
- ◆ Institute of Marine Sciences, Zanzibar