

FP7 Afrimaison

How to plan, play & prompt meso-institutions for INRM



Disclaimer: the opinions in this presentation are those of the author and do not commit in any way the European Commission



AfroMaison



AFROMAISON - Africa at **meso-scale**: adaptive and integrative tools and strategies for natural resources management

FP7-AFRICA-2010: March 2010 – February 2014

Objective: making INRM operational at meso-scale

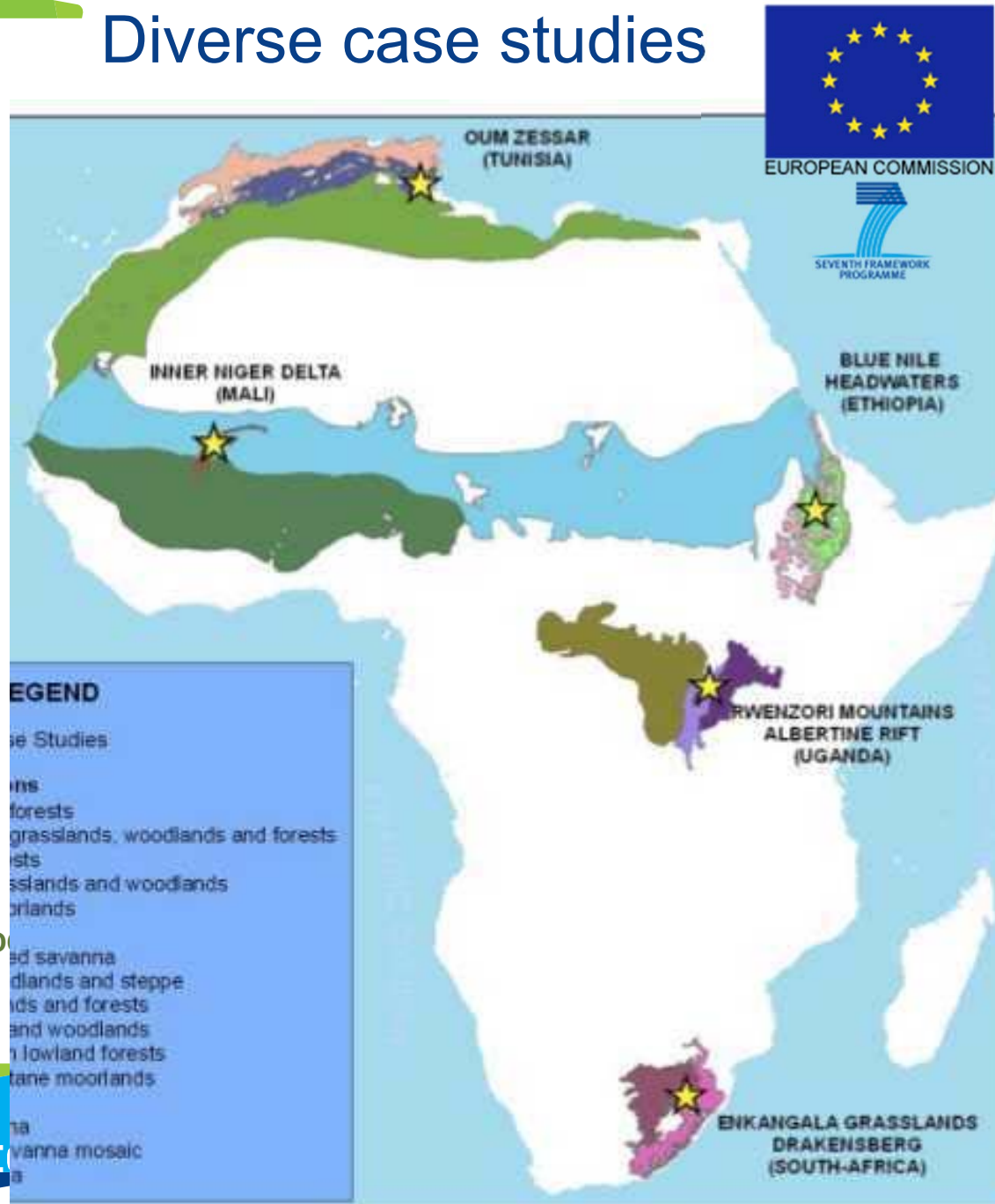
Output: tools, strategies and guidelines

Meso-scale: sub-national level



Diverse case studies

3



- Tunisia
- Ethiopia
- Mali
- South-Africa
- Uganda

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A green abstract shape consisting of several overlapping rectangular blocks.

Afromaison aim

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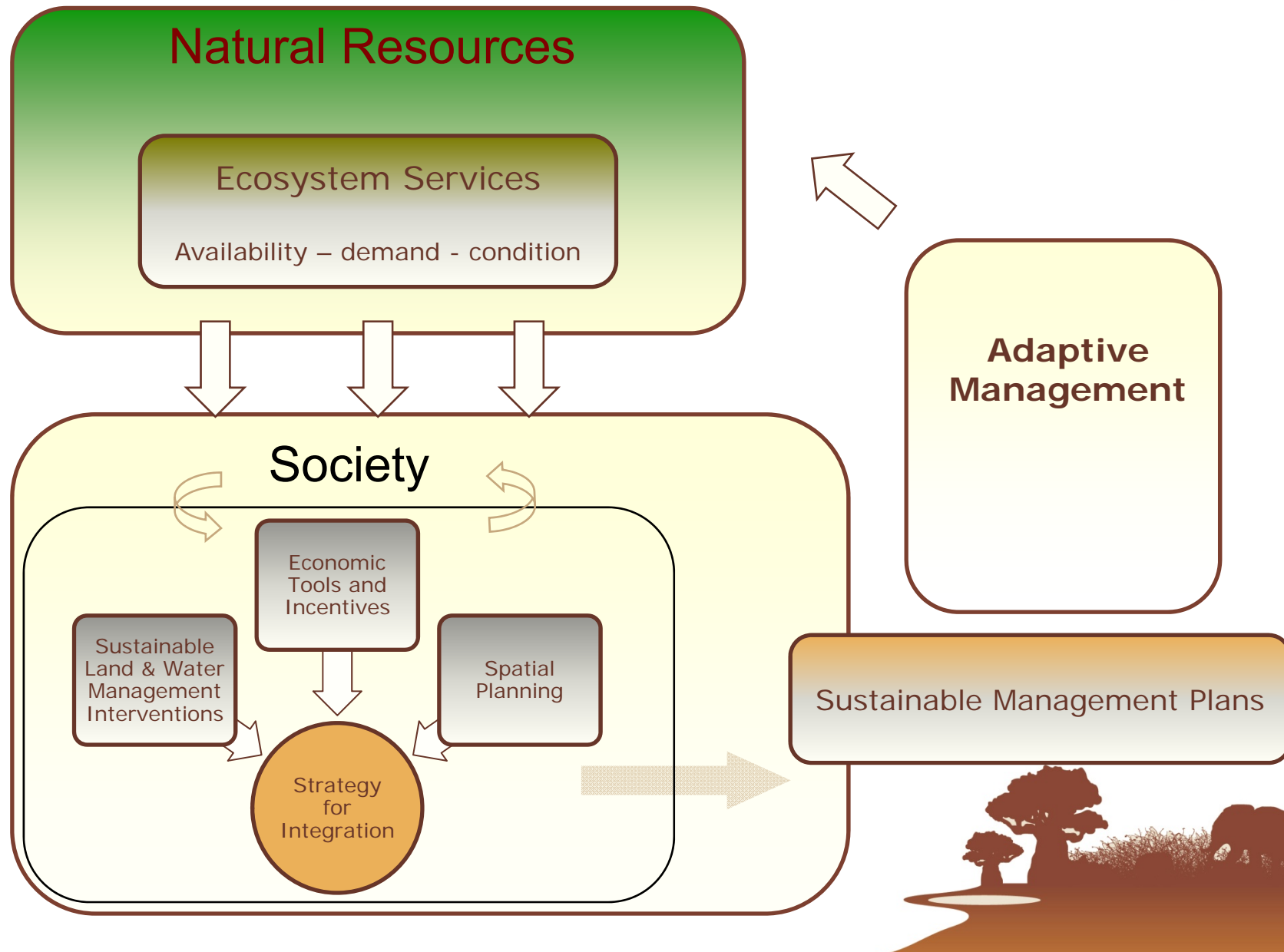
*The main output of AFROMAISON are a **multi-disciplinary** toolbox, short-term to long-term strategies, quick wins, methodologies and operational framework for **Integrated Natural Resources Management (INRM)** in Africa...*

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The AfroINRM Framework



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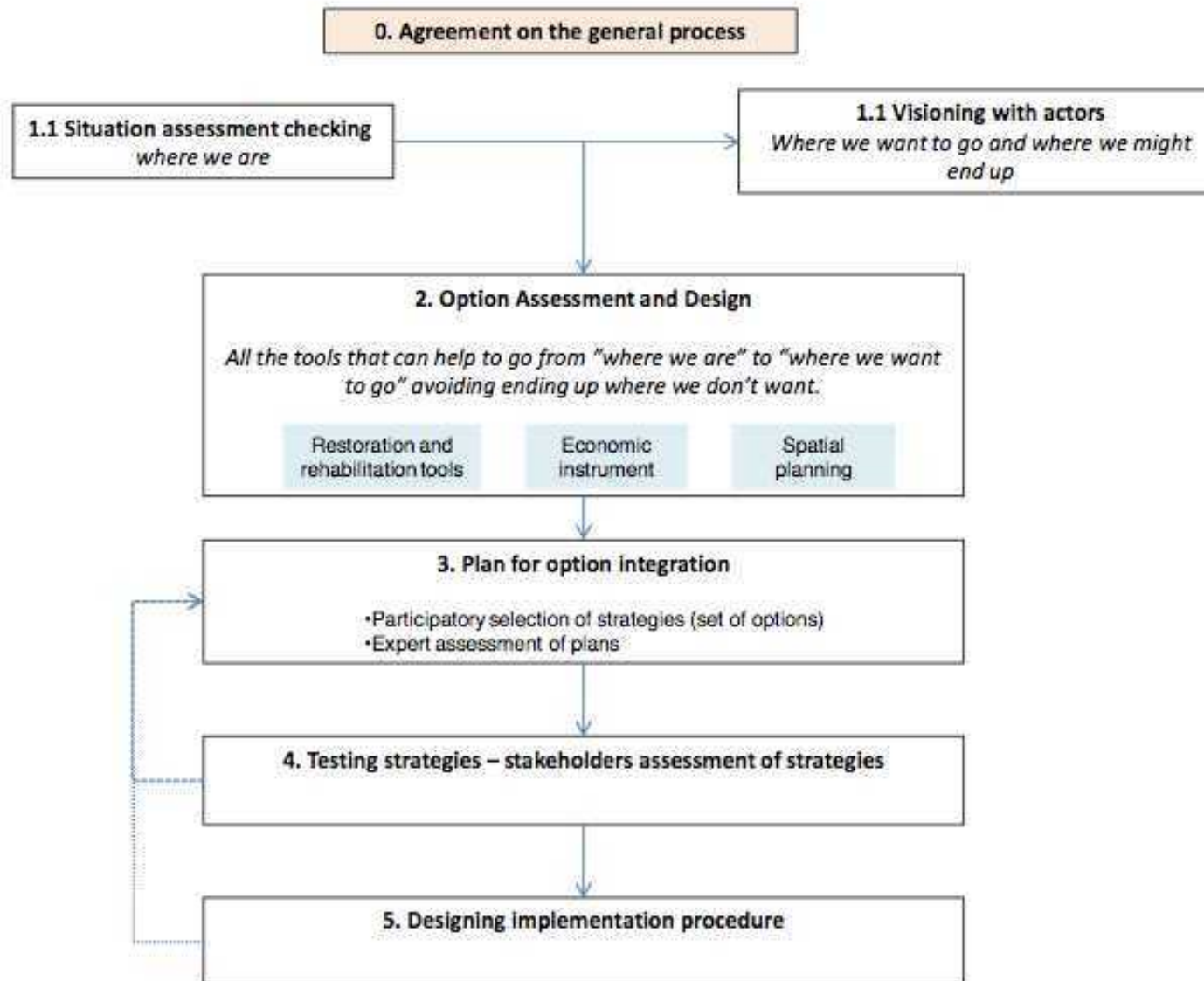
Meso-scale institutions ???



- 🌳 Catchment management organizations
 - 🌳 Regional platform incl. Innovation platform
 - 🌳 Trans-sectoral committee for climate change adaptation
 - 🌳 Regional planning groups
-
- ➔ Adapting existing ones or creating new ones ? Transfer of power ?
 - ➔ Top-down vs. bottom-up initiative ?
 - ➔ Inclusion of all persons, representatives ?
 - ➔ Institutional role ? Coherence with other institutions ?
 - ➔ Long term stability and existence as a social change trigger



The Afromaison « Operational Framework »



Key principles toward the emergence of new meso-scale institutions for NRM



1. **Participation** ↔ inclusion, engagement, respect, relevance, impact
2. **Integration** → combine technical & eco-socio-political solutions, from citizens, stakeholders & experts (WPs), to support coherency, feasibility, efficiency
3. **Test** → virtual and/or real process to have stakeholders actually discussing, checking, improving, refuting strategies
4. **Implementation** → design and commitment of stakeholders in actual actions they (will) engage into = administrative and operational workflow
5. **Monitoring & Evaluation** == **science** of intervention → measure context, process, effects and compare with « placebo » and other sites



Participatory planning and role playing games for multilevel INRM in Africa

Dr. Nils Ferrand



UMR Managing Water, Stakeholders & Uses
IRSTEA Montpellier, France

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& Ducrot, R., Abrami, G., Morardet, S., Hassenforder, E.,
Gumpinger, E., Kabaseke, C., Muhumuza, M., Lemmens, R.,
Lemenih, M., Cullen, B., Diallo, M., Waldron, S., Ghazouani, I.,
T. Dhayer



Toward Change in socio-environmental systems?

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A « DIY » / autonomy posture for future research

- Change occurs through social transformation facilitated by policy processes which both require action research
 - *Cf. post-normal science, companion modeling*
- Lay people and policy makers to share and build together models of their environment and interventions, helped by scientists who trigger evidence, best knowledge & coherence

→ **Participatory Modeling**

& model actions, plans & futures → **Participat. Planning**

- « Let them » explore and endorse new norms or social practices, facing complexity & vertical dialogue (people-policy)

→ **Participatory simulation = role-playing games**

Engage, implement, monitor → tools for adaptive institutions



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	Sulyango- No (KATAHIGO)	HOUSE HOLD (AMAKA)	COMMUNITY (EKIAARO)	REGIONAL (I HANGA)			
NOW		PLANTING TREES (MANY)	EMERGENCY STORIES	CONSERVATION METHODS FARMING	WATER PROJ. TEAM	WATER PROJ. TEAM	WATER PROJ. TEAM
		FAMILY MEETING	WATER HARVESTING (RAIN)	TREE SEEDS	WATER PROJ. TEAM	WATER PROJ. TEAM	WATER PROJ. TEAM
		FOOD COOP (FARMER)	KITCHEN GARDEN	FAMILY PLANNING	WATER PROJ. TEAM	WATER PROJ. TEAM	WATER PROJ. TEAM
ATER		FRUIT GROWING	ALCOHOL	BIOGAS	ENVIRONMENT COMMITTED	COLLECTIVE MARKETING	WATER PROJ. TEAM





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« Let them »...Plan & Play: why ?

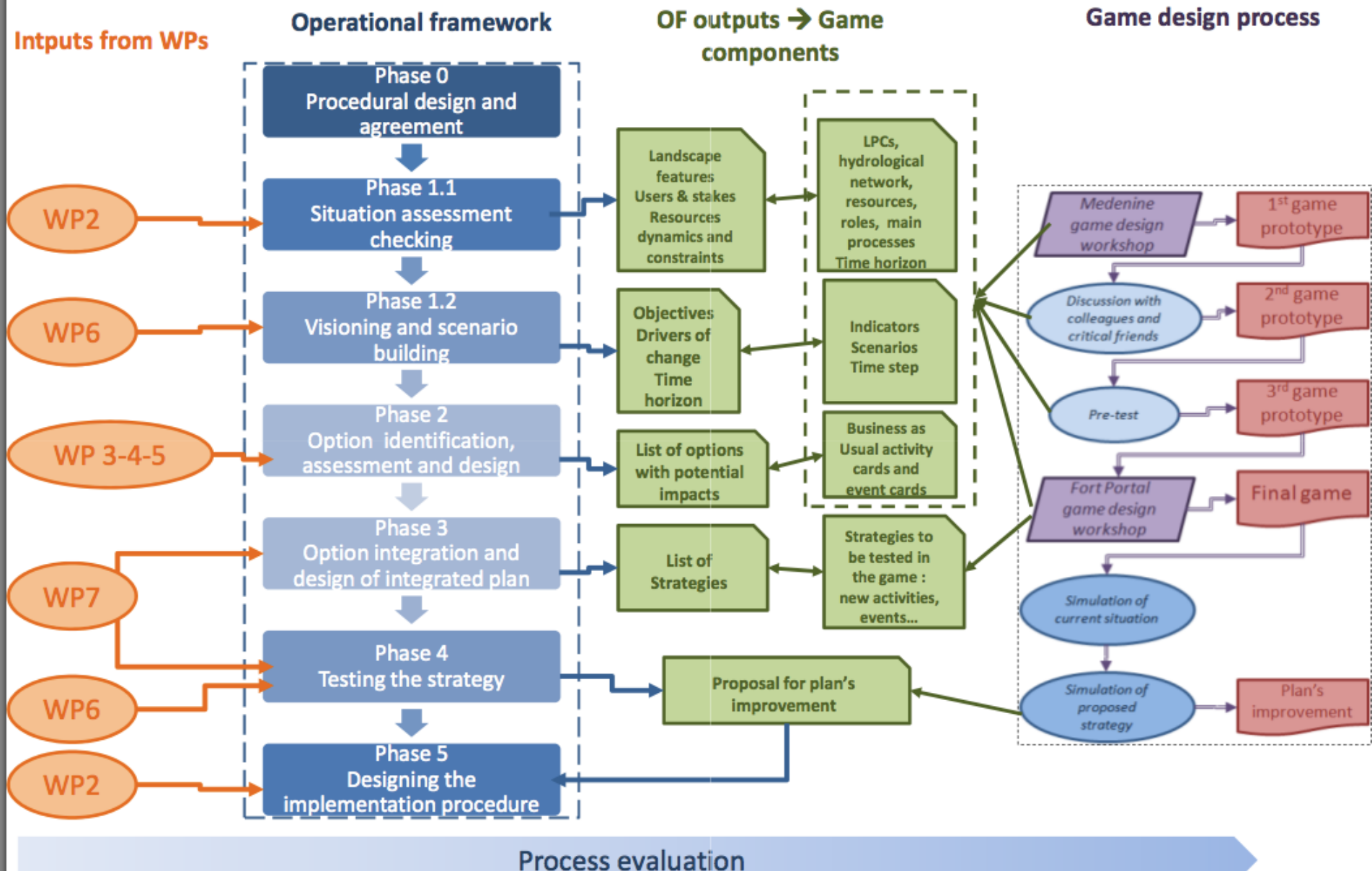
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- Planning is NOT common in companion modelling
 - May contradict some exploratory / adaptation principles
- Planning as an operative and eventually self fulfilling process to address future actions (vs. Foresight)
 - Building a plan helps setting an adaptation community !
 - ! A social learning PROCESS to deal with complexity, links and commitments (the plan as a joint institution for people)
 - No way for testing a designed plan
- Role Playing Game as a virtual test system
 - A social exploration of mutual behaviors and complexity
 - A model on the table to mimic the unpredicted environment
 - Science input + empathy + Rules + freedom

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Plan & play → how ?





2 essential participatory tools

1. COOPLAN → build integrated and coherent action plans using simple action model & an integration matrix
2. WAT-A-GAME → a toolkit to build games for specific management and governance needs

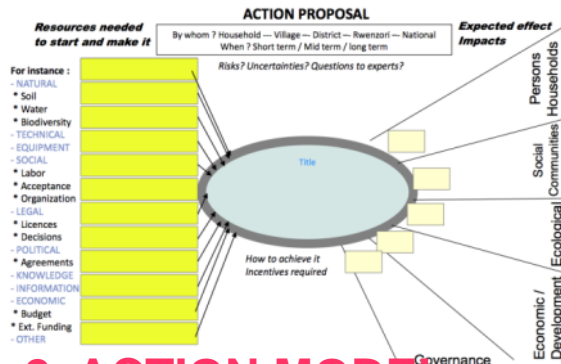
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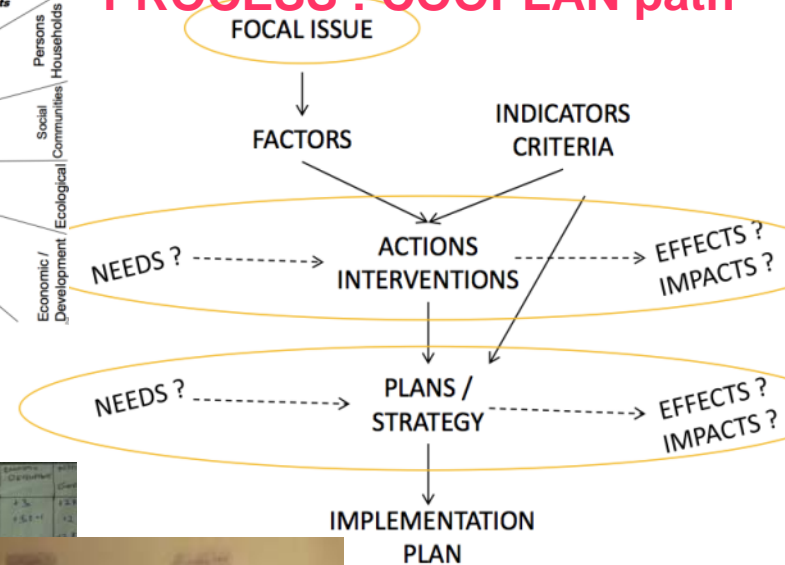
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Coupling tools for INRM change

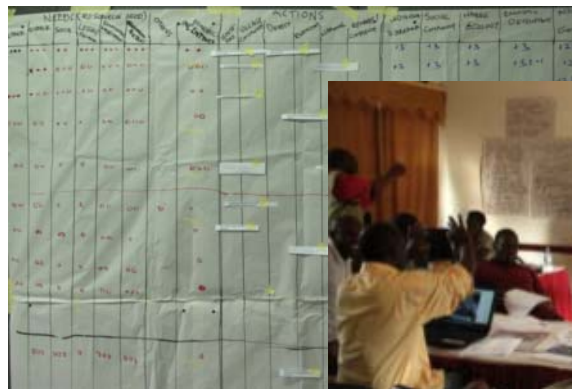
1. PARTICIPATORY PLANNING PROCESS : COOPLAN path



2. ACTION MODEL

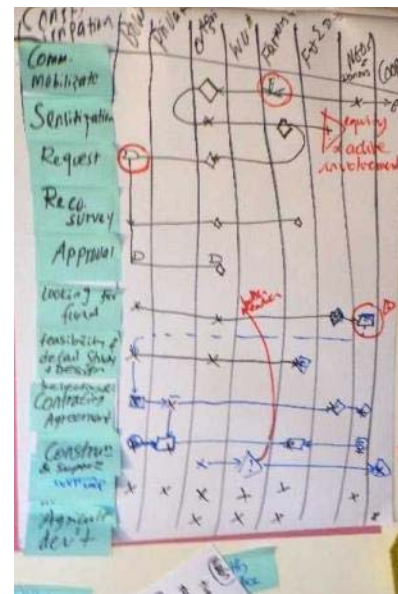


4. PARTICIPATORY SIMULATION (Game)



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3. STRATEGIC INTEGRATION: COOPLAN MATRIX



5. PROCEDURAL DESIGN FOR IMPLEMENTATION



(c-sa) Nils.Ferrand@IRSTEA.fr , 2013

COOPLAN : Planning for SD & INRM

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How to support stakeholders (incl. lay people) all together to design, validate and implement complex action plans combining technical and non technical actions, developed in time and space, in front of external change scenarios ???

- A participatory planning problem
- Coherence and appropriation as key drivers
- Deals with combined intersectoral needs & impacts
 - A method assessed also with UN-Office for Sust Development (UN GS DESA DSD – Korea)
- Tools exist... but low interest for « silo-ed » science

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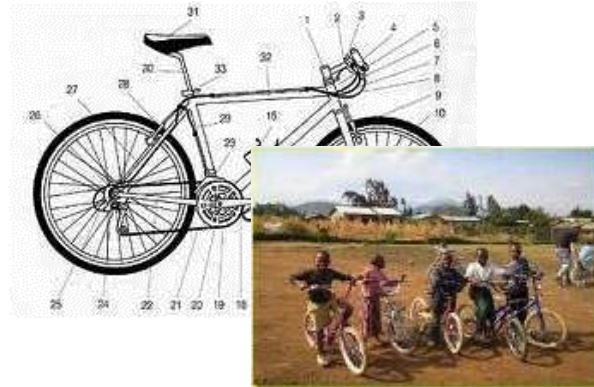


Planning to build a new bicycle

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History
& principles



+ Case studies

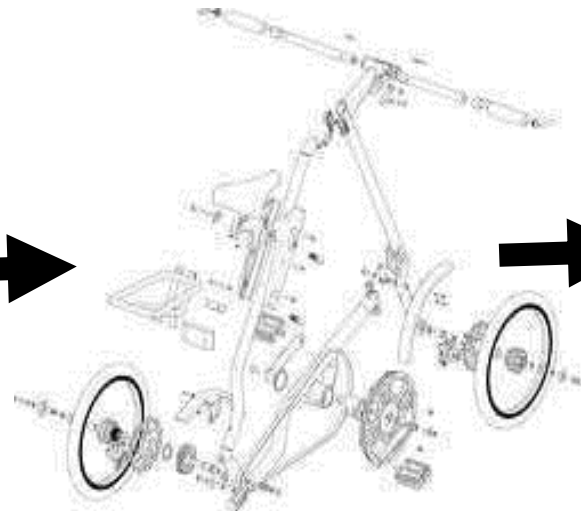


+ ToolKit



90% energy eff.
Light weight
Cheap
Foldable
Beautiful
Easy to ride

Indicators



Integrated Plan



Efficient
Implementation

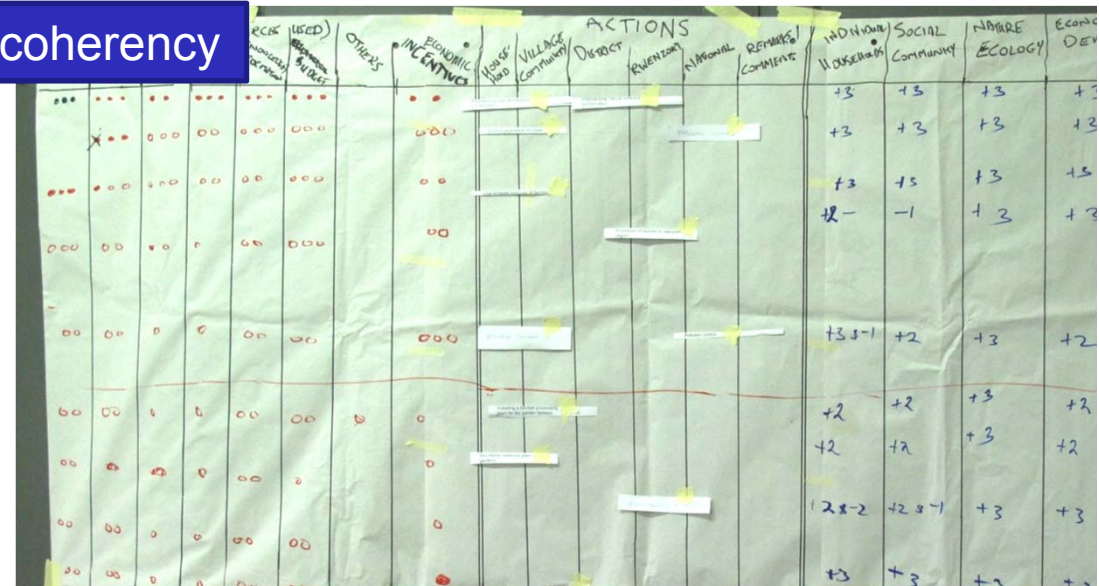
Source : STRIDA (Mind Cycle) (CC-by-nc-sa) [Nils.Ferran](#)



Action proposal inventory



Design and checking coherency



Example : outcoming strategy

Strategy Household Short Term (ordered)

Energy saving stoves

Adopt energy saving technology at HH level (solar & biogas)

Tree planting

Tree nursery beds

Education

Conservation methods of farming + organic farming / Better methods of agriculture

Control pollution of soil/water/air

Mutual Information sharing and documentation

Family planning

Food crop / vegetable growing

fruit growing

Water harvesting

Piggery

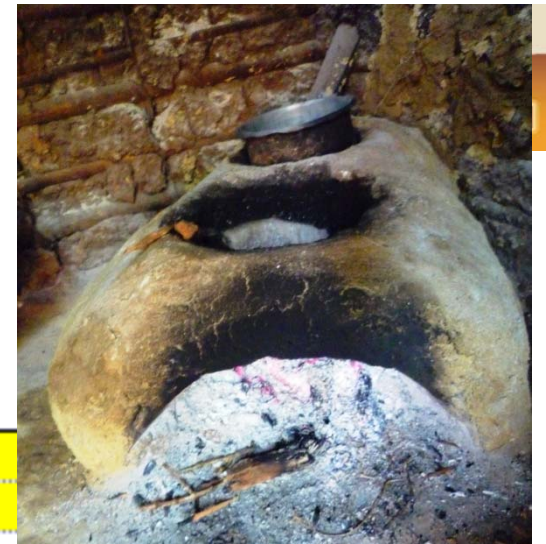
Bee keeping

Community members to construct terraces

Coffe growing

Kitchen gardens

Sensitization on and proper disposal of non Biodegradable materials



Wat-A-Game (cc IRSTEA-CIRAD, 2009)

<http://watagame.info>

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A ready-to-use free / open source toolkit with bricks and rules to support all-level stakeholders in :

- Building easily their « on-the-table » model of their own catchment with rivers, land uses, actors and activities
- Using it in participatory simulations (role playing games) for testing water uses, integrated plans, and discussing water policies with stakeholders

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Le kit Wat-A-Game – INI-WAG box

<http://watagame.info>



Participatory design of the models and games

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3 months process with CS representatives : 3 experts, 2 interns, each holding one CS game design and test + field interactions with pilot group of local stakeholders



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5 models, games... & commonalities

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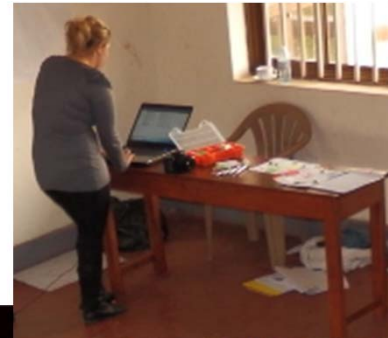
MALI - DIN



S.A. Drakensberg



Ug. Mpanga



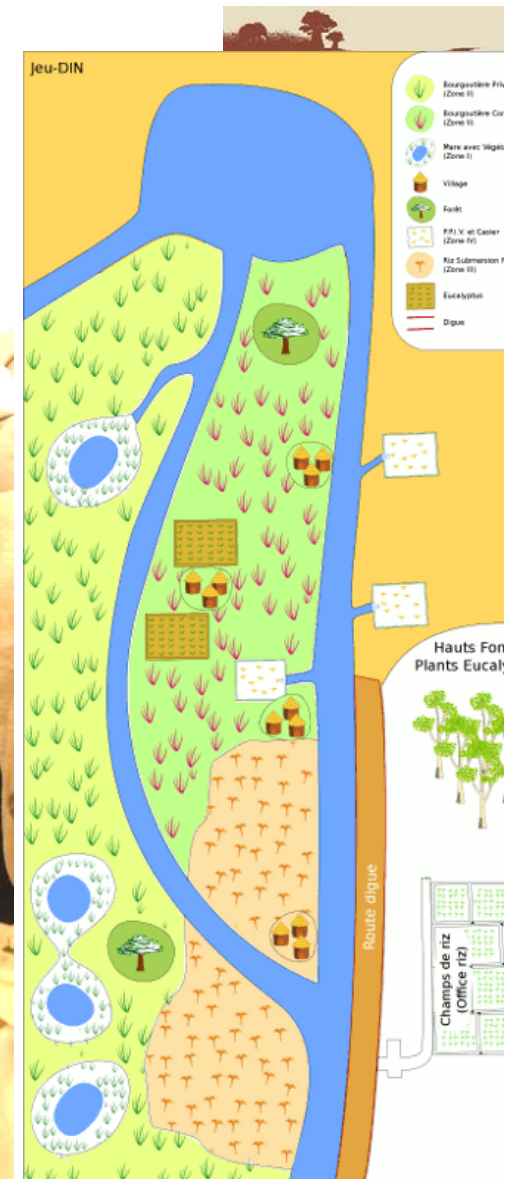
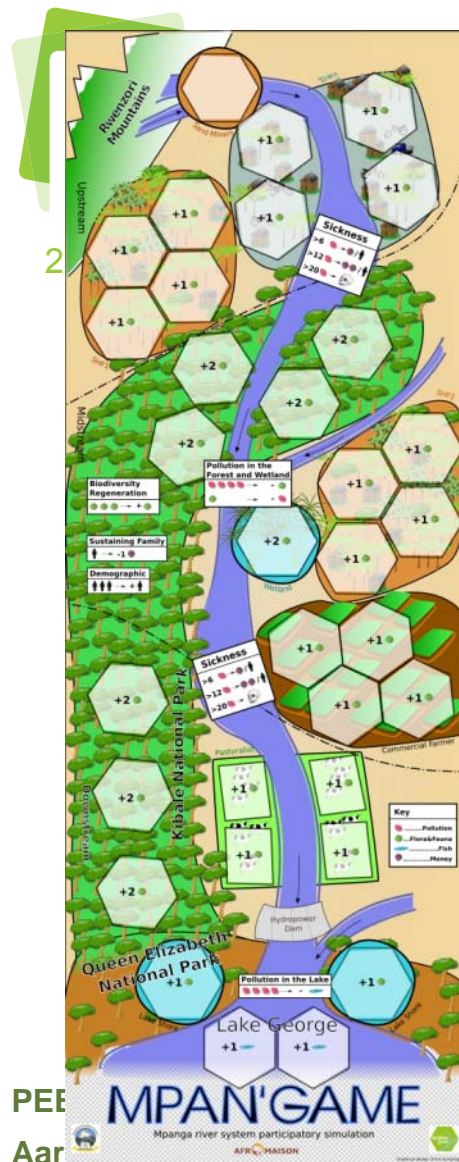
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MPAN'GAME

Through collective effort and commitment,
we shall manage the natural resources sustainably.

BAMUGISA

BASO

BETT

BUBANDI

BUDO

BUSARU

DEFORA

HOSFORD

IKONGO

KABECOS

KARUGHE

KDC

KIBOTA

KIIMA

KUOFA

KYEFA

KYONDO MIDDLE

NDONGO

NEW EDEN

NORACOL

TRAP

WREFI



*" After this game,
I will go and plant more
indigenous trees and encourage
others to do so as well!
What will you do? "*



AFRICA MAISON

<http://www.mmu.ac.ug/>
<http://www.satnet.org.ug/>
<http://www.afromaison.net/>
<https://sites.google.com/site/waghistory/>

MMU 0772540509 and SATNET 0782313068

Knowledge life cycle in Afromaison



Stakeholders designing actions

Bench Terracing



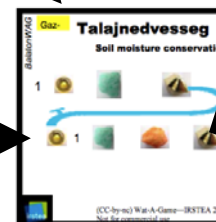
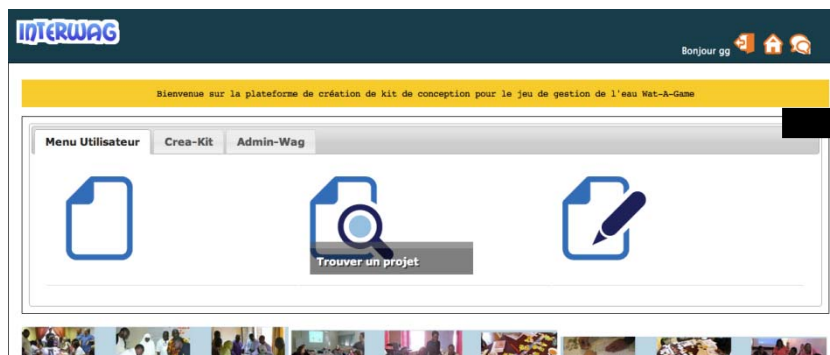
Hydrological purpose:	Soil and water conservation
Bio-physical purpose:	Erosion reduction
Socio-economic purpose:	Increase crop productivity
Suited to altitude?	Midland, highland
Suited to slope?	15-50%
Suited to rainfall conditions?	All
Suited to soil conditions?	Deep well drained soil not sandy not stony soils
Suited to degraded land?	Yes

WPs input

Tevekenyseg	Role	Location	Typ e	Needs / Inputs	Outputs						
Talajnedvesseg megőrzése	Farmer	Gazda	LU	1							
Szelektív szemetgyűjtés	Administration, Town	Allami szervezet, onkormányzat	S	2	1						
Energiatakarékosági	Administration	Allami szervezet	S	3	1				1		2
Települések felszíni esővizének szeparált	Town	Onkormányzat	I	3	1				1		
Hagyományos építészeti infrastruktúra családok	Tourism	Turisztika	LU	2		4					1
Borturizmus	Town, Tourism	Onkormányzat, turisztika		1		1		1			2
	Farmer, Tourism	Gazda, turisztika		1				3			2

Structured DataBase about actions / role

Online service



Action card In WAG

(CC-by-nc) Nils.Fe



Strategy building





Knowledge gaps tackled in Afrumaïson

Methods / tools for :

Integration of science and practice of INRM to foster emergence and stability of institutions

Coupling approaches of ecosystem services / planning / economic instruments with innovative participation

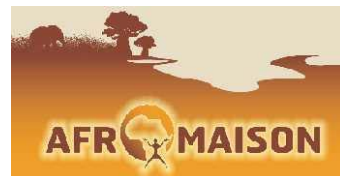
Trans-cases comparison

Large scale social extension and full inclusion of stakeholders from communities to highest level policy makers (> 1500 in Uganda)

Intensive monitoring and evaluation of processes and outcomes

Afrumaïson

Oct 2012



Provocative questions for future research

- « risks », « resilience », « adaptation », etc are based on a strongly conservative paradigm: all about « keeping »
 - Ok... which social procedure to define what should be kept vs. changed ? Is it a scientifically informed process which can be also democratic ? (consensus conf ?)
 - Can we cope with an accepted changing world and under which limits ?
- *** « Changing change » *** as a future flagship
- Does society really need scientists to explain that they don't know much and especially that they cannot account for how society will react to this information and other drivers ?
- Adaptation starts from people changing themselves.

Afromaison
Oct 2012

