

Conférence Internationale du Projet NETSSAF
Ouagadougou, Burkina Faso, 24– 27 Septembre 2008

Keynote 3

Programme NCCR North South:

„Partenariat Nord – Sud pour une
Action dans le Domaine des Sciences
de la Santé et de l'Environnement “

Prof. Guéladio CISSE

NCCR North South Regional Co-ordinator – JACS West Africa

Director, Swiss Centre for Scientific Research in Cote d'Ivoire

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The programme NCCR North–South is among 20 Swiss National Centres of Competence in Research (NCCR) – 2001

- NCCR North South is funded by :
Swiss National Science Foundation (SNF) and
Swiss Agency for Development and Cooperation (SDC)
- Since its launching it has created worldwide
research network including some 160 universities, research
Institutes and development organisations in
Africa, Asia, Latin America, and Europe; approximately
350 researchers worldwide

Intentions of the Programme – 2001

The NCCR North–South attempts to build bridges between:

- scientific institutions North and South
- natural and social science disciplines
- science and stakeholders in institutions and society
- problems of global change and local syndrome manifestations
- development needs expressed by stakeholders, as well as requirements from a sustainability perspective
- scientific outputs and practical implementation

Long-term goals of the Programme –2001

The 10 to 12-year programme has four long-term objectives:

- (a) *Research goal*: To conduct disciplinary, interdisciplinary and transdisciplinary research aimed at promoting sustainable development and mitigating syndromes of global change;
- (b) *Capacity development goal*: To help strengthen institutions, primarily by building individual competence and capacity for developing socially robust knowledge for mitigation action;
- (c) *Empowerment goal*: To support societies of partner countries and institutions in their efforts to address syndromes in their regions and find means to mitigate them;
- (d) *Structural development*: To develop the network with research and resource centres that undertake research teaching & training as well as provide services

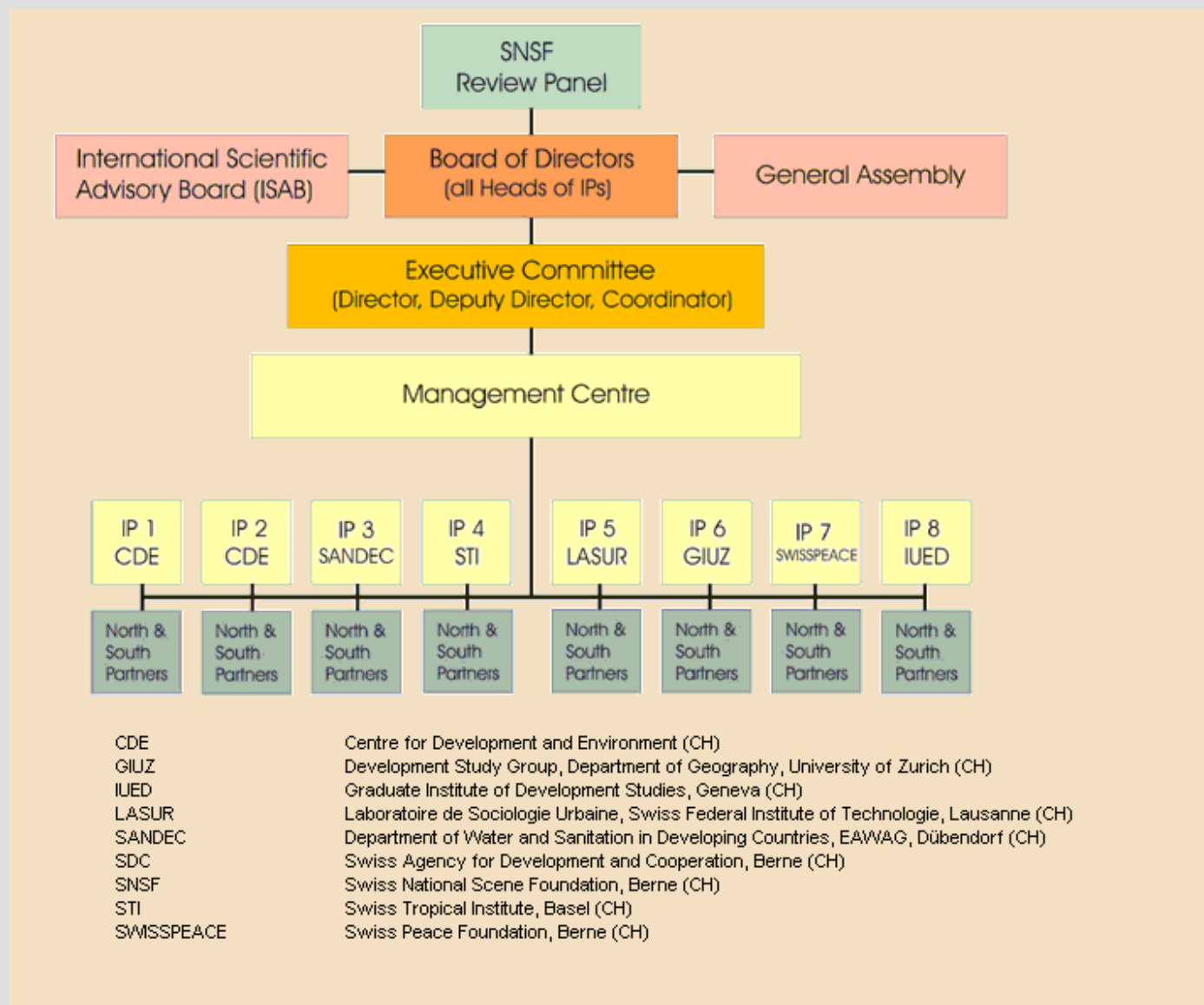
Common syndrome contexts – 2001

SYNDROME CONTEXTS Joint Areas of Case Studies (JACS)	Urban and peri-urban (acuteness of syndromes in context)	Semi-arid (acuteness of syndromes in context)	Highland-lowland (acuteness of syndromes in context)
West Africa (IP4)	XXX	XX	
East Africa (IP1)	XX	XXX	XX
Horn of Africa (IP7)	X	XXX	XX
Central Asia (IP2)		XX	XXX
South Asia (IP6)	X	XX	XX
South East Asia (IP3)	XXX		XX
Caribbean and Central America (IP5)	XXX		X
South America (IP8)	XX		XXX
Switzerland (IP1)	X		XXX

Common core problems – 2001

Scientific realm	Core Problems (CP) of non-sustainable development in highland–lowland, urban–peri-urban and semi-arid syndrome contexts	
Political and institutional	1	Weak international geopolitical position and negotiation power
	2	Dominating and conflicting world views and ethical values
	3	Contradictory policies and weak formal institutions at different levels
	4	Inadequate legal framework and regulations, lack of enforcement and means
	5	Erosion of traditional and/or indigenous institutions
	6	Governance failures, insufficient empowerment and decentralisation
	7	Unequal distribution of power and resources, corruption
Socio-cultural and economic	8	Social, cultural and ethnic tension and insecurity
	9	Prevalence of crime, violence and violent conflicts
	10	Unused or constrained innovative capacities and knowledge
	11	High socio-economic and gender disparities
	12	Incompatible economic systems with limited market and employment opportunities
	13	Dominance of the global economy over national development
Population and livelihoods	14	Constraints on human rights and individual development potential
	15	Poverty and insecurity of livelihoods
	16	Risks of diseases and vulnerability to health
	17	Population pressure and <u>multi-dimensional</u> migration
Infrastructure, services and land use	18	Unfavourable dynamics and imbalances in socio-demographic structures
	19	Poor water supply and environmental sanitation
	20	Lack of adequate infrastructure and its management such as transport, energy and irrigation
	21	Limited and inadequate socio-economic services such as education, health and markets
	22	Discrimination with regard to information and communication flows and technologies
	23	Inequitable ownership and access to land-, natural- and common property resources
	24	Inadequate and conflicting land use systems and technologies
Bio-physical and ecological	25	Inadequate availability of freshwater
	26	Degradation of land, soil and vegetation cover
	27	Degradation of forest and natural habitats
	28	Pollution and overuse of renewable and non-renewable natural resources
	29	Loss of biological and agro-biological diversity
	30	Risks of natural and human-induced hazards and climate change

Organisational chart for Phase 1: 2001



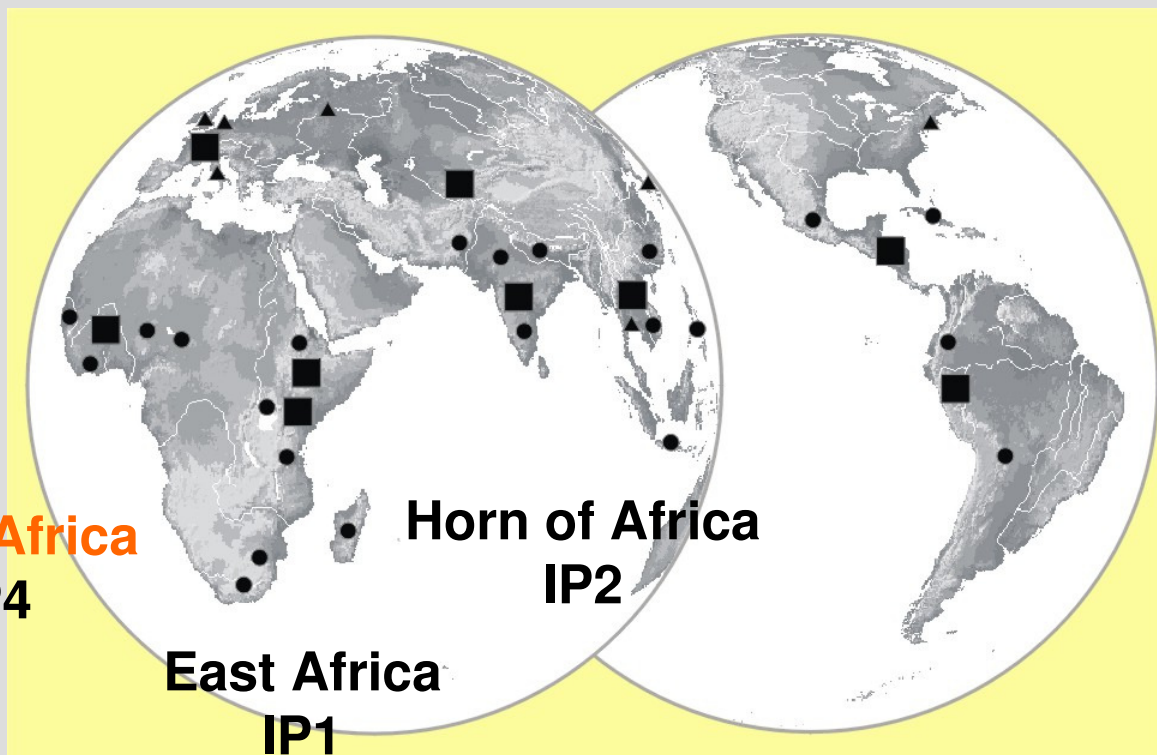
NCCR-NS: 8 régions dans le Monde + 1 (Suisse)

Switzerland Alps

IP2

South East Asia

IP3



South Asia

IP3

Central Asia

IP7

South America

IP6

Central America
And Carribean

IP5

West Africa

IP4

Horn of Africa

IP2

East Africa

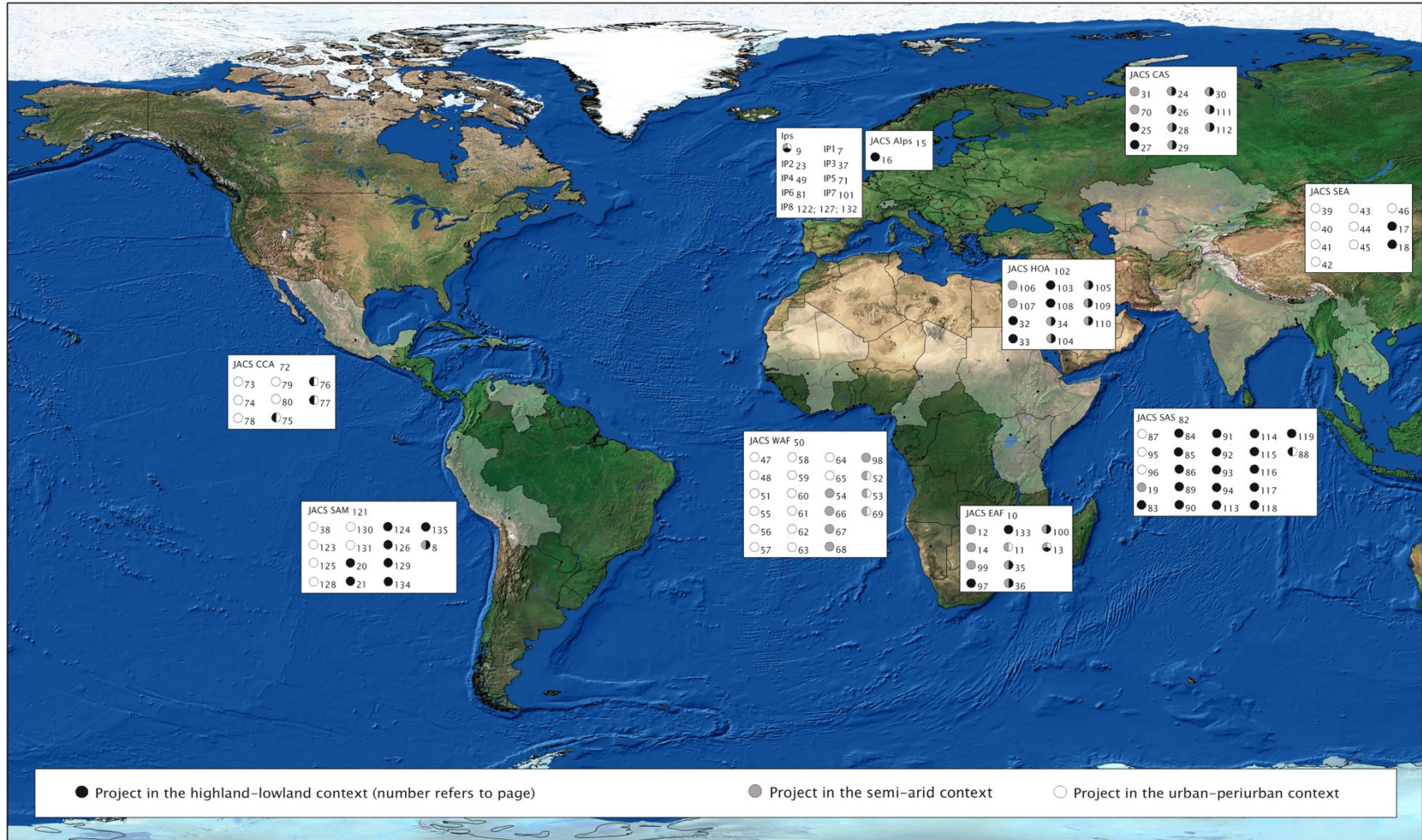
IP1

*Joint Areas of Case Studies (JACS)
Individual Projects (IP)*

2004

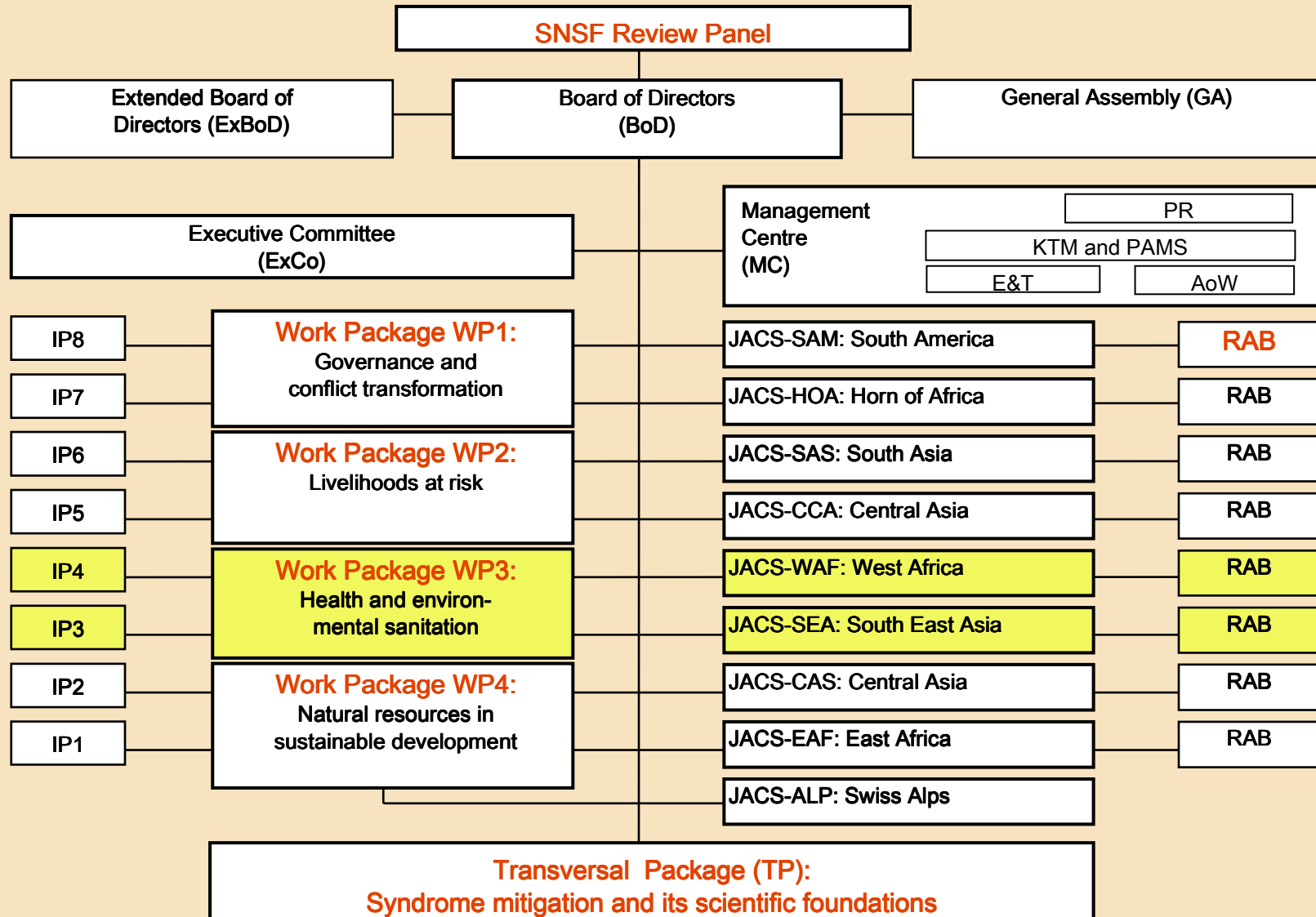
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Overview of Research Projects of the NCCR North-South



Total 72 PhDs (31 Swiss, 41 other nations)

Organisational chart for Phase 2: 2005



Recall of goal of WP3 : STI & SANDEC

- Evidence in the field of health, health systems and environmental sanitation that contributes to the Millenium Development Goals (4–7) in urban settings and semi-arid contexts focussing on the most vulnerable population groups.

WP3 Themes

Swiss Tropical Institute: Marcel Tanner, Jakob Zinsstag

SANDEC: Roland Schertenleib, Chris Zurbrugg

Theme 1: Vulnerability and resilience

Theme 2: Improved environmental sanitation

Theme 3: Key interventions for health and environmental sanitation

Proposed additional themes WP3 Phase III

north
nos
NCCR
47nos

RESEARCH

Theme I:
STI

Demographic
Surveillance
System (DSS)

Côte d'Ivoire
Chad

rural + peri-urban

Theme III:
Joint

Health &
sanitation for
humans and
animals

Vietnam
Thailand
Côte d'Ivoire
(China)

rural + urban

Theme II:
Sandec

Hygiene promotion
& behaviour change
sanitation & gender

Nepal
Laos
Burkina Faso

urban + peri-urban

APPLICATION

Training: South-South exchange (inter- & intra-JACS)

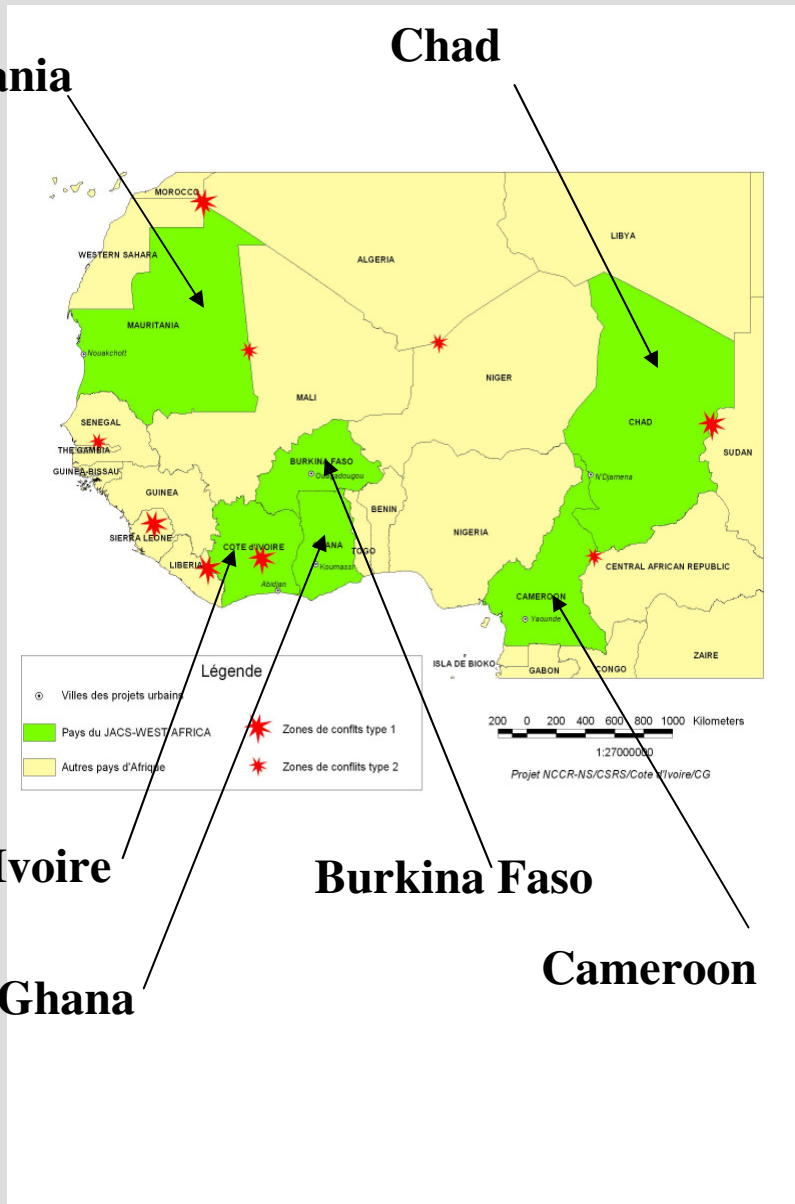
Policy: GRIPP approach (e.g. Vietnam, PCD Thailand)

JACS WAF – General Context

Mauritania

Chad

north
NCCR
south



Côte d'Ivoire

Burkina Faso

Ghana

Cameroon

- Conflicts
- Linked to political unrests
- Mobility and migration
- Exacerbation of the vulnerability of disadvantaged groups

- Health and Environmental sanitation
- Governance
- Natural Resources
- Livelihoods

2 NCCR contexts: Urban-PU & Semi Arid

JACS WAF Themes

Theme 1: Urban Environment and Health

Theme 2: Pastoralists' Livelihoods,
Environment and Health

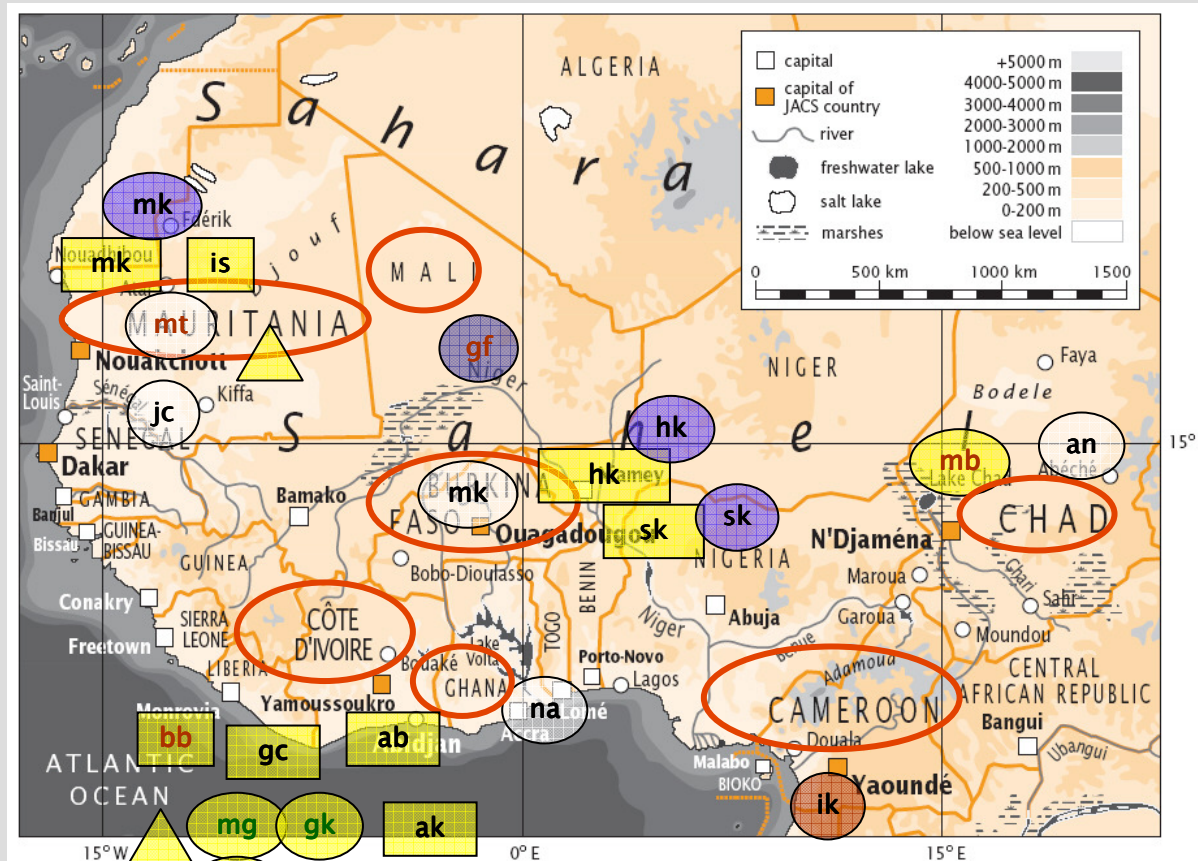
Theme 3: Institutions, Governance and
Public Spaces

Spatial coverage of Research in JACS WAF

(update July 08)

all contexts

north
 NCCR
 south
 ytnos



- Post-doc /senior
 N = 7

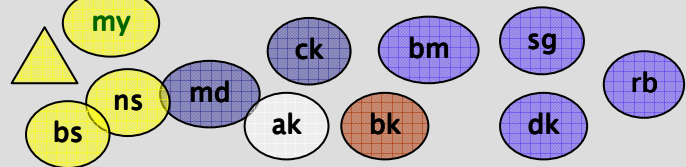
- New PhDs
 N = 6

- Master
 N = 3

- PhDs
 coming to an end
 N = 5

- Completed since
 March 2008
 N = 2

- Completed before
 March 2008
 N = 10



Environmental Sanitation PhD studies in West Africa

Burkina Faso

- **Siméon Kenfack**, industrial wastewater treatment using solar energy, PhD completed at EPFL in 2005, actually at CREPA Ouagadougou
- **Halidou Koanda**, fecal sludge management, PhD completed at EPFL in 2006, actually working at CREPA Ouagadougou
- **Mathieu Kientga**, GIS application to waste and health systems management, PhD completed at EPFL in 2008, will come back soon at 2iE

Environmental Sanitation PhD studies in West Africa

Cameroon

- **Ives Kengne**, fecal sludge treatment by sludge drying beds vegetated with different local plants, PhD completed at Ecole Polytechnique de Yaounde in 2008, lecturer and researcher at EP Yaoundé

Ghana

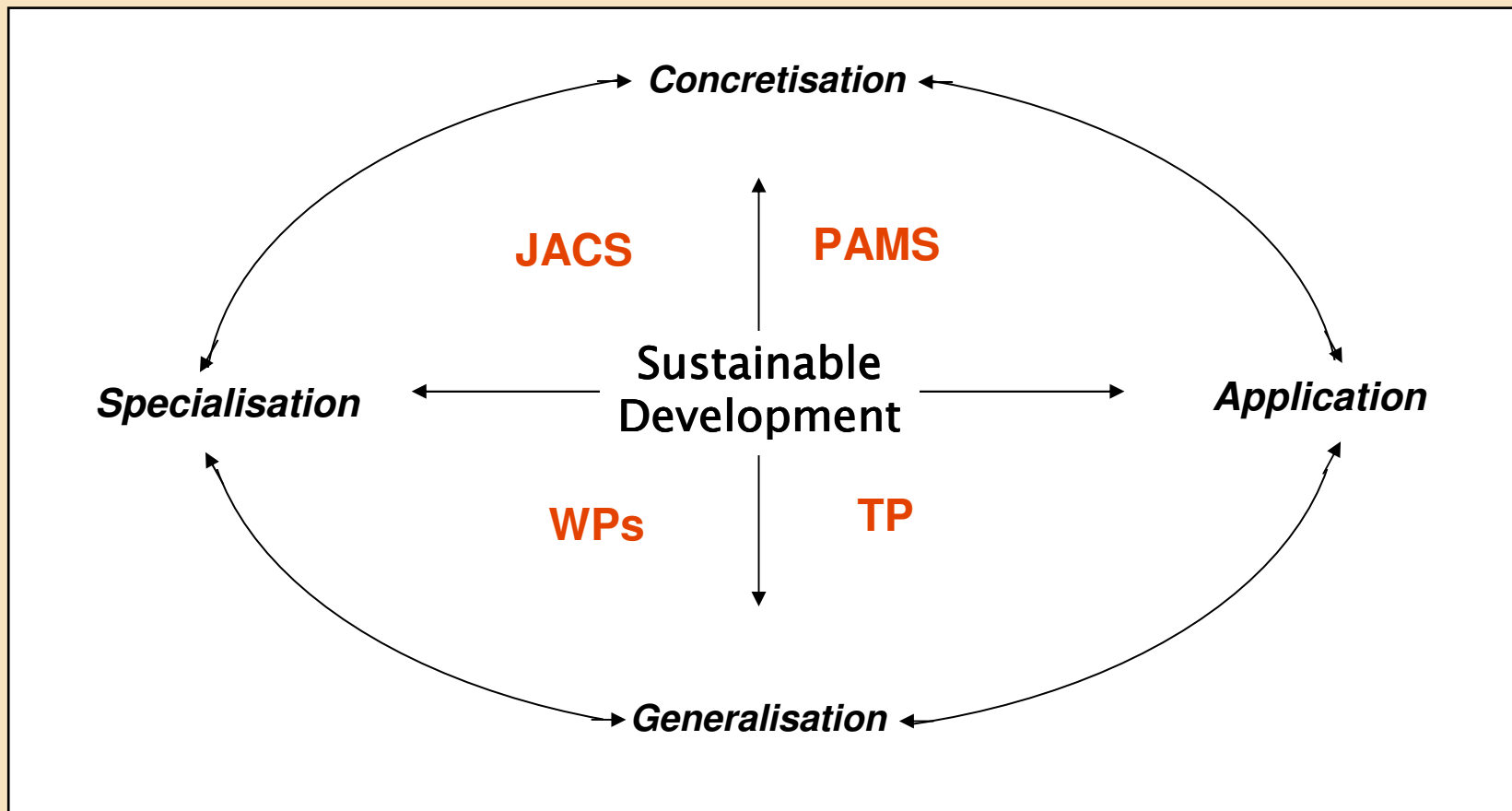
- **PhD Noah Adamtey**, enriching compost from municipal solid waste with inorganic N-fertilizers to enhance crop production in soils with low organic content, to be completed very soon

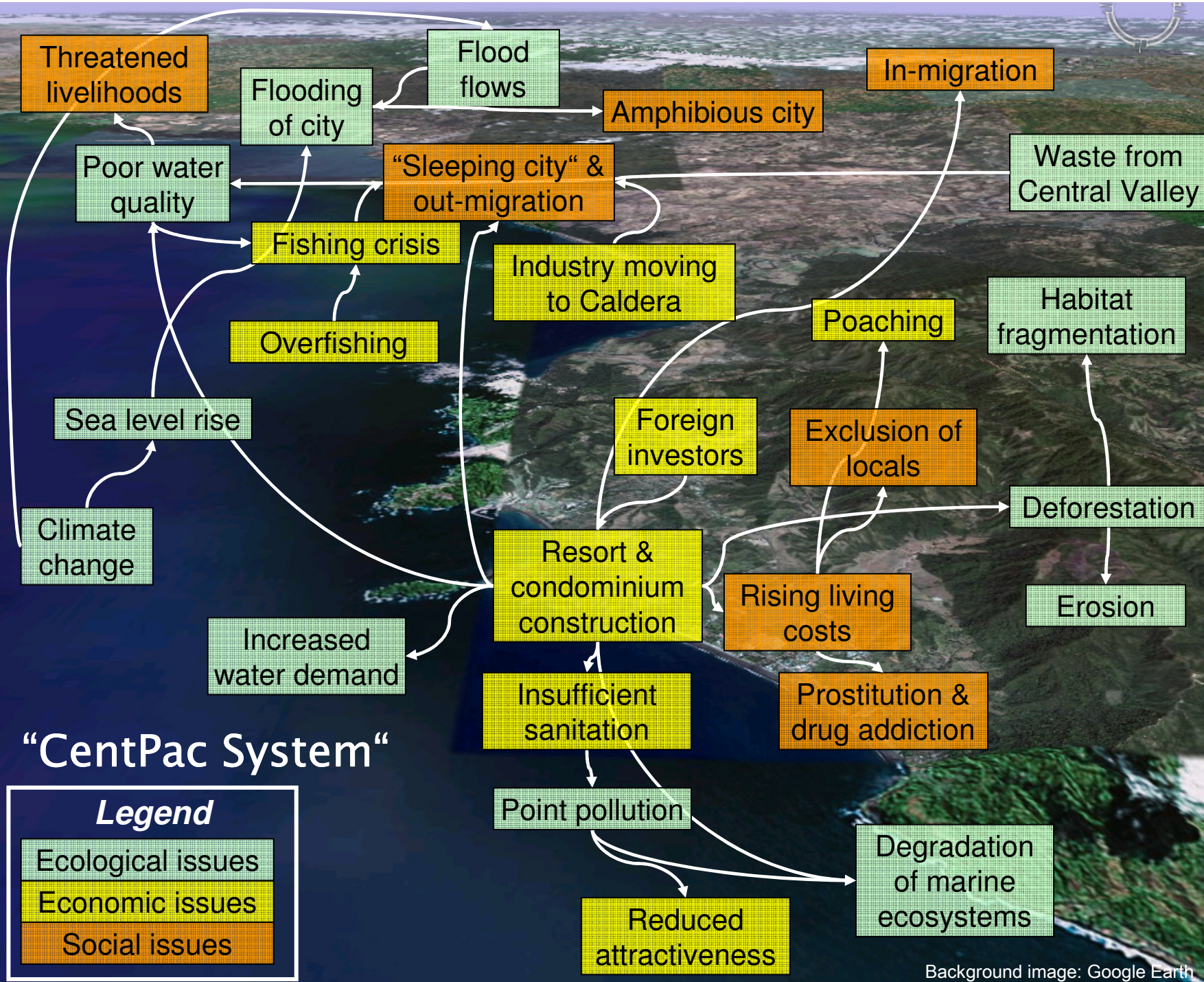
Environmental Sanitation PhD studies in West Africa

Côte d'Ivoire:

- **Dongo Kouassi**, integrated management of wastewater and solid waste in underprivileged areas, PhD completed at Université de Cocody in 2008, actually lecturer at Uni Cocody and researcher at CSRS
- **Brama Koné**, health impact of lagoon water pollution by wastewater and solid wastes, PhD completed at Uni Abobo Adjame, researcher at CSRS

Research approach: Components, directions, and packages





Challenges for individual researchers

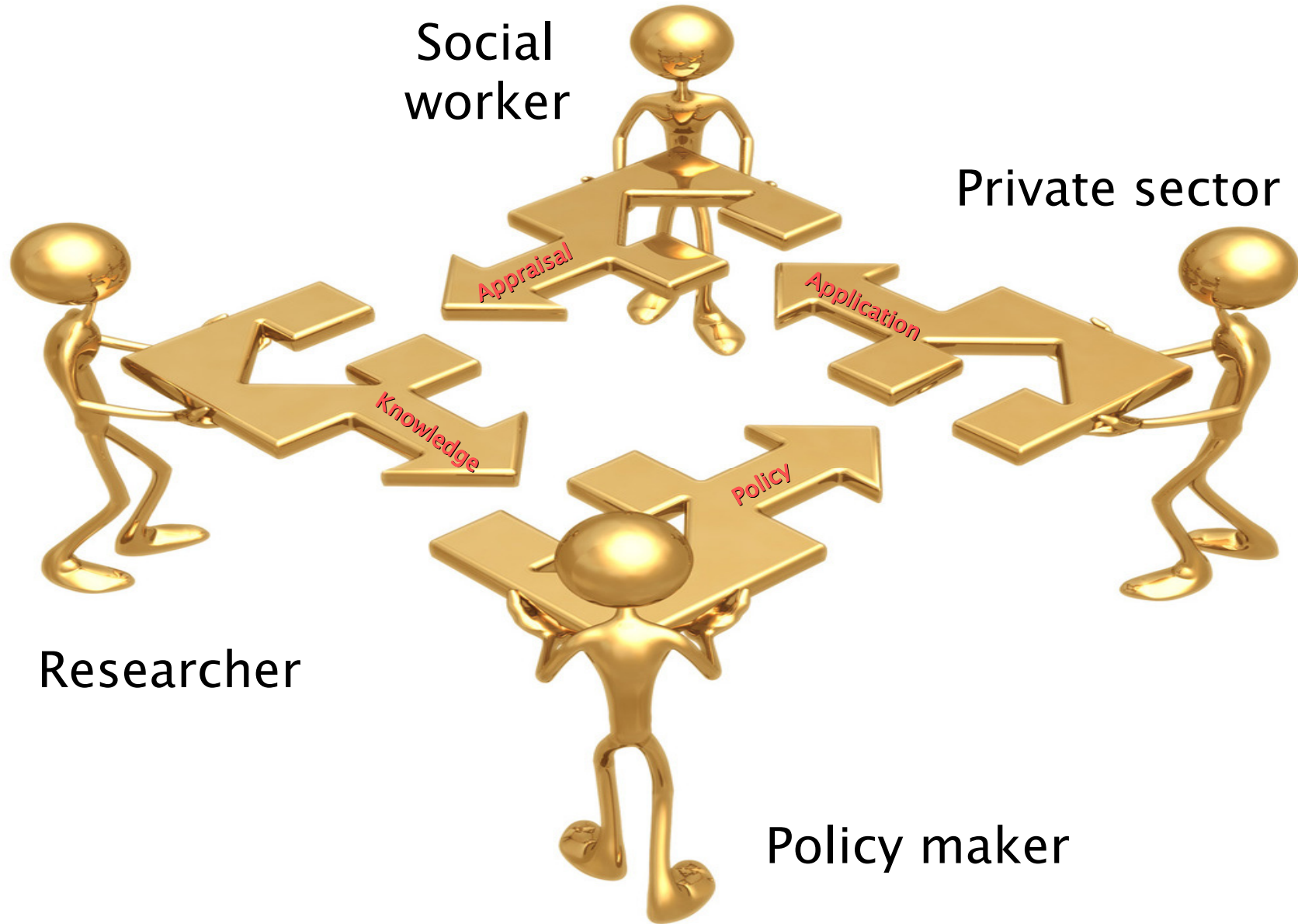
- « The world has problems, the University has Faculties » ...
 - The current academic structures may not match the challenge of a new type of research!
- ... Individual researchers are under pressure and time constraints, e.g. involving other actors in formulating research objectives, papers vs. other products, flexibility, etc.

Role of research on & for sustainable development

Pro-active facilitation of sustainable development processes and society empowerment

1. Production of relevant context-specific data, information, and knowledge
2. Dissemination of research results, mutual learning, and networking
3. Promotion of dialogue and negotiation processes among stakeholders

Transdisciplinary in Actions



PAMS: Partnership Actions for Mitigating Syndromes of Global Change

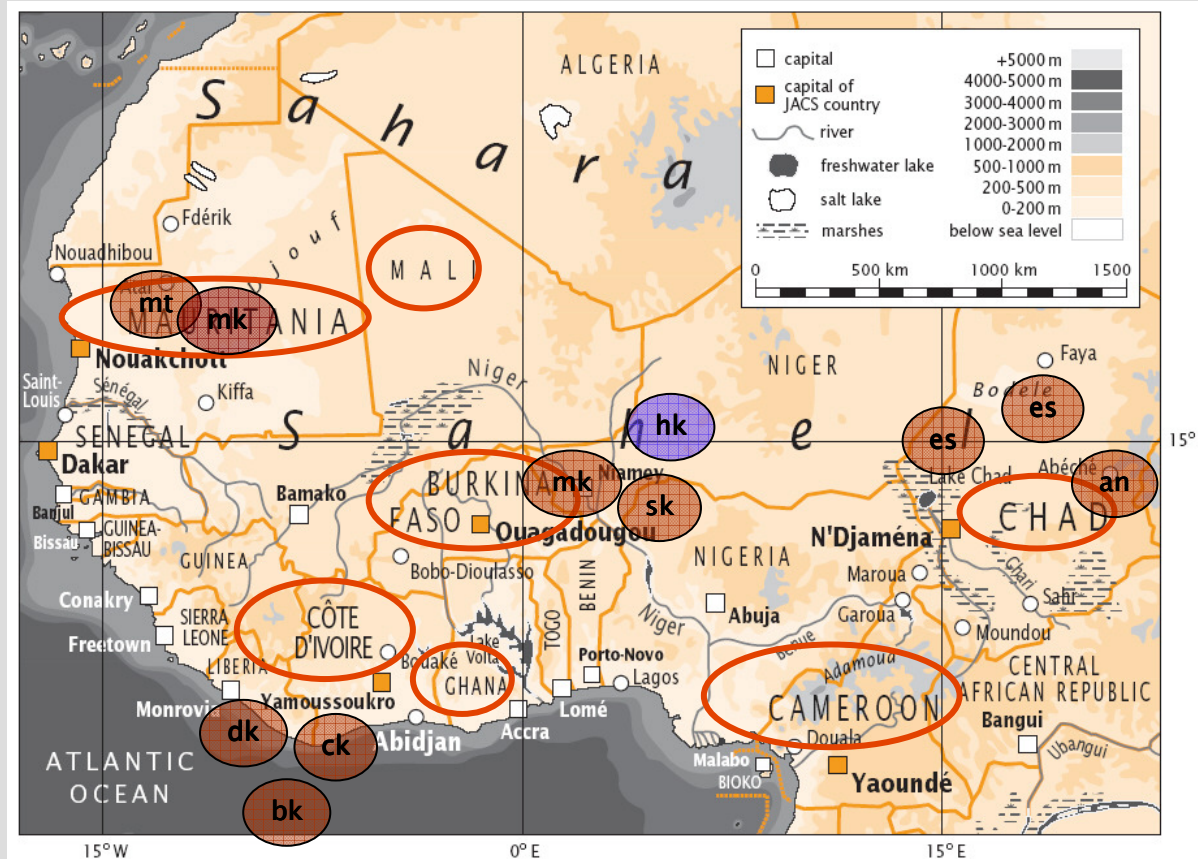
- Funding mechanism (offered to NCCR by SDC) of concrete interventions around research themes
- Average : 25'000 – 50'000 CHF (duration #one year)
- Allocation through competition: submission of a proposal to the NCCR BOD
- Linking Research and Action

Spatial coverage of PAMS in JACS WAF

(update July 08)

all contexts

north
 NCCR
 south
 ytnos



- Completed PAMS**
 N = 10
- Active PAMS**
 N = 1

WAF PAMS in Environmental Sanitation

Mainly : workshops with stakeholders and concrete small support to some local partners

Burkina PhDs

- Kenfack Simeon
- Mathieu Kientga
- Halidou Koanda

Côte d'Ivoire PhDs

- Dongo Kouassi
- Brama Koné

Future ...

- Reinforcing NCCR dynamics links with other Networks as NETSSAF
 - Creating Research Groups accross countries of the same JACS, and between 2 or more JACS for consistent projects having a potential of real and sustainable impacts at local levels

Thank you

