

Chepkoilel University College
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**Linking Policy to Education, Science and Society:
the International University Network
on Cultural and Biological Diversity (IUNCBD)**

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MEAs, complex interconnections and cross-disciplinary complexity: Science, Policy and Society

Environmental Conservation
Development Studies

Environmental, social, economic
sustainability

Entry-point: biodiversity,
cultural diversity

Poverty Alleviation
Livelihood
Green Economy

What theoretical approach and
methodology ?

Promotion of Local Natural Resources
Technology Transfer and
Scientific Cooperation

The need of a system of
studies

Sistematising complexity:
science, policy, society

Capacity Building
Institutional Capacity Building
Multiscale Policy Implementation
Local Management
Cultural Identity

What are the public choices ?
The international
policy arena

Education

Science

International Policy Arena

**Environmental
Conventions**

**UN System
Environmental
Programmes**

**Multiscale
International-National-Local
Implementation**

- What are the interactions between education, science and environmental policy ?
- What is the role of education and science in the environmental multiscale policy implementation?
- The Sapienza University of Rome – Research Centre of Development Studies has developed an analysis on : policy framework, institutional chain, the Convention on Biological Diversity, case studies



**Education is
a social process.
Education is growth.
Education is, not a
preparation for life;
education is
life itself.**

John Dewey

**We have to highlight the
extraordinary linkage between
biodiversity and education:**



**Biodiversity is life
Biodiversity is our life
Education in
Biodiversity is
Biological Diversity
Social Diversity
Cultural Diversity**



**An example of the integration of the
CBD programmes of work within
academic programmes**

**What is the meaning of
“Benefit Sharing” within
the Context of the CBD
Programmes of Work?**

**What are the Economic
Theories related to this
Issue?**



**What is the meaning of
“Benefit Sharing” in
relation to the
Utilization of Genetic
Resources?**


**What is the definition of
Genetic Resources?**



**How to select promising natural sources ?
In natural science the learning processes start**

from

*Reading Nature
Learning from Nature*



Fontana (CNR, 2008)



Learning
from
People

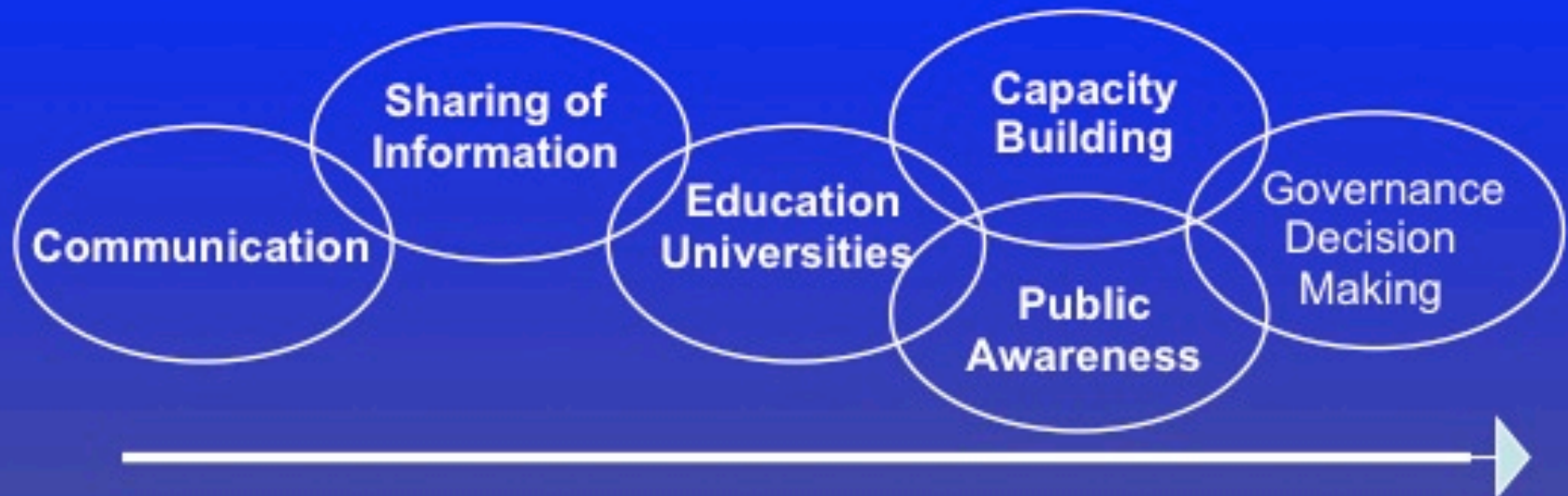
Biodiversity education is a learning process that integrates natural science, social science and society

Learning
with
People



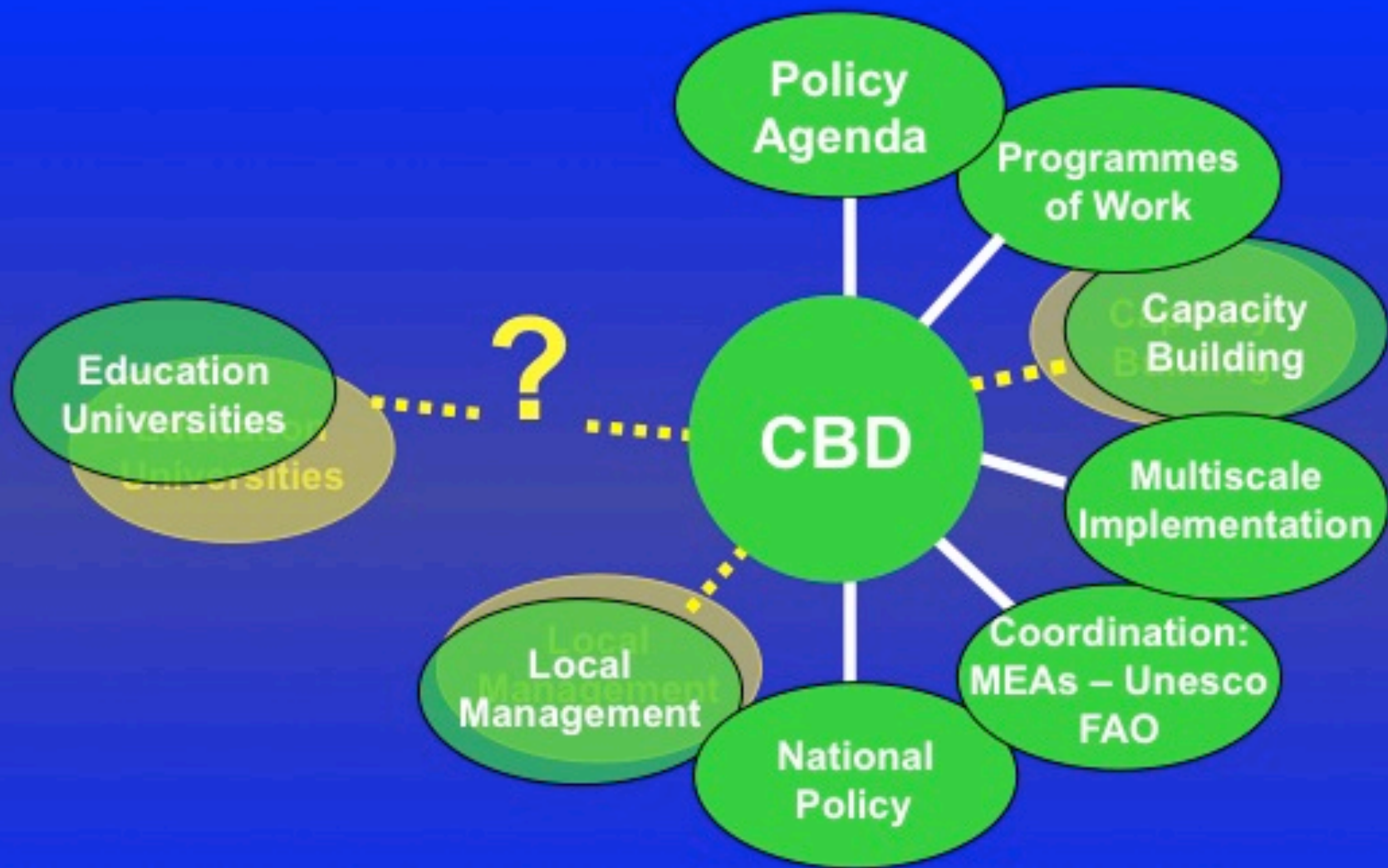
Learning
for
People

The Value Chain of the CBD Implementation



Who are the actors of this long term process?

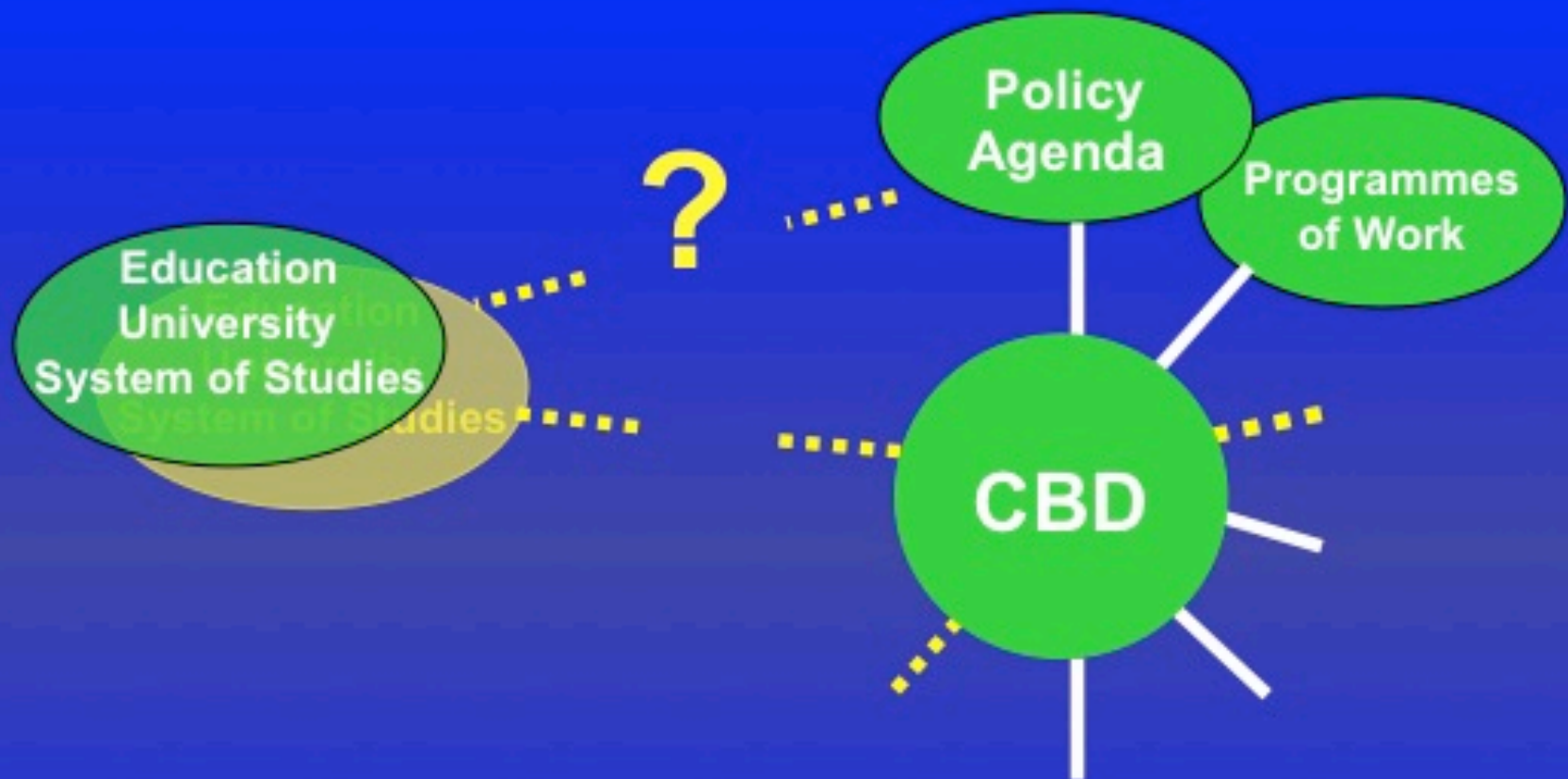
Education is a fundamental element in the value chain of the CBD implementation. Universities are the only institutions: (1) time by time present at local level, (2) with a long lasting and very appropriate mission – education and research (3) with the largest and most suitable human resources and target – researchers, teachers, students, young people who represent the future of a country. Universities are of paramount importance because they play a key role for capacity building and public awareness – which are the milestones for good governance and effective policy making.



In the reality the results of our analysis pointed to the complex implementation processes of the CBD policy agenda and programmes of work, highlighting weaknesses and gaps with respect to capacity building, local management and overall education.



In particular we identify (1) the gap of communication and knowledge between the university system of studies and the International Organizations – among them the CBD,(2) the gap between education and capacity building, (3) the very limited role universities play in disseminating and linking the CBD policy agenda and programmes of work to the local context to which they belong.



How to tackle these challenges? The key point is to bridge the gap of coordination, communication and knowledge between universities and the CBD policy agenda and programmes of work. So far only very few academic activities are linked to the CBD policy framework. In addition these activities are individual initiatives and not expression of an ordinary system of studies

The Cooperation Mission of Sapienza University of Rome and the CBD Secretariat

On the base of this analysis the Research Centre of Developing Studies of the University of Rome Sapienza has developed a methodology and innovative strategy designed for addressing CEPA – Communication, Education and Public Awareness – and capacity building challenges. As a result the CBD Secretariat and Sapienza University have signed a Memorandum of Understanding and Cooperation.

The CBD Secretariat "designates University of Rome 'Sapienza' as a 'University Focal Point' of the Convention for implementing, disseminating and main-streaming the objectives, policy agenda and programme of work of the CBD, in particular in developing countries, promotingcooperation activities, establishing and coordinating networks with other universities and concerned..... institutions".

In accordance with the Cooperation Mission of the Sapienza University of Rome with developing countries universities

The main initiative of this strategic agreement has been the establishment of the

**International University Network
on Cultural and Biological Diversity**

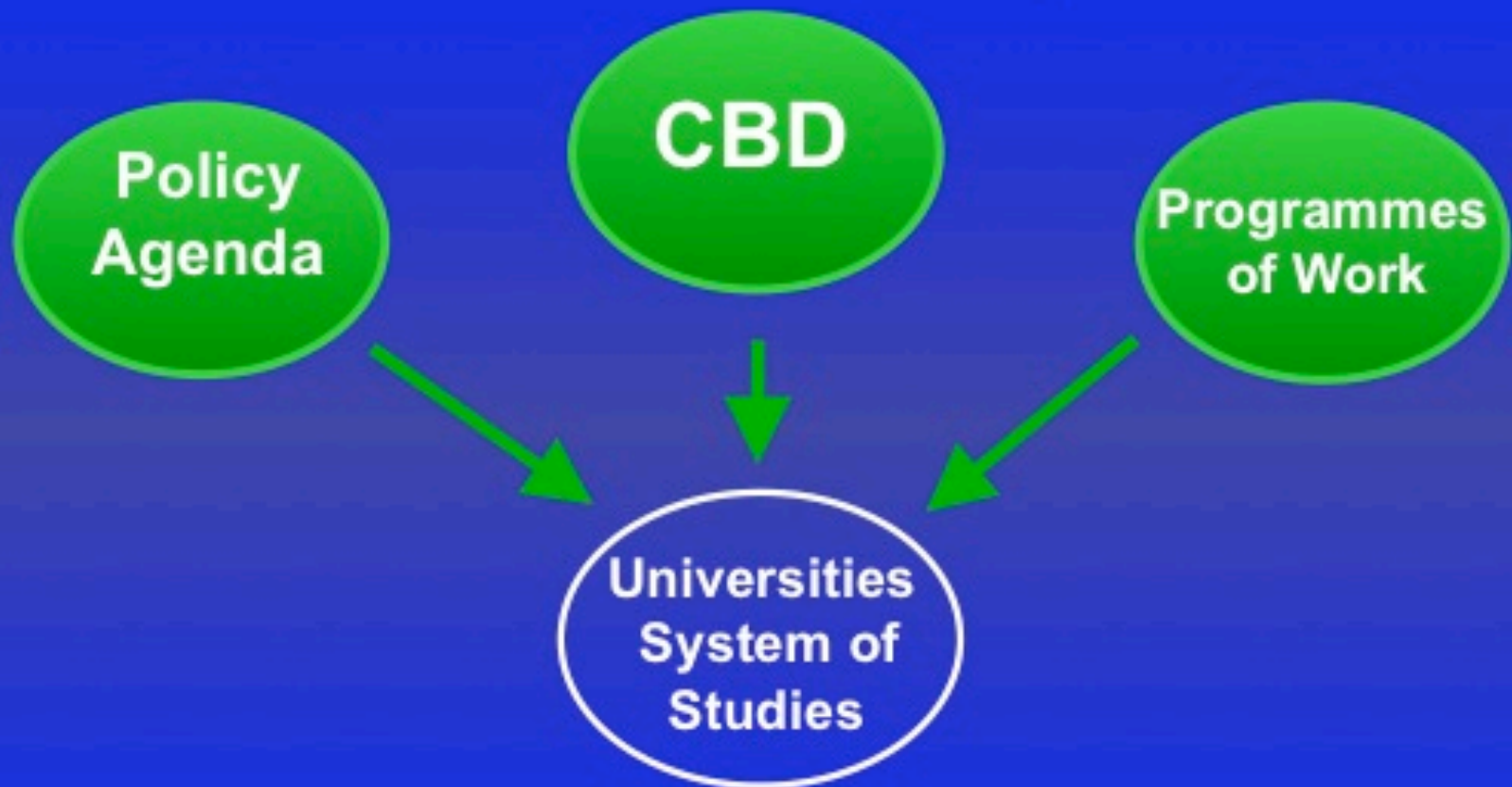
promoted and coordinated by the University of Rome Sapienza in accordance with the CBD Secretariat, and focused on the universities of developing countries and South-South-North collaboration

The International University Network on Cultural and Biological Diversity

The University Network aims at:

- (1) introducing a new paradigm of relationships between international conventions and universities, giving an operative contribution to the CBD Secretariat
- (2) allowing universities to bridge the gaps previously highlighted and play a fundamental role as local social drivers opened to society, local/indigenous communities, experts, policy makers
- (3) offering a transdisciplinary scientific contribution through the internalization of the CBD and associated programmes of work (among others, UNEP, UNESCO and FAO) in the academic system of studies

Biodiversity is a tool for education. Education should be a fundamental tool for the CBD implementation



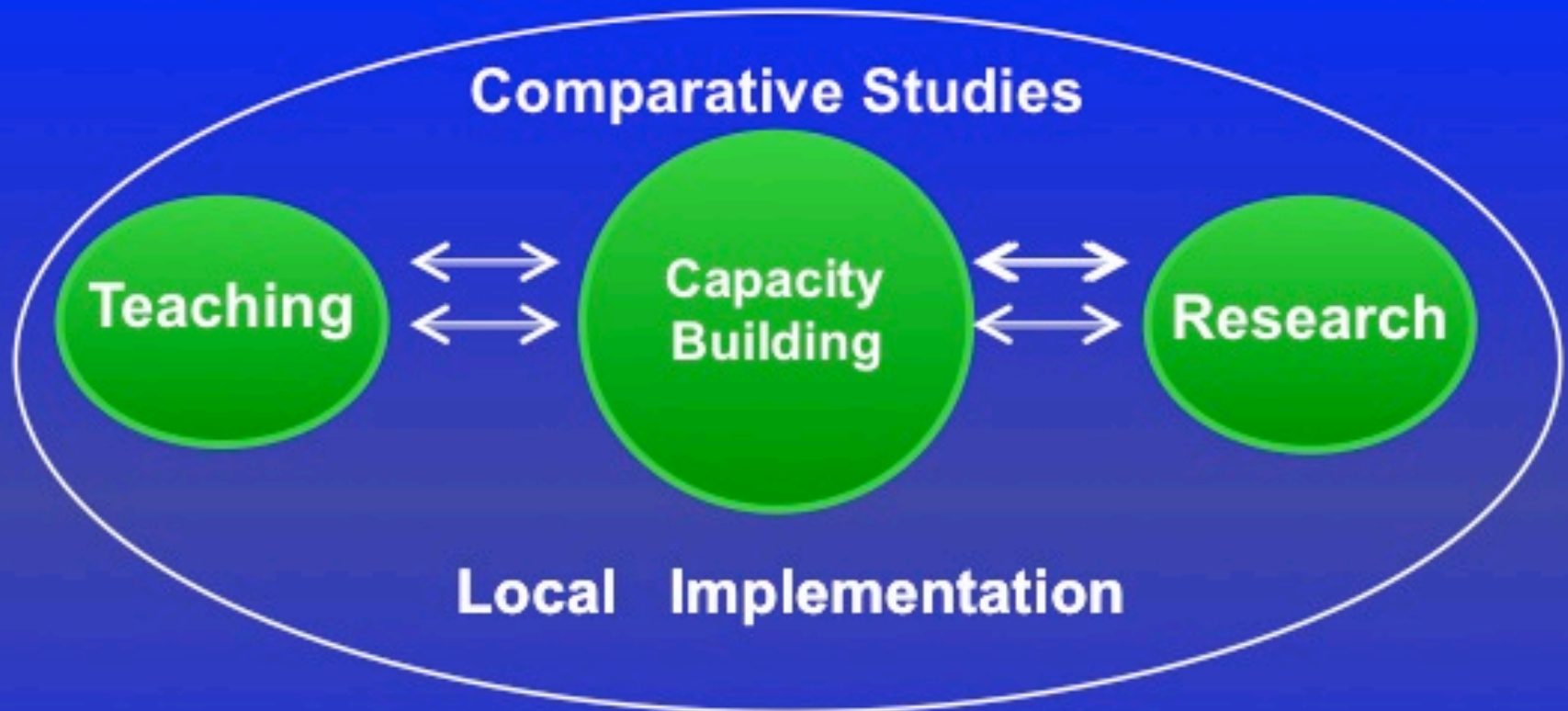
(4) disseminating and introducing the CBD policy agenda and programmes of work in the universities system of studies, bridging the gap between academic and institutional policy perspectives

The International University Network on Cultural and Biological Diversity

The University Network aims at:

- (5) translating the CBD policy agenda and programmes of work in new contains for courses and academic programmes with the involvement of representatives of communities and experts**
- (6) institutionalizing these programmes in the academic system of studies**
- (7) offering a coordinated international platform of information, knowledge, research questions and research/teaching programmes in order to develop and reply transdisciplinary academic studies, initiatives and curricula linked to the ongoing CBD and related organizations policy agenda and programmes of work**

Matching Scientific with Policy-Management Perspectives



(8) developing joint research/teaching/capacity building initiatives and events in order to strengthen local capacities, exchange and compare local experiences and case studies at international/national multi-scale level, achieve high standards of advanced studies, link universities to the local implementation of the CBD, provide tools to grow a critical mass of experts



(9) designing innovative curricula/ initiatives taking into account the local context



Pilot case for the implementation of the IUNCBD:

University of Antananarivo – Madagascar
Research/Teaching Programme

Genetic Resources – Medicinal Plant:
Local Communities, Benefit Sharing and Value Network Analysis
within the context of the CBD and the Nagoya Protocol



The Research/Teaching Programme “Genetic Resources – Medicinal Plant: Local Communities, Benefit Sharing and Value Network Analysis” within the context of the CBD and the Nagoya Protocol integrates:

(1) academic/scientific perspectives



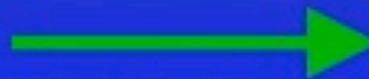
(2) Policy Perspectives
CBD, Nagoya Protocol :
“Utilization of Genetic Resources and Traditional Knowledge ...Prior Informed Consent of the Country of Origin and Local Communities Mutually Agreed Terms”



(3) Local Context and Multiscale Implementation: Partnership with the NGO MAT: Management of Forest Areas and Research Action with Malagasi Students



How to interpret and apply binding principles and provisions taking into account.....



Institutional Chain

Institutions	Behaviours Relationships with the Actors of the Value Chain
Local - Village	
Managers Protected Areas	
Municipality	
Intermediate Institutions	
Gover- namental Agencies	
State/ Ministry	
International Institutions/ Local Represen- tants	
NGO	



Complex Balance Comparative Studies

Madagascar



Other Universities in Africa, Latin
America, Asia ?
Ecosystems Management Master ?



**The Global Universities Partnership on Environment and Sustainability
(GUPES) MEETING**



**The
International
University
Network on
Cultural and
Biological
Diversity**

**UN Decade on
Biodiversity
2011-2020**

**2005 – 2014
Unesco Decade
of Education for
Sustainable
Development**

**2012
UN Conference on
Sustainable
Development
Rio + 20**

**IPBES
Intergovernmental
Platform on
Biodiversity and
Ecosystem
Services**

International Conference India 2012 (CBD-COP11):
“Biodiversity 2020: Linking Policy to Education Science Society”

IPBES

Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services

UNEP – UNDP – UNESCO – FAO
MEAs (CBD – Rio Conventions.....)

IPBES will be an interface between
the scientific community and
policymakers that aims at building
capacity for and strengthen the use
of science in policymaking.

**What is the fundamental role of
High Education and
Universities ?
Linking Policy to Education-
Research-Science-Capacity
Building and Society**

The image shows a promotional graphic for IPBES. It features a collage of images: a diver underwater, a whale, and several flags on poles. The IPBES logo is prominently displayed in the center. Below the logo, there is text in white and yellow on a dark blue background.

Want to understand
the scientific needs of
decision makers?

IPBES will identify and prioritize
key scientific information needed
for policymakers and catalyze
efforts to generate new research.

IPBES

Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services

UNEP – UNDP – UNESCO – FAO
MEAs (CBD – Rio Conventions.....)



Want to understand the
latest trends?

IPBES will perform regular
comprehensive assessments at
various scales, as well as on
thematic issues and new topics
identified by science.



Want to understand
the scientific needs of
decision makers?

IPBES will identify and prioritize
key scientific information needed
for policymakers and catalyze
efforts to generate new research.

VISION

By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."

MISSION

Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication.....

STRATEGIC GOAL A:
Address the underlying causes of biodiversity loss by mainstreaming biodiversity

STRATEGIC GOAL B:
Reduce the direct pressures on biodiversity and promote sustainable use

STRATEGIC GOAL C:
Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

STRATEGIC GOAL D:
Enhance the benefits to all from biodiversity and ecosystem services

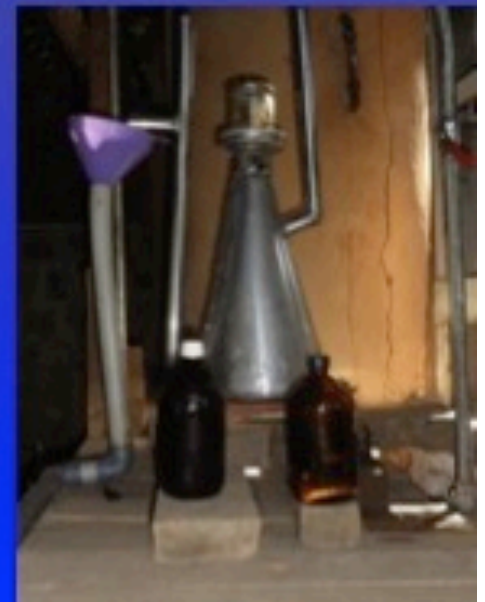
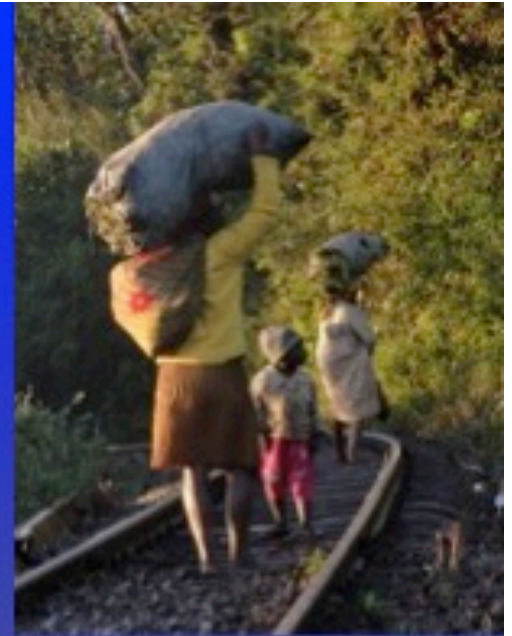
STRATEGIC GOAL E: Enhance implementation through participatory planning, knowledge management and capacity-building

SUPPORT MECHANISMS

Biodiversity & Society: Education, Capacity
Building, Science, Economy, Policy.....
Knowledge Generation...Drivers.....

*"I believe that the great part of miseries of
mankind are brought upon them by false
estimates they have made of the value of
things."*

Benjamin Franklin,



Thank you

The International University Network on Cultural and Biological Diversity

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