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**Biodiversity 2020:  
Linking Education Science Policy and Society  
Rationale and Action Plan of  
the International University Network on  
Cultural and Biological Diversity**

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Decision VI/19 the CBD-COP agreed on two fundamental principles, recognizing deep challenges that lay, and still lie ahead:

- the three objectives of the CBD "call for social change", and
- "education and public awareness are long-term investments towards this change"

However the COP Decision recognized:

***"despite repeated stated support for education and public awareness, education and communication instruments fail to be effectively utilized in the processes of the Convention", underlining that "education and communication instruments ..... are inadequately advised by relevant professional expertise"***



# Aichi Targets ?



Strategic goal A.....  
and the others.... :  
*“Address the underlying  
causes of biodiversity loss  
**by mainstreaming  
biodiversity** across  
government and society”*



*How to address this target  
**without Education ?***

*What is the role of  
universities ?*

# Aichi Targets ?

Strategic goals B and C:

*“Reduce the direct pressures on biodiversity and promote sustainable use”*

*“To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity*



***How to address this target **without** Education and Research?***

***What is the role of universities ?***

# Aichi Targets ?

Strategic goals D and E: *“Enhance the benefits to all from biodiversity and ecosystem services”*



*“Enhance the benefits to all from biodiversity and ecosystem services”*

*“Enhance implementation through participatory planning, knowledge management and capacity building”*

**How to address this target *without* Education, Research and *Society*?**

**What is the role of universities ?**



Learning on the Bridges between  
Cultures, ecosystems. different perspectives  
and sectors:  
education, science, policy, society

Without losing the details and respecting appropriate timing



Communication, education, capacity building and implementation processes should be integrated in a unique long-lasting strategy and action plan that feed the never-ended “life cycle of the CBD”

**CBD  
POLICY  
implementation**

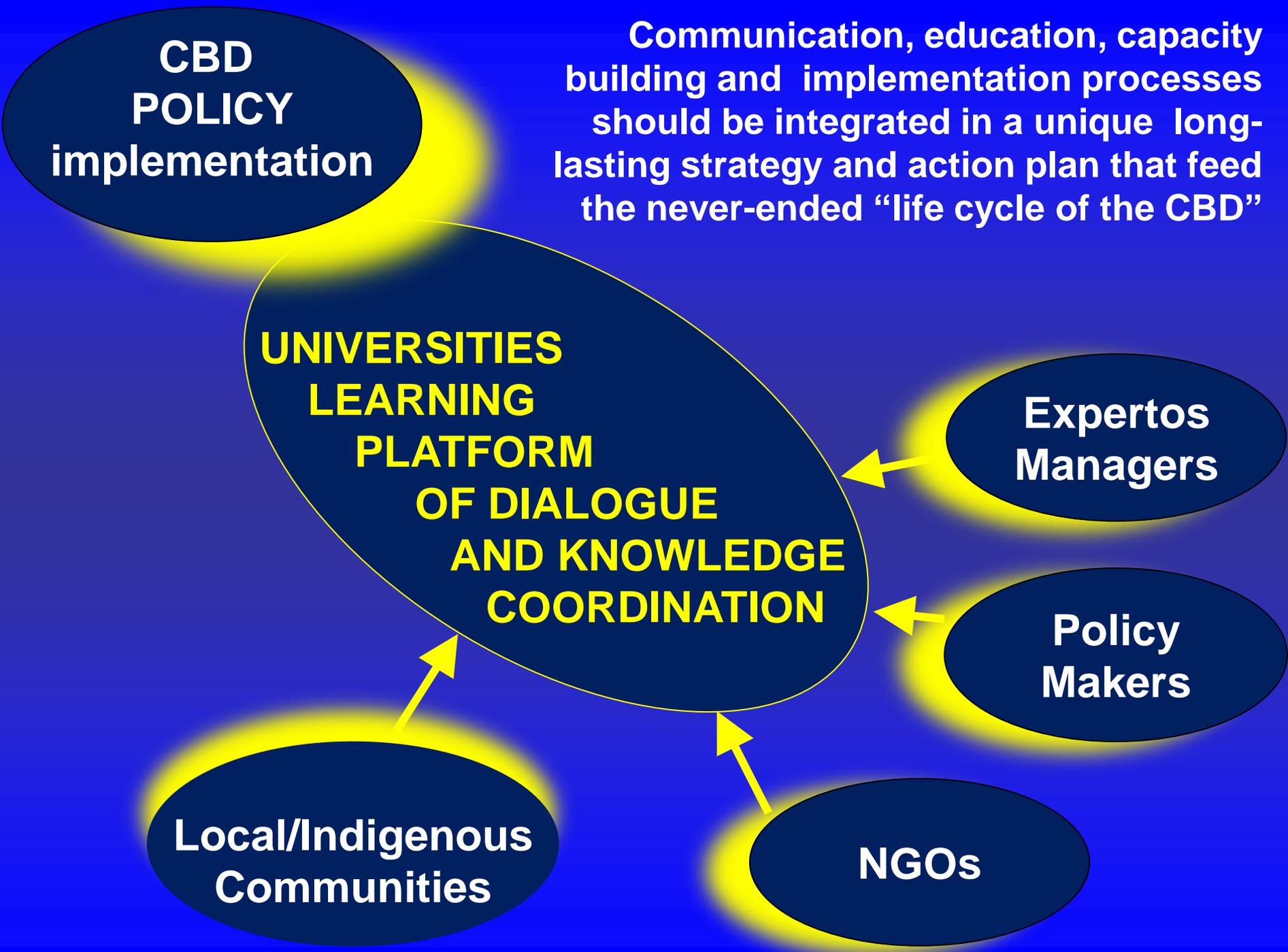
**UNIVERSITIES  
LEARNING  
PLATFORM  
OF DIALOGUE  
AND KNOWLEDGE  
COORDINATION**

**Expertos  
Managers**

**Policy  
Makers**

**NGOs**

**Local/Indigenous  
Communities**



# 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

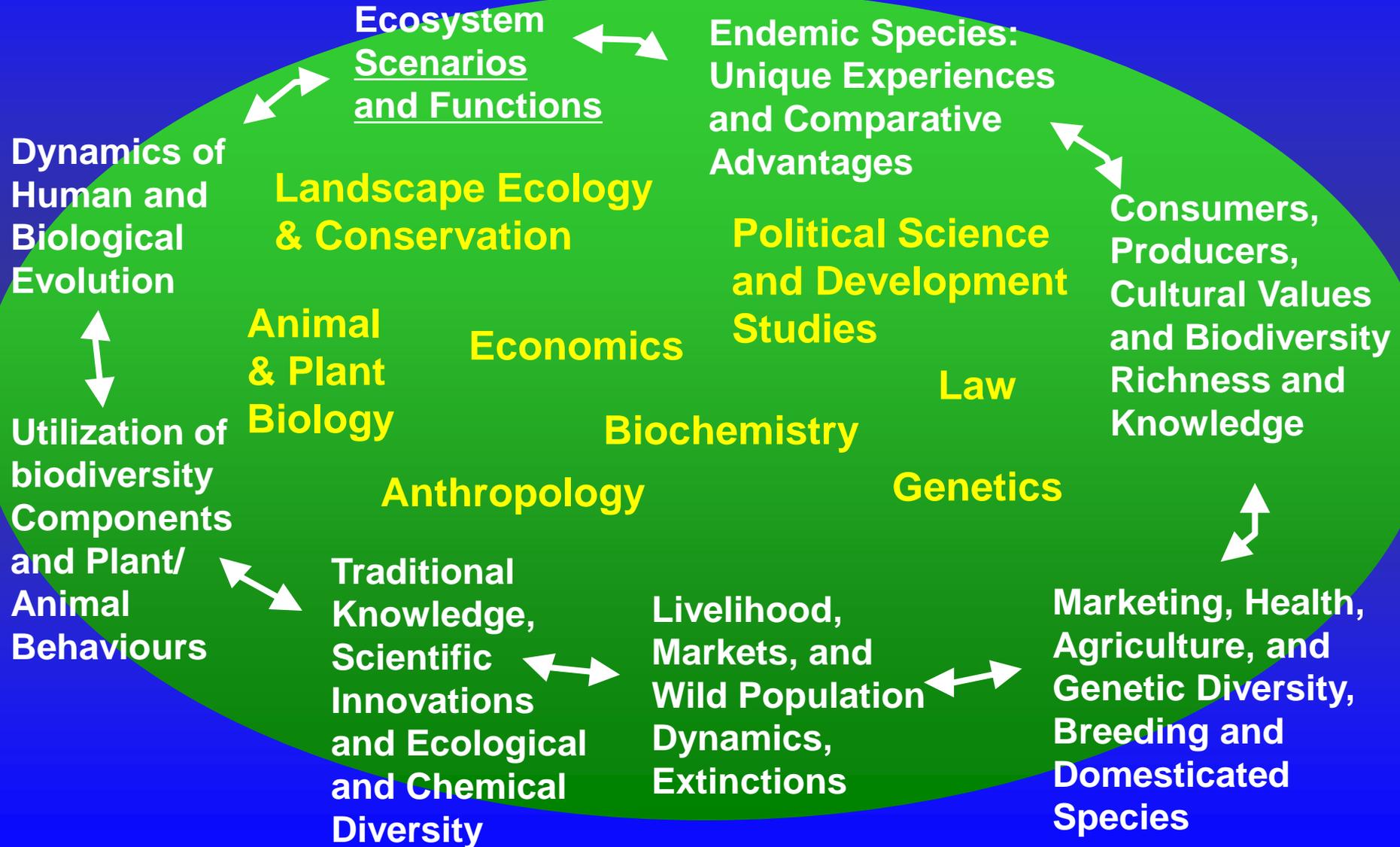
The need of a system of  
studies

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

**Biological Cultural Diversity is an educational journey in itself ready to become a transdisciplinary programme of studies opened to local society, indigenous communities, experts. Each aspect of biodiversity has a natural and social science dimension**





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



from



*Reading Nature*  
*Learning from Nature*



Learning  
**from**  
People

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

Learning  
**with**  
People



Learning  
**for**  
People

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



**Learning  
from  
People**

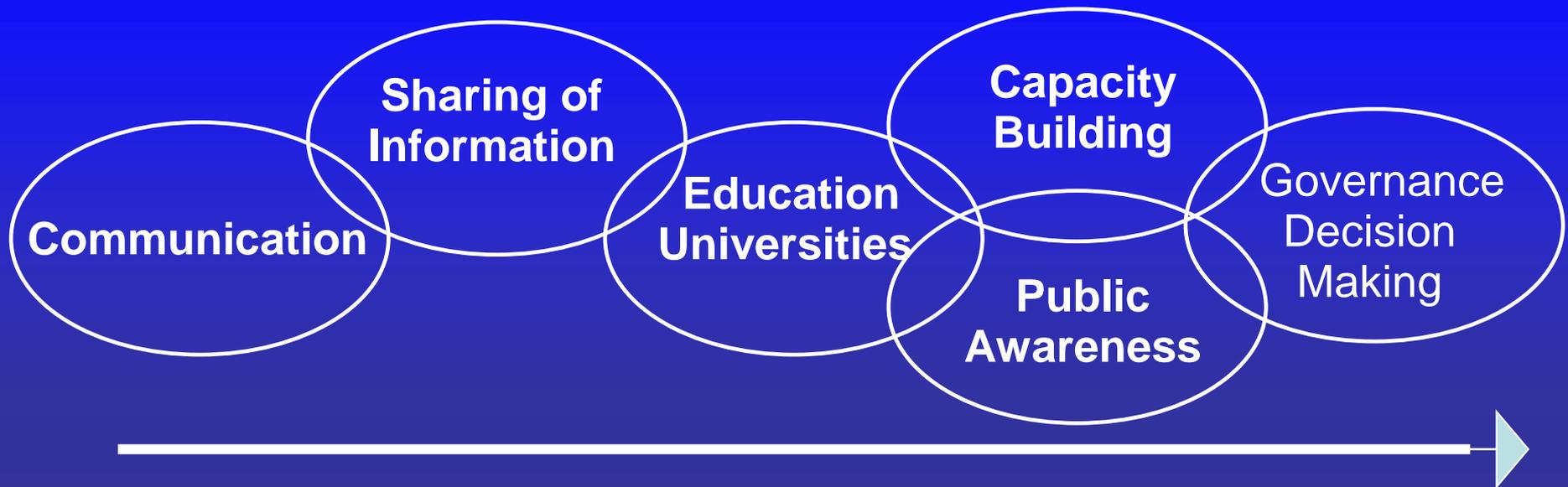


**Learning  
with  
People**



**Learning  
for  
People**

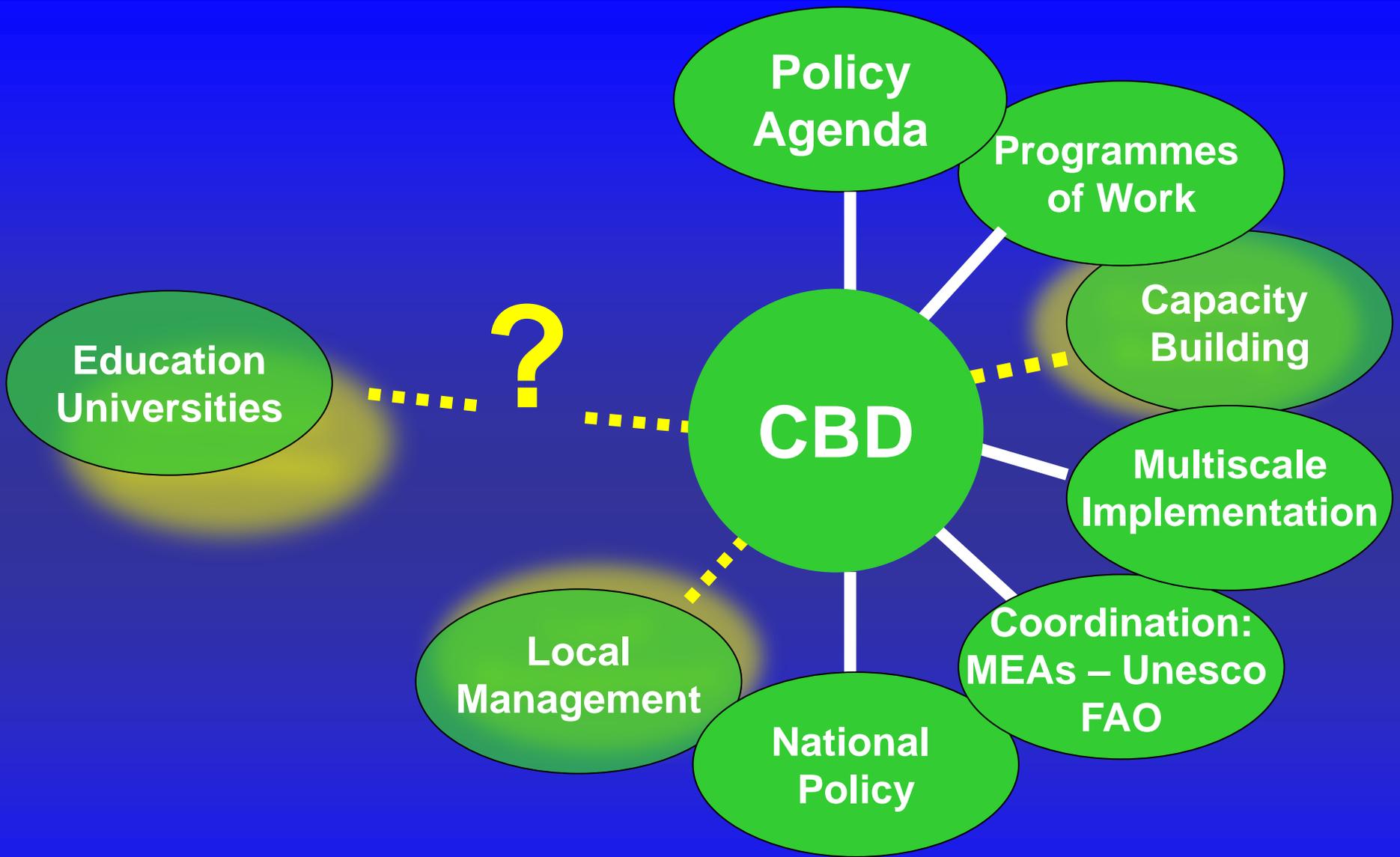
# The Value Chain of the CBD Implementation



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.

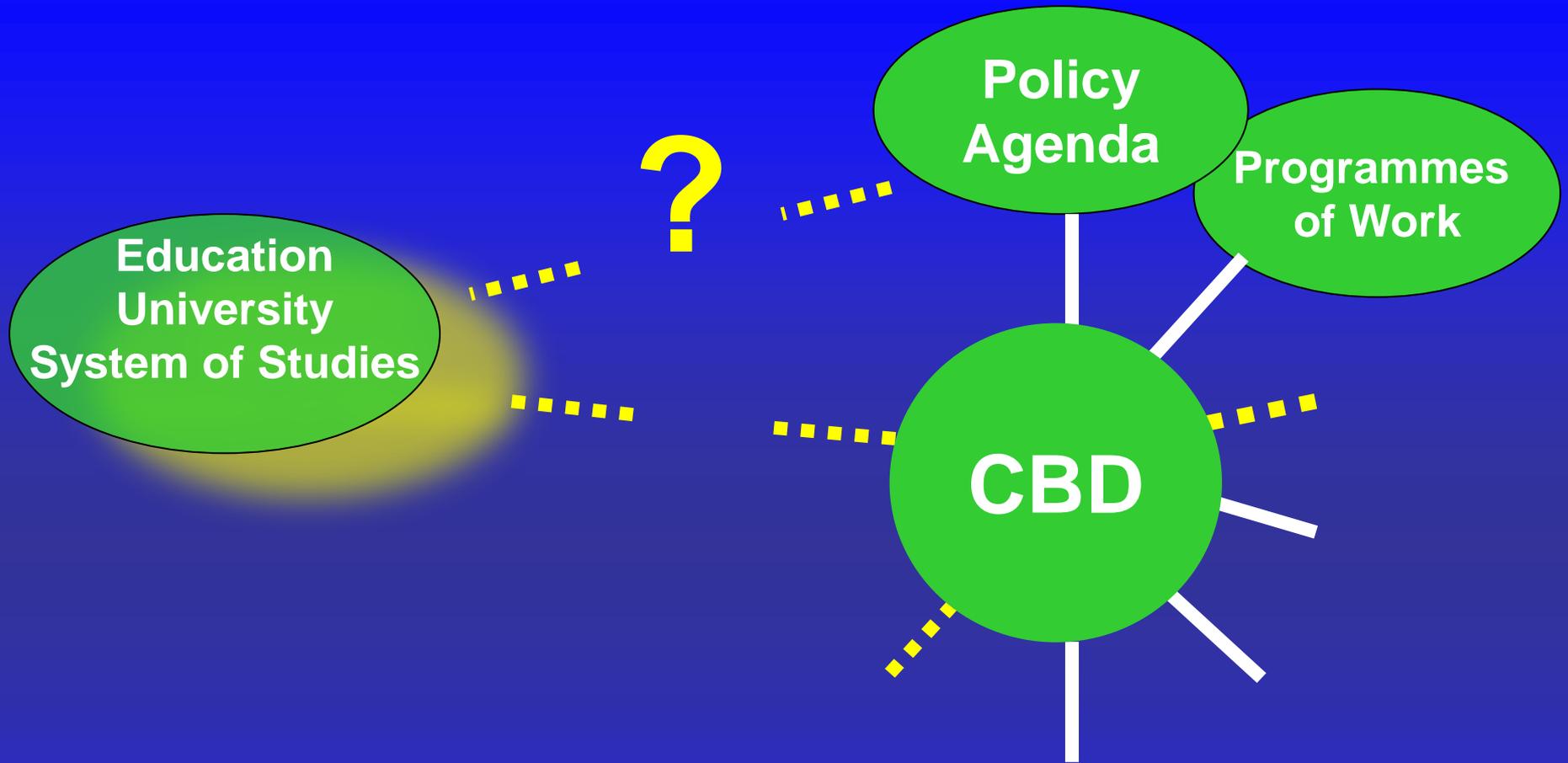
Universities are of paramount importance because they play a key role for capacity building and public awareness – which are the milestones for good governance and effective policy making.



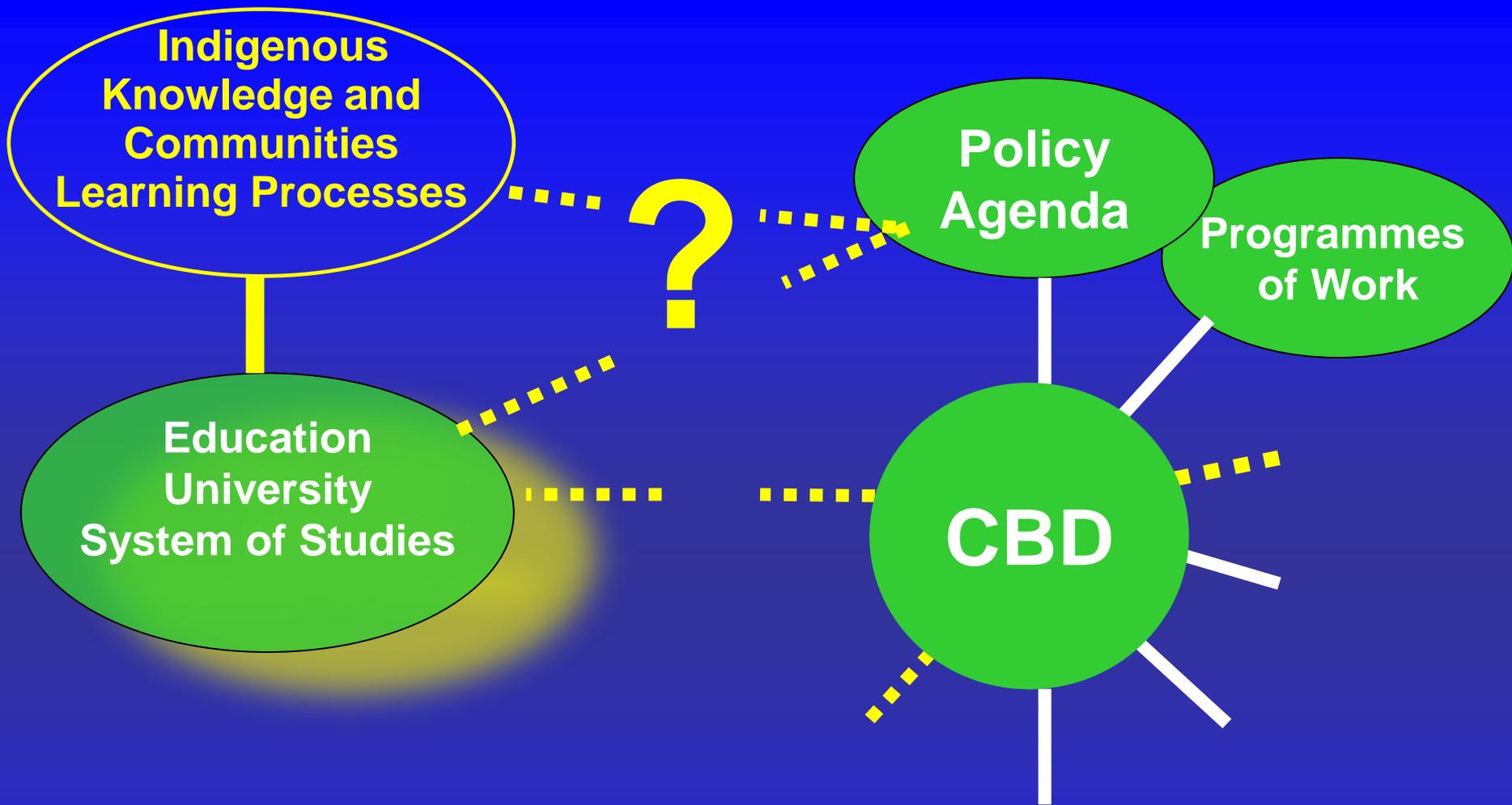
In the reality the results of our analysis pointed to the complex implementation processes of the CBD policy agenda and programmes of work, highlighting weaknesses and gaps with respect to capacity building, local management and overall education.



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



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, combining formal and informal education, academic perspectives and indigenous knowledge and science.

# ***The Cooperation Mission of the International University Network on Cultural and Biological Diversity***

**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, promoting .....cooperation activities, establishing and coordinating networks with other universities and concerned..... institutions".**

**The operative initiative of this strategy:**

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

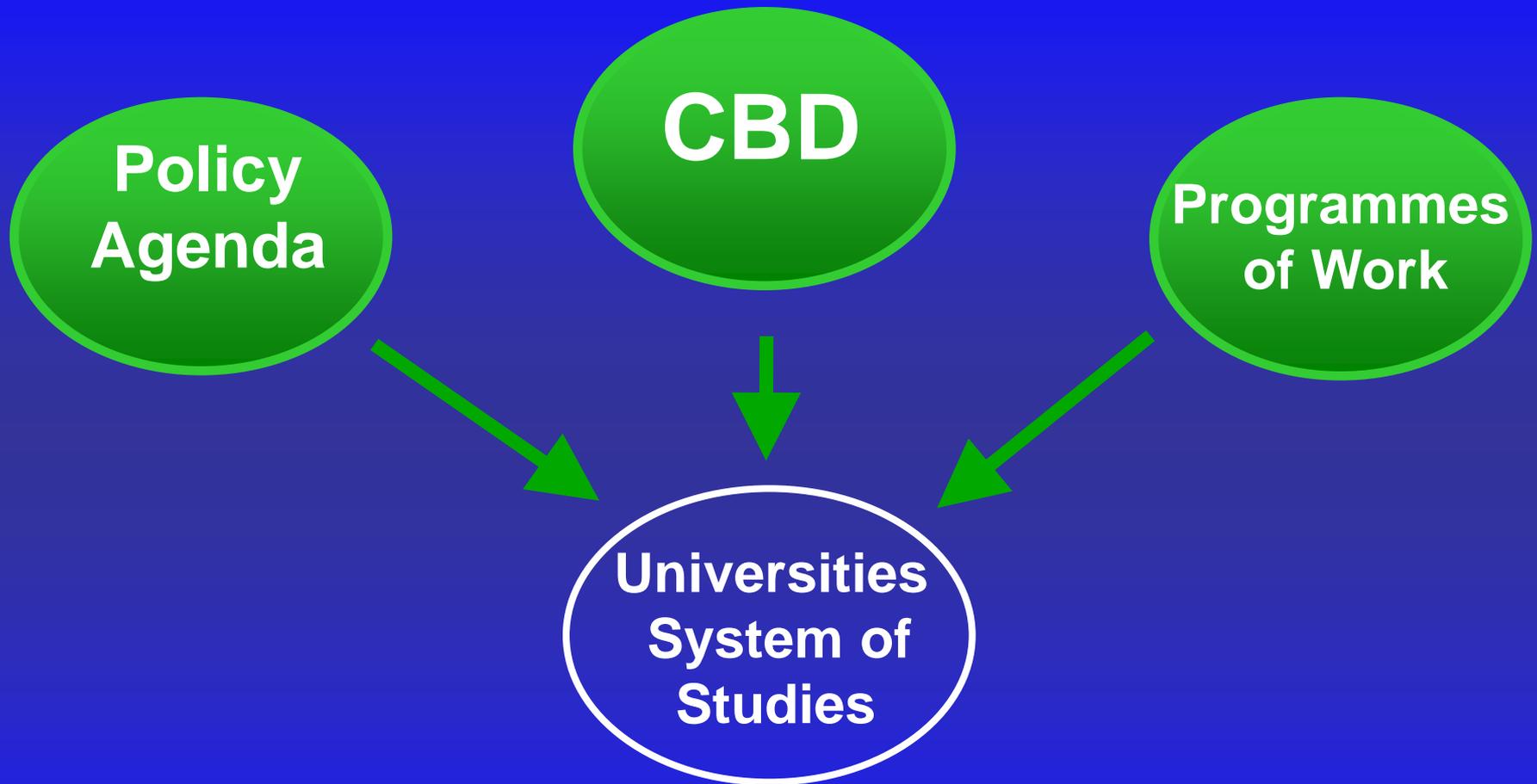
**Established in accordance with the CBD Secretariat, and  
focused on the universities of developing countries  
and South-South-North collaboration**

# ***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***

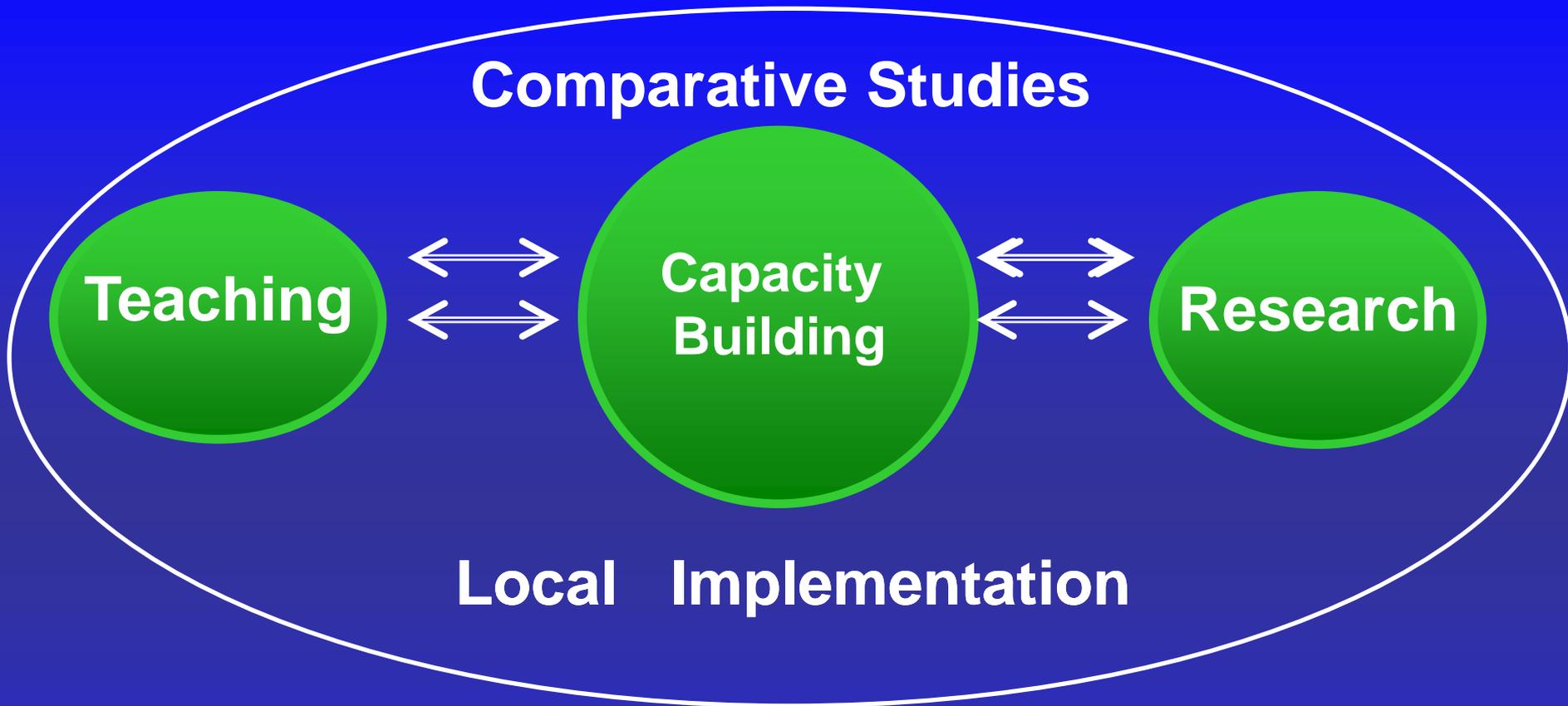
**The University Network aims at:**

**(5) translating the CBD policy agenda and programmes of work in new contents 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

# 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.



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



Capacity Building Workshops ? Valuable efforts..... but isolated events without real follow-up.....

Capacity Building Workshops

CBD International Organizations

?

?

Experts

Policy makers

Local/Indigenous Communities

NGOs



How to tackle these challenges?  
An innovative learning platform of  
dialogue,

**CBD  
POLICY  
implementation**

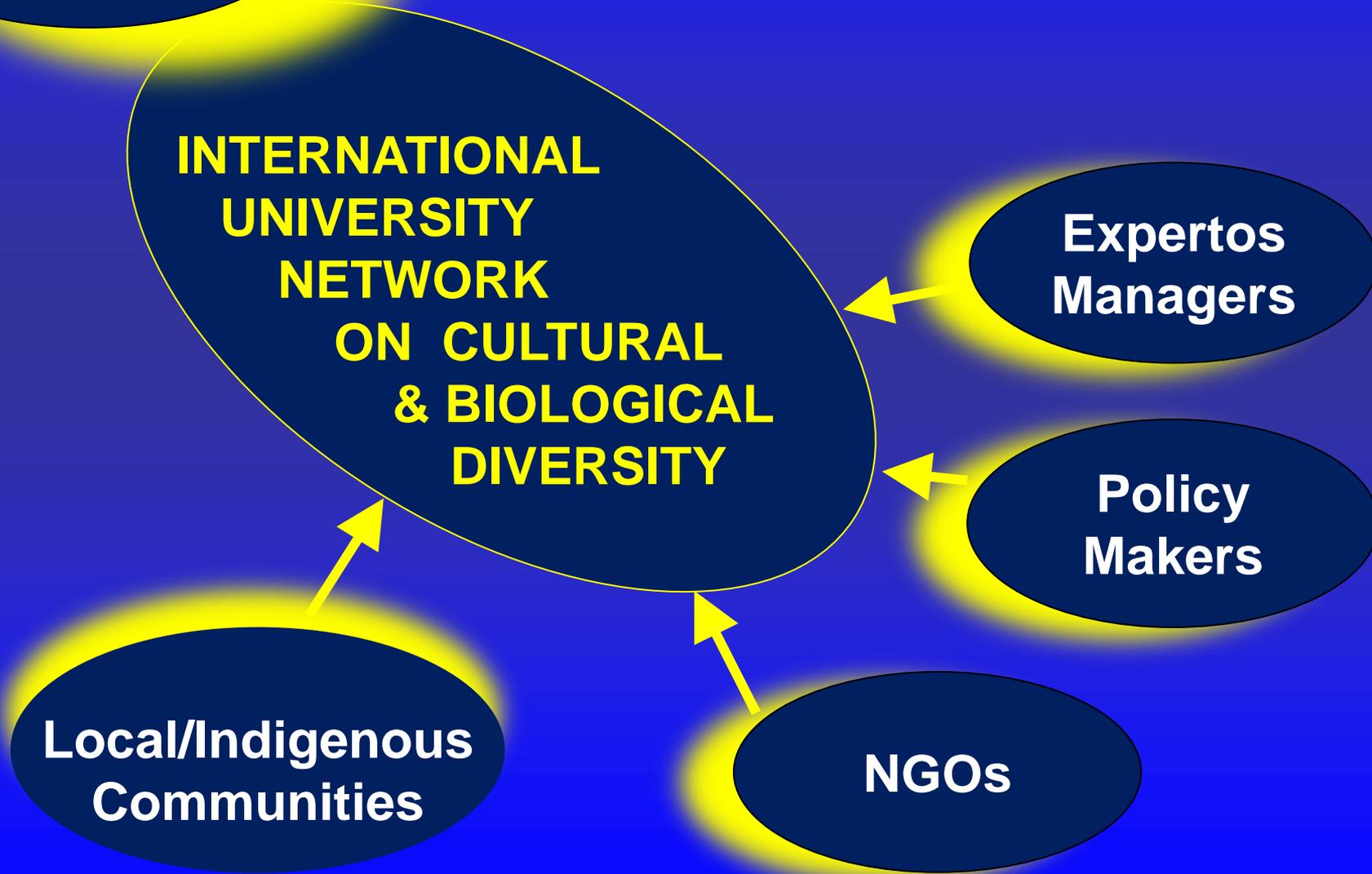
**INTERNATIONAL  
UNIVERSITY  
NETWORK  
ON CULTURAL  
& BIOLOGICAL  
DIVERSITY**

**Expertos  
Managers**

**Policy  
Makers**

**Local/Indigenous  
Communities**

**NGOs**



Pilot case for the implementation of the IUNCBD Network:  
University of Antananarivo – Madagascar  
Research/Teaching Programme  
*Biodiversity Policy & Management*

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.....



# Complex Balance Comparative Studies

## Madagascar

Other Universities in Africa, Latin  
America, Asia ?



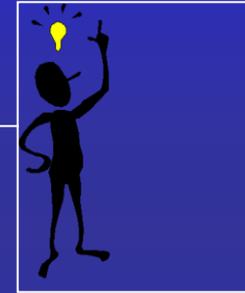
# What is the fundamental role of High Education and Universities in this arena?

Linking Policy to Education-Research-Science-Capacity

Building and Society

Protection and promotion of Cultural and

Biological Diversity



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*



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