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**Scientific contributions to provide valuable information materials for the elaboration of a technical series on *The Interdependence of Biodiversity and Development under Global Change* (Chapter Fundamentals)**

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## PURPOSE

The purpose of scientific contribution is to provide a solid academic manuscript to be included in the “Chapter Fundamentals” of the planned Technical Series volume entitled “*The Interdependence of Biodiversity and Development under Global Change*”, which the SCBD will produce in cooperation with scientific partners.

## BACKGROUND

The Millennium Ecosystem Assessment (MA) has provided a comprehensive assessment of 24 Ecosystem services that make a direct contribution to human well-being, and has called for a worldwide agenda to overcome the irreversible degradation of ecosystems and biodiversity loss. There is an urgency to creatively resolve these challenges and establish global tasks in order to protect humankind against disasters with unprecedented consequences.

Yet the challenge of designing and operationalizing this global agenda requires further research, consultation and institutional reforms and arrangements to find the most appropriate way to move forward.

Complex systems find dynamic equilibrium through a well-balanced and continuous exchange of energy between their interdependent components. If this energy flow is interrupted or dramatically changed, the system will collapse.

The eco-system approach (system perspective) is increasingly understood and applied not only by most scientific disciplines, but also for operational purposes by public planners, politicians, private sector, NGOs and other institutions. All of them have to deal with the fact that Biodiversity and Development are two fundamental interdependent components of the same overall system.

The sustainable management of ecosystem goods and services (EGS) is one of the key strategies to prevent a global ecological collapse. But prevention needs more specific information and tools for informed decision-making and effective implementation at all levels.

Using an interdisciplinary system approach, the SCBD in collaboration with different partners among the scientific community will elaborate a technical series identifying some of the key challenges, crucial themes and global tasks that are necessary to face in order to establish a new, balanced relationship between our environment and development needs.



The technical series will be structured in four disciplinary chapters: a bio-physical, an institutional, an economic and a cultural chapter, each will analyze and describe open questions to get a better implementation and balance between biodiversity conservation and development.

The aim of the present scientific contribution is to facilitate through the systematization of relevant information and ongoing research and studies valuable inputs to the Chapter “Fundamentals” of the mentioned technical series.

## **TERMS OF REFERENCE**

The scientific contribution aim to identify and/or answer key questions related to the actual situation and the expected scenarios of global biodiversity and environmental changes and their interaction with socio-economic development processes.

### **Expected products of the scientific contribution:**

A solid academic manuscript to be included in the “Chapter Fundamentals” of the planned Technical Series volume entitled “***The Interdependence of Biodiversity and Development under Global Change.***”

The contents of the manuscript should cover the following issues:

Human development and biodiversity – interdependence or dependence?

- The anthroposystem as dependent part of the global ecosystem and as a main driver of global change
- How much biodiversity do humans need ... locally, regionally, and globally?

The functioning and evolution of biodiversity under global change

- Lessons from the past
- Current situation and trends
- Future prospects

Dynamic human development and changing biodiversity: arising needs and issues

- Contributions of biodiversity conservation to the mitigation of global environmental change: goals, targets, conflicts and action
- Biodiversity and sustainable development under pressure: adaptation to unavoidable change, synergies and conflicts
- Biodiversity and conservation research: a new approach to risks , knowledge and non-knowledge

## **TIMEFRAME**

A total timeframe of 10 months is envisaged for the delivery of the products and services specified above. The scientific contribution is expected to be concluded until June 2010.

### **How to apply**

The application deadline for this contract is 11 September 2009 and all applications should be sent to [secretariat@cbd.int](mailto:secretariat@cbd.int)