



## Millennium Ecosystem Assessment

# **Role of Ecosystem Assessments in Environment and Development Policy Making Process**

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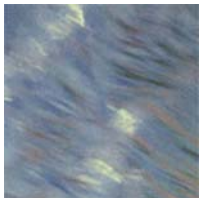
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## Basic Goal of the Millennium Ecosystem Assessment (MA)

- **Increase the quantity, quality, and credibility of policy-relevant scientific research findings.**
- **Understand consequences of changes in ecosystem services on human well-being.**
- **Provide information for use by decision-makers, particularly those involved in the ecosystem-related conventions and in the development arena**

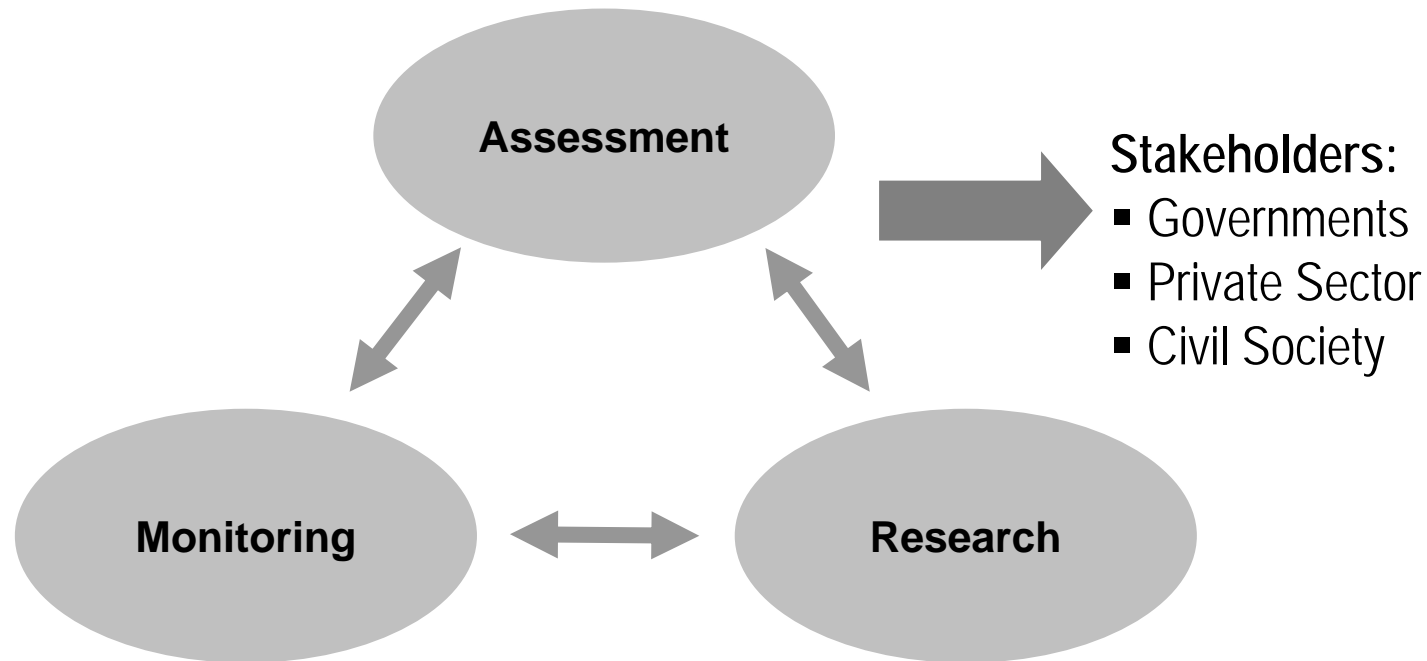
# Largest assessment ever undertaken of the health of ecosystems



- Prepared by 1360 experts from 95 countries; extensive peer review
- Consensus of the world's scientists – Similar to IPCC
- Called for by UN Secretary General in 2000
- Information requested through 4 international conventions
- Multi-stakeholder board included government, business, NGOs, indigenous peoples

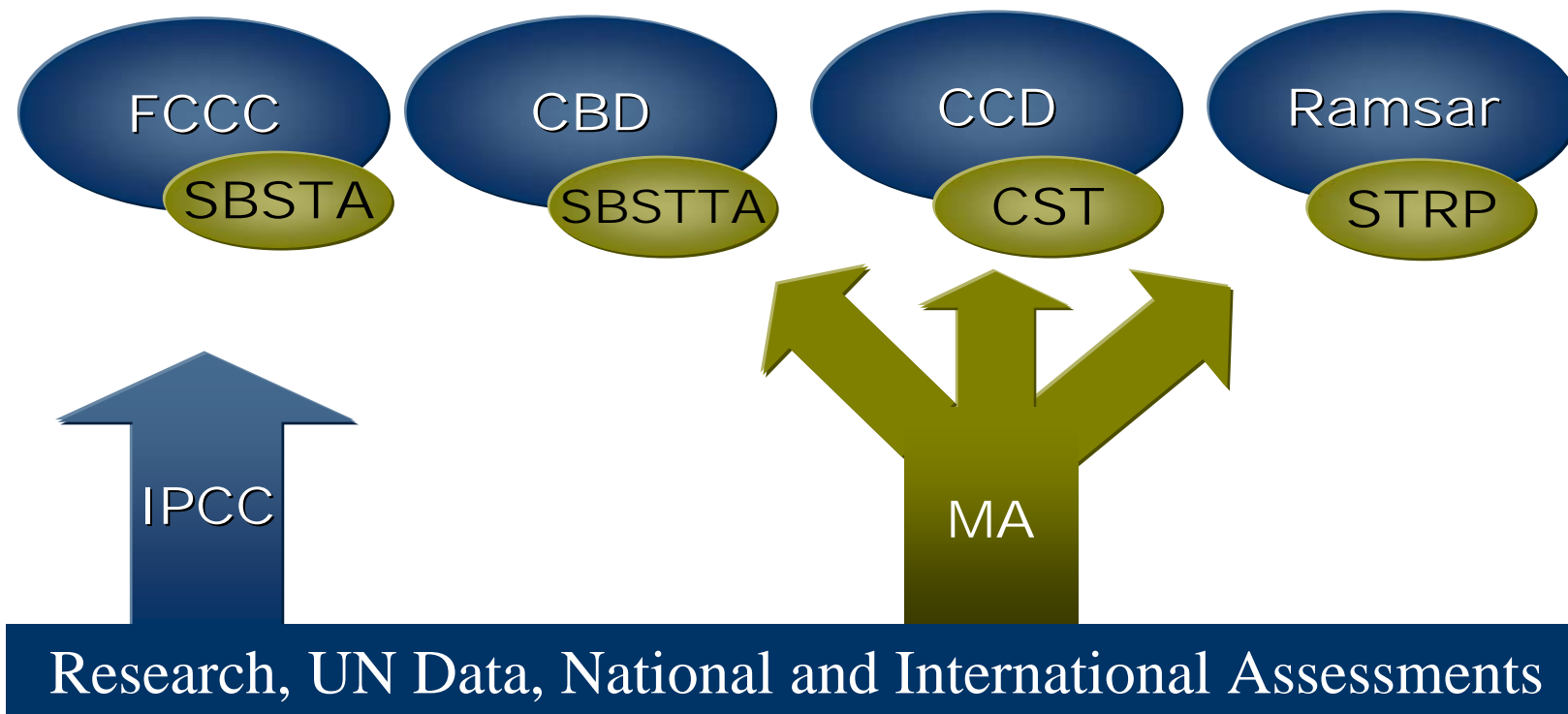
# What is a science policy-relevant assessment?

A social process to bring the findings of science to bear on the needs of decision-makers

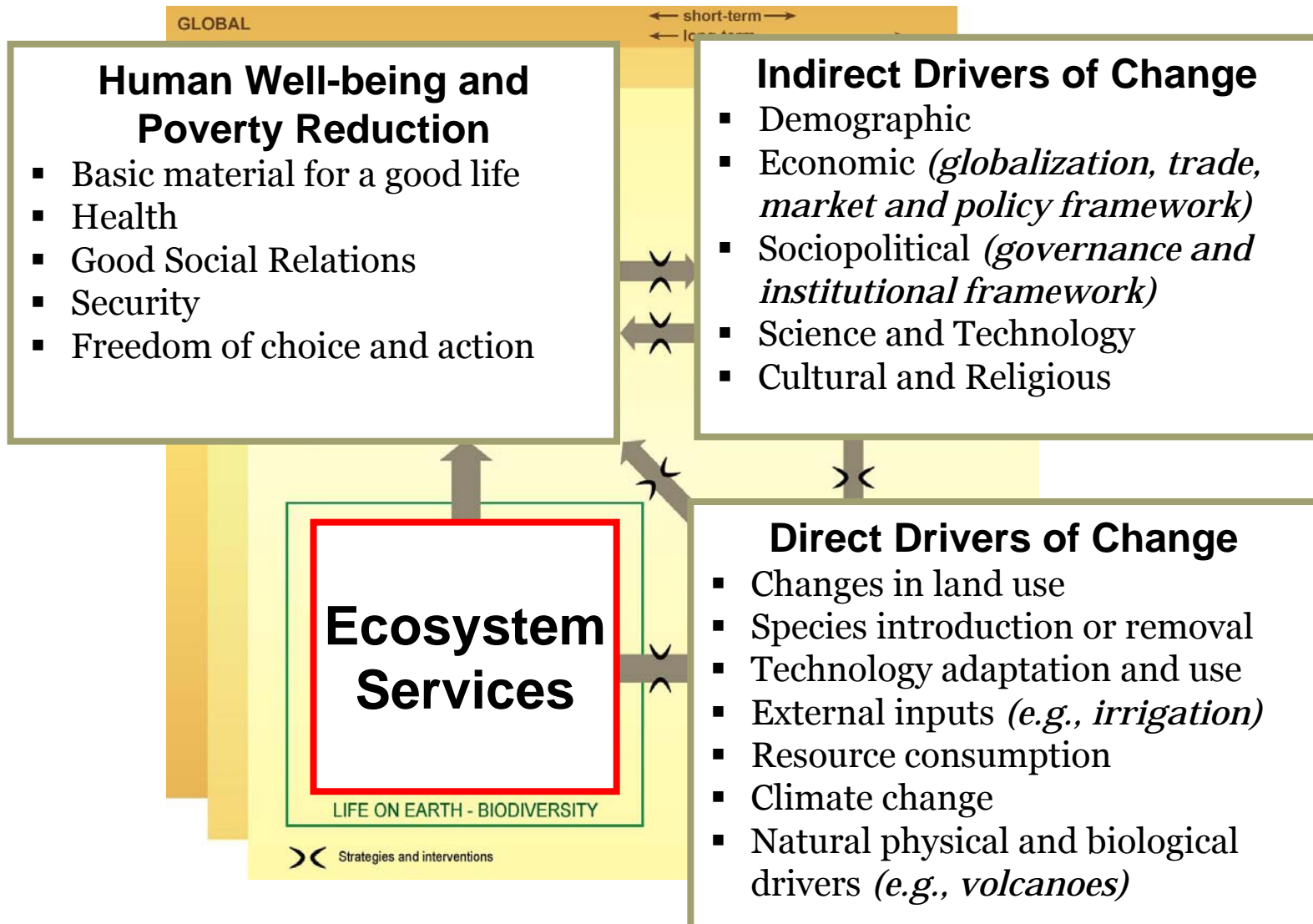


**A scientific assessment applies the judgment of experts to existing knowledge to provide scientifically credible answers to policy relevant questions.**

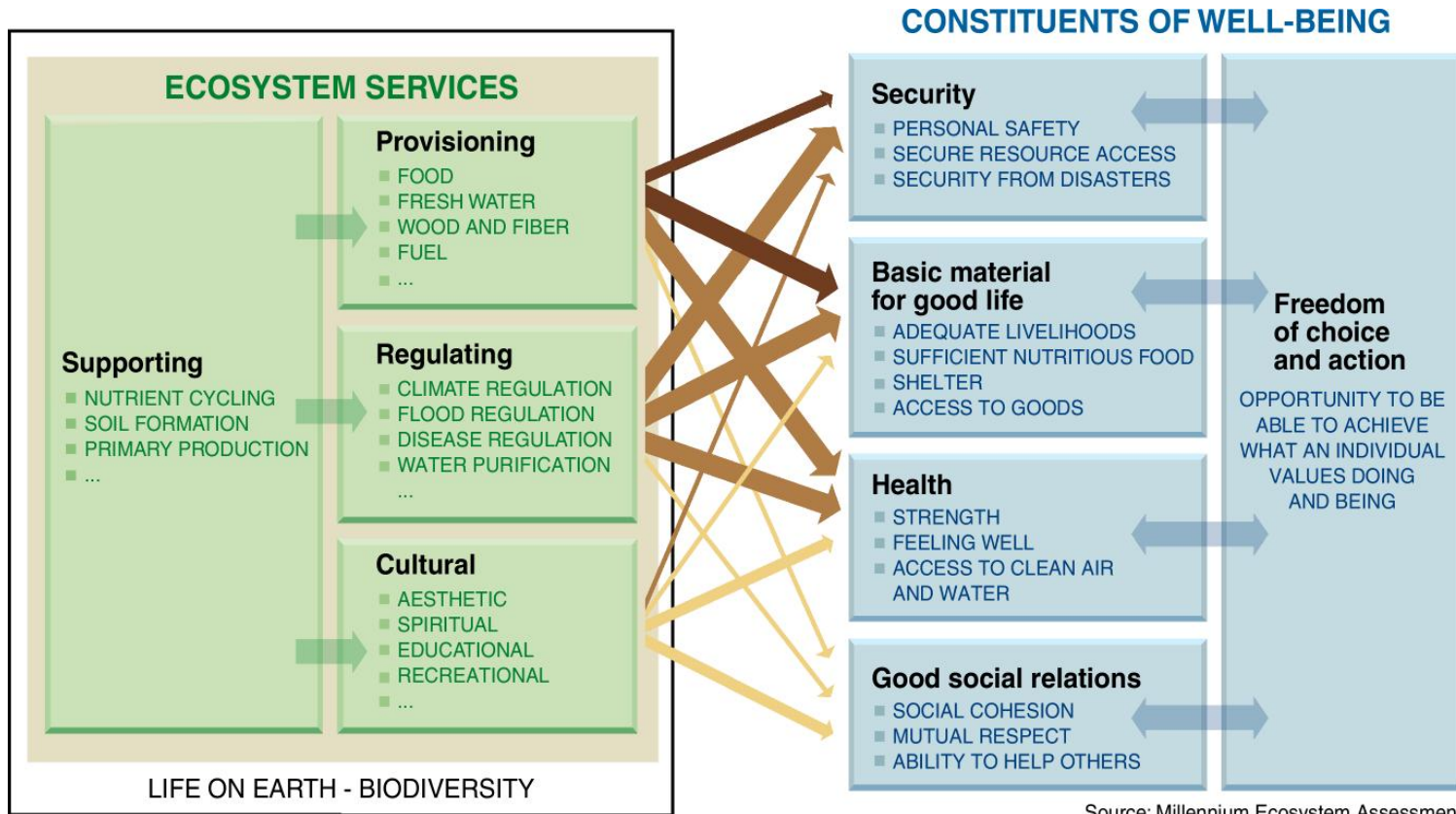
# Multiple Users Among Conventions



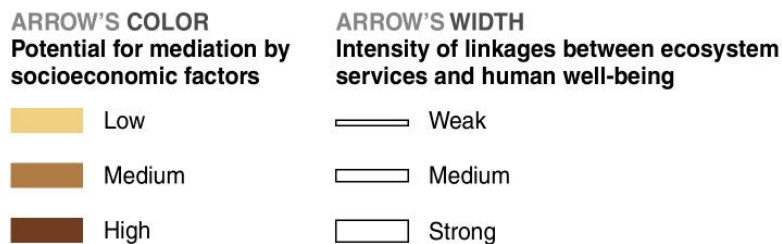
# MA Framework



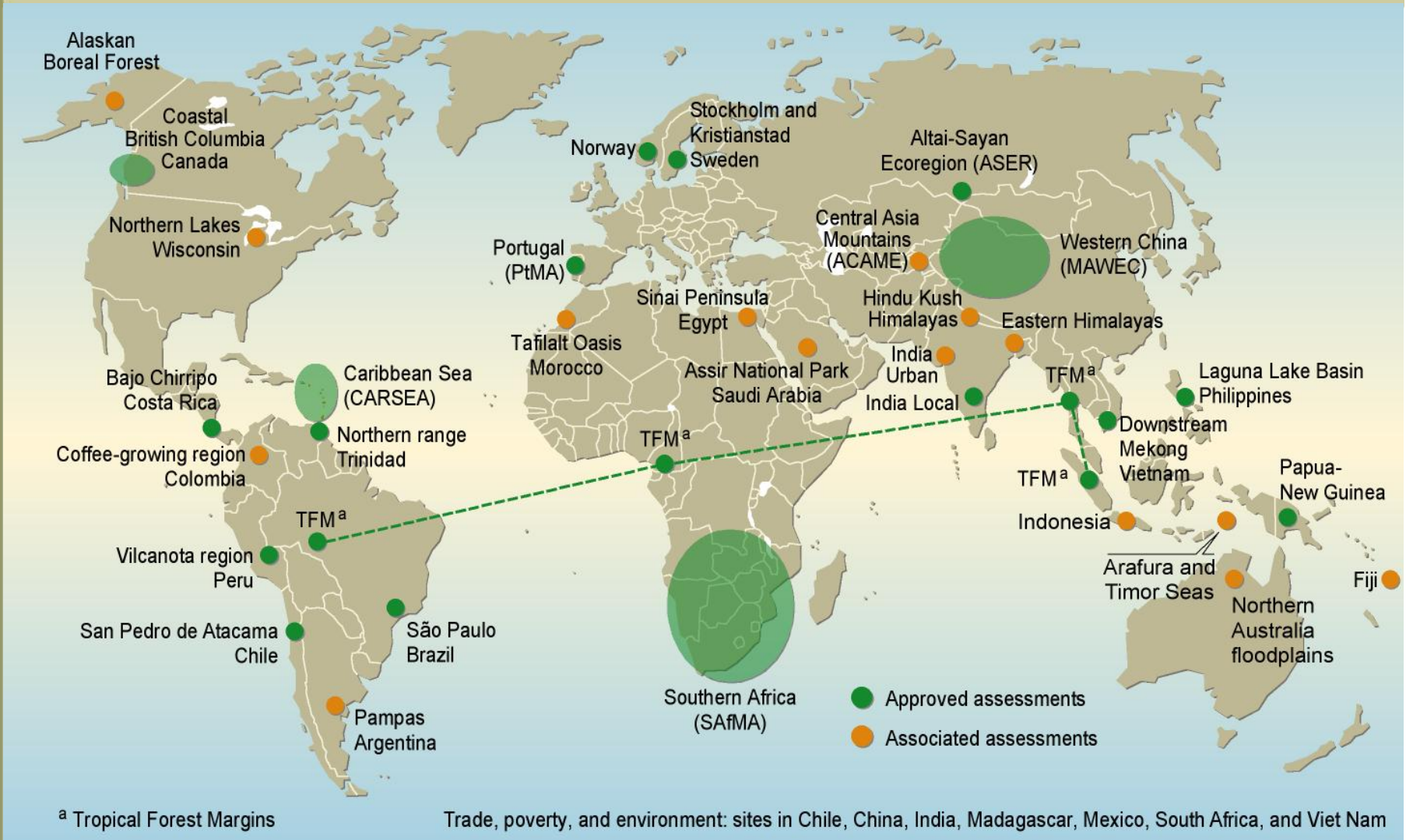
# Focus: Consequences of Ecosystem Change for Human Well-being



Source: Millennium Ecosystem Assessment



# Global Assessment with information from 34 sub-global assessments





# MA Questions

1. What is the rate and scale of environmental change?
2. How do environmental changes affect the delivery of ecosystem services and human-well being?
3. How might ecosystems change over the next 50 years?
4. What options exist for maintaining the delivery of services and improving human well-being?

## **Answers: Unprecedented Changes & Challenges**

Humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fiber, and energy

These changes have improved the lives of billions, but these gains have been achieved at growing costs associated with the degradation of other key ecosystem services

The pressures on ecosystems will increase globally in the coming decades unless human attitudes and actions change

# Improvements in services can be achieved by 2050

**But, the changes required are large and not currently underway**

- Major investments in public goods (e.g., education, infrastructure) and poverty reduction
- Removal of trade barriers and distorting subsidies
- Major increase in investment in education
- Significant investment in development of new technologies
- Widespread use of ‘payments for ecosystem services’

# Implementation of MA findings by Various Stakeholders/Users

## Translation of MA outcomes into action

- Dissemination of outcomes
- Integration of findings into national plans and strategies
- Capacity-building
- Conducting more sub-global assessments (SGAs)

## Activities undertaken by stakeholders/users

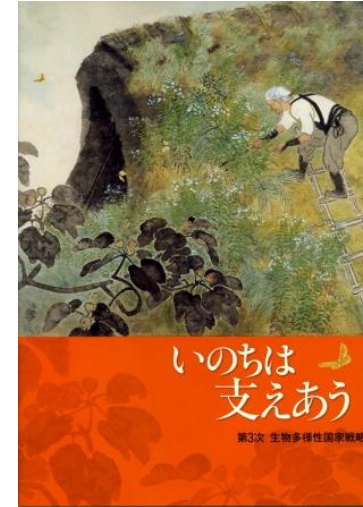
- Multilateral institutions (UNEP, UNDP, UNESCO, FAO & WHO) have incorporated the MA into their activities.
- Governments (South Africa, China, the EU and Caribbean regions) are using the framework of the MA to develop regulation and markets to conserve ecosystem services.
- Business and industry (Financial institutions such as Citigroup and Goldman Sachs) are using the MA criteria to guide their decisions on investment.
- Academic and Research Institutions (Univ of Minnesota launched the Ecosystem Science and Sustainability Initiative to engage in research and teaching)
- **UNU-IAS has lead the initiative to conduct an SGA on *satoyama & satoumi* in Japan (since late 2006 - )**

# Rationale for SGA in Japan

Japan's active involvement and interest in the MA (Research and academic institutions, experts, politicians, etc.).

Relevance of MA to Japan's National Biodiversity Strategy of which *satoyama* is identified as a crisis and requires conservation.

Decision adopted at CBD/COP9 in Bonn, Germany to convene the CBD/COP10 in 2010 in Nagoya, Japan.



# Working with Users



**User Meeting for SGA on Satoyama and Satoumi, 8 March '07**



**Side Event "Window on COP10: Biodiversity in Japan's Satoyama and Satoumi" (Mr. Kuroda and Mr. Yoshinaka from MoE, Gov. Tanimoto from Ishikawa Pref. Mayor Matsubara and Mr. Kawasaki from Nagoya City, and Mr. Djoghlaf from SCBD) 28 May '08, Bonn, Germany**



**G8 Dialogue: Climate Change and Biodiversity (Gov. Domoto from Chiba Pref. and Mr. Djoghlaf from SCBD) 16 June '08**

## Findings of Independent Evaluations of MA

Two independent evaluations (UNEP&GEF, UK House of Commons) recognize the **MA's contribution to linking sustainable use of ecosystem services with human well-being.**

**However,...**

**Limited impacts on policy formulation and decision-making,**  
especially in developing countries

**Unavailability of working models** to analyze ecosystem services and their trade-offs with development policies

**Need to fill knowledge gaps** at all levels and economic valuations on ecosystem services (cultural and regulating)

**Limited funds** for many of the SGAs

**Need to further raise awareness** among various stakeholders

# Global MA Follow-up Strategy: Turning Knowledge into Action

- **Developed by a group of interested partners**
  - Prepared, discussed and endorsed by Partners' meeting held at Stockholm, Oct 2007, among approx. 20 interested organizations (UNEP, UNDP, CBD; DIVERSITAS; EC; ICSU; IUCN; UNESCO; UNU-IAS; WRI... ).
  - Finalized in Feb 2008
- Respond to the need to facilitate **coordinated efforts** among partner institutions to **maximize the impact** in a coherent manner
- Focus on four main areas:
  - 1) Knowledge base
  - 2) Policy implementation – integrate the MA ecosystem service approach in decision-making at all levels
  - 3) Outreach, awareness raising and capacity building
  - 4) Future ecosystem services assessment



## MA Follow-up Activity Components and Key Achievements

### 1) Knowledge base

- MA Methods Manual, Economic Valuation Manual, Decision Support System, Ecosystem Change and Human Well-being Report
- SGA Practitioners' Network

### 2) Policy implementation

- Additional policy-focused SGAs (PEI countries, GEF ProEcoServ)

### 3) Outreach and capacity building

- MA follow-up website – being developed (to be launched soon)
- SGA Intranet – launched
- MA Outreach Kit – being finalized
- MA Documentaries
- Translation of the MA syntheses – being finalized

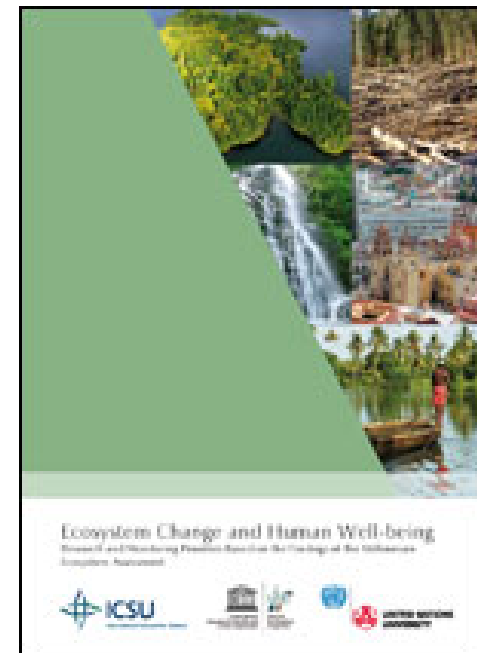
### 4) Future ecosystem services assessment

- IPBES discussions currently underway

# MA Follow-up Component - **Scientific Research**

## Scientific Research

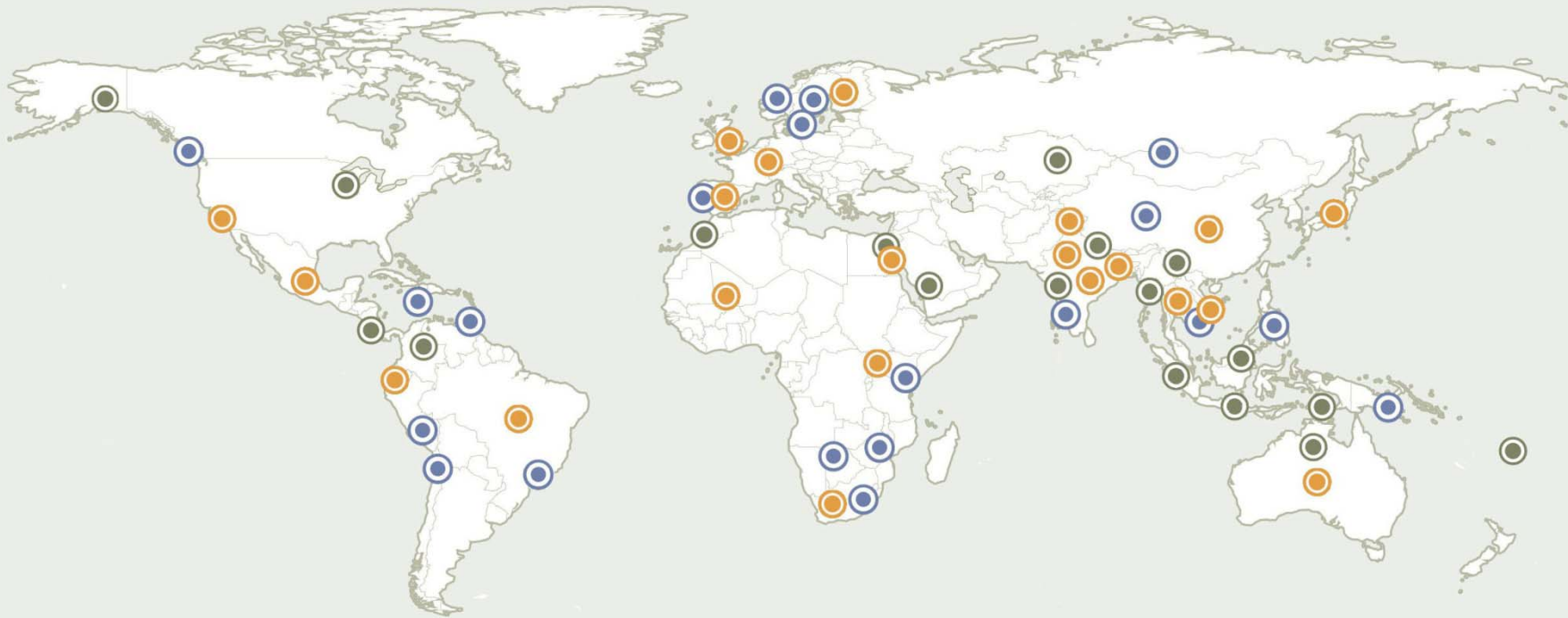
- ICSU-UNESCO-UNU Ad Hoc Group established in 2006
- Aimed to identify key gaps in knowledge and data, and to design a research agenda, arising out of the MA
- Products
  - *Full Report “**Ecosystem Change and Human Well-being**”*  
(published in December 2008)
  - *Analytical piece, new programme on Ecosystem Change and Society (PECS) sponsored by ICSU and UNESCO*



# Global Follow-up on SGAs

- 34 SGAs initiated under MA, many still underway
- Emergence of new SGAs (Europe, Asia, North&Latin America)
- Objectives
  - **Foster the community of assessment practitioners** to promote the exchange of information and lessons learnt on methodologies and approaches, **advancing the ‘state of the art’ and the knowledge base** on integrated ecosystem assessments at multiple scales
  - **Develop a comprehensive base of findings** from SGAs at multiple scales, which would lay the groundwork for, and provide a rich source of information to **strengthen the findings of a future global ecosystem assessment**
- **Comprises all the activity components of Global Follow-up**
  - Building Knowledge Base
  - Policy Implementation
  - Outreach and Dissemination of MA
- **SGA Secretariat – established at UNU-IAS in cooperation with UNEP, Cropper Foundation and UNEP-WCMC**

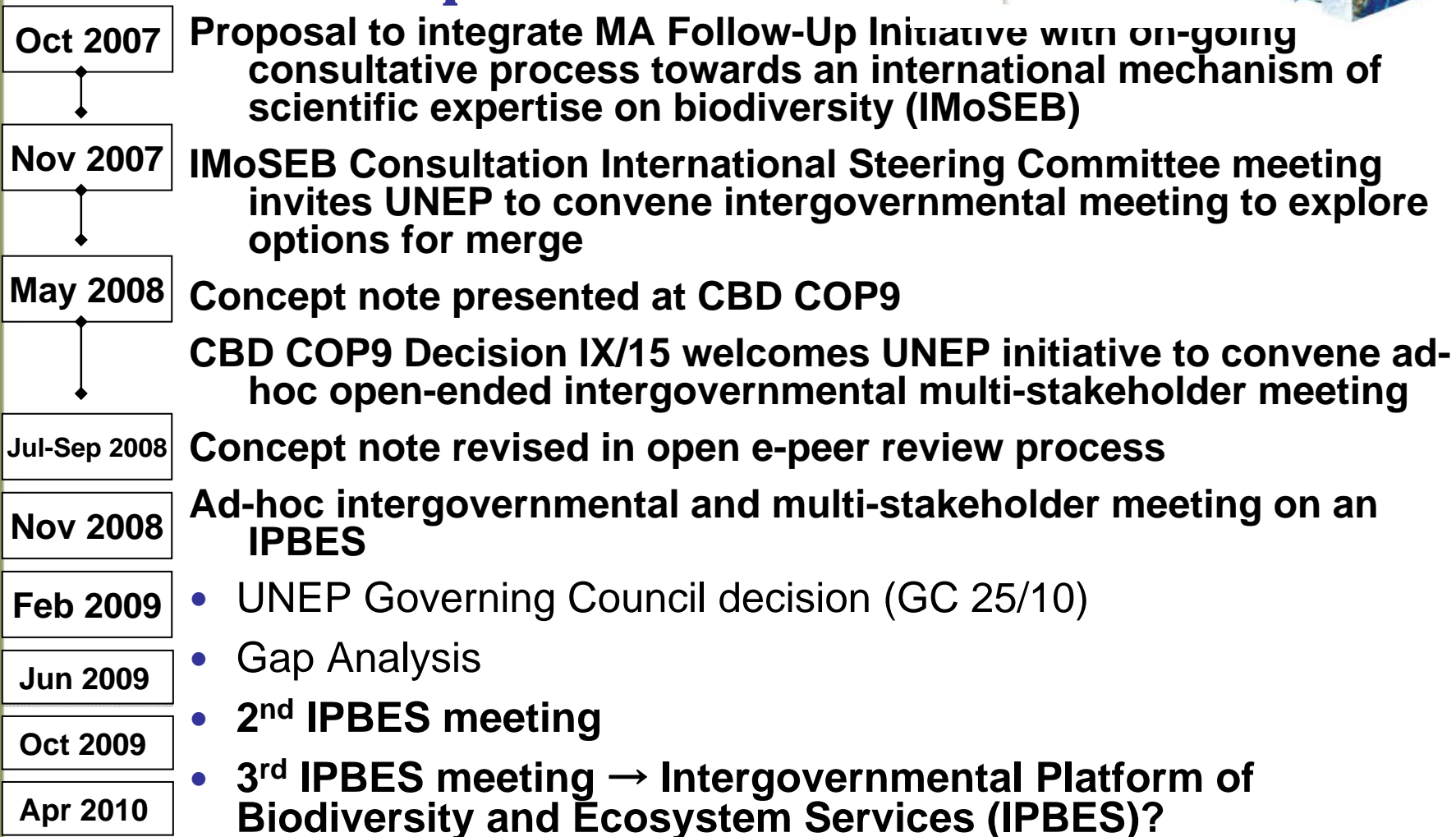
# Map Showing SGAs (2009)



- MA Approved Assessments
- MA Associated Assessments
- New Assessments

# Science-Policy Interface on Biodiversity and Ecosystem Services: IPBES

## Linking the outcomes of IMoSEB and MA follow-up



## Potential Contributions to the Working of IPBES: What is expected from the SGA in Japan

### **MA Follow-up as an integral part of an IPBES**

**Benefit from the use of common frameworks and methodologies coming from an intergovernmental body and a panel of experts.**

**By following the MA, it establishes and enhances**

- Political legitimacy
- Scientific credibility
- Saliency

**Generate knowledge base that is necessary for decision making at IPBES and other arenas, based on a sound summary of scientific evidence on the change in ecosystems and its impact on human well-being with the strong scientific underpinning.**