



# International Ecosystem Management Partnership 国际生态系统管理伙伴计划



# ANNUAL REPORT 2013



The UNEP-International Ecosystem Management Partnership (UNEP-IEMP) is the first UNEP Collaborating Centre in the South and for the South mobilizing science to support policy setting for sustainable ecosystem management in all developing countries. It has been mandated to supporting UNEP's Ecosystem Management and Climate Change Sub-programmes, promote a green economy through an ecosystem management approach and support South-South Cooperation. It is supported by three initiatives; Capacity Building and Technology Transfer, Making the Case through Assessment and Demonstration, and Enhancing Science-Policy Interface.

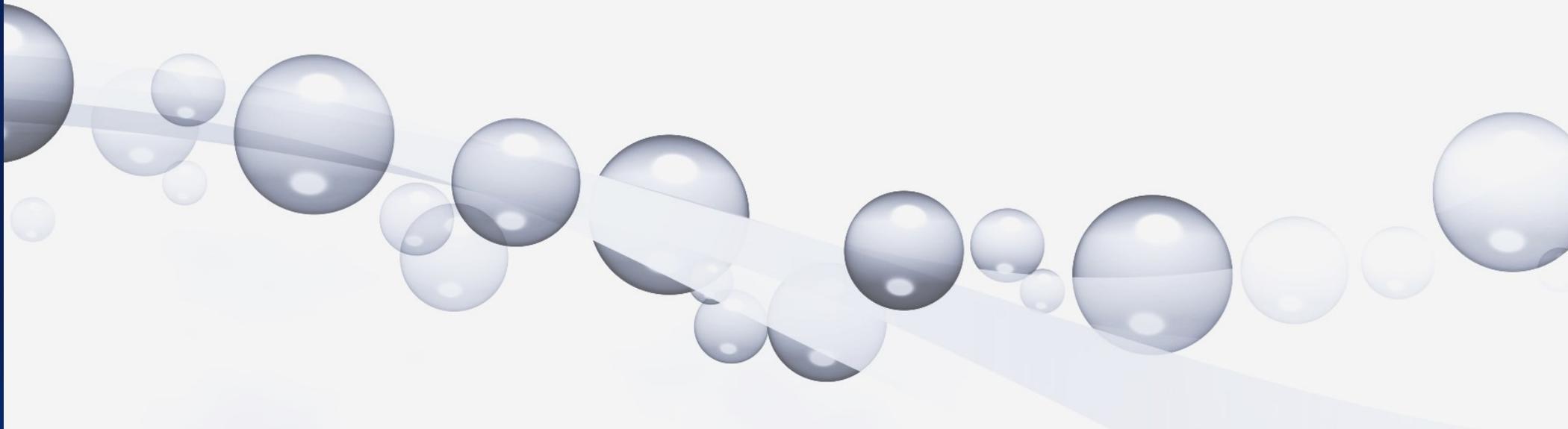
## **OUR VISION**

Enhance the role of ecosystem management as a vital approach to working with nature for a world with a green economy.

## **OUR MISSION**

To provide science, policy , and capacity support to developing countries to integrate ecosystem management approaches into national policies and development plans to enhance the delivery of ecosystem services for human well-being

**ANNUAL**  
**REPORT**  
**2013**



# A UNEP COLLABORATING CENTRE IN THE SOUTH AND FOR THE SOUTH



*"UNEP-IEMP needs to be a true global centre in the South and for the South providing technical and policy support to developing countries and promoting ecological civilization."*

*Prof. Chunli Bai  
President  
Chinese Academy of Sciences*



*"UNEP-IEMP is a foundational pillar of UNEP's South-South Cooperation initiative that enables UNEP to deliver environmental capacity building and technology support to regions of the South."*

*Mr. Achim Steiner  
Executive Director  
United Nations Environment Programme*



*"The Ministry of Environmental Protection will support the host Chinese organization, the Chinese Academy of Sciences, for the establishment of UNEP-IEMP."*

*H.E. Shengxian Zhou  
Minister  
Ministry of Environmental Protection*

**2010:** With China as one of the leading emerging economies in the world possessing vast experiences, knowledge and technology on ecosystem management, and UNEP as the leading institution on environmental issues, leaders of both UNEP and the Chinese Academy of Sciences agreed on the strong need to establish a collaboration to enhance ecosystem management in developing countries.

**2011:** The Ministry of Environmental Protection of China confirmed its support to the Chinese Academy of Sciences for the new set-up of UNEP-IEMP which was officially launched as an international programme of UNEP in November 2011.

**2012:** After a year of operation, an agreement was signed by UNEP and CAS that transformed UNEP-IEMP from an international programme to a UNEP Collaborating Centre in the South and for the South.

**2013:** UNEP-IEMP entered its development phase (2013-2015) as a UNEP Collaborating Centre. First Steering Committee meeting was held in August 2013 which approved the Medium-Term Development Strategy and Biennial Workplan.

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## MESSAGE FROM THE DIRECTOR



**Dr. Jian Liu**  
Director

2013 was our first year of operation as an official UNEP Collaborating Centre, in the South and for the South. Thanks to the support from UNEP and Chinese Academy of Sciences, the inception phase of the past two years 2011 and 2012 has been successful in the institutional development and has laid a solid foundation to transform the UNEP-IEMP from an international programme to a fully functional global centre of excellence. With the three strategic pillars of our work; Capacity Building and Technology Transfer, Making the Case through Assessment and Demonstration, and Enhancing Science-Policy Interface, we aim to provide science, technology, capacity and policy support to all developing countries on ecosystem management.

During this year, we have continued to strengthen our existing partnerships with various organizations and/or institutions such as with the Chinese Academy of Sciences (CAS), Ministry of Environment Protection (MEP) of China, National Development and Reform Commission (NDRC) of China, and the National Natural Science Foundation of China (NSFC) to name just a few, in assisting and facilitating their South-South Cooperation initiatives. In addition, we also support collaborative activities between UNEP and other UN agencies as well as development agencies, both bilateral and multilateral alike.

Meanwhile, China intensified its efforts in promoting ecological civilization and its incorporation into national development plans. This provided a window of opportunity for UNEP-IEMP to share knowledge, experiences and capacities in ecosystem management between China and other developing countries.

**“UNEP-IEMP’s inception phase has been extremely successful for our institutional development and has laid a solid foundation to becoming a fully functional global Centre in the next five years”**

Our main sources of funding constitutes project budgets, including various fellowships and grants. For example, we secured GEF funding of US\$5million with another US\$5million co-financing from NDRC for implementation of the GEF-SCCF project. Furthermore, under the UNEP-NSFC cooperation project guidelines for the next 5 years, US\$1.5million/year will be provided for joint projects, including those on ecosystem management and climate change adaptation. Four projects under this partnership are at different levels of implementation. Commitments from CAS, MEP and UNEP have been made to support various projects, however, we aim to secure a core budget to ensure long-term sustainability. Adequate core funding continues to be in urgent and high demand for institutional development and team building.

Looking forward to 2014, we will embark on work under our new Medium Term Development Strategy (2014-2017) which contributes directly to UNEP’s Mid-term Strategy (2014-2017) and Programme of Work (2014-2015). On behalf of the entire UNEP-IEMP family, I would like to extend our warmest gratitude to UNEP, the Government of China as well as our partner agencies. We are grateful for their continuous support and invaluable contribution in 2013 and look forward to stronger collaboration in 2014 and beyond.



## INAUGURATION OF UNEP-IEMP STEERING COMMITTEE

The Agreement between United Nations Environment Programme and the Chinese Academy of Sciences signed in 2012 guided UNEP-IEMP in its transition from an international programme to a global centre of excellence in the field of ecosystem management. The UNEP-IEMP successfully completed its inception phase (2010-2012) which laid a solid foundation for its development phase (2013-2015). With the three expected accomplishments; (1) Capacity Building and Technology Transfer, (2) Making the Case through Assessment and Demonstration, and (3) Enhancing Science-Policy Interface, UNEP-IEMP endeavours to become an international think-tank, a technology and knowledge hub, and a global centre for capacity building on ecosystem management for developing countries.

Article 10 of the UNEP-CAS Agreement on UNEP-IEMP called for the establishment of a Steering Committee to provide overall technical and programmatic advice and guidance for implementation of all collaborative projects between UNEP and the Chinese Academy of Sciences in the areas of competence of UNEP-IEMP.

The nine member Steering Committee is co-chaired by Mr. Ibrahim Thiaw, Deputy Executive Director of UNEP and Mr. Tieniu Tan, Deputy Secretary General of CAS. The committee inaugurated its first annual meeting in August 2013, reviewed and provided recommendations on the Terms of Reference of the Steering Committee, approved the Annual Progress Report (2012-2013), and evaluated the Mid-term Development Strategy (2014-2017), and Biennial Work Plan (2014-2015).



# Steering Committee Meeting

August 29, 2013 Beijing



**“This inaugural meeting marks a significant milestone for UNEP-IEMP and we, as a committee endeavour to provide clear guidance on the way forward to ensuring a successful development phase.”**

**Mr. Ibrahim Thiaw,  
Deputy Executive Director, UNEP &  
Mr. Tieniu Tan, Deputy Secretary  
General, CAS**

# YEAR review



### **Climate Change project endorsed**

**15 JANUARY** - GEF CEO Naoko Ishii endorsed a full size GEF project “*Enhancing Capacity, Knowledge and Technology Support to Build Climate Resilience of Vulnerable Developing Countries*,” implemented by UNEP and executed by China’s NDRC through UNEP-IEMP.

### **China’s Ecological Civilization Drive**

**18 FEBRUARY** - China’s concept of ecological civilization as a policy imperative for mainstreaming environment into sustainable management and national development goals was the theme of the Green Room Event convened by UNEP-IEMP in the margins of the UNEP GC meeting.

### **Enhancing Collaboration for a healthier environment**

**7 MARCH** - The National Natural Science Foundation of China (NSFC) announced its guidelines to invest RMB50million (USD8million) in the next five years on collaborative projects with UNEP in the areas of ecosystem management, climate change adaptation and chemicals.

### **Climate change project launched**

**21-22 APRIL** - A two-day workshop organized to launch the UNEP-NDRC climate change project funded through the GEF-Special Climate Change Fund to be piloted in Seychelles, Mauritania, and Nepal.

### **Building Pathways to a Sustainable Future**

**8 JUNE** - UNEP-IEMP in collaboration with the Centre for International Forestry Research (CIFOR) and World Agroforestry Research (ICRAF) organized an international seminar on “*Green China-Africa Cooperation*” that shared insights on China’s role on Africa’s environment.

### **Restoring Ecological Foundation for Food Security**

**21 JUNE** - A new UNEP Policy Brief on ecosystem management stresses on the potential threat to food security caused by deteriorating health of agricultural systems. The Brief argues that policy measures are required to aid in restoring soil organic matter contents to optimal levels.

### **Enhancing staff skills**

**6-7 AUGUST** - UNEP-IEMP and UNEP Beijing Office underwent a comprehensive training workshop on the applications of results-based management that will significantly improve project delivery, and promote ownership and accountability.

### **Inauguration of Steering Committee**

**29 AUGUST** - UNEP-IEMP inaugurates its Steering Committee in Beijing to oversee its work and provide guidance on implementation of its activities.

### **Sharing lessons on EBA & Regional Networking**

**14-19 OCTOBER** - Two workshops held consecutively that shared experiences and lessons from various countries on ecosystem-based adaptation and assessed opportunities for coordination between inter-regional networks.

### **Nairobi Global South-South Development Expo**

**28 OCTOBER** - UNEP-IEMP with support from the Secretariat of the China Council for International Cooperation on Environment and Development (CCICED) and UNEP convened a high-level forum on “*Ecological Civilization and Green Transformation*.”

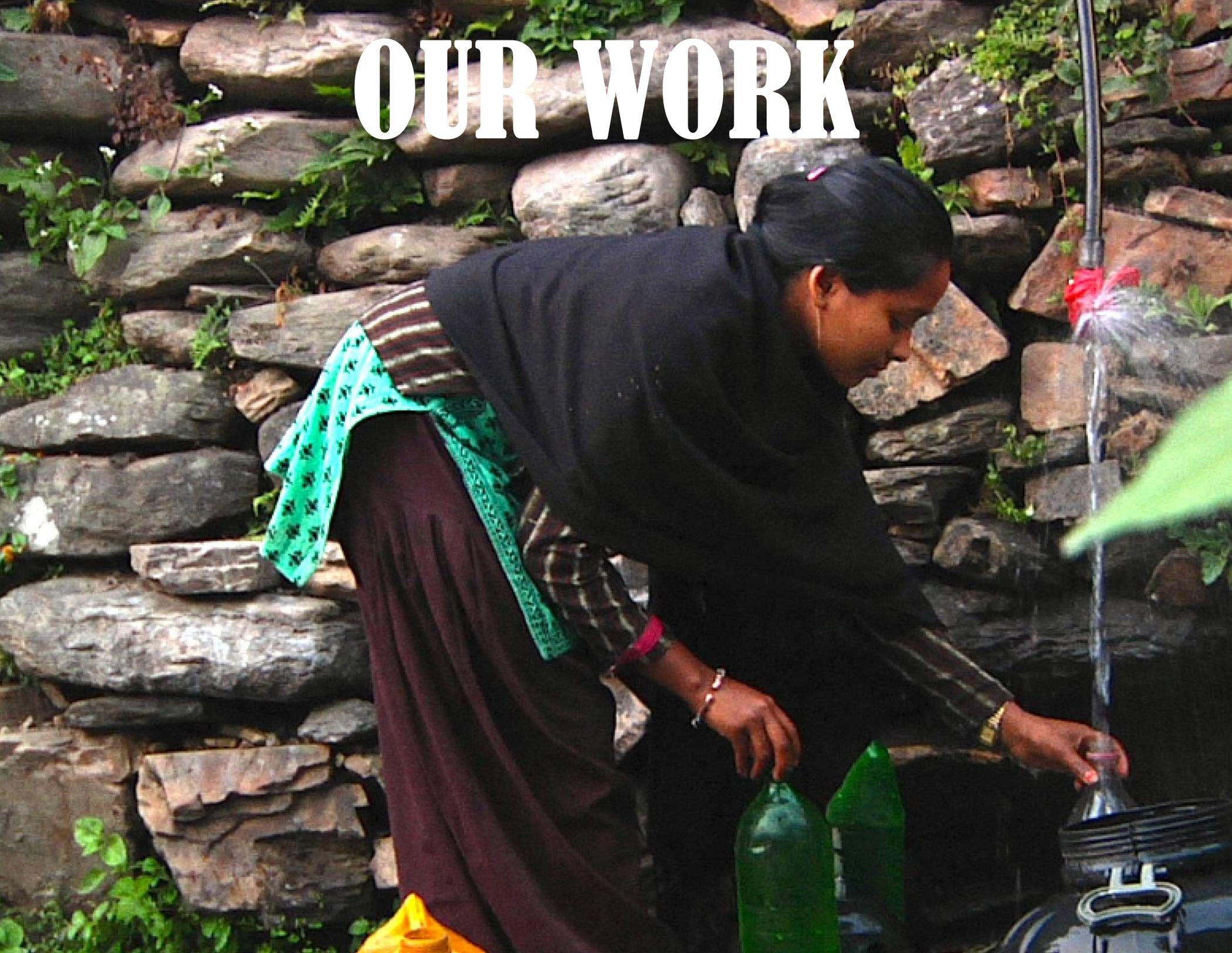
### **Enhancing EBA and South-South Cooperation**

**19 NOVEMBER** - A roundtable side-event on EBA in the context of South-South Cooperation was convened by UNEP-IEMP, NDRC and UNEP in the margins of COP19 in Warsaw.

### **Collaborative meeting with TNC China**

**29 NOVEMBER** - UNEP-IEMP met with The Nature Conservancy (TNC) China team to discuss potential areas of collaboration including promoting China around the world in terms of sustainable development, and developing joint proposals for funding.

# OUR WORK





**The Earth's ecosystems are the natural foundation of human civilization. Developing countries are facing common challenges of economic development and ecosystem conservation, and similar experiences in ecosystem management.**

**South-South Cooperation plays a critical role in this matter and UNEP is committed to working with China, one of the leading emerging economies in the world, to assist in facilitating South-South Cooperation on ecosystem management.**

**As a joint initiative of UNEP and China, UNEP-IEMP's initiatives promotes both the works of UNEP and relevant agencies in China to provide knowledge, experience, and capacity on ecosystem management in developing countries.**

**This section includes highlights of our major activities and projects conducted throughout the year.**



Forum panelists (L-R): **Xiaoqing Wu**, Vice-Minister of Environment Protection, CHINA; **Achim Steiner**, Executive Director of UNEP; **Judi Wakhungu**, Cabinet Secretary for Environment, Water and Natural Resources, KENYA; **Jan Ilavsky**, State Secretary of the Ministry of Environment, SLOVAKIA; **Arthur Hanson**, International Chief Advisor of the CCICED; **Chuluun Togtokh**, Advisor to the Minister, Ministry of Environment and Green Development, MONGOLIA; **Erika Contreras**, Director General for the Mesoamerican Project at the Mexican Agency for International Development Cooperation, MEXICO.

## Integrating ecological civilization and green transformation

China continues to play a leading role in the development of the concept of ecological civilization to further search for a dynamic balance between human well-being and nature for global sustainability. China's achievement in promoting ecological civilization led the UNEP Governing Council to recognize the concept as an important endeavour in promoting green economy within the context of sustainable development and poverty alleviation.

To facilitate the sharing of lessons experiences as such, UNEP-IEMP in partnership with the Secretariat of the China Council for International Cooperation on Environment and Development (CCICED) and UNEP convened a high-level Forum on Ecological Civilization and Green Transformation during the South-South Development Expo in October 2013 in Nairobi. The Forum assembled some of the frontline thinkers and policy-makers from Kenya, Slovakia, Mongolia and Mexico who shared knowledge and experiences in integrating ecological civilization and green transformation through South-South Cooperation.

DISCUSSION PAPER



A discussion paper prepared by CCICED and UNEP-IEMP served to provide food for thought in stimulating fruitful discussions during the Forum.

The paper discusses the opportunities and needs for South-South Cooperation in overcoming challenges to sustainable development.



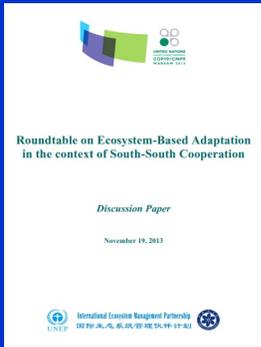
Panelists at the roundtable side-event on EBA in the context of South-South Cooperation, COP19 - Warsaw, Poland

## Promoting Ecosystem-Based Adaptation in the context of South-South Cooperation

Recent findings of the Intergovernmental Panel on Climate Change (IPCC) have shown that most of the world's ecosystems are under serious threat from increasing climate change impacts, which are consequently affecting the livelihoods of humans that depend on them and the services they provide. Healthy ecosystems and their services provide opportunities for sustainable development. EBA has become an important pillar for national action and international cooperation on climate change adaptation.

The roundtable side-event organized by NDRC, Government of China and UNEP-IEMP focused on sharing knowledge, good practices and policy options on EBA, promoting South-South cooperation as an emerging pillar of international cooperation on climate change under the umbrella of the UNFCCC, and mainstreaming EBA into National Adaptation Plans (NAPs).

DISCUSSION PAPER



Roundtable on Ecosystem-Based Adaptation  
in the context of South-South Cooperation

Discussion Paper

November 19, 2013

International Ecosystem Resilience Partnership  
UNEP IEMP, A, AC, AS, IO, IS, TA, YF, YF-AU

A discussion paper prepared by UNEP-IEMP for the roundtable discussion elaborated the role of EBA in the adaptation portfolio, provided new evidence and good practices on

**EBA on the ground, and identified the importance of South-South Cooperation in promoting EBA.**

## PROMOTION OF ECOLOGICAL CIVILIZATION



Some of the keynote speakers during the Event. Left to Right: Mrs. Elizabeth Mrema, Deputy Director, UNEP-DEPI [L], Dr. Keshab Man Shakya, Honorable Minister, Nepal Ministry of Science Technology and the Environment [C], Dr. Rose Mukankomeje, Director General, Rwanda Environment Management Authority [R]. © Ahmed Khan

The reasons for global environment degradation are complex. It is clear that we can no longer continue the business as usual development path and we must come up with new and more sustainable ways to better co-exist with the environment. The concept of ecological civilization was firstly introduced in 2006 by the then Chinese President Jintao Hu and has gained significant momentum since. It is a concept that aims to address the environmental crisis by finding a balance between human development and our ecosystems.

To promote this concept, UNEP-IEMP held an event during the 27th Session of the UNEP Governing Council/Ministerial Environment Forum in Nairobi, Kenya to share experiences in mainstreaming ecosystem approaches into national development plans and promote ecosystem management in developing countries. With an overview of China's concept of ecological civilization recognizing its equal footing and strategic importance to the economic, political, cultural and social development realms, there was a call for the enhancement of strong linkages between green initiatives and biodiversity strategies.

**“The Chinese government has set out to intensify environmental protection through launching major projects for restoring ecosystems...”**

**Mr. Tang Dingding**  
*Director General  
Ministry of Environment  
Protection, China*

# GREENING CHINA-AFRICA COOPERATION



Participants at the seminar © Liang Wu

The past decade has seen a significant increase in China-Africa bilateral trade, growing from US\$10billion in 2000 to US\$200billion in 2012. This cooperation has expanded to include the environment, science and technology, and agriculture. This has provided new opportunities for mainstreaming environmental management into national economic development and promoting sound environmental practices.

UNEP-IEMP provided a platform to share these experiences in promoting China-Africa cooperation for sustainable development. In collaboration with the Centre for International Forestry Research (CIFOR), the World Agroforestry Centre (ICRAF) and the Centre for China Agricultural Policy (CCAP), an international seminar was convened to share results of recent research on China's role in the African environment, in sectors such as agriculture, mining, and forestry.

## FACTS

- ◆ **China-African trade surpassed the US\$200billion mark in 2012 making China Africa's biggest trading partner.**
- ◆ **History of China-Africa relations dates back as early as the 14th century.**
- ◆ **The Forum on China-Africa Cooperation (FOCAC) was established in 2000 to strengthen relations between China and Africa and provide a mechanism for collective dialogue.**

## Adapting to Climate Change

Climate change in vulnerable developing countries of Africa and Asia-Pacific has impacted and will continue to severely impact the livelihoods of local communities who are dependent on natural resources if no adequate measures are taken to assist communities to adapt to these impacts. The project, **Enhancing Capacity, Knowledge and Technology Support to Build Climate Resilience of Vulnerable Developing Countries**, is a collaboration between UNEP and the National Development and Reform Commission of China (NDRC), with involvement from the African Climate Policy Centre, national governments of Mauritania, Nepal and Seychelles, institutes of the Chinese Academy of Sciences, NGOs and community-based organizations. The project is funded by GEF Special Climate Change Fund (GEF-SCCF), and officially launched in April 2013. It will undertake national and local level interventions in three pilot countries Mauritania, Nepal and Seychelles, as well as inter-regional activities across the four developing regions, Africa, Asia-Pacific, Latin America and West Asia; to build the climate resilience of communities and priority ecosystems; arid/semi-arid, mountain and coastal.



Livelihoods of local communities dependent on natural resources are most vulnerable to climate change impacts © Chao Fu

The Republic of Seychelles is an Indian Ocean archipelago, comprising of 115 islands. Increased frequency of extreme weather events poses detrimental effects to human populations and ecosystems. Climate change impacts include increased coastal flooding and scarcity of freshwater.



Nepal is a mountainous country in South Asia with three quarters of its population directly dependent on agricultural activities. Climate change impacts reduce reliability of stream flow, increase flooding, rainfall variability, and mean temperature. Losses in crops due to flooding and droughts poses risks to future food security.



Located in West Africa, 75% of Mauritania is arid/semi-arid, with a small proportion suitable for growing crops. Nonetheless, half of the population is dependent on agriculture. Increased desertification and variable rainfall are the major climate change impacts that will affect water sources, livestock population and agricultural productivity.

Climate Change impacts in the pilot countries

As shown in the diagram above, each country has its own challenges to the adverse effects of climate change. The project envisages to overcome several barriers including strengthening institutional capacities in the pilot countries for planning, financing and implementing ecosystem-based adaptation (EBA), increasing availability of information and public awareness on good practices for planning and implementing EBA, and trialling EBA technologies in a range of ecosystems and provide a platform for sharing EBA knowledge across developing countries.

The project is recognized by many as the “**first mover**” in catalysing global and regional collaborations on EBA under the GEF guidelines, in particular within the framework of South-South Cooperation. It will build on existing initiatives in Africa and Asia-Pacific to adapt to the impacts of climate change. These initiatives include other projects and/or programmes currently being funded through multilateral and bilateral systems.



Participants of the joint EBA and Regional Networking Coordination Workshops © Liang Wu

Work in the pilot countries is progressing steadily. For example, a baseline field mission has been undertaken in Nepal that identified sites for on-the-ground interventions and baseline data was collected using household surveys, site walks/vegetation observations, and workshops with local communities.

To facilitate the sharing of EBA knowledge and lessons learned at both national and regional levels, two workshops were organized in October in Beijing, one on Ecosystem-Based Adaptation and the other on Regional Networking Coordination. Over 60 representatives from 16 countries and 12 global/regional networks including UN agencies such as UNFCCC, UNDP, GEF and UNEP participated in the workshops. The workshops focused on activities in the pilot countries. Experiences and lessons from other developing countries such as Vietnam, South Africa and China with demonstrated EBA projects were shared. A training manual on EBA prepared by UNEP, UNEP-IEMP and the Chinese Ecosystem Research Network was drafted and reviewed. The participants were taken on a tour of the Beijing Olympic Forest Park to witness EBA practices on the ground.

### BEIJING OLYMPIC FOREST PARK

The Beijing Olympic Forest Park is a 1,680 acre green space, the largest ever built in Beijing. Constructed for the 2008 Summer Olympic Games, the park was designed as a place for public leisure, culture and education.

The park highlights China's efforts to achieving sustainable development and shows how ecosystem-based principles have been implemented in the field. Ecological water treatment system produces reclaimed water used for landscape irrigation. An ecological corridor was designed across the highway that protects biodiversity and facilitates migration



Participants the Ecosystem-Based Adaptation Workshop © Liang Wu



South Gate entrance of the Beijing Olympic Forest Park © Liang Wu



Participants strolling through the Park © Liang Wu

## Action Plan for South-South Cooperation on Climate Change

As one of the largest developing countries in the world with a fragile ecological environment, China is not insulated from the adverse effects of climate change. Fully aware of the urgency of addressing climate change, UNEP-IEMP was commissioned by the National Development and Reform Commission (NDRC) of China to undertake a study to develop an Action Plan for China's South-South Cooperation Programme on Climate Change by studying the climate change adaptation and mitigation needs of vulnerable developing regions and China's capacity for providing technical support. The study includes three components: i) assessment on capacities and demands of developing countries in addressing climate change; ii) analysis on China's experience and potential to support other developing countries; and iii) drafting of the action plan.

A preliminary stocktaking report has been completed and questionnaire survey and interviews with more than 100 international participants have been conducted. A mid-term review was undertaken in March 2013 that integrated and analysed information on China's institution arrangement, policies and strategy, science and technology development, and South-South cooperation for addressing climate change. The study is to be completed in 2014 with a draft of the Action Plan to be submitted to NDRC.



Heavily polluted streets of Beijing  
© Stock.xchng

## Better Understanding of Environmental Issues in the South

The Memorandum of Understanding (MoU) between UNEP and the National Natural Science Foundation of China (NSFC) signed in November 2010 set the wheels in motion for joint collaborative research between the institutions in three key areas: ecosystem management, climate change adaptation, and chemicals - with a focus on collaborating with developing countries in Africa and Asia-Pacific. In March 2013, NSFC released a **Five-Year Guideline of Call for Proposals of Collaborative Research** between NSFC and UNEP. NSFC has also announced its investment of USD\$8 million in the next five years.

As a result, NSFC funded the first research project under this MoU on ecosystem management in Africa in 2011. Piloted in Rwanda, the project "*Ecosystem Monitoring, Research and Management Capabilities in Africa*," aims to develop methodological tools and approaches for long-term ecosystem monitoring. The project will enhance the technical capacity through research and training on the management of major



REMA professional collecting data for analysis  
© Li Fadong

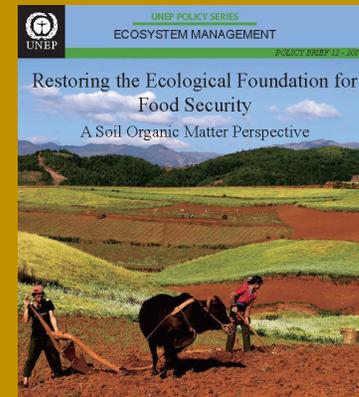
ecosystem services such as water, soil, food production, wetlands, and carbon sequestration, and provide policy support on best practices through ecological monitoring and on-site demonstration. Basic ecological monitoring sites for observing the meteorological, hydrological, and other ecological factors have been installed and data collection and monitoring is ongoing. A Rwanda Environmental Ecological Management Case Study and an African Food Security Analysis Policy Brief have been completed. Capacity Building activities have been conducted with local staff of the Rwanda Environment Management Authority (REMA) to further strengthen cooperation and team efficiency. In addition, an assessment on evaluation of ecosystem services in the Upper Nile in the Kagera Basin has been conducted as a critical component in mainstreaming ecosystem management in national decision making at all relevant departments and districts.

## Protected Areas in East Africa

East Africa is well known for its biological diversity and its vast number of protected areas. However, over the years, rapid human population growth has caused increasingly severe constraints on the environment and natural resources. Population growth has resulted in increasing demand for resources such as land for grazing and agriculture, and forest products such as wood for fuel. Starting from 2014, NSFC will fund a new project assessing ecosystem services of protected areas in East Africa.



Zebras and Wildebeests at the Maasai Mara National Park, Kenya © Stock.xchng



### RESTORING THE ECOLOGICAL FOUNDATION FOR FOOD SECURITY: A Soil Organic Matter Perspective

Global food security is highly dependent on sustainable crop production. The increasing demand for food coupled with the deteriorating health of agricultural ecosystems is posing a significant threat to food security.

This Policy Brief argues that policy measures are required to promote the conservation and restoration of soil organic matter in agricultural practices. This will boost crop production and the health of agro-ecosystems.

The project will be piloted in Kenya, aiming to assess changes in ecosystems around protected areas as well as linkages between ecosystem services changes and human development in order to develop theories and methods for sustainable management of protected areas.

## Native vs. Invasive Plant Species

Invasive plant species cause significant environmental and economic damage to the new locations they have been introduced to. Competition with native species exerts increased pressure on native species which become displaced and in extreme cases, extinct. Ecologically, invasive species causes loss of biodiversity and disrupt ecosystem structure and functioning. Research has shown that populations of native plants vary in their ability to adapt to the strong competition from invasive plants. Those populations that are able to effectively adapt to competition are considered suitable candidates for ecological restoration of areas that have been invaded by alien plants.

In 2013, NSFC funded a UNEP-IEMP young scientist under the program **Research Fund for International Young Scientist** to assess ecological impacts of invasive alien species on native plants. Protected areas are important zones for biodiversity conservation but many remain threatened by invasive species. A field survey conducted in the Nairobi National Park, in collaboration with the Kenya Wildlife Service (KWS), assessed effects of *Opuntia ficus* on native species. The findings of the study will inform decision-makers on the right native plant material to restore ecosystems invaded by invasive plants.

## Climate Change and Indigenous Fruit Tree Species In West Africa

Funded by the NSFC, the project, “*Impact of climate change on the potential for cultivation and conservation of priority Indigenous Fruit Tree Species in West Africa - Case Study of the Tamarind Tree in Benin*” assessed the potential impact of climate change on the geographical distribution of suitable areas for *Tamarind indica* L. species. There is increasing

interest in indigenous fruit trees as key factors in building ecosystem sound strategies to alleviate severe malnutrition and poverty in developing countries. However, current knowledge on the cultivation and conservation of trees species and the potential effects of climate change on their geographical distribution is still limited. Findings from the study will facilitate evidence-based policies and plans for effective conservation of these indigenous tree species.

## Combating Sand and Dust Storms in West Asia

UNEP-IEMP is supporting UNEP’s Regional Office for West Asia (UNEP/ROWA) on a new project “**Development of a Regional Programme to Combat Sand and Dust Storms (SDS) in West Asia.**” The Programme is a comprehensive and integrated package to support countries in West Asia to take actions at the regional and national levels with regard to Sand and Dust Storm monitoring, early warning and combating. A technical meeting held in May 2013 recommended the establishment of a site-to-site network of demonstration projects that will form the basis of combating dust storms at the source areas/hotspots. The project is expected to develop a set of projects and interventions at the landscape, policy and research level at the identified hot spots in West Asian countries, a compendium of case studies and best practices in on ecosystem-based approaches to combat desertification and dust storms relevant to West Asia, a guide on the applicability of utilizing ecosystem-based approaches to combat dust storms, and environment profiles of potential hotspots in the region based on satellite images and desk studies. The project will also share China’s knowledge and experiences in combating desertification over the past decades.



**ORGANIZATIONAL  
STRUCTURE**



## UNEP-IEMP MID-TERM DEVELOPMENT STRATEGY 2014-2017

The Mid-Term Development Strategy (MTDS) of UNEP-IEMP provides strategic direction for the work over the next four years (2014-2017), encompassing part of the development phase (2013-2015) and the first two years (2016-2017) of full operational phase of the Centre. It is the main document that guides the development and implementation of the annual work plans during the period from 2014 to 2017. Out of UNEP's seven thematic sub-programmes under the Programme of Work (2014-2015), UNEP-IEMP's MTDS directly contributes to three, namely; Climate Change, Ecosystem Management, and Environment under Review.

UNEP-IEMP's niche rests on the integration of ecosystem management, South-South Cooperation, and the science-policy interface in pursuing sustainability in developing countries. The diagram provides a brief overview of the five focus areas.

### **1. Strengthening Rio+20 outcomes**

Contribute to strengthening UNEP through promoting the science-policy interface, disseminating and raising public awareness on emerging environment issues.

### **2. Enhancing South-South Cooperation**

With a strategic location in China, UNEP-IEMP will continue to serve as a bridge to disseminate knowledge and expertise from China

### **3. Institutional Development & Partnerships**

UNEP-IEMP will continue to strengthen its existing partnerships with international and national agencies/organizations as well as establish new networks.

### **4. Communication & Outreach**

Ensure information on programme delivery reaches the relevant audiences through use of various communication tools.

### **5. Human Resource Development & Resource Mobilization**

UNEP-IEMP aims to secure core funding and core staff to carry out the core functions of the Centre.

## STAFF DEVELOPMENT

In line with its Mid-Term Development Strategy 2014-2017, UNEP-IEMP will invest significantly on enhancing its internal capacity to ensure a competent and effective team. The current team has been formed drawing expertise from and taking advantage of various international staffing programmes of the Chinese Academy of Sciences.

We are very proud to work with a diverse team of about 32 qualified and professional individuals, composed of part-time and full-time staff on various contractual statuses mainly with our host, the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS) as well as PhD candidates and interns. We appreciate the invaluable contributions from our Programme Coordinators who work with us as in-kind support from the Chinese Academy of Sciences.

During 2013, the Centre's staff increased by 28%. Within the next biennium, pending on the needs for effective functioning of UNEP-IEMP, we aim to increase the staff size to 60 to include project team members, doctoral candidates, post-doctoral researchers, Junior Professional Officers, and visiting scholars.

## MEET THE TEAM



Jian Liu  
*Director*



Linxiu Zhang  
*UNEP-IEMP Manager &  
Programme Coordinator: Science for Policy*



Xiubo Yu  
*Programme Coordinator: Capacity Building & Technology Transfer*



Bingfang Wu  
*Programme Coordinator: Assessment & Demonstration*



Pak Sum Low  
*International Senior Scientist*



Yutian Zhang  
*Senior Policy Advisor*



Catherine McMullen  
*Senior Consultant*



Fadong Li  
*Rwanda Project Coordinator*



Yun Huang  
*GEF Project Manager*

## Cont'd...



**Ahmed Khan**  
International Young  
Scientist



**Ayub Oduor**  
International Young  
Scientist



**Belarmain Fandohan**  
International Young  
Scientist



**Armand Yavedi**  
International Young  
Scientist



**Chao Fu**  
Post-Doctoral  
Research Fellow



**Farshad Amiraslani**  
International Research  
Fellow



**Guoqin Wang**  
GEF Assistant  
Project Manager



**Liang Wu**  
Post-Doctoral  
Research Fellow



**Ye Liu**  
Post-Doctoral  
Research Fellow



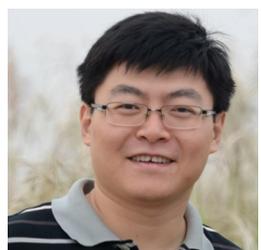
**Hongmei Yi**  
Research Fellow



**Karen Mrema**  
Communication Officer



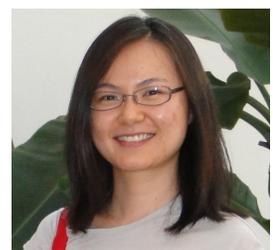
**Xigui Huang**  
Finance Officer



**Yu Ma**  
Special Assistant  
to the Director



**Cao Hui**  
PhD Candidate



**Jialin He**  
PhD Candidate



**Shaoxia Xia**  
PhD Candidate



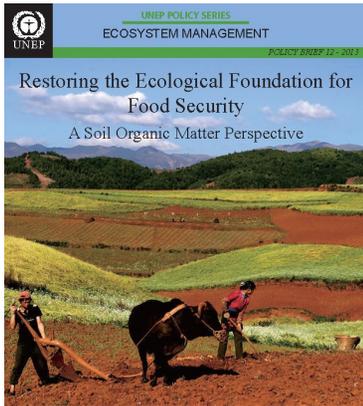
**Ling Ge**  
Intern



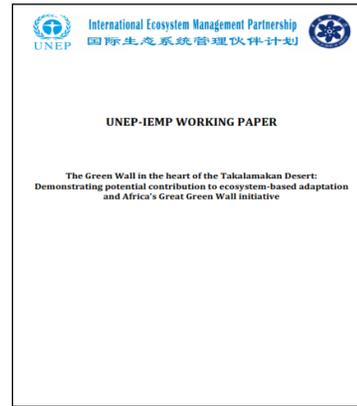
**Olga Kislyakova**  
Intern

A stack of papers is shown from a low angle, with the top sheet curving upwards. The word "PUBLICATIONS" is printed in a bold, red, serif font on the top sheet. The background is a bright, hazy light, suggesting a sunburst or a bright sky. The papers are white and appear to be slightly blurred, giving a sense of depth and movement.

**PUBLICATIONS**

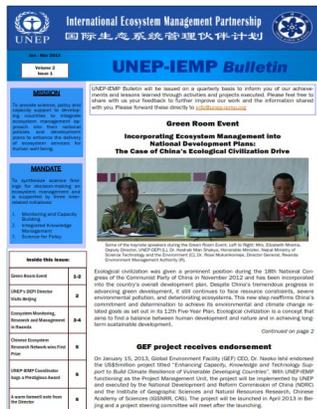


## Restoring the Ecological Foundation for Food Security: A Soil Organic Matter Perspective



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Oduor, A.M.O. 2013. Evolutionary responses of native plants to invasive plants: A Review. *New Phytologist*

Fandohan, B., Guowakinnou, G.N., Fonton, N.H., Sinsin, B., Liu, J. 2013. Impact of climate change on the geographical distribution of suitable areas for cultivation and conservation of underutilized fruit trees: case study for the tamarind tree in Benin. *Biotechnology Agronomy Society and Environment*.

## **GLOSSARY - LIST OF ACRONYMS**

<b>CAS</b>	Chinese Academy of Sciences
<b>CCICED</b>	China Council for International Cooperation on Environment and Development
<b>DEPI</b>	Division of Environmental Policy Implementation, UNEP
<b>EBA</b>	Ecosystem-Based Adaptation
<b>GEF</b>	Global Environment Facility
<b>IGSNRR</b>	Institute of Geographic Sciences and Natural Resources Research, CAS
<b>NDRC</b>	National Development and Reform Commission of China
<b>NSFC</b>	National Natural Science Foundation of China
<b>REMA</b>	Rwanda Environment Management Authority
<b>UNEP</b>	United Nations Environment Programme

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International Ecosystem Management Partnership  
United Nations Environment Programme  
C/o Institute of Geographic Sciences and Natural Resources Research  
11A Datun Road, Beijing, 100101, China

Tel: +86 10 64889031, Email: [info@unep-iemp.org](mailto:info@unep-iemp.org)