# Meeting Report

## Inception Workshop on The Economics of Ecosystem and Biodiversity (TEEB): Promoting a Sustainable Agriculture and Food Sector—Implementation in China

**August 20-21, 2019, Beijing, China**


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

**CONTENTS**

## SUMMARY

The I*nception Workshop on The Economics of Ecosystem and Biodiversity (TEEB): Promoting a Sustainable Agriculture and Food Sector* (TEEBAgriFood Project)– *Implementation in China* was successfully held in Beijing, China. This EU-funded project aims to stimulate biodiversity conservation and ecosystem service provisioning for agricultural landscapes in the seven countries in scope (Brazil, China, India, Indonesia, Malaysia, Mexico and Thailand) based on an internationally agreed methodological framework addressing the economics of ecosystems and biodiversity.

Organized by UNEP TEEB Office and UNEP-IEMP, the one and half-day workshop provided an opportunity for dialogue and mutual learning by bringing together government officials from the Ministry of Agricultural and Rural Affairs and the Ministry of Ecology and Environment, representatives from the EU delegation to China and United Nations Environment Programme, as well as scientists from various institutions in China. The workshop introduced the objectives and thematic focus of the project, encapsulated the primary interests and concerns of stakeholders, and identified a list of policy options for the Project Steering Committee (to be formed afterwards) to consider for further implementation in China.

**Key messages** emerging from the workshop were:

1. Agriculture sector is playing a significant role on the changes of biodiversity and ecosystem services. TEEBAgriFood recognizes that the agri-food sector is embedded in ecosystems, and in doing so try to provide a comprehensive economic evaluation of the sector by quantifying all the visible and invisible flows derived from natural, produced, social and human capitals that are along the value chain. The goal is to to shift the focus away from fixating on one-single metric.

2. China's agriculture and food system is facing several challenges today, such as depletion of natural resources, non-point source pollution, and loss of biodiversity. As a response, China is pushing for the transformation of agricultural production from the sole pursuit of quantitative growth to a simultaneous increase of quantity, quality and efficiency, and is focusing on to ecological functions along with productivity. The TEEBAgriFood project very much aligns with the country's current endeavor.

3. Merits of the project is embodied in its value chain perspective with attention paid to not only the natural and produced capitals but also the social and human capitals; the advanced nexus approach is strengthened by the consolidating network among the seven countries in scope.

4. A series of tentative policies emerged during the discussion, among which four policy intervention cases (see below) were chosen to be included in the policy option summary for the Project Steering Committee. For each case, one expert has been designated as focal person for further information collection. In case of more potential cases emerge from the consultation process later on, for example, new suggestions received from REEA, MARA, the below list will be extended

   CASE #1—Wild variety conservation in Yunnan Province combined with brand building and eco-tourism (red rice or green)

   CASE #2—Circular agriculture based on balanced matching of crop plantation and animal husbandry in Shandong Province

   CASE#3—Agricultural industrial park in Jiangsu Province (advanced and replicable S&T-integrated development)

   CASE#4—Eco-compensation for banned or seasonal grazing in Inner Mongolia

**Follow-up actions** include:

1) to develop an information checklist for case preparation (UNEP TEEB Office); and

2) to draft a policy option summary for Project Steering Committee based on information collected (UNEP-IEMP together with experts).

## SESSIONS

*DAY 1 (0900-1730, August 20, 2019)*

### Opening

**Dr. Linxiu Zhang**, Director of United Nations Environment Programme-International Ecosystem Management Partnership (UNEP-IEMP), welcomed all the participants, international or domestic, for their attendance at the inception workshop. She indicated that the brainstorm during the one-and-half day workshop is very important for the project to move forward. She appreciated the wisdoms from everyone and wished the workshop a success.

**Ms. Yanping Zhang**, on behalf of **Mr. Quanhui Wang**, Head of International Cooperation Department, Energy & Environment Agency (REEA), Ministry of Agricultural and Rural Affairs (MARA), mentioned several challenges that China's agriculture and food system is facing today, such as the depletion of natural resources, non-point source pollution, and loss of biodiversity. China is thus pushing forward the transformation of agricultural production from the sole pursuit of a quantitative growth to a simultaneous increase of quantity, quality, and efficiency; and is paying attention to ecological functions along with productivity. She acknowledged that the TEEBAgriFood project very much aligns with the country's current endeavor towards agricultural green development, in which biodiversity conservation is one important aspect. At the end of her remarks, she wished the project a smooth implementation in China.

**Mr. Yang Zhao**, representative from Foreign Environmental Cooperation Center (FECO), Ministry of Ecology and Environment (MEE), stressed the emerging trend of combining the two conventions—UNCBD and UNFCCC for synergies, with nature-based solution (NbS) as one prominent focus. The newly released IPBES 7$^{th}$ report was mentioned for the highlighted seven direct driving forces as well as the underlying elements for the loss of biodiversity and ecosystem services—all relevant to agriculture and food sector. Mr. Zhao suggested three potential areas in which the project can contribute to, these are 1) the call for NbS cases, 2) UNCBD CoP15, and 3) natural capital accounting.

**Mr. Ming Zhang**, head of the International Cooperation Department, Institute of Geographical Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS), sincerely welcomed all the participants on behalf of the host institute. He indicated that IGSNRR is ranking among the top research institutes and think tanks in China, with ecological conservation and agricultural development as two traditional thematic areas. He extended gratitude to the funding agency—the EU Partnership Instrument, as well as MARA, MEE, and UNEP for their long-term support provided to UNEP-IEMP, and promised support from IGSNRR, CAS to the implementation of the project.

**Mr. Stéphane Bauguil**, Projects Manager of the EU delegation to China, expressed gratification of witnessing representatives from all kinds of organizations, and in particular, government agencies, joining the inception workshop, which is of great importance in dealing with complicated issues facing the agri-food system. He pointed out that the project was launched in light of the coming-out of the IPBES 7th report, and its value lies at the systematic approach and the value chain perspective; he also underlined the importance of consolidating network among the countries in scope to work together.

**Dr. Salman Hussain**, the UNEP TEEB coordinator, specified the wider context of UNEP's work that the project fits into: 1) looking at countries with a high level of development, rich in biodiversity as well as having a critically important agriculture sector, and 2) using nexus approach throughout the whole value chain. As he mentioned, the adoption of a systematic approach in this project implicates a much wider scope of targeting issues, such as food security, food safety, biodiversity loss, and nutrition and human health.. He pointed out that the success of the TEEBAgriFood project relies on implementing concrete change, with research supporting the implementation and filling the information gaps.

## Setting the Stage

This session gave an overall context of the project by introducing the background of the TEEB Agriculture and Food programme, as well as highlights from executing partners and policy context of China's agriculture and environment sector.

- In his presentation on **TEEB for Agriculture and Food**, *Dr. Salman Hussain,* started with introducing the origins of TEEB highlighting the significant role the agriculture sector has in affecting biodiversity and ecosystem services. He stressed that the concept of 'eco-agri-food systems' underlines the fact that agri-food sector is embedded in ecosystems, and what TEEBAgriFood is trying to achieve is to provide a comprehensive economic evaluation of this complex by quantifying all the visible and invisible flows derived from natural, produced, social and human capitals that along the value chain. In doing so the programme aims to shift the focus away from fixating on one-single metric.

  Later on, two cases—one from China (the Natural Capital Accounting and Valuation of Ecosystem Services project with an eco-compensation case in Xijiang river basin), and another from Africa (agro-forestry) were presented as examples of mainstreaming biodiversity conservation into decision-making. By showing these cases, Dr. Hussain indicated three phases of achievements expected: 1) using the framework to show the difference between differences (i.e. business-as-usual scenario vs policy-on scenario, 2) showing the governance in place to make the change happen, and 3) up-scale activities.

- **UNEP-IEMP** and **Natural Capital Coalition (NCC)**, as the two major executing organizations for the project, briefed the audience with highlights of the work they have been advancing. *Dr. Chao Fu, Head of the Research Unit at UNEP-IEMP*, introduced the nexus approach that UNEP-IEMP is advocating under its Flagship Programme on Climate, Ecosystems and Livelihoods (CEL), supplemented with two examples in its application (Africa and China). Through a video presentation, *Mr. Mark Gough, CEO of NCC*, acknowledged the separation of capitals between natural and social interests and indicated that NCC tries to look across different capitals in an integrated system. At the same time, he indicated the unique role private sector is playing in terms of driving change, and NCC devoted its work in translating the TEEB work into a language and approach that would work for business.

- *Dr. Zhaoxin Zhang from the Research Center for Rural Economy, MARA* gave a presentation on **Agricultural Transformation and Policy Adjustment in China**. High quality agricultural development was the key word mentioned in his presentation, that is the transition from a quantity-oriented agricultural production to a quality-oriented one. The foundation for this initiative is the steady increase of grain production in 2004-2018 (> 600 million tons annually) and change of customer demand (increased consumption for meat, egg, milk as well as green food). Agricultural supply-side structural reform was set as the strategic pathway, guiding the policy adjustments in four aspects:
    1) On policy targets—paying more attention to resources and environmental protection, brand building, production efficiency and farmers' livelihoods
    2) On support-recipients—more supports toward scaled operators, service organizations and smallholder farmers
    3) On policy implementation mechanism—market mechanism playing a larger role
    4) On the divide of right and responsibility between central and local government

- *Dr. Hai Yu from Policy Research Center for Environment and Economy, MEE* gave a presentation on **Strategies and Policies for Eco-environmental Protection in China**. He elaborated the subject under China's broad development agenda, i.e., to build beautiful China through a phased approach. He explained that the concept of eco-civilization, which aims to integrate eco-element into economic, social, cultural and political development, is in essence the Chinese version of sustainable development. Several popular notions were mentioned, such as "lucid waters and lush mountains are invaluable assets" and "mountains, rivers, fields, lakes and grasses are life communities"—giving full acknowledge to the value of ecosystems. Establishment of the national conservation area system, property right system of natural capitals, and control of non-point source pollution were also touched upon.

## Development of policy options

The four presentations of this session provide a policy context of China's agri-food sector, both at national and provincial levels, for the later-on plenary discussion, which aims to provide a list of tentative policies for the project to further work on.

- In the presentation on **Policy Mapping, Lessons Learnt and Opportunities**, *Dr. Jialin He from UNEP-IEMP* reviewed the policies of China's agri-food sector with an ecosystem and biodiversity perspective, framed by the Driver-Pressure-State-Impact-Response (DPSIR) model. Eleven policy streams were selected as they target the alleviation of pressures that unsustainable agricultural practices exert on the environment, which deprive ecosystems of their services. They are: 1) anti-agricultural non-source pollution, 2) grain for green, 3) well-facilitated farmland, 4) grassland restoration, 5) anti-overfishing, 6) in-situ conservation, 7) sustainable consumption, 8) Yunnan's green food programme, 9) eco-compensation, 10) land-tenure transfer & moderate-scale management, and 11) science and technology innovation. Yunnan's recent devotion in geographically-indicated green food products was elaborated. Later on, *Dr. Li Li from UNEP-IEMP* took another three policy streams—eco-compensation, grain for green and control of non-point source pollution—as examples to share lessons learnt from past interventions. At the end of the presentation, Dr. Li acknowledged the complex intricacies of the relationship between agriculture and ecosystem and stressed the need to have the issues assessed by a comprehensive and systematic framework so that policymakers could be better informed.

- Dr. Linxiu Zhang on behalf of *Dr. Yaqiao Zhao from Yunnan Agricultural University* gave a presentation on **Position and Policy of Agricultural and Rural Development in Yunnan Province**. Yunnan has superior climate conditions, and abundant water resources, which makes it the province with the richest biodiversity in China. The concept of green, high quality and characteristic development is highly valued in Yunnan's agriculture sector. Yunnan's distinctiveness in agriculture is well-represented by the four agricultural models (alpine agriculture, urban agriculture, tropical agriculture and trans-boarder agriculture) and eight food industries (tea, flowers, vegetables, nuts, fruits, Chinese herbs, coffee and beef cattle). Green food programme, digital agriculture, one-county one-leading industry and characteristic town were representative policy trends of Yunnan's agricultural and rural development.

- *Dr. Shudong Zhou from Nanjing Agricultural University* gave an **Introduction of Agricultural Policy in Jiangsu Province**. Jiangsu province is characterized by its low terrain landscape with abundant rivers and scattered lakes; sufficient light and temperature resources and abundant precipitation make it a good place for agricultural development. Nineteen policies relevant to agricultural sector were introduced, these are: 1) establishment of high-yield and efficient grain production; 2) establishment of high-efficient facility agriculture; 3) ten key projects of agricultural modernization, 4) eco-agriculture programme, 5)

building quality and safety in agricultural products, 6) establishment of farmland infrastructure and agricultural machinery; 7) management of major animal disease spread; 8) zero growth of pesticides and chemical fertilizer use; 9) building comprehensive productivity in agriculture; 10) technical knowledge renewal of agricultural varieties; 11) establishment of green, high-yield and high-efficiency grain production; 12) the 13th five-year plan for Jiangsu's modern agricultural development; 13) the 13th five-year plan of Jiangsu's agricultural industrial development; 14) the 13th five-year plan of Jiangsu's agricultural science and technology innovation and extension development; 15) the 13th five-year plan of Jiangsu's crop-plantation development, 16) the 13th five-year plan of Jiangsu's animal husbandry development, 17) the 13th five-year plan of Jiangsu's supervision on quality and safety of agricultural products; 18) the 13th five-year plan of Jiangsu's modern ecological and circulating agriculture development; and 19) development plan and action plan for 100 billion-class characteristic agricultural industries.

- In his presentation on **Agri-ecological Policies and its Effects and Challenges in Inner Mongolia Autonomous Region**, *Dr. Guanghua Qiao from Inner Mongolia Agricultural University* began by introducing the region, saying that the total land area of Inner Mongolia ranks the third in the country, with the largest forest area, second largest grassland area, third largest freshwater area and fourth largest cultivated land area. Since 2000, several national level programmes have begun implementing in the region, including natural forest resources protection programme, sandification control programme, the three-north shelterbelt development programme, grain for green programme, eco-compensation and soil and water conservation programme. Though these programmes, the eco-environment conditions gained significant improvement—both forest area and wood stock increased from 2003-2013, and coverage of grassland increased from 37.08% in 2010 to 43.8% in 2015; at the same time, the income of farmers and herdsmen increased. Speaking of challenges, Dr. Qiao listed the following seven: 1) grassland degradation in some areas is still severe, 2) water resources shortage especially groundwater level drops seriously, 3) difficulty in control desertification; 4) difficulty in control eutrophication in lakes, 5) chemical inputs in farmland; 6) funds in short, and 7) factors detrimental to farmers and herdsmen's livelihoods still exist.

- In his presentation on **Implementing the TEEBAgriFood Evaluation Framework through Scenarios**, *Mr. William Speller from UNEP* gave an overview of how scenario analysis would be undertaken, with the case of eco-compensation in Xijiang river basin as an example. Different models modelling natural capital in agri-food systems (biophysical models, ecosystem service models and economic valuation models) were briefed; special attention was paid on human and social capitals, which are usually the missing links in the eco-agri-food systems (e.g. health impact and women's empowerment).

- **Plenary discussion**, facilitated by *Dr. Salman Hussain*, was designed to identify a list of policy options that may be informed by a wider assessment of ecosystem services while applying the TEEBAgriFood Evaluation Framework. The value of TEEBAgriFood was echoed at the beginning of the discussion, that is to unveil the invisible benefits or detriments for policy cases, which helps fill the information gap.

  Experts recognized the importance of having a multi-disciplinary perspective in policy assessments. It was stressed that China's transition toward eco-civilization should be seen as the overall background, and one challenge China is facing today is that while the top-level strategy is good, not enough attention has been paid to the grass-root level issues. China's agricultural practice, as introduced by *Prof. Wenliang Wu from China Agricultural University*, can be divided into seven geographical parts, namely eastern (high level of modernization, severe environmental problems), southern (abundant water resources but heavily polluted), western (dry, rain-fed agriculture), northern (overexploitation of groundwater), middle (soil fertility loss), high latitude (the origin of the country's water resources) and low-region (marine agriculture). He indicated that the entry points of addressing current issues can be understood as the two ends of the agricultural production and the process connecting the two, i.e., one end on variety (crop, animal and microorganism) while the other on deep and precise-processing, connected by circular agriculture. The importance of restoring soil health was highlighted among the current tasks.

  During the discussion, a list of policy options came out as follows:

  1. Wild variety conservation and product branding, integrated into the development of eco-tourism. A good example is the red rice cultivation in Yunnan province—growing red rice in terraced fields has been generating a serious of benefits including soil and water control, eco-tourism, and livelihood improvement; meanwhile, businesses had also engaged in the brand-building process.
  2. Eco-compensation in pastoral regions (e.g. banned or seasonal grazing) in Inner Mongolia.
  3. Policies to improve soil ecological properties/soil health through reduced chemical input.
  4. Value-added intensive production and processing (e.g. Se-rich crops).
  5. Ecological/circular agriculture (e.g. in-situ manure treatment) such as integrating crop plantation with animal husbandry.
  6. Facility agriculture.
  7. Sustainable consumption.
  8. Green input in place of chemicals.
  9. Resource-oriented utilization of agricultural straw and manure.
  10. Land consolidation (rural land transfer & scaled-production).
  11. Restoration of abandoned farmlands.
  12. Information disclosure on access to biodiversity resources.

13. Important agricultural heritage systems (e.g. ecotourism implications).

Most policy options listed above were considered rather general, as they did not zoom in on any specific products and/or geographic areas. The project team decided to further discuss the specifics of policy options the following day, taking into consideration several criteria that had emerged during the day's proceedings. The policy options should:

1. come from any agricultural sub-sector except wild fishery,
2. be geographically focused,
3. be politically receptive (should be able to facilitate policy-makers in making a concrete decision)
4. information gap that TEEBAgriFood could fill in, and
5. local and global implications.

## *DAY 2 (0900-1200, August 21, 2019)*

## Next Steps

At the beginning of this session, three presentations were given showcasing the use of relevant approaches, methodologies, and tools, followed by a continued discussion, following that of to the DAY1's, to explore potential cases of polity options, as well as technical aspects for preparing scenario analysis.

- *Dr. Mingxing Sun from UNEP-IEMP* introduced the **Life Cycle Approach** through a case study on the assessment of environmental burdens of straw utilization, while *Dr. Yutao Wang from Fudan University* gave a presentation on methods and cases of assessment of ecosystem services using the **InVEST Model**. In the presentation of **Application of Agricultural Policy Evaluation Models**, *Dr. Feng Wu from IGSNRR, CAS* showed four case studies using different models in evaluating: 1) effects of landscape diversity on cotton pests in China, 2) the macroeconomic impact of soaring the agricultural water price (CGE Model), 3) effects of agricultural water-saving policy on environmental and economic benefits (econometric model), and 4) behavior mechanism behind farmers responses to agricultural water-saving policy (Agent-based Model).

- The **plenary discussion** mainly focused on the policy specification. Experts explored potential intervention cases under the guidance of the UNEP TEEB Office.

  During the discussion, it was agreed that eco-compensation is an important element worth exploring as it represents the most important application of environmental economy in the world. In terms of geographic areas, the importance of Yunnan province was highlighted in light of the UNCBD CoP15 to be held in Yunnan in 2020.

Several ideas came out, including

- Red rice variety conservation in Yunnan Province combined with brand building (private sector involved) and eco-tourism, with co-benefits such as soil and water control and livelihood improvement.
- Circular agriculture based on balanced matching of plantation and animal husbandry in Shandong Province
- Chongming ecological island (Shanghai) where industries have been gradually moved out, and eco-agriculture and eco-tourism promoted.
- Land consolidation in Jiangsu Province which turns fragmented land patches into vast areas of farmland while moving farmers to centralized residential areas.
- Agricultural industrial park in Jiangsu Province, where advanced and replicable science and technology are displayed, and the role of the clustering effect was given full play.
- Grain for green project in Shaanxi Province where revegetated forest was not efficiently used.
- Eco-compensation for banned or seasonal grazing (Inner Mongolia) where the impacts on herdsmen's livelihoods are still being assessed.
- Green/organic (both modern and ancient) tea brand building in Yunnan Province where subsidies are provided.

Four cases from the above were finally chosen to be included in the policy option summary for the Project Steering Committee (to be formed afterwards), taking into consideration operability. Several technical aspects such as stakeholders involved and data availability were also discussed. For each case, one expert has been designated as focal person for further information collection. It was also clarified that, in case of more potential cases emerge from the consultation process later on, for example, new suggestions received from REEA, MARA, the below list will be extended.

**CASE #1**—Wild variety conservation in Yunnan Province combined with brand building and eco-tourism (red rice or green)
Focal person: Yaqiao Zhao from Yunnan Agricultural University

**CASE #2**—Circular agriculture based on integrated plantation and animal husbandry in Shandong Province
Focal person: Feng Wu from IGSNRR, CAS

**CASE#3**—Agricultural industrial park in Jiangsu Province (advanced and replicable S&T-integrated development)
Focal person: Shudong Zhou from Nanjing Agricultural University

**CASE#4**—Eco-compensation for banned or seasonal grazing in Inner Mongolia
Focal person: Guanghua Qiao from Inner Mongolia Agricultural University

- In the **closing remarks**, Dr. Salman Hussain again extended gratitude to all participants for their contribution to the one-and-half-day workshop. In terms of the next step, he indicated that an information checklist will be soon developed, and UNEP-IEMP will be working with experts to draft a policy option summary for the Project Steering Committee, who will then decide on further steps to take.

# Annexes

## The Economics of Ecosystem and Biodiversity (TEEB): Promoting a Sustainable Agriculture and Food Sector—Implementation in China
## Inception Workshop

20-21 August 2019

Room C421, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS-IGSNRR), Beijing, China

Sponsored by: The European Union (EU)

Organized by: United Nations Environment Programme (UNEP) TEEB Office, UNEP-International Ecosystem Management Partnership (UNEP-IEMP)

## Agenda

| **DAY 1 – 20 August 2019** | |
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| 0830-0900 | *Registration* |
| Session 1. Opening and setting the stage<br>Moderator: Li Li, UNEP-IEMP | |
| 0900-0915 | Self-introduction of attendees |
| 0915-0940 | Welcome remarks:<br>- Linxiu Zhang, Director, UNEP-IEMP<br>- Quanhui Wang, Head, International Cooperation Department, Rural Energy & Environment Agency, Ministry of Agriculture and Rural Affairs (MARA)<br>- Yang Zhao, International Environmental Cooperation Organization, Ministry of Ecology and Environment (MEE)<br>- Ming Zhang, Head, International Cooperation Department, IGSNRR, CAS<br>- Stéphane Bauguil, Project Manager, EU Delegation to China<br>- Salman Hussain, TEEB Coordinator, UNEP |
| 0940-1050 | The Economics of Ecosystems and Biodiversity – TEEB for Agriculture and Food (By Salman Hussain, UNEP)<br>- Q&A |
| 1050-1105 | *Group Photo and Tea Break* |
| 1105-1135 | Introduction of partner organizations<br>- The Flagship Programme on Climate-Ecosystem-Livelihood (CEL) (Chao Fu, UNEP-IEMP)<br>- Natural Capital Coalition (NCC) (video presentation, Mark Gough, CEO of NCC) |
| 1135-1155 | Policy context of China's agricultural sector<br>(Zhaoxin Zhang, Research Center for Rural Economy, MARA) |
| 1155-1215 | Policy context of China's environmental sector<br>(Hai Yu, Policy Research Center for Environment and Economy, MEE) |
| 1215-1330 | *Lunch Break* |

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| Session 2. Development of policy options<br>Moderator: Salman Hussain, TEEB Coordinator, UNEP | |
| 1330-1400 | Policy mapping, lessons learnt and opportunities<br>(Li Li & Jialin He, UNEP-IEMP) |
| 1400-1445 | Agri-environmental policies at the provincial level:<br>- Yunnan (Yaqiao Zhao, Yunnan Agricultural University)<br>- Jiangsu (Shudong Zhou, Nanjing Agricultural University)<br>- Inner Mongolia (Guanghua Qiao, Inner Mongolia Agricultural University) |
| 1445-1515 | Applying the TEEBAgriFood Evaluation Framework: an overview of scenario analysis and modelling changes in capital stocks<br>(William Speller, UNEP) |
| 1515-1530 | *Tea Break* |
| 1530-1645 | Plenary discussion (Facilitated by Salman Hussain, UNEP):<br>- Identify specific policies that may be informed by a wider assessment of ecosystem services, applying the TEEBAgriFood Evaluation Framework |
| 1645-1715 | Report back to plenary from the two breakout groups<br>- Q&A |
| 1715-1730 | Wrap up and closing of Day 1<br>(Salman Hussain, UNEP) |
| 1830-2000 | *Welcome Dinner* |
| **DAY 2 – 21 August 2019** | |
| 0850-0900 | *Registration* |
| Session 3. Next steps<br>Moderator: Jialin He, UNEP-IEMP | |
| 0900-0910 | Summary of the previous day and objectives of Day 2<br>(Salman Hussain, UNEP) |
| 0910-1000 | Showcase the use of relevant approaches, methodologies and tools:<br>- Applying the life cycle approach (Mingxing Sun, UNEP-IEMP)<br>- Modelling China's Agricultural policies (Feng Wu, IGSNRR)<br>- Applying the InVEST model (Yutao Wang, Fudan University) |
| 1000-1100 | Plenary discussion: exploring potential cases under TEEBAgriFood framework<br>(Facilitated by Salman Hussain, UNEP) |
| 1100-1115 | *Tea break* |
| 1115-1145 | Plenary discussion: making it specific – business-as-usual and policy-on scenarios, data sources, and modelling expertise<br>(Facilitated by William Speller, UNEP) |
| 1145-1200 | Closing remarks<br>(by Salman Hussain, UNEP & Linxiu Zhang, UNEP-IEMP) |

## Participant List

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|---|---|---|
| 1 | Quanhui Wang | Head of International Cooperation Department, Rural Energy & Environment Agency (REEA), Agriculture and Rural Affairs (MARA) |
| 2 | Yanping Zhang | Officials, REEA, MARA |
| 3 | Yang Zhao | Officials, Foreign Environmental Cooperation Center (FECO), Ministry of Ecology and Environment (MEE) |
| 4 | Stephane Bauguil | Project Manager, The EU Delegation to China |
| 5 | Hua Wang | Policy Officer, The EU Delegation to China |
| 6 | Salman Hussain | TEEB Coordinator, UNEP |
| 7 | William Speller | Project Officer, UNEP |
| 8 | Ming Zhang | Head of International Cooperation Department, Institute of Geographical Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS) |
| 9 | Qian Wang | Programme Manager, UNEP China Office |
| 10 | Zhaoxin Zhang | Head of Industry and Technology Unit, Research Center for Rural Economy, MARA |
| 11 | Hai Yu | Head of Environmental Strategy and Research Department, Policy Research Center for Environment and Economy, MEE |
| 12 | Wenliang Wu | Dean of Resources and Environmental Sciences, China Agricultural University |
| 13 | Qian Zhang | Associate Professor, China Agricultural University |
| 14 | Jianyong Wu | Nanjing Institute of Environmental Sciences, MEE |
| 15 | Guanghua Qiao | Dean of College of Economics and Management, Inner Mongolia Agricultural University |
| 16 | Shudong Zhou | Professor, Nanjing Agricultural University |
| 17 | Yaqiao Zhao | Dean of College of Economics and Management, Yunnan Agricultural University |
| 18 | Feng Wu | Associate Professor, IGSNRR, CAS |
| 19 | Yutao Wang | Professor, Fudan University |
| 20 | Chengfang Liu | Associate Professor, Peking University |
| 21 | Linxiu Zhang | Director, UNEP-IEMP |
| 22 | Chao Fu | Head of the Research Unit, UNEP-IEMP |
| 23 | Mingxing Sun | Assistant Professor, UNEP-IEMP |
| 24 | Jialin He | Programme Officer, UNEP-IEMP |
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| 28 | Tatirose Vijitpan | Programme Officer, UNEP-IEMP |
| 29 | Yunli Bai | Assistant Professor, UNEP-IEMP |
| 30 | Xiangbo Xu | Assistant Professor, UNEP-IEMP |
| 31 | Badabate Diwediga | Post-doc Fellow, UNEP-IEMP |
| 32 | Qinghe Qu | Head of Operations, UNEP-IEMP |
| 33 | Jingchun Liu | Communications Officer, UNEP-IEMP |
| 34 | Jing Zhao | Administrative Staff, UNEP-IEMP |
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| 37 | Qijia Lv | PhD candidate, UNEP-IEMP |
| 38 | Yueming Cao | PhD candidate, UNEP-IEMP |

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| 40 | Dorje Palden | PhD candidate, UNEP-IEMP |