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# 2019 Annual Report

Global Environmental Institute (GEI)

Global
Environmental Institute
北京市朝阳区永续全球环境研究所

# CONTENTS

2004

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2019

# Global Environmental Institute (GEI)

Global Environmental Institute (GEI) is a Chinese non-profit, non-governmental organization founded, registered, and based in Beijing, China since 2004. We are committed to the continuation of project outputs beyond the project implementation time-frame through a combination of traditional methods of environmental protection, livelihood improvement and resource efficiency, together with promotion of policy and innovative market-based models. Meanwhile, we also focus on enhancing international cooperation on issues including climate change, ecological protection, marine conservation and green finance from a Chinese perspective.

2019 marked the fifteenth anniversary of GEI. Please continue to join us in building a greener and more sustainable world for all.

## Project Areas

Energy and Climate Change

Ecosystem Conservation and Community Development

Overseas Investment, Trade and the Environment

Marine Conservation

Global Environmental Innovation Fund

# Energy and Climate Change

**As China's economy has continued to develop, the country has gradually become an increasingly important global power. On the other hand, China has inevitably become one of the world's major contributors to greenhouse gas emissions and is currently facing challenges in ensuring stable economic development and reducing greenhouse gas emissions domestically while also contributing to climate resilient development in other developing countries.**

In 2004, GEI established a project team on energy efficiency and climate change to explore various market-oriented solutions to solve fossil fuel energy consumption, respond to climate change, and promote green projects, such as clean energy, energy conservation and emissions reduction. This team successfully incubated three projects related to power generation through residual cement heat, which received investment from Dalian East Energy Development Co., Ltd. in Zhejiang Province, Fujian Province and Liaoning Province. These projects ultimately led to a general promotion and application of residual cement heat power generation technology across the country. In 2009, the project team was officially renamed as the Energy and Climate Change Program. Its focus expanded to include the promotion of exchanges between China and the United States on issues related to energy, climate change and technology cooperation between the two countries, as these topics relate to low-carbon development planning at the provincial / state level. Later, rural clean energy-related work that had originally been carried out by the rural sustainable development project team was moved to be included within the work of the energy and climate change team. It was subsequently scaled up with the strategic direction of developing nationally appropriate low-carbon policy analysis tools, promoting their application in real-life scenarios and sustainable access to clean energy technologies in rural areas of China. The final aim of the expanded scope of work was to enhance energy and climate cooperation between China and the United States. Since 2014, GEI's Energy and Climate Change Program has prioritized the promotion of low-carbon development and energy transformation in China and other developing countries to address climate change through international bilateral and multilateral technical exchanges and South-South cooperation.





# Ecosystem Conservation and Community Development

**Due to the past 50 years of rapid economic development around the world, ecosystems and biodiversity have come to face unprecedented threats to their survival. The quality of the global environment and number of species worldwide are declining quickly, with millions of species on the verge of extinction and 60% of ecosystem services deteriorating continually. Therefore, we urgently need to look for ways to carry out sustainable economic development that ensure economic and social growth while protecting the environment.**

GEI established a biodiversity conservation program in 2004, aiming to ensure the economic viability of biodiversity and forest conservation via developing innovative means of ecological protection and economic development. In the early stages of GEI's work, the project team promoted the environmental protection and eco-friendly development of regions rich in biodiversity resources in western China and urged Chinese enterprises to undertake overseas forest management activities in a more responsible way. In 2007, a new program focused on environmental governance took charge of overseas forest-related work, with a focus on encouraging local governments and communities to jointly develop a new model of sustainable community development with the application of community conservation concession agreement (CCCA). The project team was officially renamed as the Ecosystem Conservation and Community Development Program in 2016, devoted to the application and promotion of CCCA mechanism in China, as well as the development of eco-friendly economic networks. Since 2018, the project team has explored a community-based protocol protection mechanism applicable to Southeast Asian countries to reduce conflict between local conservation and development.

# Overseas Investment, Trade and the Environment

**China has been playing a key role globally in terms of overseas foreign direct investment (OFDI) since the introduction of the "Going Global" policy in 2001 and the "Belt and Road" initiative in 2015. Because China's overseas development is accompanied by potential environmental and social risks, GEI collaborates with key domestic policy makers and international partners to promote discussion and understanding while proposing solutions to mitigate environmental risk.**

In 2007, GEI established a program for environmental governance, intending to promote the efforts of the government to formulate and implement environmentally friendly policies, including the design of sustainable development textbooks and the promotion of responsible investment and business activities of Chinese enterprises overseas. This was a noteworthy development, as GEI was the first Chinese NGO to focus on this topic. In 2008, the project team introduced the idea of encouraging host countries to formulate relevant environmental policies that established strategies for the expansion of overseas projects. The program was renamed Overseas Investment, Trade and the Environment in 2016, with an aim of raising China's environmental and social concerns in overseas investment activities and promoting multi-stakeholder dialogues as well as bilateral and multilateral cooperation. The areas in which the program works include green finance and sustainable investment and trade, which are approached via research and piloting, bilateral cooperation, policy recommendations and capacity building.





# Marine Conservation

**Marine ecosystem health has been suffering from an unprecedented crisis owing to the effects of climate change and human activities. Climate change has an impact on seawater temperature, coastal changes, and marine species' reproduction and migration patterns. Marine pollution, overexploitation and unsustainable fisheries trade are each threatening the prospects for marine ecosystem survival. Today, due to the urgency of these issues, we have reached the point where we must tackle marine environmental issues with joint efforts from all sectors of society.**

In 2008, GEI launched a new program to extend our work into the area of the world's largest and most significant ecosystem: the ocean. Through research and pilot projects, we provide relevant government departments with innovative ideas for marine conservation. We also offer consultative opinions on the construction of national marine parks, in addition to policy recommendations and research support for the government to better protect marine ecosystems.

# Global Environmental Innovation Fund

Global Environmental Innovation Fund was established in February 2016 with seed funding provided by the Blue Moon Fund based in the United States and managed by a fund management department within GEI. This special fund encourages forward-looking and innovative thinking, approaches and models in the field of environment and development, and develops policy recommendations, as well as market-based solutions, to address global environmental issues. Its areas of focus include energy and climate change, ecosystem conservation and community development, marine conservation and overseas investment, trade and the environment.

# Through the 15 Years of GEI



## Objectives

In March 2004, GEI was established in Beijing. We recognized that the lack of continuity in the traditional environmental protection and poverty alleviation projects is a result of the absence of self-sustained market mechanisms and hence long-term sustainability. Therefore, hoping to confront environmental issues through market-based solutions, GEI combined non-profit environmental protection and community development with profit-oriented enterprise management methods and market channels. These efforts are what have allowed GEI to be successful in its approach to achieving environmental protection objectives.

GEI was five years old in 2009 when we started promoting the development of environmental policies based on our previous work experience. Concerning the areas of climate change, overseas investment and trade, and ecosystem conservation, GEI works to introduce China' s environmental policies to other countries as a third-party organization, independent from the government, and promotes policy development to enhance the exchanges and cooperation among governments, enterprises and civil society organizations. Since it was founded, GEI has focused on implementing solutions that combine market mechanisms and policy recommendations, with which we hope to tackle environmental issues. We strive for win-win opportunities for society and the environment, while seeking economic benefits and to achieve all-round sustainable development. Through our work, we aim to build a healthy and biodiverse world and to promote harmonious development of society, environment and economy.

## Project Areas

### 2004

During the initial stage of GEI' s establishment in 2004, GEI launched projects mainly in the following areas: Biodiversity Protection, Rural Sustainable Development, Energy Efficiency and Climate Change, and Capacity Building for Chinese government and civil society organizations.

### 2007

GEI created a new program for Environmental Governance (later renamed "Overseas Investment, Trade and the Environment"), which aims to build a framework to promote the development and implementation of environmentally friendly policies by the government. We reviewed our project team formations and dissolved the Capacity Building team, reassigning members to other projects that also involve capacity building efforts.

### 2011

GEI embraced the idea of "going global," with each program successfully launching its own international cooperation project(s), resulting in the end of the program that was previously focused specifically on international cooperation.

The Rural Sustainable Development program was reorganized, with the program' s work relating to rural renewable energy and rural finance being folded into the Energy and Climate Change Program and the Biodiversity Conservation Program. In the meantime, GEI identified three key project areas: Energy and Climate Change; Overseas Investment, Trade and the Environment; and Ecosystem Conservation and Community Development.

### 2016

GEI established Global Environmental Innovation Fund program, which supports forward-looking innovative thinking, methods and models in the field of environment and development.

### 2018

GEI established the Marine Conservation Program in order to protect the health of marine ecosystems.







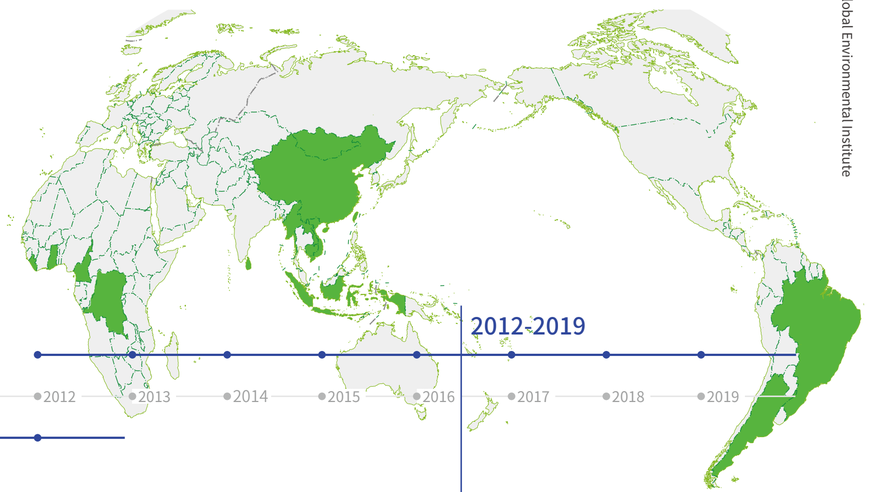
## Project Sites

GEI introduced advanced mechanisms and technologies from abroad and cemented its reputation over the course of three years. Based on this foundation, GEI has gradually become one of the most strategic partners for international NGOs to carry out projects within China. Through international cooperation, GEI has further refined concepts and working approaches. At this stage, GEI mainly carried out projects in Yunnan Province, Sichuan Province, Guangxi Zhuang Autonomous Region and Tibet Autonomous Region in China, and overseas in Sri Lanka.

### 2004-2007

### 2008-2012

GEI worked to improve and promote up-to-date innovative concepts, mechanisms and technologies in China, such as low-carbon planning tools and CCCAs, and undertook capacity building activities with the China' s Central Party School (institution system dedicated to train party cadres) and the National Academy of Governance. (institution system in China to train government officials). At the same time, GEI gradually began to share effective environment-related technology and knowledge with less-developed countries, including Laos and Sri Lanka, to promote the development of these countries' capacities in renewable energy, biodiversity conservation and climate change adaptation. In addition, GEI launched the China-US Track II Dialogue on Climate Change, which were considered positive contributions to the informal communication and exchanges between the governments and enterprises of the two countries.



### 2012-2019

With China' s economic globalization and enhancement of "Open Door Policy", as a local Chinese NGO, GEI actively responds to the call to "go global" as a bridge between the government and enterprises to carry out projects in other countries. At the current stage, all GEI programs have expanded their work to include projects in foreign countries, including Myanmar, Mongolia, Laos, Vietnam, Cambodia, Sri Lanka, Liberia, Ghana, Cameroon, Republic of Congo, Argentina and Brazil.

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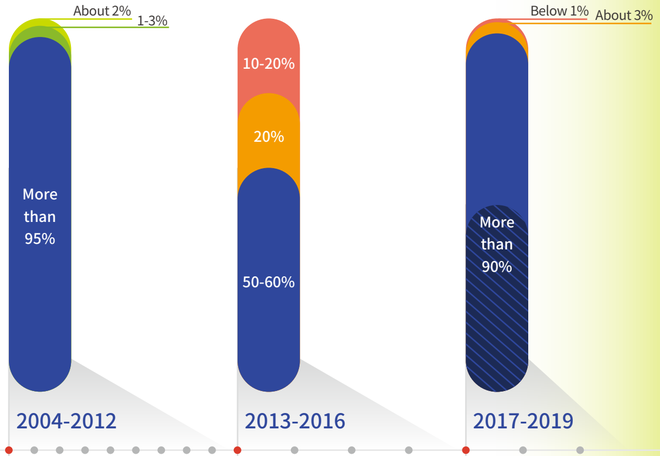
## Funding Sources

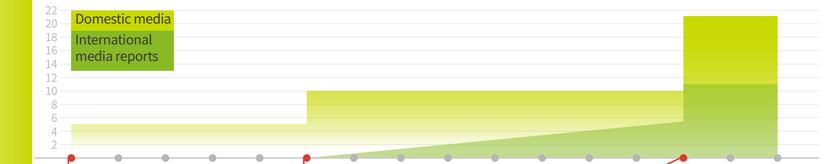



More than 95% of the financial support for GEI's projects and operations was provided by international foundations. About 2% came from the government and 1-3% came from sub-grants or contracts from other organizations.

Support from international foundations was reduced to about 50-60% and funding from both international and domestic NGO partner institutions increased to 10-20%.

Foundations' support rebounded to make up more than 90% of GEI's financial support. It is worth noting that the funding ratio of Chinese foundations rose significantly and was gradually equal to that of foreign ones. The ratio of support from international NGO partner institutions dropped to about 3% and corporate financial support decreased to below 1%.

## Media Outreach




**2004-2008**
GEI was mentioned in few media publications, with 4-5 news pieces every year. Of these mentions, most were by domestic media.

**2009-2016**
Cooperation with news media was increasingly enhanced with the number of news mentions of GEI' s work reaching about 10 per year. International media reports on GEI increased year by year, and various well-known media including the Guardian and the New York Times reported on GEI' s work.

**2017-2019**
The average number of news mentions of GEI' s work exceeded 20, with reports from international media being more or less in line with the number from Chinese media.

## Awards

| No. | Time | Awards / Details |
|---|---|---|
| 1 | 2008 | CCCA Model won the Ford Environmental Protection Award |
| 2 | 2008 | The 2nd China Market Development Lenovo Innovation Award |
| 3 | 2013 | Ford Motor Environmental Award |
| 4 | 2015 | Global Giving Foundation Challenge Award |
| 5 | 2016 | The micro-film "Myanmar New Hope" won the Outstanding Work Award in the NGO category of the 2016 China Charity Film Festival |
| 6 | 2017 | SEE Ecological Award |
| 7 | 2017 | Nominated for the 2017 UNDP Equator Award |
| 8 | 2017 | Ford Motor Environmental Award, Grand Prize of the Year |
| 9 | 2017 | Charity Project Award at 2017 China Charity Festival |
| 10 | 2019 | The project "Strengthening Sanjiangyuan' s Ecological Economic Development Capacity and Supporting Sustainable Community Ecological Conservation" won the honor of Top 100 Projects of China Charity Project Contest |
| 11 | 2019 | The micro-film "Homeland" won the Best Film Award in the NGO category/ the Best Cinematography Award of 2019 China Charity Film Festival |

# Projects in 2019

Association of Southeast Asian Nations (ASEAN) - China Cooperation Promotes Regional Renewable Energy Development

Effectiveness Evaluation of China's South-South Cooperation Assistance Project in Response to Climate Change

Practice and Promotion of Renewable Energy Planning Tools in Guangdong Province, China

Practice and Promotion of Renewable Energy Planning Tools in Shanxi Province, China

Promote China' s Policy Enforcement Cooperation with Other Countries to Combat the Global Illegal Wildlife Trade Chain

China-Africa Forest Governance

Enhancing China' s Infrastructure Construction and Sustainable Development of Investment in the Mekong Basin

Promoting China' s Sustainable International Trade in Agricultural and Forestry Products

Community Ecological Service-based Economic Development Phase II

Feasibility Study Report on Sustainable Forest Management in Xining, Qinghai Province

Project of Mountain Community Climate Smart Livelihood Space Construction

Launch of CCCA Project in Myanmar Biodiversity Hotspots

Promotion of Biodiversity Conservation Partnership and United Nations CBD Conference

Sea Turtle Protection

Mangrove Conservation

Coastal Wetland Conservation and Sustainable Community Development

Global Environmental Innovation Fund (GEIF)

Inspiration from Nature Sustainable Community Development Fund

# Association of Southeast Asian Nations (ASEAN) - China Cooperation Promotes Regional Renewable Energy Development

## Problems and Challenges

2020 is the most important year in environmental protection in the first five years since the Paris Agreement was signed. In 2020, all parties are required to evaluate the implementation and progress of their respective National Determined Contributions (NDC and to establish new or updated NDCs. Most ASEAN countries are in the development stage of rapid economic development, where they still have a strong dependence on fossil fuel energy. Many countries have begun to explore the development of renewable energy, yet their domestic energy structures remain fairly basic. With the increasingly severe impacts of global climate change, China and ASEAN are each facing the dilemma of balancing fast-growing energy demands with the need to tackle greenhouse gas emission reduction. For successful outcomes, is crucial to search for ways to strengthen cooperation and to create effective renewable energy action plans and innovative financial models.





## Our Work

**ASEAN:** In 2019, the ASEAN-China Regional Cooperation Conference on Energy Transition and Climate-resilient Development was held in Bangkok, Thailand, jointly hosted by the Ministry of Natural Resources and Environment of Thailand, the ASEAN-China Centre, and the Global Climate Action Initiative (GCAI) Secretariat, and co-organized by Thailand Greenhouse Gas Management Organization (TGO) and GEI. At the conference, challenges and opportunities to achieving the Paris Agreement NDCs were discussed, along with capacity gaps and available financing options. This conference also explored the next possible step of ASEAN-China cooperation on renewable energy development policy, technical methodologies of planning and implementation, capacity building and financing options.

**Indonesia:** GEI took steps to conduct field research in Jakarta and visited experts from the Institute for Essential Services Reform (IESR), Climate Policy Institute (CPI), European Climate Foundation (ECF) and the Ministry of Mines and Energy.

**Myanmar:** In 2019, GEI continued to collaborate with the Department of Research and Innovation (DRI) of the Ministry of Education of Myanmar. Together, we selected Mandalay, the second largest city in Myanmar, as a pilot city for a rooftop photovoltaic technology, economic and market potential analysis project. Having utilized the financial analysis tools of the Renewable Energy Implementation Toolkit (REI), GEI and local experts managed to calculate preliminary investment costs, capital gains and payback periods regarding different roofs via the data of typical roof area of Mandalay, lighting resources, investment related equipment costs, energy prices and interest rates. Moreover, GEI cooperated with DRI and Yangon Technical University to discuss the development of photovoltaic solar projects in Myanmar with various stakeholders. During the project, GEI visited Mandalay Electric Power Company, local solar energy company Pro Engineering Co., and an industrial park management committee.

**Cambodia:** After signing a Memorandum of Understanding (MoU) with Global Green Growth Institute (GGGI), GEI participated in a capacity training workshop for government officials in secondary cities other than major cities such as Phnom Penh, highlighting how the REI toolkit can provide solutions for renewable energy planning in Cambodia. More policy and pilot planning work will be carried out in the selected secondary cities in Cambodia in 2020.

## Progress and Achievements

Promoting regional cooperation: The ASEAN-China Regional Cooperation Conference on Energy Transition and Climate-resilient Development in Bangkok invited government officials from ASEAN countries, technical and policy experts from relevant research institutions, representatives from the private sector, charitable foundations and social organizations to participate in a two-day dialogue. The conference promoted exchanges on climate change and green energy development between countries.

Building renewable energy capacity: GEI provided training for government officials in Myanmar, Cambodia and Indonesia on low-carbon development and renewable energy planning capacity building, including GIS data analysis, technology potential, market potential, financial model analysis, and other areas important to planning.

Planning renewable energy pilot programs: With research and analysis, GEI found that there are 225,000 roofs in the urban area of Mandalay, Myanmar, with a total area of 16.76 million square meters. According to Mandalay's solar photovoltaic conditions, the total technical potential is 4GWp, 6.43GWh / year. Only one-tenth of the roof potential needs to be developed to meet the energy consumption needs of the whole city.

We will follow up with partners from various countries to analyze different financial models in regard to specific situations in different locations. Moreover, we will provide renewable energy related policy recommendations, as well as business solutions. Finally, we will cooperate with domestic and foreign investors to promote the development of renewable energy markets in key Southeast Asian countries.







# Effectiveness Evaluation of China's South-South Cooperation Assistance Project in Response to Climate Change

## Problems and Challenges

Since 2011, with the support of the South-South Cooperation Fund, the Department of Climate Change (formerly the National Development and Reform Commission's Department of Climate Change) of the Ministry of Ecology and Environment has offered energy saving and clean energy products for free to small island developing states, least developed countries and African countries. So far, 37 MoUs on donating materials to tackle the climate crisis have been signed with 33 countries.

With the increasing number of South-South cooperation projects on climate change, there is an urgent need to establish a comprehensive assessment system to provide guarantees and support for effective foreign aid. Additionally, 2018 also marked the first year of the State Council's institutional reforms and as such many policies and work procedures will need to be adjusted or updated. Tracking, evaluating and gathering feedback on completed projects at this critical moment will help provide references and suggestions for newly formed institutions and future foreign aid policies in order to appropriately target future initiatives. A comprehensive evaluation of practices thus far will also assist in improving the aid model and enhancing the aid effectiveness.

## Our Work

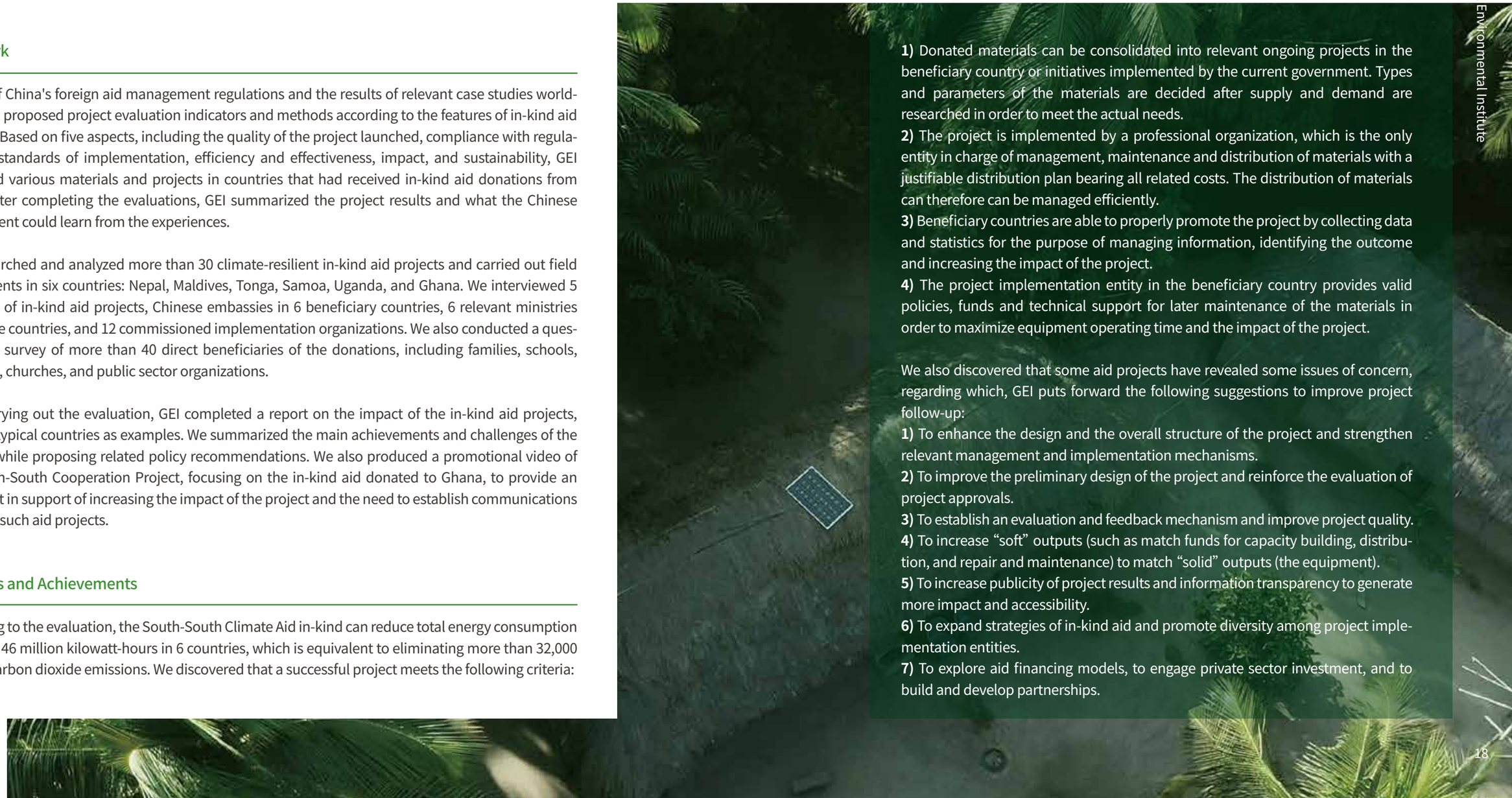
In light of China's foreign aid management regulations and the results of relevant case studies worldwide, GEI proposed project evaluation indicators and methods according to the features of in-kind aid projects. Based on five aspects, including the quality of the project launched, compliance with regulations or standards of implementation, efficiency and effectiveness, impact, and sustainability, GEI evaluated various materials and projects in countries that had received in-kind aid donations from China. After completing the evaluations, GEI summarized the project results and what the Chinese government could learn from the experiences.

GEI researched and analyzed more than 30 climate-resilient in-kind aid projects and carried out field assessments in six countries: Nepal, Maldives, Tonga, Samoa, Uganda, and Ghana. We interviewed 5 suppliers of in-kind aid projects, Chinese embassies in 6 beneficiary countries, 6 relevant ministries within the countries, and 12 commissioned implementation organizations. We also conducted a questionnaire survey of more than 40 direct beneficiaries of the donations, including families, schools, hospitals, churches, and public sector organizations.

After carrying out the evaluation, GEI completed a report on the impact of the in-kind aid projects, taking 6 typical countries as examples. We summarized the main achievements and challenges of the project, while proposing related policy recommendations. We also produced a promotional video of the South-South Cooperation Project, focusing on the in-kind aid donated to Ghana, to provide an argument in support of increasing the impact of the project and the need to establish communications plans for such aid projects.

## Progress and Achievements

According to the evaluation, the South-South Climate Aid in-kind can reduce total energy consumption by about 46 million kilowatt-hours in 6 countries, which is equivalent to eliminating more than 32,000 tons of carbon dioxide emissions. We discovered that a successful project meets the following criteria:



**1)** Donated materials can be consolidated into relevant ongoing projects in the beneficiary country or initiatives implemented by the current government. Types and parameters of the materials are decided after supply and demand are researched in order to meet the actual needs.
**2)** The project is implemented by a professional organization, which is the only entity in charge of management, maintenance and distribution of materials with a justifiable distribution plan bearing all related costs. The distribution of materials can therefore can be managed efficiently.
**3)** Beneficiary countries are able to properly promote the project by collecting data and statistics for the purpose of managing information, identifying the outcome and increasing the impact of the project.
**4)** The project implementation entity in the beneficiary country provides valid policies, funds and technical support for later maintenance of the materials in order to maximize equipment operating time and the impact of the project.

We also discovered that some aid projects have revealed some issues of concern, regarding which, GEI puts forward the following suggestions to improve project follow-up:
**1)** To enhance the design and the overall structure of the project and strengthen relevant management and implementation mechanisms.
**2)** To improve the preliminary design of the project and reinforce the evaluation of project approvals.
**3)** To establish an evaluation and feedback mechanism and improve project quality.
**4)** To increase “soft” outputs (such as match funds for capacity building, distribution, and repair and maintenance) to match “solid” outputs (the equipment).
**5)** To increase publicity of project results and information transparency to generate more impact and accessibility.
**6)** To expand strategies of in-kind aid and promote diversity among project implementation entities.
**7)** To explore aid financing models, to engage private sector investment, and to build and develop partnerships.

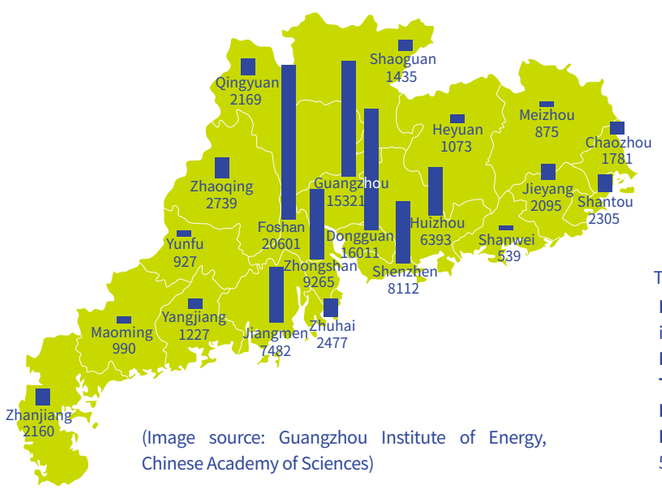
# Practice and Promotion of Renewable Energy Planning Tools in Guangdong Province, China

## Problems and Challenges

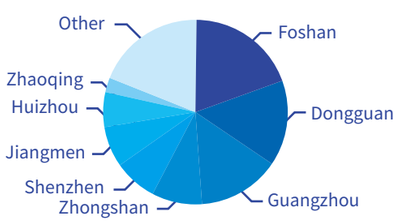
Developing renewable energy is an area that must be strengthened in order to create solid economic and climate change resilience development frameworks. This is an issue that is particularly important in China, along with finding solutions to curb pollution and guarantee energy security. As one of the richest provinces in China, Guangdong consumes a large amount of disposable products every year. Guangdong is rich in renewable resources, which are generally underused as yet. Piloting renewable energy planning tools in Guangdong can help the province to analyze and identify existing problems in renewable energy development and to provide a strategic reference for renewable energy development in this area.

## Our Work

**1)** We developed a roof identification and analysis system in Guangdong Province, covering data for roofs that have an area of 2000 square meters or more, in 21 prefecture-level cities, municipal districts, county-level cities and counties in the province. Specific locations of the roofs were included among the data, too. The roof data include the number of roofs, roof areas, potential for installing equipment and potential for producing energy. GEI identified that there are 105,977 viable roofs in Guangdong Province, with a total area of 653 square kilometers, and a total technical potential of 55.5GW, which can generate 58.9 billion kWh of energy.



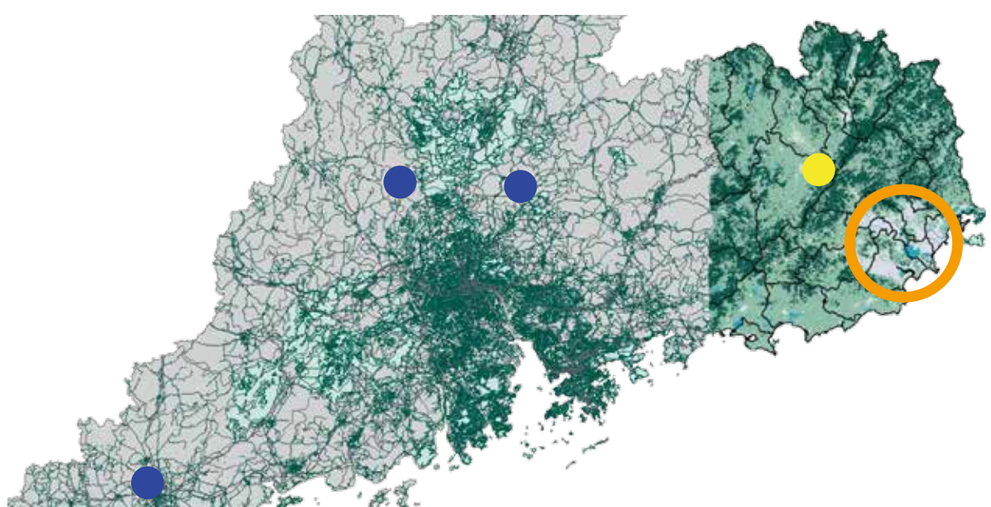

(Image source: Guangzhou Institute of Energy, Chinese Academy of Sciences)




Total number of roofs in Guangdong Province: 105977

**Roof resources in the region:** (2000m2Above industrial and commercial roofs)
**Number of roofs:** 105977
**Total area:** 65309 Million square meters
**Potential PV installed capacity:** 55512 Megawatt
**Potential photovoltaic annual power generation:** 5890826 Million kilowatt

**2)** After completing an overall evaluation report on biomass resources in Guangdong Province in 2018, in 2019, GEI conducted a study on biomass power plants in Guangdong and examined its current major biomass/waste energy generation projects. Some concerns about current biomass power plants in Guangdong that arose included fuel sources, procurement and transportation of fuel, actual project implementation and some other existing problems. Based on the data and information collected during the study, the research team chose Meizhou as the site of the Guangdong Biomass Energy Generation Project, with a maximum installed capacity of 50MW.



The blue dots are the operating biomass power plant; the yellow dot is the new planning site; the circle is Chaoshan urban area, close to the new site, which can provide a large amount of biomass (photo source: Guangzhou Institute of energy, Chinese Academy of Sciences)

## Progress and Achievements

GEI also completed an evaluation report on solar energy resources in Guangdong Province and a Template of Implementation Document (TID), developed the Guangdong roof identification and computer analysis system, and finished the work of roof identification and analysis in Guangdong. The analysis results will be presented in the first half of 2020.

Subsequently, GEI will work with Guangzhou Institute of Energy Conversion and the Chinese Academy of Sciences to strengthen cooperation and communication with China's neighboring countries and regions, and jointly promote the practice of renewable energy planning tools.

The places marked in red are operational biomass power plants; the yellow area is the new project site; the circle indicates the Chaoshan urban area close to the new site that is able to provide a large amount of biomass. (Image source: Guangzhou Institute of Energy, Chinese Academy of Sciences)

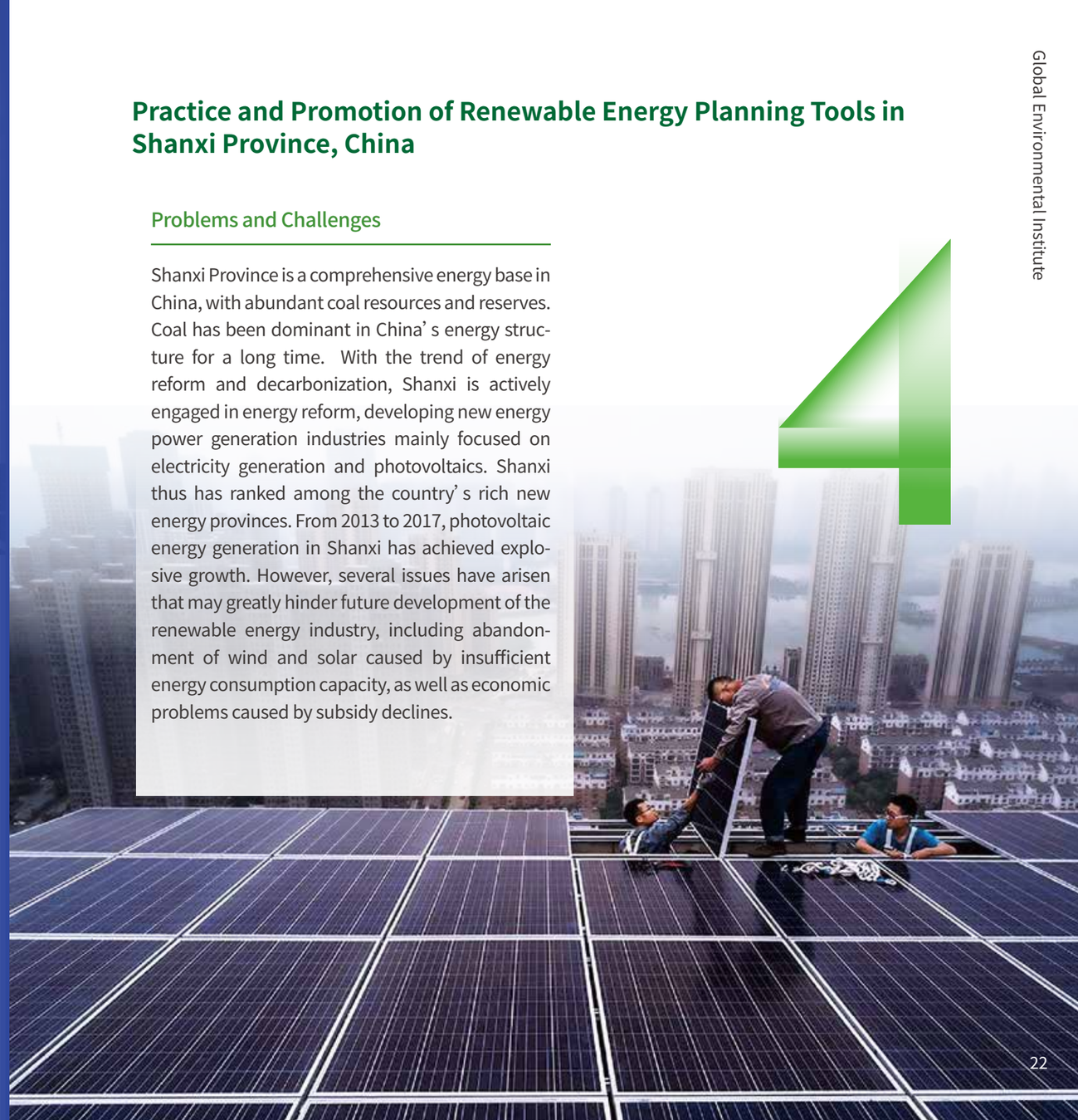




# Practice and Promotion of Renewable Energy Planning Tools in Shanxi Province, China

## Problems and Challenges

Shanxi Province is a comprehensive energy base in China, with abundant coal resources and reserves. Coal has been dominant in China's energy structure for a long time. With the trend of energy reform and decarbonization, Shanxi is actively engaged in energy reform, developing new energy power generation industries mainly focused on electricity generation and photovoltaics. Shanxi thus has ranked among the country's rich new energy provinces. From 2013 to 2017, photovoltaic energy generation in Shanxi has achieved explosive growth. However, several issues have arisen that may greatly hinder future development of the renewable energy industry, including abandonment of wind and solar caused by insufficient energy consumption capacity, as well as economic problems caused by subsidy declines.



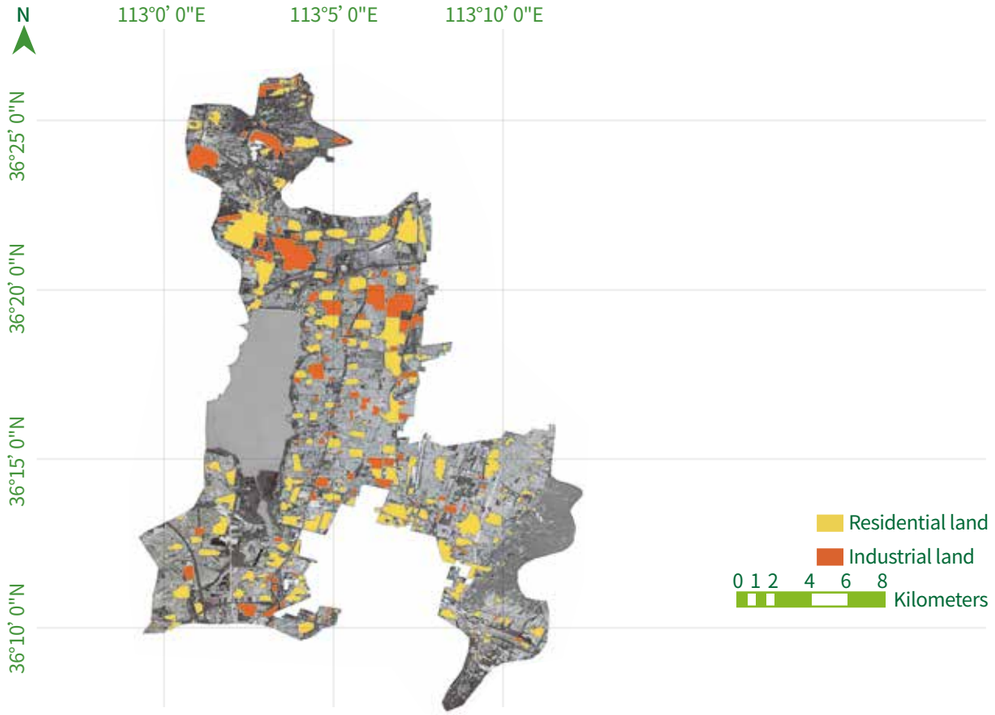
## Our Work

**1)** In 2019, we analyzed the energy resources and reserves in Shanxi and also evaluated their development and utilization. We specifically studied reserves and utilization of coal and cabled methane within the province, examined the energy generation and transmission operations, analyzed the distribution of renewable energy and assessed the trend of future energy development in Shanxi.

**2)** GEI innovatively applied geographic information system (GIS) technology to carry out and complete the analysis of land use types in Shanxi Province. Also using GIS, we assessed and identified suitable areas and regions for developing photovoltaic technology.

**3)** Based on the compiled statistics and analysis results, we completed an evaluation of photovoltaic resources available on the roofs in the suburbs of Changzhi City using GIS to analyze the functional division of photovoltaic-available area in Changzhi' s suburbs.

**4)** Used HD satellite imagery technology to analyze roofs of buildings in order to calculate roof solar potentials.



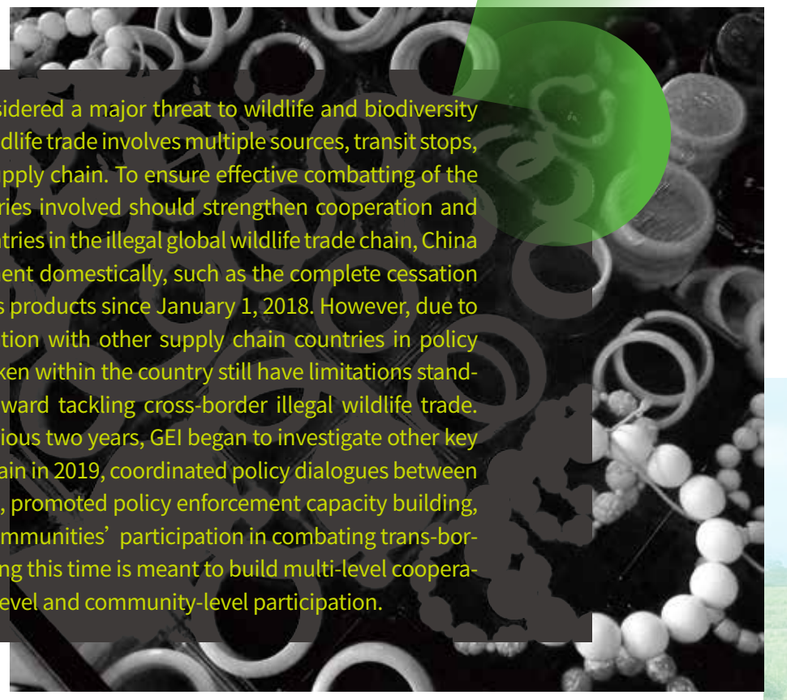

Photovoltaic Available Areas in Changzhi Suburbs According to GIS Evaluation (Image source: Shanxi Eco-environmental Research Centre)

## Progress and Achievements

**1)** We completed Renewable Energy (Photovoltaic) Planning in Shanxi Province - Taking the Suburbs of Changzhi City as an Example, the report for the Shanxi project, and hosted a report conference in 2019, having gained support from managers from relevant government departments and experts from Shanxi Province.

**2)** Based on the results achieved in 2019, GEI will continue to cooperate with Coshare Environment in 2020 to implement a project called "Research on PV Industry Development Policy and Financing Model Evaluation Study - Taking Shanxi Province as an Example."

# Promoting China' s Policy Enforcement Cooperation with Other Countries to Combat the Global Illegal Wildlife Trade Chain



## Problems and Challenges

The global illegal wildlife trade is considered a major threat to wildlife and biodiversity conservation worldwide. The illegal wildlife trade involves multiple sources, transit stops, and consuming countries along the supply chain. To ensure effective combatting of the illegal global wildlife trade, the countries involved should strengthen cooperation and take joint action. As one of the key countries in the illegal global wildlife trade chain, China has conducted strong policy enforcement domestically, such as the complete cessation of production and sales of ivory and its products since January 1, 2018. However, due to the lack of coordination and cooperation with other supply chain countries in policy enforcement, the actions China has taken within the country still have limitations standing in the way of greater progress toward tackling cross-border illegal wildlife trade. Based on domestic work over the previous two years, GEI began to investigate other key countries in the illegal wildlife trade chain in 2019, coordinated policy dialogues between China and other stakeholder countries, promoted policy enforcement capacity building, and explored case studies of border communities' participation in combating trans-border illegal wildlife trade. Our work during this time is meant to build multi-level cooperation that includes country-level, local-level and community-level participation.

## Our Work

Conducting policy analysis: GEI analyzed the current situation of illegal wildlife trade, related policies and regulations in Myanmar, Cambodia, Cameroon, and Congo (Brazzaville) through interviews, data collection and literature analysis. We subsequently published a report covering our research and analysis.

Promoting policy dialogue: In order to enhance cooperation between China and Myanmar in protection and management of wildlife, GEI coordinated and participated in the bilateral dialogue between the China National Forestry and Grassland Administration and Myanmar' s Forestry Department, Ministry of Natural Resources and Environmental Conservation (MoNREC-FD) during CITES CoP18 in Geneva. GEI also attended the first meeting of the China-Myanmar Forestry Working Group in Ruili, Yunnan. Finally, GEI is assisting in the early stages of facilitating China-Cambodia, China-Cameroon and China-Congo dialogues to deepen cooperation on combating wildlife trade. These collaborations will hopefully occur within the next two years.

Enhancing policy enforcement cooperation: GEI and Nanjing Forest Police College have reached an agreement to cooperate in launching policy enforcement training throughout the next three to five years to tackle wildlife crime. At present, based on international and domestic training materials and the needs of trainees of policy enforcement training, GEI has worked with Nanjing Forest Police College to create a preliminary framework of the policy enforcement training materials. In 2020, Nanjing Forest Police College will officially launch an international training program on policy enforcement against wildlife crime. GEI will contribute through inviting key national policy enforcement staff to take part in the training course.

## Progress and Achievements

As of the end of 2019, GEI had already:

- Published a research paper titled "Current Situation and Policies on Wildlife Smuggling in Cameroon and the Republic of the Congo - Basic Research." Additionally, the first draft of a basic research paper on the current situation and policies of wildlife smuggling in Myanmar and Cambodia are currently in the works.
- Facilitated an agreement between Chinese and Myanmar government authorities to add wildlife protection and management cooperation as an additional component of their MoU on forestry cooperation. We also finished an initial draft of a wildlife protection and management cooperation agreement.
- Assisted Nanjing Forest Police College in compiling a framework of policy enforcement training materials and created a work plan for the research going forward on needs for improved international training programs, public communications and recruitment.
- Developed a work plan for pilot projects to engage China-Myanmar and China-Laos border communities in combating illegal wildlife trade.
- In the next 1-3 years, GEI will continue coordinating policy dialogues between China and stakeholder government authorities of other countries including Myanmar, Cambodia, Cameroon, Congo, and others. We will also assist in facilitating the signing of bilateral cooperation agreements to fight against illegal wildlife trade. We will implement community participation projects in border areas to tackle illegal wildlife trade, support Nanjing Forest Police College in inviting key national policy enforcement staff to enroll in the international policy enforcement training programs to stop wildlife crime. Lastly, we will explore coordination mechanisms for cross-border policy enforcement via seminars, regular information exchanges on policy enforcement, in addition to other possible strategies.

# China-Africa Forest Governance

## Problems and Challenges

China' s foreign direct investment has been growing constantly over the past 15 years, with investment stock increasing from US$1 billion in 2014 to US$120 billion in 2016. Of this amount, investment in Africa only accounts for 3%, although China has been increasing investment in Africa in recent years. This increase in Chinese investment has become one of the key factors stimulating economic growth in many African countries.

Foreign investment in Africa, including Chinese investment, is mainly concentrated in industries such as infrastructure, mining, agriculture, and forestry. Each of these industries involves land use, and as a result, each is more likely to result in environmental problems, such as forest degradation. However, forest governance systems in most African countries still lack sustainable management frameworks and face serious forest challenges, including illegal logging. At the same time, the rapid development of the infrastructure, mining, agriculture and forestry industries can easily pose a major threat to the sustainable management of local forests.

To address the challenges of forest degradation driven by accelerated economic growth in Africa, GEI is committed to assisting China in enhancing cooperation with African countries regarding forest governance. We aim to collectively enable these countries to effectively respond to forest degradation challenges while strengthening economic and trade exchanges.

## Our Work

GEI selected 5 countries in Central and Western Africa to launch forest-related projects: Cameroon, Congo, Gabon, Ghana, and Liberia. Through data collection and literature analysis, we learned about each country' s forest conditions and the major industries within each country in which China had invested. Through this research, we gained a deeper understanding of the foreign investment in infrastructure, mining, agriculture and forestry from China and other countries. We were also able to identify the challenges embedded in these investments, in terms of sustainable forest development. We gained this information through interviews and surveys with local government bodies, research institutions and civil society organizations.

In September 2019, GEI organized the first China-Africa Sustainable Forest Governance, Investment and Sustainable Development Platform Conference in Cameroon, which promoted exchanges between Chinese and African governments, enterprises, and social organizations in the host countries. The initiative also explored cooperative solutions to forest degradation and sustainable forest management.

## Progress and Achievements

- We completed a report draft of Basic Research on China' s Investment, Trade and Forest Management in Five African Countries, based on desk research and interviews.
- We investigated the knowledge and needs of local civil society organizations and stakeholders in Cameroon and Congo (Brazzaville) on Chinese investment and related environmental and social policies, having designed trainings accordingly.
- Through the China-Africa Platform conference, we promoted exchanges between Chinese and African government departments, research institutions, enterprises and civil society organizations on issues related to forest governance and sustainable development. During the conference, we also discussed potential cooperation between Chinese and African stakeholders.

# Enhancing China' s Infrastructure Construction and Sustainable Development of Investment in the Mekong Basin

## Problems and Challenges

The rapid economic growth in the Mekong region has boosted the demand for infrastructure, which has drawn the attention of many countries, including China, to invest in infrastructure construction in the region. Over the next decades, the Belt and Road Initiative, the Lancang River-Mekong River cooperation and other mechanisms will aid Chinese enterprises in expanding cooperation with Mekong Basin countries and in continuing to invest in infrastructure projects including roads, railways, and hydropower. However, due to a lack of management and supervision capacity within Mekong countries of infrastructure projects, these projects often carry with them social and environmental risks.

To manage the environmental and social risks brought by the infrastructure construction in Mekong River Basin, GEI conducts research on policies related to sustainable development of China' s overseas investment. Based on this research, we propose policy recommendations to help in establishing unified infrastructure and environmental standards in the Mekong region. Moreover, GEI intends to improve the capacities of financial institutions and enterprises concerning infrastructure construction and investment in sustainable development through developing policy and risk analysis tools.





## Our Work

GEI collaborated with the Policy Research Centre for Environment and Economy and China' s Ministry of Ecology and Environment to evaluate the policy effect of the "Guidelines for Environmental Protection in Foreign Investment and Cooperation" jointly issued in 2013 by China' s Ministries of Commerce and Environmental Protection. During this evaluation, we visited enterprises such as Dongfang Electric, Three Gorges, and China Communications Construction to examine the challenges that an enterprise may face in implementing different projects related to overseas infrastructure construction and investment, in terms of environmental and social management.

In addition, GEI is in the process of developing an ecological environmental risk assessment maps toolkit, in order to provide financial institutions with rapid and quantitative analysis for the investment decision-making process for overseas infrastructure projects. The new tool incorporates various ecological indicators into the investment decision-making model, evaluates the impact of the project on environment and neighboring communities and provides references for early investment decisions.

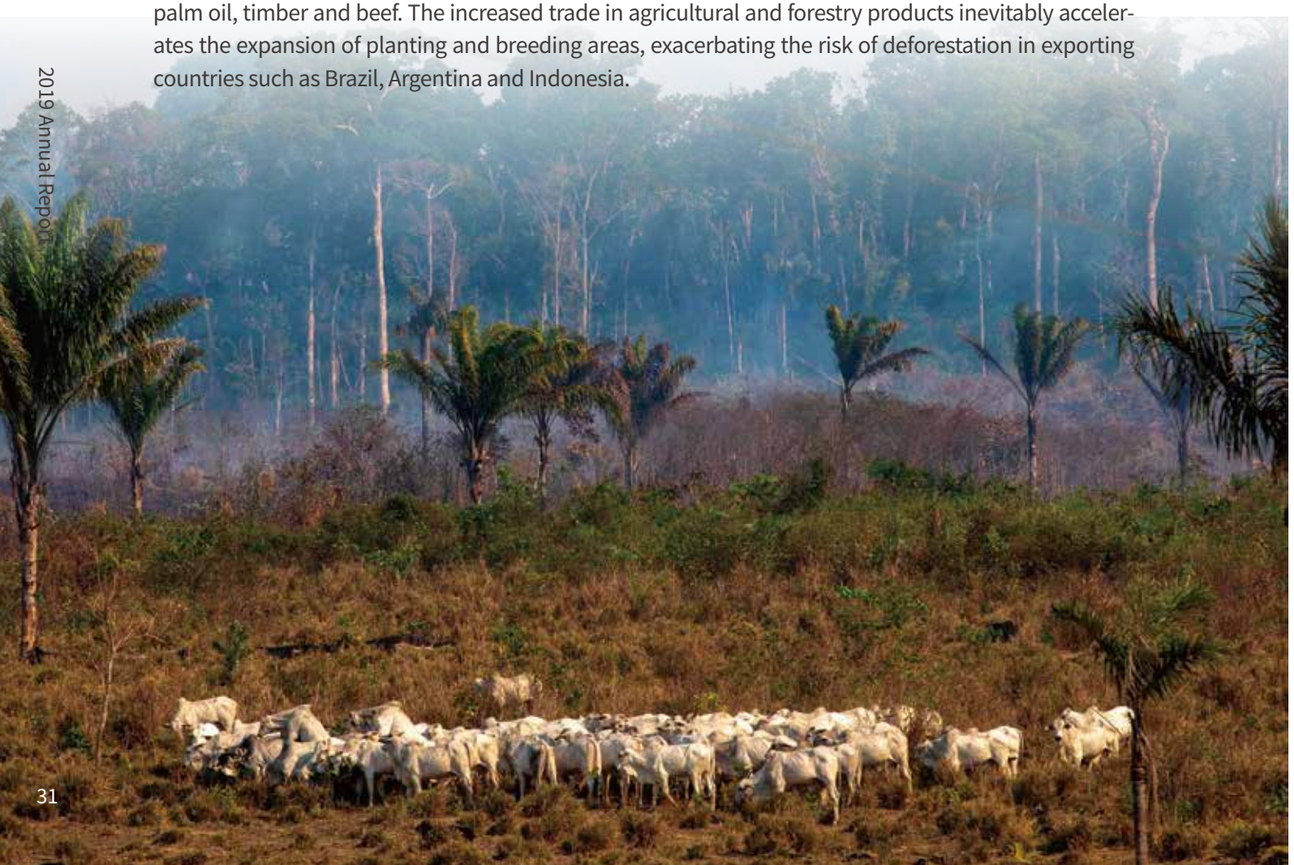
## Progress and Achievements

- We compiled "China Overseas Investment Sustainable Practice Case Studies" through data collection, literature research and project analysis.
- We evaluated the implementation of the "Guidelines for Environmental Protection in Foreign Investment and Cooperation" issued in 2013 through literature research, interviews and comparative research and finished a policy evaluation analysis report.
- Based on the case studies and evaluation analysis report, we revised the "Guidelines for Environmental Protection in Foreign Investment and Cooperation", in which environmental guidelines for financial institutions engaged in infrastructure investment were added and climate change indicators were also included.
- We developed a demo version of the environmental risk assessment map, setting Laos as the geographic scope of the project trial. The demo version is currently in the testing phase and is expected to be introduced to financial institutions for trial soon.

# Promoting China’ s Sustainable International Trade in Agricultural and Forestry Products

## Problems and Challenges

Agricultural production, especially that of food crops and wood derivatives, is the main cause of deforestation worldwide, resulting in the loss of 130 million hectares of forests between 1990 and 2016. 80% of the deforestation that occurred within this period was related to the trade in agricultural commodities, Over the past two decades, as one of the major commodity import countries, China has been playing an increasingly important role in global commodity trade involving products such as soybeans, palm oil, timber and beef. The increased trade in agricultural and forestry products inevitably accelerates the expansion of planting and breeding areas, exacerbating the risk of deforestation in exporting countries such as Brazil, Argentina and Indonesia.







In order to address the risks that trade in agricultural and forestry products pose to deforestation, biodiversity and climate change, we conducted research on international trade in soybeans, palm oil, wood and beef. We set out to explore the possibility of reducing the risk of deforestation with the role of consumers in mind, promoting their engagement in policy-making and business practices. We thus aimed to reduce the risks of deforestation from the producer side, via responsible consumption on the consumer side of the supply chain.

## Our Work

In 2019 GEI completed a report about future development trends for China’ s sustainable trade for The Sustainable Trade Initiative (IDH). The agricultural and forestry products that the report focused on include soybeans, palm oil, timber and beef.  The report analyzes China’ s agricultural and forestry product imports, exporting countries and consumer groups, stakeholders, sustainable trade-related policies and the forecasted development for the next decade. In its analysis, the report not only provides support for China’ s international sustainable trade in agricultural and forestry products, but also provides data for basic analysis of future agricultural product trade in Latin America. Since this report was released, GEI has been conducting research on EU and member states’  solutions and policy measures to reduce environmental damage in producing and supplier countries.

## Progress and Achievements

Based on our research on international sustainable trade in four agricultural and forestry products (soybeans, palm oil, timber and beef), we learned the following:

Soybeans: Over the past two decades, global soybean trade concentration has increased. The United States, Brazil and Argentina made up 82% of the world’ s total soybean production in 2017 and 2018, and during that period, these three countries exported 89% of the world’ s soybeans. China is currently

the largest importer of soybeans, with 62% of global imports in 2017 and 2018. In 2017, Brazil and the United States were the main exporter countries of Chinese soybeans, while China-US trade friction in 2018 caused a sharp decline in US soybean imports, with Brazil' s soybean imports accounting for 86.6% of imports during that year. Referring to forecasts, the growth of global soybean trade is expected to slow significantly in 2018-2027, while China' s soybean import demand and the volume of imports are forecast to remain stable.

Beef: In 2018, China imported about 1.47 million tons of beef, making up 17.04% of the total global beef imports, having surpassed the United States to become the world' s largest beef importing country. Current projections indicate that beef consumption needs will continue to increase in the next decade.

Palm oil: China is the world' s third largest importing country and fourth largest consuming country of palm oil. China' s imports of palm oil are mainly from Indonesia and Malaysia, accounting for 63.38% and 36.61% of the total imports respectively. To deal with trade frictions with the US, China has implemented a policy of diversifying oil sources and reducing soybean imports, which has led to increased demand for palm oil. It is estimated that China' s total palm oil imports in 2020 will continue to rise to 6.7 million tons.

Timber: China' s annual timber consumption exceeds 600 million cubic acres, but per capita annual consumption equals only 60% of the world' s per capita level, while the market development potential is still huge. Although China is making efforts to increase domestic supply, timber resources within the country remain insufficient.

Through this assessment and analysis, we gained better insights into international trade in agricultural and forestry products. Moving forward, we will work with governments and institutions in China, Europe and Latin America to explore how to promote sustainability in the trade of these products.







## Community Ecological Service-based Economic Development Phase II

### Problems and Challenges

In 2017, GEI launched a project called "Practice and Promotion of Ecological Service-based Economic Development Model in Western China Communities," carried out capacity building for 19 NGOs and research institutions in western China and conducted an investigation and research on ecosystem service-based economic rationale using Qinghai as a model in a joint effort with Renmin University of China. However, our work range was limited due to insufficient time and financial restrictions, and further efforts are necessary concerning ecosystem service-based economic rationale and development pattern, construction of national park-based nature reserves and public participation. Therefore, we hope to sustain research and practice on an ecological service-oriented economy in China by phases to provide forward-looking policy recommendations and reference for socio-economic development and environmental protection.

### Our Work

In 2019, we evaluated 19 community projects in the first phase of the project and conducted comparative research on development patterns of ecological or environmental economies domestically and abroad. This research looked at basic elements for an ecological economy, operating mechanisms, principles, a cost-benefit analysis and evaluation methods. The first report draft was completed at the end of November 2019, in collaboration with a team led by Professor Huanguang Qiu of Renmin University.

In the meantime, we have also cooperated with the management departments of national parks and other protected areas to launch projects for different ecological service-oriented economies, including the following efforts:

- We co-organized a 4th training conference on Sanjiangyuan CCCA and Ecosytem-based Economy with the local government of Maozhuang County and Benkanglimin cooperative and engaged experts during a visit along different ecotourism routes.
- At the invitation of Qilian Mountain National Park Administration, we visited communities and selected Laolongwan Village and Guomi Village as demonstration project sites. Experts were organized to investigate the socio-economic situation and tourism resources of the project sites and come up with ecotourism strategies. In 2019, GEI and Qilian Mountain National Park jointly launched a project called "Demonstration of Community Development around Qilian Mountain National Park Area" and signed a partnership agreement.
- We invited the communities of Maozhuang in Qinghai Province, in addition to Guanba and Laohegou of Sichuan Province, in the first Training Conference on CCCA and Ecosystem-based Economy in the Inner Mongolia region in Chagannaner Town. During the training, attendees shared relevant experience and project results.

## Progress and Achievements

**Improving the basic theory of an ecological service-based economic development model**

In 2019, GEI worked with Renmin University of China to complete the first draft of a publication titled Research Report on the Theory and Practice of Eco-Service Economy. In the publication, we state that after practical exploration, we have determined that the ecological service-based economy has three main development patterns, which are government-centered, community-centered and social enterprise-centered. We also conclude that the major factors restricting the development of an eco-service economy include the inadequacy of relevant laws and regulations, the limited role of the public, difficulty of ensuring community participation in environmental management and the neglect of environmental protection responsibilities by stakeholders. We hence offer the following suggestions:

- Improve the legislation related to the community co-management system;
- Train the public and establish community compensation and incentive mechanisms;
- Strengthen communication with the pilot community;
- Raise public awareness of environmental protection and set up a feedback mechanism.

**Enhancing the supply capacity of ecological products in national parks and other protected areas**

- According to the outcome of the field study in Maozhuang County, we produced a report called Research on Ecotourism Resources in Maozhuang, Qinghai Province and its Surroundings, which elaborated the basic situation of communities in Maozhuang. Additionally, we compiled Research and Demonstration of Community-based Ecotourism in Maozhuang County and planned renovations to the Maozhuang Ecotourism Development Centre.
- We published the Qilianshan National Park Rural Development Plan. This publication specified the policy background of the situation, the current status of the two communities, the project' s context and objectives, activity planning and rural governance. In this context, we employed case studies of national parks in the US and Australia to help develop ideas to formulate an implementation plan.

# Feasibility Study Report on Sustainable Forest Management in Xining, Qinghai Province

## Problems and Challenges

Through China' s Belt and Road Initiative (BRI), which aims to promote development within the countries along the route, northwestern China will become a new key location for the Eurasian continent. Xining, the capital of Qinghai Province, will also transform from the most disadvantaged city in China' s "Going Global" policy to a strategic city for internationally-facing political and economic development. These changes caused by the BRI have contributed to Xining' s socio-economic development, as well as its environmental protection.

Since 1989, Xining has carried out afforestation projects in the southern and northern mountains surrounding the city. Through these projects, the city has now established mountain forests with a coverage rate of 71.84%. This result has significantly improved the ecological environment of Xining City, contributing to a reduction in wind and sand, curbing of soil erosion and improvements in biodiversity levels. Despite the progress Xining has made through its afforestation efforts, new issues of excessive forest density in the mountains' green areas, monoculture and lagging development of the forestry industry now reveal that Xining urgently needs to tend the forest land and conduct sustainable forestry management.

## Our Work

In August 2019, GEI won a bid to conduct a feasibility research project called "Qinghai Sub-project of the Ecological Development and Protection in Regions along the Silk Roads Funded by Asian Development Bank." We put together a team of experts, including Professor Mingcheng Ma from Qinghai University, Professor Xiaoyi Wang of the Chinese Academy of Social Sciences and his postdoctoral fellows, Dr. Guozheng Wu and Dr. Changjiang Du of the National Science and Technology Information Corporation (Beijing), Baoliang Wang, the senior engineer of Chinese Academy of Environmental Sciences, and Jialong Zhang, a Xining afforestation expert. In order to carry out the research for the final report, the expert group conducted research and field studies on the local socio-economic situation, the forest condition, and forest paths that needed to be improved within the project area. Thus far, the third draft of the research report has been completed and was reported at the kick-off meeting of the "Asian Development Banks' s Project of Ecological Governance and Protection in the Region along the Silk Roads." The views of experts at the meeting were taken into account, and based on these new opinions, the draft report was accordingly revised.

## Progress and Achievements

GEI and a team of experts jointly completed the third draft of the Feasibility Study Report on the Qinghai Sub-project of the Ecological Governance and Protection Project along the Silk Roads of the Asian Development Bank and have drawn the following conclusions:

- The project can effectively protect and restore forest vegetation, helping considerably to improve the ecological environment around Xining City. Additionally, this project will create an enabling investment environment, which plays a key role in the sustainable socio-economic development of the city.

- The project builds capacity within the project area in conservation management, scientific research and monitoring, public education facilities, infrastructure construction and community co-management. It will promote the development of public education as it progresses.

- The project can adequately safeguard forests and landscape resources, while conserving biodiversity, improving the ecological environment and enhancing sustainable forestry development.

- Due to the corresponding local government policy support, marginalized populations, especially women and children, will benefit from this project. Moreover, ethnic minorities will also be beneficiaries, which is conducive to greater national unity and stability.

Through our analysis, we believe that the “Qinghai Sub-project of the Ecological Governance and Protection Project along the Silk Roads of the Asian Development Bank” has a reasonable overall layout, an appropriate construction scale, adequate resources as well as significant ecological and social benefits. The design of the project is thorough and substantive and has been deemed both necessary and feasible. GEI hopes that the project is approved as soon as possible and that resources are allocated so that the project can be completed in the near future.





# Project of Mountain Community Climate Smart Livelihood Space Construction

A row of mountains on the left and a row of mountains on the right, with a slit above the head and a ditch on the ground” (A vivid description of the local geographical environment from a local of Fugong)

## Problems and Challenges

Fugong is situated in the middle of Nujiang Grand Canyon in the Hengduan Mountains in northwestern Yunnan, which is a town that has received national focus on several facets of its poverty reduction work within a border area (China-Myanmar), with an ethnic minority group (Lisu people), a dominant local religion (Christian), relatively high levels of poverty (46%) and a landscape filled with mountains and valleys (85% of total local landscapes). The town is facing many challenges including:

- The original open fire stove not only consumes firewood inefficiently, but also has great hidden dangers. Meanwhile, it harms the health of women, the elderly and children who are in the kitchen for a long time. It is urgent to clean and transform these mechanisms while retaining traditional practices.

- The town is located along China' s border and is deeply impoverished. The limitations of topography and geographic location with a single cash crop business model not only pose a threat to the conservation of the rich local biodiversity resources, but also exacerbate the risk of major disasters, including landslides and debris flows.

## Our Work

GEI and the International Centre for lntegrated Mountain Development (ICIMOD) filed a joint application for a small-scale project under the United Nations Global Environment Facility (GEF) — "Climate Smart Livelihood Space Construction Project in the Nujiang Grand Canyon Mountain Community in Northwest Yunnan." With support from local governments, led by the Nujiang State Forest and Grass Bureau and Fugong County Forest and Grass Bureau, GEI has communicated and consulted with multiple stakeholders, including other partners under the GEF Small Grants Program (SGP) to explore new ways and models for locally driven development of the region.

Through participation in activities such as in-depth community research, we have worked with clean cook stove designers, political leaders and community representatives from the local "three counties and four villages" that fall within the project' s scope to study and design energy-saving wood stoves based on regional traditions and culture. We have also carried out pilot activities related to energy saving and emission reduction through project subsidies and complementary enterprise inputs. Based on the condition of natural resources in "three counties and four villages" in Fugong, GEI partnered with universities and other research units in Yunnan, in addition to enterprises and agricultural development department organizations, to discuss the development of "block farming." These efforts are being carried out in the context of the government' s goals to increase energy development and reduce poverty alleviation, Important components of "block farming" include multi-functional firewood forests, eco-tourism development and sustainable alternative livelihood and biodiversity conservation. Related issues, including cross-border ecological protection, are also addressed through the initiative.





## Progress and Achievements

During the implementation of the project, we have had assistance and support from leaders at all levels of the local government including from Nujiang Prefecture and Fugong Town, which has laid a foundation for continued project success and further development.

In consultation with the government, local representatives and enterprise representatives in the early stage of the project, we finished the design of the "rural heating table stove and firewood and coal driven blast furnace." The new stoves are based on local lifestyle and include elements of Lisu culture. 110 families were selected for this pilot project through participatory approach and complementary resources. The new energy-saving stoves were all distributed by November 2019 to the 110 pilot households that were trained with instructions for use and installation. In addition to meeting the needs of villages, the newly designed stoves have also been recognized by and received positive reviews from local energy development departments and news media, which may further drive development of the project from the pilot phase to large-scale replication.

In the next step, we will shift our focus from living space improvement to increasing productivity, in line with the government' s eco-tourism strategy and rural development plan to launch livelihood improvement projects. They aim to include projects such as under-forest planting and other "block farming" demonstrations, as well as eco-tourism design. At the same time, we will also provide villagers with capacity building and training of ecological environmental awareness and sustainable livelihoods, in order to strengthen their self-development abilities and capacities to cope with disaster risks. These trainings will simultaneously enable them to plan for future sustainable community development once the project is completed.

# 12 Launch of CCCA Project in Myanmar Biodiversity Hotspots

## Problems and Challenges

Myanmar is rich in biodiversity and natural resources, and has a wide range of ecosystems including tropical rainforests, deciduous forests, arid forests and mountain forests. More than 100 species of globally endangered animals call the ecosystems within Myanmar their home. Myanmar also has 159 key hotspots for biodiversity and several conservation corridors nationwide and yet is one of the countries most affected by climate change and the third most deforested country by percentage. Due to inadequate national management and environmental protection capabilities, rapid economic growth has presented a great threat to Myanmar' s biodiversity. Moreover, about 70% of Myanmar' s population lives in rural areas, entirely dependent on natural resources. Unrestricted use of natural resources (including poaching, cutting firewood and reclaiming farmland, etc.) is another important factor that has led to the degradation of Myanmar' s ecological environment.

## Our Work

Since 2015, GEI has been collaborating with the Forestry Department of Myanmar' s Ministry of Natural Resources and Environmental Protection and four Myanmar-based NGOs (Ecosystem Conservation and Community Development Initiative (ECCDI), Community Development Action (CDAction), Myanmar Forest Association (MFA) and Myanmar Environment Institute (MEI)) to execute CCCA projects. Through this process, we have assisted the government and local communities in protecting the environment while exploring sustainable livelihood development.

In 2019, with the assistance of local agencies, we carried out an assessment of Myanmar CCCA projects. We visited 13 communities and 19 households, conducting interviews with 10 thematic groups and 5 local forestry departments. Based on this research, we prepared the Evaluation Report on Myanmar Protocol Protection Project. We also invited representatives from four other Southeast Asian countries to participate in the "Conference on Southeast Asian Community Protection Model" in Myanmar in order for countries to learn best practices from one another. The event focused on community protection activities and has initially established an NGO network for community protection in Southeast Asia. In November, we organized a meeting in Naypyidaw to announce the outcomes of the Myanmar CCCA projects, which government officials such as Dr. Nyi Nyi Kyaw, the Director of the Forestry Department and representatives of Myanmar NGOs and international NGOs attended.





## Progress and Achievements

- At present, two batches of Myanmar CCCA projects have been launched. We have cooperated with four Myanmar-based NGOs to establish 27 demonstration community projects in four regions / states in Myanmar and expanded the community protection area to 41,090.5 acres within multiple national protected areas, ASEAN heritage parks, and key ecological systems, such as International Wetland Convention (RAMSAR) wetlands.

- These projects help communities to develop sustainable livelihoods, including organic coffee cultivation, fruit tree planting, and livestock breeding. Through the projects, the annual income of participating families increased by about 17%. In addition, we have established 22 community funds with initial capital of about 60,000 US dollars, reaching more than 2,000 households. Community funds not only make livelihood choices for community members more flexible, but also increase communities' motivation to be involved in the project while also providing sustainable financial support for conservation activities.

- The project established a cooperation mechanism with four local forestry departments and conducted two CCCA trainings for the Myanmar government, research institutes and 7 NGOs, with 70 participants in attendance. At the same time, the project also introduced the concept of CCCAs to other countries in Southeast Asia. The Philippines, Indonesia, Cambodia, Vietnam, Myanmar and China were also invited to join the discussion on how to adapt the CCCA model for global biodiversity conservation.





# Promotion of Biodiversity Conservation Partnership and United Nations CBD Conference


## Problems and Challenges

In 2020, the 15th Conference of the Parties (COP15) of the United Nations Convention on Biological Diversity (CBD) will be held in Kunming, Yunnan Province, China. The event will formulate a new framework for global biodiversity and more ambitious conservation goals for the next decade. According to the consultation documents of the parties of the Convention, CBD plans to invite the parties and non-signatory governments to consider building commitment for biodiversity conservation according to national circumstances and on a voluntary basis, either individually or collectively. While the participation and contributions of non-state entities are increasingly valued, the protection of civil protected areas faces various issues, such as unclear legal protection, inadequate governance mechanisms and insufficient governance capacity. Therefore, the following topics will be key in CBD COP15 discussions: how to consider and establish the legal status of civil protected areas during the reform of the Chinese

nature reserve system led by national parks; how to incorporate the independent contributions of non-state entities into the new framework and goals of CBD global action; how non-state entities make commitments; and how civil protected areas, including indigenous peoples and local communities, can be included in biodiversity conservation goals in the next decade.

## Our Work

### Launch of "Citizen Biodiversity Conservation Alliance (CBCA)"

In 2019, with the approval of the Ministry of Ecology and Environment, GEI and 8 other organizations, including the Paradise International Foundation and WWF, jointly created the "Citizen Biodiversity Conservation Alliance." Within the Alliance, GEI is responsible for organizing activities and actively participating in collaborative initiatives organized by China' s non-state entities to contribute to biodiversity goals.

### Launch of "Commitment Action Plan for Non-State Entities"

GEI worked with Chinese environmental and social organizations, international environmental organizations and international NGOs to explore how global society can make pragmatic commitments to the 2020-2030 global biodiversity conservation goals. Actions include: liaising with the Chinese Citizens Biodiversity Alliance and international conservation agencies in Africa, Southeast Asia and the US; organizing a series of meetings, discussions and consultations that keep up to date with the preparations for the COP; and tracking and sharing the latest news about the CBD COP15. During the event, GEI will release a report on the outcomes of our research on contributions of non-state entities. The report will have a special focus on the actions of non-state entities, especially environmental organizations and civil society, and will demonstrate the determination of global civil society to protect biodiversity.







## Progress and Achievements

So far, more than 50 civil society organizations that carry out conservation work nationwide have joined the Alliance in China. The Alliance is comprised of major domestic biodiversity conservation agencies and will engage Chinese civil society in protecting biodiversity. In light of these developments, GEI has established contact with international organizations in Africa, Southeast Asia and the US to jointly promote cooperation between non-state entities at home and abroad. In January 2020, with the support of the CBD COP15 Preparatory Committee of the Ministry of Ecology and Environment, in collaboration with the Institute for Science and Development of the Chinese Academy of Sciences and the Paradise International Foundation, GEI held a seminar at the Strategic Consulting Institute of the Chinese Academy of Sciences on January 12, 2020, where experts, scholars and representatives of the government and public benefit bodies were invited to speak. GEI will also host a series of activities on the theme of actions taken by Chinese non-state entities, focusing on globally hot environmental issues, promoting the establishment of global commitment from non-state actors concerning biodiversity, contributing to the new framework for biodiversity conservation after 2020, and highlighting the mutual responsibility and determination of global stakeholders in joint actions. In addition, GEI has submitted 7 biodiversity conservation case studies to the Ministry of Ecology and Environment and the Chinese Academy of Environmental Sciences.

# Sea Turtle Protection

## Problems and Challenges

Sea turtles, which have existed in the ocean for hundreds of millions of years, are the largest reptiles in the marine world. Known as “living fossils,” they are a crucial flagship and indicator species in the marine ecosystem, playing a vital role in maintaining the condition and biodiversity of the ocean. There are currently seven species of sea turtles worldwide, of which six are designated as endangered or vulnerable. There are five species of sea turtles in China, including the Green Turtle, Leatherback Turtle, Olive Ridley Turtle, Loggerhead Turtle and Hawksbill Turtle, all of which are in a dangerous stage of rapid decline in population size. Illegal fishing, fisheries bycatch, loss of important habitats (e.g. spawning grounds), pollution and marine litter all present considerable challenges and threats to sea turtle survival.





## Our Work

In 2019, GEI continued its work with the China Sea Turtle Conservation Alliance to work for sea turtle protection as a supporting organization. Our work on sea turtle protection is diversified both theoretically and practically. It engages communities in sea turtle protection practices, builds international exchange platforms, researches fisheries bycatch and fishing gear optimization, analyzes the current situation of sea turtles, promotes sea turtle-related publicity and education, and tracks sea turtles with GPS.

## Progress and Achievements

Establishing an international think tank: GEI cooperated with the Ministry of Agriculture and Rural Affairs to form an international expert advisory group for the China Sea Turtle Conservation Alliance, with expert members from Japan, the United States, Colombia, Myanmar, Australia and other countries. We established a sea turtle protection think tank to provide scientific advice and guidance for China regarding sea turtle protection and to offer a platform for exchanges between China and other countries.

Promoting international exchanges and cooperation: We organized a visit to Japan for members of the China Sea Turtle Conservation Alliance, visiting aquariums, communities and universities, to promote sea turtle protection exchanges and cooperation between China and Japan. Different areas of discussion were involved in the exchanges, including the topics of reducing sea turtle bycatch, science-based population research, daily management of aquariums and public communications.

Researching methods for reducing sea turtle bycatch: We completed a study on the reduction of sea turtle injury and bycatch based on interviews with members of the fishing community and gave advice about management and protection policies that was included in the “Sea Turtle Protection Action Plan (2019-2023)”. At the same time, we carried out research both nationwide and worldwide on optimizing fishing gear to reduce bycatch of marine flagship species, including sea turtles, and created an action plan to reduce bycatch.

Publicity and education for fishing community: We cooperated with members of the fishing community to conduct a community co-management study in order to encourage fishermen to reduce bycatch of marine flagship species by prioritizing sustainable development and improving the methods used in fishing practices. We initiated trainings for fishermen, managers of local fishery administrations and protected areas. We helped to raise awareness of marine conservation within the fishing community and among administrative managers via discussions of turtle identification, sea turtle rescue and protection of marine ecosystems.

# Mangrove Conservation

## Problems and Challenges

Mangroves are characterized as a type of woody plant community that grows between land and sea. Though they are not as massive as the trees in tropical rainforests, mangroves are deeply rooted in coastal wetlands and guard the lives of the hundreds of millions of people residing in coastal areas of China and Southeast Asia. They are home to thousands of sea creatures, including 31% of the world' s tropical fish, more than 50 million migratory birds, and marine flagship species, such as sea turtles. With a rate of carbon storage per square hectare that is 10 times greater than that of land forests, mangroves possess strong carbon storage capacities that play a key role in natural solutions to tackling global climate change. Furthermore, mangroves are also able to aid in the processes of sewage purification, riverbank conservation and wind and disaster risk reduction. In terms of flood resilience, mangroves are 1,000 times cheaper per kilometer to plant than building retaining walls. However, with the development of coastal areas, mangrove land conversion caused by factors including pond culture, pollution, climate change, among others, has caused fragmentation of mangroves. The mangrove ecosystem in China and all of Southeast Asia is facing serious threats.

## Our Work

Starting in the beginning of 2019, in cooperation with government and relevant departments, GEI has been carrying out research on conservation of the largest mangrove forest in China through joint efforts with communities. During this time, we also started the process of establishing the East Asia - Southeast Asia Mangrove Corridor Conservation Alliance. In our initial research, we examined effective models for communities to take part in mangrove protection from a community perspective. From a regional point of view, we explored ways of building the Alliance to promote efficient conservation of mangrove forests in all of East and Southeast Asia.


## Progress and Achievements

Community-engaged pilot study: Two pilot studies were launched with Gaoqiao and Leizhou, both in Zhanjiang, China to assess the feasibility of community engagement in mangrove conservation, covering how to reduce the impact of garbage on mangroves and the ecological impact of unplanned tourism on mangroves. We proposed a mangrove protection plan based on community participation, which has been considered a model for mangrove protection and restoration for China and other countries.

Guidelines for cooperative development of mangrove ecosystem restoration: Having integrated theory and practice, we provided comprehensive professional technical guidance on restoration objectives, principles, object selection, tree species selection, seedlings, seedling transportation and preservation, planting, returning ponds to forests, tidal flat afforestation, restoration of degraded mangroves, supervision and evaluation within mangrove ecosystems. Moreover, we provided scientific mangrove restoration guidance for frontline conservation workers. We also submitted the guidelines and proposals to the Restoration Department and the Ministry of Natural Resources of China and translated them into English to support our future work on conservation and restoration of the China-ASEAN mangrove ecological corridor.

Initiation of the East Asia - Southeast Asia Mangrove Corridor Alliance Platform: We established a Working Group for Global Climate Action on Mangroves in China, drafted conservation objectives of regional mangrove forests, and coordinated with mangrove conservation institutes in Southeast Asian countries such as Myanmar, Indonesia and Thailand to make a joint commitment to mangrove conservation.







# Coastal Wetland Conservation and Sustainable Community Development

## Problems and Challenges

Globally, the world' s oceans have been divided into 66 large marine ecosystems. The Yellow Sea Large Marine Ecosystem (YSLME) is one of them, covering an area of 400,000 square kilometers and shared by China, South Korea and North Korea. It provides an important site for migratory birds of the East Asian-Australasian Flyway (EAAF), offering winter shelter and serving as an important spawning ground for fish. The YSLME also provides food and medicine, as well as sources of income, for approximately 600 million people. However, through the impacts of anthropogenic activity and climate change, the YSLME is facing unprecedented threats, including habitat loss, overfishing, unsustainable aquaculture and pollution. Among the large marine ecosystems in the ocean regions of the world, the YSLME has been one of the most significantly affected by human development. The Yalu River coastal wetland, which is situated in Donggang City, Dandong, the most visited migratory bird site in the world, plays a key role in the YSLME.

## Our Work

GEI worked with Dandong Yalu River Estuary Wetland National Nature Reserve and Dadingzi Village of Donggang City to implement a project called “Promoting Community Engagement in Sustainable Development of Coastal Wetland Bird Protection and livelihood through Community Co-Management and Cooperation.” This project constitutes one of the Small Grants Programs for the Yellow Sea Large

Marine Ecosystem Phase II Project (also as the YSLME II Project) jointly launched by Global Environment Facility (GEF), United Nations Development Program (UNDP) and United Nations Office for Project Services (UNOPS) in 2019. This is the only project promoting community co-management through conservation agreement throughout the whole YSLME II Project. From six different angles, including community co-management, establishment of a scientific citizen monitoring group, public information and education, livelihood development, external communications and capacity building, the project enhances protected area management capacity and raises public awareness in local communities to take action. We hope that the project will fill in the gap in community cooperation to protect the Yalu River coastal wetland with joint effort from both the wetland national nature reserve and local communities.

## Progress and Achievements

Community co-management: We signed a tripartite management agreement with Dandong Yalu River Estuary Wetland National Nature Reserve and Dading Village. Additionally, we created a community conservation fund to help communities develop a local strawberry cultivation industry. For every 3 kilograms of strawberries sold by the community, 7% of the sales will be added to the fund to support local community conservation. Meanwhile, we signed a citizen-based ecological monitoring agreement with two citizens from Donggang to build a binding relationship on rights and obligations among all parties, encourage participation of communities and citizens in the conservation and reinforce patrol forces in protected areas. By contributing to community development, we managed to engage local residents through more active participation in conservation work.

Capacity building training: We completed capacity bundling trainings,





including two diversified comprehensive knowledge training seminars to raise awareness among communities about protected areas. We carried out strawberry planting trainings in the community, provided strawberry growers with technical guidance, including seedlings and pest control, and formed a group for growers to carry out further discussions related to strawberry planting. As a part of other trainings, we visited pilot villages of community co-management model in Sichuan, interacting with the State Forestry and Grassland Administration and visiting protected areas in Sichuan. We also visited protected areas in South Korea; and in both locations (Sichuan and South Korea) analyzed the high-quality management of protected areas, community engagement in conservation, nature-based education, and public information and education. The trainees in these sessions totaled 102, including 28 women.

Public information and education: We conducted a workshop about marine conservation in Dadingzi Village, having previously inspired the interest of 35 student participants in the importance of the ocean to human beings.

## Global Environmental Innovation Fund (GEIF)

The GEIF program was established in February 2016 with seed funding from the Blue Moon Fund to stimulate development of GEI projects, and explore and practice innovative environmental and development approaches, mechanisms and solutions worldwide. Key areas of concern are energy and climate change, conservation and community development, marine conservation and investment, and trade and the environment. The Fund has so far supported the following projects:

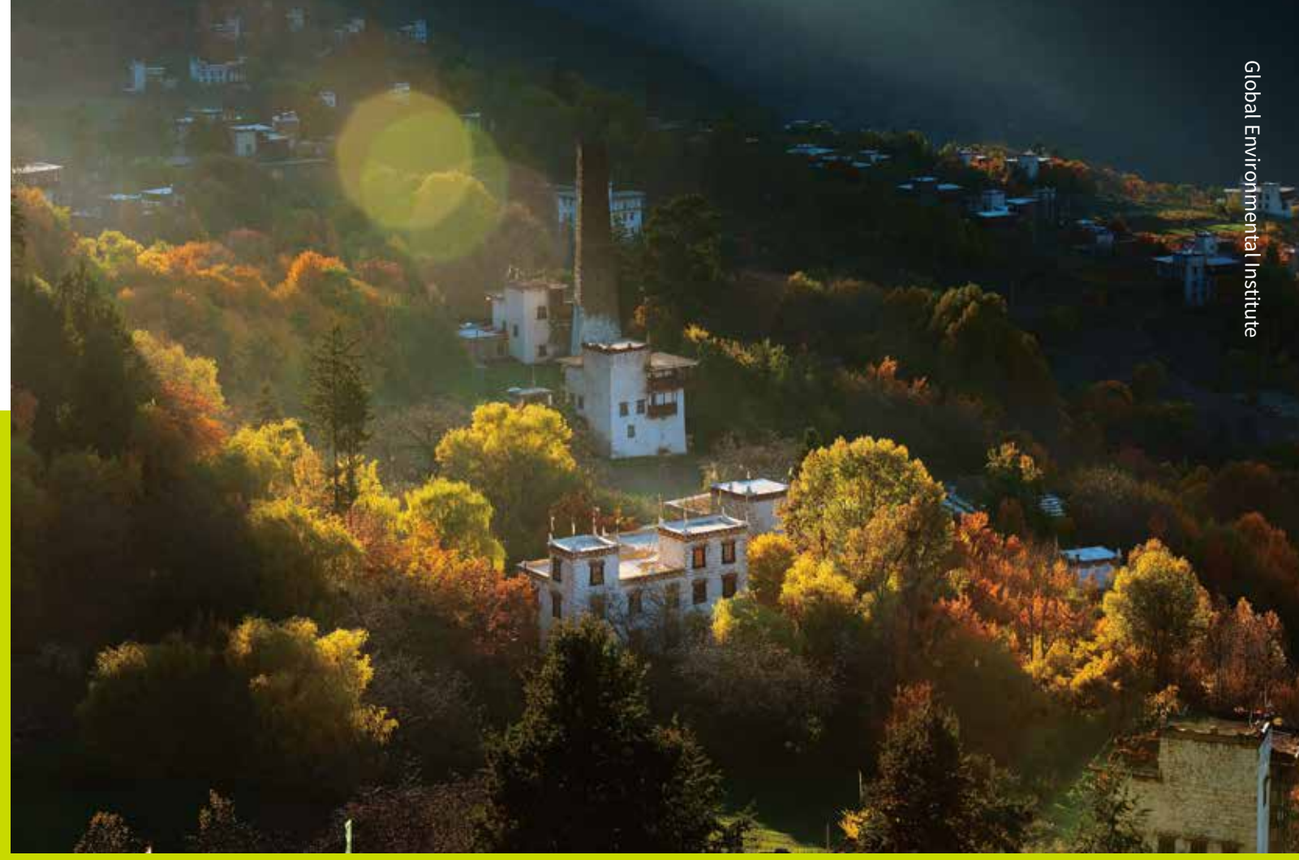
**"Wildlife and Ivory Trade":** This is our first completed project dedicated to combatting illegal wildlife trade. We produced two research reports, "Research on Implementtion Risks of China' s Ivory Ban" and "Assessment and Analysis of Chinese Government and NGOs Combating Illegal Wildlife Trade," which each laid solid groundwork for the future development of GEI wildlife projects.

**"Marine Conservation":** This was GEI' s first marine conservation-focused project, which is still ongoing today. So far, the achievements of the project include: the establishment of the China Sea Turtle Conservation Alliance to support sea turtle conservation in China and completion of "Current situation of Sea Turtles in China and Action Advice," which was submitted to the Ministry of Agriculture and Rural Affairs of China (published in January 2019), to support the "Sea Turtle Protection Action Plan" (2013-2033), issued by the Ministry of Agriculture and Rural Affairs.

**"Evaluation of China's South-South Climate Cooperation In-kind Aid":** This is a completed project conducted by GEI and the Department of Climate Change, China' s National Development and Reform Commission, which has established an evaluation methodology for South-South climate cooperation in-kind aid. It will provide additional policy suggestions for the Chinese government regarding climate aid programs and operation of China' s South-South Climate Cooperation Fund.

**"Research on Restoration and Conservation of Mangrove Corridors in East and Southeast Asia":** This project was cooperatively carried out by GEI, Third Institute of Oceanography, Ministry of Natural Resources of China and Xiamen University. Through a literature review and field investigation, this project, which is still ongoing, has worked on a feasibility study of the termination of deforestation in pilot countries and regions, in order to protect mangrove corridors in East and Southeast Asia, as well as biodiversity. So far, there have been several completed project reports including "GEI Conservation Strategy," "China-ASEAN Mangrove Conservation Alliance Concept Book," "Mangrove Ecosystem Restoration Manual," and "First Draft of Evaluation Report on Current Situation of Mangroves in East Asia - Southeast Asia."







**"Community-based Conservation and Project Development Capacity Building Training by Myanmar NGOs":** Through the combined efforts of GEI and CEPF, this project supported partner Myanmar NGOs to promote CCCAs in Myanmar, introducing them to more key biodiverse areas, while supporting community-based conservation and development. This project has involved 27 model communities in Myanmar, with protected areas under the supervision of communities expanding to 41,090.5 acres and including more than 20,000 participants. It has also helped communities create 22 community funds, totaling USD 50,000, which has increased the average income of each household by 17%.

## Inspiration from Nature Sustainable Community Development Fund

This Fund (hereafter the "Inspiration from Nature Special Fund") was established in August 2018 with seed money from Shanghai Yunhe Planning & Landscape Design Co. Ltd. It is dedicated to advancing comprehensive sustainable development capacity at the community level by supporting community-based environmental protection, development, and cultural heritage projects. The key areas of concern for the Fund are environmental protection, community development and cultural heritage. The Inspiration from Nature Special Fund has thus far provided funding and expert support for projects in 2 communities:



**Zhonglu, Village of Danba, Garze Tibetan Autonomous Prefecture**

"Zhonglu Forest School Sustainable Community Development Project": This project aims to promote sustainable development in rural Tibetan areas by building a community forest school in the Mo' erduo Mountain Reserve and a social enterprise model for sustainable development in the area. This is an ongoing project; thus far, we have finished the construction and interior decoration of the forest school and have developed a nature coursework package.

"Collection and Organization of Danba Zhonglu Traditional Culture and Conventional Wisdom Project": This project allows local young people in Danba Zhonglu to interact with the elderly by engaging them in interviews and organizing local oral history, so that they can learn more about the local traditional culture and its historical origins, while boosting their cultural competencies to create a more united and intimate village. Currently the project has completed data collection and the project report will be released shortly.

"The First Forest School in Tibet Project": This project intends to enhance sustainable development in Danba, Sichuan Province by further improving Danba forest school, developing community development training activities and implementing rural courses. The project has already been presented for fundraising to Tencent 99 Charity Day and has finished its fundraising.

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**Sangjiangyuan National Natural Reserve, Qinghai Province**

"Sanjiangyuan Sustainable Community Development Project": This project aims to establish sustainable development within local communities in Sanjiangyuan National Park by launching community-based social enterprises and community schools for natural education. At present, the project is being implemented, with some of the natural schools already under construction.

"Highlands Vegetable Greenhouses Project": This project aims to build a 200 square meter organic vegetable greenhouse in the village of Maozhuang, Sanjiangyuan, Qinghai Province, which is expected to be donated to the Maozhuang community and managed by a local cooperative upon its completion. At the same time, the project will supplement the "Highlands Planting Manual" and support the creation of video teaching materials to benefit more highlands communities. In terms of funding, this project was presented for fundraising to the Tencent 99 Charity and has completed its fundraising.

## 2004

**GEI was born**

## 2005

GEI launched a project related to residual cement heat power generation, exploring various financial mechanisms to improve energy efficiency of the Chinese cement industry.

GEI carried out its first overseas project in Sri Lanka, where GEI brought the experience of rural projects we had previously implemented in China as examples of best practices.

## 2006

GEI established offices in Tibet and Sri Lanka to carry out rural sustainable development projects.

The Forestry Program was initiated, aimed at researching the challenges faced by Chinese forestry enterprises overseas.

GEI established the first model business development platform of CDM (Clean Development Mechanism) to build CDM business capacity in China.

GEI became the first environmental NGO in China to sign a capacity-building cooperation agreement with the Central Party School and conducted what was called “Sustainable Development Training for Senior Policymakers.”

## 2007

- GEI successfully 'hatched' Lijiang Xueshan Organic Food Co., Ltd to continue its efforts to promote sustainable agricultural practices.
- The first pilot community conservation concession agreement (CCCA) project was launched in Baoxing County, Sichuan Province, China.
- GEI assisted the Forestry Bureau to draft the Guidelines for Overseas Sustainable Forest Cultivation of Chinese Enterprises, globally released through CCTV news.

## 2008

- The first series of meetings of "Trackk II Dialogue on China-US Climate Change Cooperation" were held with GEI' s facilitation.
- GEI signed an MOU with the Ministry of Land Management of Laos.

## 2009

- GEI provided assistance in the drafting of Guidelines for Sustainable Management of Overseas Forests by Chinese Enterprises.
- GEI' s office in Laos was established and commenced its operations.
- "Fengtongzhai Lvyuan Cooperative," which GEI provided assistance with its establishment, won the honorary title of "Provincial Model Professional Farmer Cooperative Economic Organization."

## 2010

- At the beginning of 2010, Training Materials of Environment and Sustainable Development, which GEI aided in developing, was put into use at the Central Party School.

## 2011

- GEI joined the "China-US Green Partnership Program" with the Center for Climate Strategies (CCS) in the United States.
- GEI signed an MOU with the National School of Administration to launch a capacity building project at the school.

## 2012

- The Myitsone Hydropower Project Conference was held in Myanmar, which marked the start of GEI' s project engagement in Myanmar.
- GEI' s expert steering committee was set up.
- The CCCA approach was integrated into Measures for Forest Protection and Management of the Natural Forest Protection Program (Revised Edition) and Responsibility Agreement for Natural Forest Management and Protection, both of which were released by the Chinese government, signifying that the approach of CCCAs is applicable at the national policy level.

## 2013

- The "China-Africa Forest Management Experience International Symposium" was co-organized with the Chinese Academy of Forestry and the International Institute for Environment and Development, which marked GEI's expansion of project activities into African countries.
- GEI contributed to the drafting of the Guidelines for Environmental Protection in Chinese Foreign Economic Cooperation, which was jointly issued by the Ministry of Environmental Protection and the Ministry of Commerce.
- GEI submitted "On Delaying the Review of the Draft of Natural Heritage Protection Law" to the Legislative Office of the State Council, which contributed to the suspension of the draft law that was widely believed by China's biodiversity conservationists and lawyers as a huge back-step to the conservation of protected areas in China.
- In collaboration with the Institute of Policy and Management of the Chinese Academy of Sciences (CAS-IPM), GEI localized the US state-level climate policy formulation methods and models and came up with a Chinese version called the "Quantification of Low Carbon Policy Toolkit," taking Chongqing as its pilot city.

## 2014

- John Kerry, the US Secretary of State, described GEI and CCS as models for cooperation during his speech at a "China-US Green Partnership" signing ceremony for a new batch of agreements.
- The policy proposal for "Implement Community Co-management to Promote CCCA," drafted by GEI, was submitted to the Central Committee of the Communist Party of China through the DPP Central Committee. In the same year, Junqi Yan the vice-chairman of the Standing Committee of the National People's Congress as well as the chairman of the DPP Central Committee, visited GEI's CCCA project site in Baoxing, Sichuan Province for a field inspection, along with relevant government officials from the Ministry of Environmental Protection, the Forestry Bureau and the government of Sichuan Province.

## 2015

- **GEI moved to a new, bigger office!**
- GEI began a demonstration project on renewable energy in Thanbayarkhon Village, Bago Province, Myanmar.
- A research report titled Chinese Investment in Non-forestry Land-use Industries in Four African Countries and the Impact on Forests and a series of reports on China's "Going Global Strategy" (Laos, Cambodia, Vietnam and Myanmar) were published.
- The "Track II" dialogue promoted by GEI strengthened the mutual trust between China and the US on climate issues. That year, the leadership of China and the US was prominent in the formulation of the Paris Climate Agreement.
- The application and promotion of quantitative tools for low-carbon policies were further expanded by GEI, with nearly 150 technical experts in 9 regions being trained.

## 2016

- GEI contributed to the establishment of "Forest of Friendship," an initiative jointly established by the Chinese Embassy in Myanmar and the Myanmar Forestry Department.
- GEI supported a trip for Chinese journalists to travel to Africa to carry out research on forest governance. The trip was reported on by many international media.
- GEI proposed to Chinese and international policy makers that green finance should be included in Civil Society 20 (C20) agenda.
- CCCA protected areas had exceeded 150,000 hectares, with direct beneficiaries reaching 60,000 and affecting millions of people indirectly.
- GEI introduced the CCCA model to Myanmar and launched its first overseas community-based project there.

## 2017

- GEI started operations combating the global trade of illegal wildlife products, including ivory.
- Global Environmental Innovation Fund (GEIF) was created.
- Renewable energy planning toolkits were developed to conduct a pilot analysis of the renewable energy development planning of Huangpu Economic Development Zone in Guangzhou City.
- GEI took part in facilitating China' s South-South cooperation material assistance of CNY 20 million to Myanmar, and also promoted the signing of an MOU on forestry cooperation between the two countries.

## 2018

- Renewable energy planning toolkits were introduced to Myanmar, based on the previous success of the pilot project in Guangzhou.
- GEI began to work on China' s overseas coal fire plant investments, as well as soybean trade and deforestation issues.
- Through cooperation with 20 stakeholders, GEI promoted pilots of CCCA projects in 8 provinces of western China.
- GEI launched the Marine Conservation Program.
- GEI participated in the launch of the"Global Climate Action Initiative" by providing technical support to its Secretariat.

# 2019 Annual Financial Report

## Business activity table

January 1, 2019 to December 31, 2019 (unit: RMB)

| Income | Non limitation | Limitation | Total |
|---|---|---|---|
| Donation income | 21,787,986.18 | 0 | 21,787,986.18 |
| Service income | 1,717,706.00 | 0 | 1,717,706.00 |
| Other income | 755,451.72 | 0 | 755,451.72 |
| Total revenue | 24,261,143.90 | 0 | 24,261,143.90 |
| **Expenditure** | **Non limitation** | **Limitation** | **Total** |
| Cost of business activities | 16,097,233.42 | 0 | 16,097,233.42 |
| Other expenses | 67,000.79 | 0 | 67,000.79 |
| Total | 16,164,234.21 | 0 | 16,164,234.21 |
| **Changes in net assets** | **8,096,909.69** | **0** | **8,096,909.69** |

## Balance sheet

January 1, 2019 to December 31, 2019 (unit: RMB)

| Assets | Start (2019.1.1) | End (2019.12.31) |
|---|---|---|
| Current assets | 55,781,053.59 | 63,959,240.50 |
| Fixed assets | 202,354.63 | 162,966.43 |
| Total assets | 55,983,408.22 | 64,122,206.93 |
| **Liabilities** | | |
| Current liabilities | 59,385.83 | 101,274.85 |
| Long term liabilities | 0 | 0 |
| Total liabilities | 59,385.83 | 101,274.85 |
| **Net assets** | | |
| Unrestricted assets | 55,924,022.39 | 64,020,932.08 |
| Restricted assets | 0 | 0 |
| Total net assets | 55,924,022.39 | 64,020,932.08 |
| **Total net assets and liabilities** | **55,983,408.22** | **64,122,206.93** |