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# Global Environmental Institute (GEI)

## 2018 Annual Report



2018 was yet another year for innovative progress at GEI. We worked independently and cooperatively on government projects and continued to strive for an interdisciplinary and inter-program approach in our work. This commitment has enhanced GEI’s capacity for cooperation and comprehensive program implementation; the process has been both challenging and rewarding.

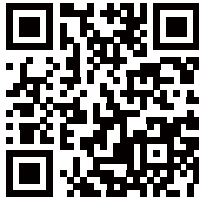
Over the past year, we have received funding for 25 projects from 18 different organizations across all of GEI’s program areas, including Energy and Climate Change, Ecosystem Conservation and Community Development, Overseas Investment, Trade & the Environment, and Marine Conservation. 2018 was the first year for our newly established Marine Conservation Program, which, through the tireless work of our staff, achieved significant progress. Thanks to the hard work and cooperation of our staff, GEI was also awarded the 7th annual China Charity Festival Award for our community conservation and development efforts.

Our work in 2018 included domestic projects as well as international initiatives in Asia and Africa and continues to evolve with the “Belt and Road Initiative” in mind. South-South and North-South Cooperation, in addition to the “Green Belt and Road” are now key guideposts for our future project development. We have received tremendous support from Chinese government agencies and institutions, international institutions, as well as Chinese foundations and entrepreneurs.

As GEI’s work grows in scale and impact, our funding sources are becoming increasingly diverse and our projects continue to receive greater and greater recognition. We thank you for staying with us and supporting our growth over all of these years. To every government agency, think tank, foundation, and partner organization that has witnessed our growth, we look forward to working with you in the future.

Thank you!

Jiaman Jin  
GEI Executive Director



website



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Overseas Investment, Trade, and the Environment



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# Global Environmental Institute

Global Environmental Institute (GEI) is a Chinese non-profit, non-governmental organization founded, registered, and based in Beijing, China since 2004. Our mission is to design, execute and support market-based models and policy recommendations that solve environmental problems in order to achieve development that is economically, ecologically and socially sustainable.

GEI's programs cover climate change, low-carbon development, ecological protection, marine conservation, responsible overseas investment, and green finance. In these areas, we work alongside key policymakers, scientists, civil society leaders, local communities, and companies to foster dialogues and innovative solutions to protect the environment and enhance economic opportunity in China and the developing world.

## GEI project countries

Besides projects in China's Guangdong, Shanxi and western provinces, in 2018 GEI also worked in other developing countries including Myanmar, Cambodia, Laos, Mongolia, Vietnam, Indonesia, Sri Lanka, Cameroon, Congo, Ghana, and Liberia.



## REI TOOLKITS

RE resource technical potential Assessment

(GIS and related information)



Selection of RE technology and application (MCA Survey)



Energy supply and demand assessment(LCD Toolkit, LEAP)



RE financial and social impact analysis



RE technology implementation template

(RE business implementation model)



Final report and recommendation

## Support Renewable Energy Planning at Sub-national Level in China – Pilots in Guangdong Province and Shanxi Province

GEI and the US-based Center for Climate Strategies (CCS) cooperated with the Guangzhou Institute of Energy Conservation, Chinese Academy of Sciences (GIEC-CAS) to complete the financial design and economic analysis of solar power development in Guangzhou’s Huangpu Economic Development Zone. We also expanded our renewable energy planning toolkit to cover biomass energy, completing a biomass resource and technology assessment for Guangdong Province as a pilot. In Shanxi Province, we developed the previous low-carbon development planning pilot conducted there to include an assessment of local rooftop solar resource and technology potential.

## Problems We Hope to Solve

Amid energy transition and climate target implementation, China set the goal that by 2030, non-fossil energy sources will account for 20% of its total energy structure. To achieve this, scientific and effective planning tools and methodologies are needed to promote renewable energy and assist local governments in achieving renewable energy transition targets, whilst also meeting economic development goals.

## What We’ve Done

GEI’s collaborative relationship with CCS and GIEC-CAS has enabled multiple online discussions of renewable energy planning tools between the organizations. We collaborated to complete the “Guangzhou Huangpu Economic Development Zone Industrial Rooftop Solar Power System Finance Methodology and Economic Analysis”, and cooperated with China Southern Power Grid and Guangdong Photovoltaic Development Association to conduct related exchange workshops. Furthermore, we completed a biomass resources utilization and potential assessment in Guangdong Province, involving the province’s agricultural, forestry, and waste management sectors.

GEI has also expanded its domestic projects; we have cooperated with the Shanxi Eco-environmental Research Center to utilize renewable energy tools to assess solar potential in Shanxi Province, focusing on resource potential and technologies for rooftop solar power systems. We analyzed the photovoltaic potential in the industrial and residential areas of Changzhi City, Shanxi Province suburbs. Based on this, and following interviews and discussions with local National Development and Reform Commission (DRC) officials and other experts, we combined qualitative and quantitative data to develop a methodology for residential rooftop photovoltaic instillation in the area.

## What We Accomplished

Our analysis of biomass resource potential and technology in Guangdong Province reveals that the total potential energy from biomass in Guangdong is 73,229 GWh, approximately 6.3% of Guangdong’s annual energy use. In Zhanjiang and Chaoshan regions, we found that it is economically viable to construct a 20-50 MW biomass power plant within 50 kilometers of concentrated agricultural and forestry areas. In Shanxi, photovoltaic potential in the industrial and residential areas of the Changzhi suburbs is estimated at 11.62 GWh and 97. GWh respectively.

These results hope to guide local renewable energy development policymaking and adjustment to meet disaggregated sub-national renewable energy targets. They were shared in September 2018 at the Global Climate Action Summit in California and at the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP24) in Katowice, Poland.

Going forward, we will continue to promote and utilize renewable energy planning tools in additional provinces to aid their respective renewable energy goals.



## Problems We Hope to Solve

196 nations signed the 2015 Paris Agreement to combat climate change, committing to attaining nationally determined contributions (NDC) to keep the average rise in global temperature below 1.5 degrees Celsius. A 2016 survey by the United Nations Development Program found that over 2/3rds of developing countries had yet to begin planning NDC implementation, due to a lack of technical support and “mobilizing resources for NDC implementation”. International technology sharing, effective investment, and sustainable market cultivation will be essential for developing countries to achieve their NDCs.

Climate change is a significant issue for humanity, and finding adequate solutions to it require cooperation among all nations. Countries most severely impacted by climate change are those in earlier stages of development. Due to this, GEI cooperated with partners in Myanmar to develop a renewable energy planning pilot project and leverage renewable energy potential to help Myanmar achieve its NDC under the Paris Climate Agreement. We hope to use this pilot project to promote a Green Belt and Road Initiative and encourage South-South climate cooperation.

## What We’ ve Done

GEI researched the renewable energy potential and NDC implementation progress of developing countries along the Belt and Road. We proposed a set of indicators to evaluate renewable energy development potential and data collection methods, publishing a research report entitled GEI Perspective: Research Report on Renewable Energy Potential in Belt and Road Countries. Through this, GEI found great renewable energy potential in Southeast Asian countries (e.g. Indonesia, Vietnam, and Myanmar), thus began assistance of SE Asian countries to implement their NDCs and promote their capacities on low-carbon development and renewable energy policymaking.

In June and October 2018, GEI and several Myanmar government ministries invited experts from the Chinese Academy of Sciences and the US-based CCS to conduct technical training for Myanmar government officials and also launch a pilot project in Myanmar assessing its photovoltaic and biomass resource potential. The training and project hope to enhance the Myanmar’s renewable energy development capacity and to help it to achieve dual goals of economic growth and climate change mitigation.

## South-South Cooperation to Promote Low-carbon and Renewable Energy Development – Pilot in Myanmar

### What We Accomplished

For the 2018 GEI Perspective: Analysis of Renewable Energy Potentials in Belt and Road Countries report, GEI collected resource distribution and development data for coal and renewable energy in 71 Belt and Road countries. The report established an indicator system utilizing renewable energy potential and analysis of the current development and policy environment of each country, creating a priority list of countries suited to develop renewable energy projects. This provides a theoretical basis to promote development of renewable energy in Belt and Road countries.

Our work in Myanmar has helped the country assess solar and biomass resource and technology potential and publish relevant development plans. We invited over 50 officials from Myanmar institutions and government offices to participate in a renewable energy technical training session to help disseminate China’s experiences and best practices for renewable energy implementation.

Our next plan is to facilitate funding to support renewable energy implementation projects in Myanmar. We hope that our pilot work in Myanmar will assist developing nations’ to design renewable energy development plans, enhance low-carbon development planning capacities, establish local technical teams, and support their NDCs compliance under the Paris Agreement.

Image Source: GEI Xu Shengnian



## Performance Evaluation for China's South-South Climate In-Kind Aid

GEI cooperated with the International Center for Cooperation under the National Development and Reform Commission (ICC-NDRC) to evaluate the effectiveness of China's South-South climate in-kind aid program. We developed methodologies to evaluate program effectiveness and selected typical beneficiary countries to conduct evaluations. This aims to provide references and recommendations for future aid program design and implementation.



Image Source: GEI Yan Xinran

### Problems We Hope to Solve

Since 2011, with China's South-South Climate Cooperation Fund, the Climate Change Department of China's National Development and Reform Commission (now of the Ministry of Ecology and Environment) has provided in-kind aid to small island and least developed countries through energy-saving and renewable energy products. To date, 34 Memorandums of Understanding (MoU) on this aid provision have been signed between China and other countries.

As South-South climate cooperation strengthens, we need to establish a comprehensive climate aid evaluation system to ensure effective and sustainable aid. As 2018 is the first year following the State Council's institutional reform, it was a key period to provide feedback on completed projects. These observations offer valuable insights for China's new aid agency and future aid policies, improve practices of future in-kind aid, create better understanding of climate goal success, and measure contributions of China's participation in global climate governance.

### What We've Done

After researching documents related to every signatory country of a climate aid MoU with China, GEI selected 6 representative counties (2 in Asia, 2 in Africa and 2 small island countries) as pilots for performance evaluation. GEI developed specific assessment methodologies for the selected six countries after considering content of the Ministry of Commerce's regulations for foreign aid projects and reviewing other relevant regulations for foreign aid management.

We also conducted interviews with key stakeholders throughout the aid process, collected information, and developed survey questionnaires for field research. Over 2018 GEI research team members travelled to selected aid-recipient countries for field evaluation, spending 2-3 days in each country collecting data and evaluating implementation processes. Findings drew from data, information and analysis based on desk research, questionnaires and surveys, as well as domestic and international field research.

### What We Accomplished

By the end of 2018, the team had completed assessment indicators and methodologies for all 6 selected countries, collected surveys from Chinese aid implementation corporate suppliers, surveyed 4 selected countries' governments, and conducted field research in 2 Asian recipient countries. This aspect included interviews with government agencies, aid distribution institution representatives, and Chinese embassy staff.

We also conducted surveys with aid beneficiaries and conducted field observations in areas where aid goods are installed. We found that aid provided to Nepal and the Maldives is generally appropriate based on positive endings. Goods and equipment that the aid provided meet local needs and national development plans. Chinese corporate suppliers and recipient countries' local designated implementation institutions generally performed well in effectively implementing aid projects. The aid programs bring positive political, social, economic and environmental impacts, and most are considered to be sustainable.

One of the programs' most significant impacts on China was to indirectly promote the "Going Out" of Chinese companies, as the support and recognition of Chinese in-kind aid by local government agencies and markets supported the implementation of more foreign projects. At a local impact level awareness and utilization of renewable energy among local people is increasing, as aid such as LED lights and photovoltaic technology becomes more common in recipient countries.

## ‘China’ s Participation in Overseas Coal Power’ Country Risk Research— Vietnam, Indonesia, Mongolia



Image Source: Reuters Beawiharta

GEI analyzed coal power investment risks, energy development trends and renewable energy possibilities in Vietnam, Indonesia and Mongolia using diverse stakeholder communication with key government agencies, NGOs, coal power enterprises, and financial institutions. We then drafted investment risk reports for coal power investment in selected countries along the Belt and Road and proposed policy recommendations to promote green energy and power investment by Chinese financial institutions.

### Problems We Hope to Solve

Since the Paris Agreement, decarbonization became a key global economic development issue, with carbon emissions of fossil energy industries like coal power projects receiving increasing global attention. Our 2018 preliminary study regarding China's coal power investment in the Belt and Road Initiative found that host countries' demand for increased energy capacities, and Chinese financial institutions' coal power investments mutually reinforce coal power development. Hence, it is necessary to deepen our understanding of power development needs and environmental risks of coal power investment in Belt and Road countries, to improve Chinese financial institutions' risk awareness, raise investment standards, and gradually establish green energy investment along the Belt and Road.

### What We’ ve Done

GEI cooperated with 5 local and international research institutes to investigate Chinese financial institutions' coal power investment. In China's major coal power investment countries - Indonesia, Vietnam, and Mongolia - we established an overseas communication network incorporating environmental and energy planning governmental agencies, coal power enterprises, research institutes, and NGOs. We crafted coal power investment risk reports for host countries in collaboration with local country partners, whilst establishing a communication network in China to examine environmental standards for financial institutions' overseas coal power investment. Moreover, we invited cooperative institutions from Indonesia and Vietnam to Beijing to communicate with Chinese financial institutions, power industry associations, enterprises, and research institutes to explore alternatives to coal power development.

### What We Accomplished

Cooperating with domestic and international research institutes, GEI produced 4 reports: “Indonesia's Coal-Fired Power Industry and Energy Transformation Agenda”, “ Mongolia’s Coal/Energy Industry Demand Side Studies”, “ Vietnam’s Coal/Energy Status Quo and Investment Policy Studies”, and “ Comparative Analysis on International Financial Institutions, Multilateral Initiatives, and Chinese Financial Institutions’ Financing Policies and Standards”.

These found that Chinese financial institutions lack awareness of “decarbonizing” overseas investment despite macro policy guidelines on green investment. They lack coherent requirements for coal power industry investment, including internal green investment and finance mechanisms in projects along the Belt and Road.

Although energy governmental agencies in Vietnam, Indonesia, and Mongolia agree that decarbonization is a favorable development strategy, implementation is limited due to low economic and technological development. Various investment risks exist in each initiative host country; Indonesia has high uncertainty in its energy and power policy, Vietnam depends on coal importation, and Mongolia promotes technical transformation and energy efficiency upgrades for existing coal power units whilst reducing new project investment.

However, our reports highlight the potential of renewable energy development in different countries. Indonesia has immense renewable energy potential but is restricted by cost comparisons, policy subsidies and a lack of industry support. Vietnam's electricity demand increases by 10% per year with huge potential for renewable energy and subsidies for solar and wind power. Mongolia is endowed with rich wind and solar energy, and has a two-step renewable energy goal to increase its installed capacity to 30% by 2030 from 11.8% currently.

Thus, GEI will continue to cooperate with domestic and foreign partners to explore how green energy and power investment policy regarding the Belt and Road Initiative could be implemented by Chinese financial institutions.



## Promote Sustainable Trade in Chinese Soybean Imports

Through stakeholder interviews in the soybean trade, Chinese soy import-export data and relevant soybean trade policy analysis, GEI completed the report “Policy Study and Analysis: Promoting Sustainable Soybean Import Trade in China”. We hope to enhance consumer awareness and explore policy solutions to promote sustainable soybean trade, reduce related climate change impacts, and provide policy recommendations.

Image Source: Reuters



### Problems We Hope to Solve

Deforestation is a key cause of global climate change, and 80% of this deforestation is directly related to commodity trading of goods such as soybeans, rubber, and palm oil.

Over the past two decades, global soybean trade has become increasingly concentrated, with Brazil's exports to China rising significantly — from 2 million tons in 2000 to 50.93 million tons in 2017. During this, Brazil's soybean acreage has increased by 10 million hectares and is still expected to expand, which will continue to exacerbate the country's deforestation risk.

To address this link, we start our analysis with a downstream supply chain to promote the participation of demand-side stakeholders at the government policy and business practice levels. By encouraging and guiding responsibility in the downstream (consumption) supply chain, we challenge deforestation risk in the upstream (production).

### What We've Done

Using multiple methodologies such as interviews, data collection, and literature analysis, GEI visited government departments associated with soybean trade in China, including the General Administration of Customs, Ministry of Agriculture and Ministry of Commerce, along with soybean trade enterprises such as COFCO, Cargill, and soybean processing plants at main import ports.

We examined China's past soybean import and export statistics, its import trade management policy, and the general contexts and situations of the various participants. Based on our research and analysis, we compiled the report “Policy Study and Analysis: Promoting Sustainable Soybean Import Trade in China”.

### What We Accomplished

In the report, GEI recommended that soybean trade policies should be combined with China's 2016 goal to become a leader in global governance, as soy has become the largest

Chinese agricultural import. Chinese government organizations should use soybeans as a pilot commodity to develop policies for sustainable soy trade, leading more effective governance of this key commodity.

We also recommended that sustainable development and potential environmental risks of soybean-producing countries should be incorporated into existing country guidelines to increase risk awareness amongst all parties in the trade. China's current major soybean trading companies are primarily concerned with securing a stable long-term supply for Chinese markets, thus lacking sustainable development reflection in the upstream supply chain that could ensure long-term stable supply channels. To combat this, the Ministry of Ecology and Environment and the Ministry of Commerce should consider the environmental risks of soybean cultivation in Brazil, making environmental impact reduction methods between China and Brazil as key components of their guidelines.

We suggested that major state-owned enterprises should participate in pilot projects for sustainable soy trade, leveraging their role as Brazilian soy export purchasers to reduce the soy trade impact, enhance awareness of the link between trade and the environment, and promote sustainable production.

Finally, our recommendations should be incorporated into discussions at the 2020 Conference of the Parties to the Convention on Biological Diversity (CBD COP) in China. As the largest importer of soy, China is well positioned to reduce upstream biodiversity impacts of soy trade, and thereby help achieve the convention's goals.

Going forward, we will combine international experience and best practices with key stakeholders in the soy trade in China to continue promoting sustainable soy supply chains.



In 2018, GEI launched a research project assessing the implementation of China's Ivory Trade Ban studying the Chinese Yunnan and Guangdong provinces, and the Burmese border cities of Muse and Mongla.

Using policy and literature reviews, field research, and government department visits among other methods, we compiled information on the progress and challenges of Ivory Trade Ban implementation.

We made recommendations to support further comprehensive evaluations on trade ban implementation, and to strengthen and expand the ban's international influence.

## Cross-border Ivory Trade and its Challenges to China's Ivory Trade Ban

### Problems We Hope to Solve

On 30th December 2016, China's General Office of the State Council issued an ivory ban, for the complete cessation of ivory processing and sales in its domestic market by 2017. This would notably reduce ivory trade and combat international illegal trade of other wildlife products. However, effective implementation of the Ivory Trade Ban is significantly limited by insufficient international policy and enforcement of the ban, domestic coordination challenges to interdepartmental enforcement, and negligence or evasion by relevant enterprises. To ensure the effectiveness of further implementation, GEI conducted research on the challenges of implementing the policy's recommendations.

### What We've Done

GEI selected Yunnan and Guangdong in China and Muse and Mongla in Myanmar as research sites, adopting 3 research approaches. The first was to organize existing literature and government information from departments implementing the trade ban, to establish a preliminary evaluation of its implementation and effects. We examined and compared China and Myanmar's compliance and implementation capacity for the wildlife trade policy. The second approach used field research, visiting 305 potential ivory (and other wildlife products) vendors in 12 cities including tourist and border cities in Yunnan and border cities such as Mongla, along with 5 China-Myanmar land border ports. The third approach included interviewing 17 national and provincial level Chinese government departments, including the National Forestry and Grassland Administration, the CITES Management Office, and the local Customs and Forestry Police. We summarized the division of labor, their progress and challenges, and the cooperation of different departments implementing the Ivory Trade Ban.

### What We Accomplished

In December 2018, GEI completed the report "A Research Report Assessing the Implementation of the 'Ivory Trade Ban' – Case Studies: Yunnan and Guangdong, China". This found that the preliminary policy goal of China's Ivory Trade Ban has been achieved domestically, but encounters international challenges such as ivory inventory clearance, the use of mammoth ivory to "launder" illegal ivory, a lack of inter-departmental cooperation mechanisms, and inconsistent policies between neighboring countries. We found two Chinese principal channels for illegal ivory; passing from Africa through Southeast Asian countries to Yunnan or Guangxi, or from Africa through Japan or Malaysia to enter China through Hong Kong and Macao to Guangdong. Our research suggested that the Yunnan illegal ivory market is relatively small due to strong province law enforcement. Conversely, the scale of illegal trade in Mongla, Myanmar is considerable due to relatively weak policy and law enforcement capacity.

Hereafter, GEI will undertake overseas policy research and support bilateral cooperation, policy coordination and law enforcement capacity building with China's neighboring countries such as Myanmar, Laos, Cambodia, and Vietnam, along with African countries like Cameroon and the Republic of the Congo.



## Community Conservation and Development in Qinghai’s Sanjiangyuan Area

GEI introduced a Community Conservation Concession Agreement (CCCA) model for the Bamai-Gaer Temple area in Qinghai province, combining community participation with pre-existing conservation plans for the Baizha Forest Reserve. This aimed to establish a comprehensive CCCA mechanism and strong local conservation team, assist development of community sustainable livelihoods, pilot an ecosystem services-based economy model, and establish a sustainable conservation finance mechanism.

### Problems We Hope to Solve

Bamai Village is located in the Baizha Township in Yushu Tibetan Autonomous Prefecture of Qinghai Province, an area rich in natural resources and biological diversity. The Baizha Forest Reserve is a protection zone in the Sanjiangyuan National Nature Reserve and encompasses the Lancang/Mekong River source catchment area. The Village and its Forest Reserve area have only 7 professional rangers, despite being vast (400km<sup>2</sup>).

Although residents and Gaer Temple monks volunteer to protect the area, they lack financial subsidies, a stable conservation team and a comprehensive conservation mechanism. These limit sufficient protection of rare wild animals and plants, as evidenced by intermittent poaching and illegal logging within the area’s boundaries.

The Bamai-Gaer Temple area and Baizha Forest Reserve’s landscape and culture consolidate their tourist attraction status. The local government instigated various infrastructure projects to develop the region’s economy, but irresponsible tourism development has affected local ecology and wildlife habitats.

### What We’ve Done

GEI collaborated with the School of Agriculture and Rural Development of Renmin University China, conducting 2 socio-economic studies in Bamai Village and composing a report of our findings named “Socio-economic Survey Report of Bamai Village”. We compiled suggestions to protect the ecological environment of the Bamai-Gaer area and improve local community livelihood capacity. Due to a lack of conservation and community development talents, we suggested that the community should optimize its leadership structure and cultivate talents who will develop sustainable community businesses. We endorsed the cultivation of community-led industries like handicraft production to develop innovative industry development, cooperative community participation, eco-tourism and ecological protection. We also encouraged active government cooperation to promote policy support and establish an ecological compensation and conservation incentive mechanism.

Our document “Research on Bamai Village Handicrafts,” conducted a survey on over 10 existing handicrafts in the Bamai community, and recommended weaving and wood carving as development priorities. We invited Tibetan handicraft experts to inspect Bamai Village handicrafts, and prepared a report on local handicraft development to provide a reference for further community cultivation of Tibetan handicraft production.



Image Source: Wu Zhi

### What We Accomplished

Both reports provided guidance for policymakers, NGOs, and local communities by analyzing current issues, intervention methods and sustainable livelihood development priorities for the Bamai-Gaer community.

We deepened cooperation with the Management Office of Baizha Forest Reserve by supporting the 2018 "Community Grassland Conservation Concession Agreement", and establishing a mixed patrol team of 30 people (24 community and 6 Forest Reserve).

We invited monitoring experts from Shanshui Conservation Center to the village to conduct basic ecological patrol training for the new team. Through conservation training, residents gained an understanding of environmental protection and can utilize monitoring tools with their traditional knowledge, to conduct animal and plant monitoring around the Forest Reserve and better protect the local ecological environment.



## Promotion and Assessment of Ecosystem Service-based Economy in Local Practices

GEI continued to expand CCCA pilots and explore an ecosystem service-based economic development model in 8 western Chinese provinces, connecting 20 institutions to establish a network of community capacity-building bases. This cultivated communities' conservation abilities to complete 21 projects in the project's first phase through continuous monitoring and effective evaluation. The project's second phase will continue to explore conservation and development practice expansion, theoretical research, and policy recommendations related to ecological conservation in China.

### Problems We Hope to Solve

Western China is an ecologically fragile and economically impoverished region; it is highly sensitive to ecological degradation and climate change, and local residents have become underprivileged in the global market economy following historical neglect and marginalization in economic development.

GEI strives for the reconciliation and development of economic growth and ecological conservation. We are dedicated to improving community resource-consumption sustainability to increase the ability of ecological service value functions for development, and enhance their climate change response ability. We also aim to encourage impoverished local resident participation in and integration of conservation and community economic development.

### What We've Done

In the first phase of GEI's 2018 Community Fund project expanded 6 conservation concession agreement areas in the Sanjiangyuan region, conducted 2 conservation capacity building exercises and 3 handicraft skills exercises, and collaborated with 20 organizations to complete CCCA pilots. These initiatives also support pilot establishment efforts and national park operation in China.

The second phase collectively explored CCCA integration into national park management, franchise rights, natural education, and ecotourism through cooperation with the Sanjiangyuan, Qilian Mountain, and Qianjiangyuan National Parks.

We conducted 2 large-scale capacity exercises for policymakers, management officers and other stakeholders in Sanjiangyuan and Qilian Mountain National Parks including valuable policy discussions.

We continued research on ecosystem service-based economies and national park pilots in collaboration with Chinese research institutes.

We drafted research reports and organized the seminar "The Review and Future Prospects of the National Park System Reform: Recommence of Reform and Opening-up" with the Institute for Sustainable Development, Chinese Academy of Sciences.

As a founding member of the Alliance of Civil Protected Areas, we co-organized its annual meeting with the Paradise Foundation and WWF. We contributed to the 2018 green book for Civil Protected Areas, and assisted the Alliance in soliciting feedback on "The Standards and Guidelines for Civil Protected Areas".



Image Source: Liu Zhuang

### What We Accomplished

Through CCCA and ecosystem service-based economy development model promotion in western China, GEI collected and distributed 1.487 million RMB of project funding in 2018, leveraged 1.83 million RMB of matching funds to community-based conservation activities, empowered over 20,000 local residents to participate in community conservation and expanded CCCA areas by over 17,700 km<sup>2</sup>.

We continued to promote model demonstration sites in the Sanjiangyuan area, renewed a 10-year conservation agreement with the Longe Village demonstration site in Qinghai Province, and enlarged the scope of conservation. We renewed 3 years of conservation plans with the Maozhuang Township pilot site in Qinghai Province to continue water source protection, trash-picking and anti-poaching patrolling. Our efforts assisted local communities to gain more than 210,000 RMB. In Chagan-nor, Inner Mongolia, we supported local communities to build a demonstration site for grassland protection.

Our project influence growth continues, with over 20 institutions and 30 communities participating in our established Community Conservation Network. The network is recognised by institutions such as Qinghai Provincial Forestry Bureau and Qilian Mountain National Park, which has contributed to improvements in conservation policies and practices. We will continue to promote research and practices of ecosystem service-based economies on a CCCA model basis, and provide policy reference and recommendations to improve China's national park system.

We aim to focus on issues specifically related to franchise rights, eco-tourism, natural education, and alternative livelihoods.





Image Source: GEI Chen Yunzhu

## Community Participation in Conservation and Livelihoods Improvement – Myanmar as a Case of the CCCA Model

Whilst supporting capacity development of NGOs in Myanmar, GEI - alongside 4 partner Myanmar NGOs - continues to expand community conservation and development pilot projects and community conservation areas. By the end of 2018, 27 Myanmar

### Problems We Hope to Solve

Myanmar is one of 25 biodiversity hotspots in the world. However, it has recently suffered a serious environmental crisis; particularly in forest degradation with a staggering declining rate of 1.73%, the 3rd highest in the world.

In addition to urbanization, agricultural expansion, and infra- structure development, the demand and consumption of fuelwood by 70% of its rural population and illegal timber harvesting are all major contributors to forest degradation.

At the same time, Myanmar civil society organizations are unable to adequately address these issues, lacking efficient models and methods to deal with forest degradation and community livelihood development issues.

### What We've Done

Based on GEI's work on ecosystem conservation and community development in Myanmar since 2016, in 2018 we continued to facilitate four partner NGOs in promoting the CCCA model in Myanmar.

We also supported their understanding of community-based conservation and livelihood development activities in more key biodiversity areas. At the same time, we have provided capacity building training for Myanmar NGOs to improve their ability to implement CCCAs and improve project management more broadly.

In June 2018, GEI held a seminar in Naypyidaw, Myanmar and invited stakeholders, including Chinese and Myanmar government officials, Myanmar NGOs, and research institutes, to attend. In this seminar, we discussed how to use the CCCA model to help Myanmar achieve NDC goals and develop sustainable livelihoods. In September, we held an institutional capacity building and CCCA model training session in Yangon, Myanmar, and invited twenty-seven participants from 8 Myanmar NGOs. At the same time, with the support of Conservation International (CI), GEI has developed a guidance manual for Myanmar NGOs, which would assist local NGOs and communities to better understand key elements of CCCA models and how to implement on-the-ground projects according to local contexts.

### What We Accomplished

GEI and Myanmar NGO partners expanded the number of pilot communities from 16 to 27 and expanded our conservation efforts to include two new hotspots: the Inle Lake Wildlife Sanctuary and the Moyungyi Wetland Reserve.

The community conservation area was expanded to 16,490 hectares, empowering more than 20,000 local community residents to participate.

Through workshops and seminars, we successfully coordinated diverse stakeholders, including the Myanmar government, research institutes, NGOs, and inter- national organizations, to discuss the possibility of the CCCA model being widely implemented in Myanmar.

The CCCA model was formally recognized by NGOs and the government in the first phase of the pilot project, and supports communities to improve locals' livelihoods sustainably while enabling them to take a more active role in conservation work.

Based on what we learned from the two phases of the project, we will summarize lessons and combine them with Myanmar's existing community forestry policies to craft policy suggestions to Myanmar policymakers. In addition to our 4 current local partners (ECCDI, MFA, MEI and CDA), 4 new Myanmar NGOs have joined our CCCA training in 2018.

We thus hope that the CCCA model can be more extensively implemented in forest communities in Myanmar to help achieve community livelihoods' development and forest and biodiversity conservation.

Next steps in this project involve GEI enhancing cooperation with the Myanmar government and its affiliated research institutes to further promote the application of the CCCA model in Myanmar at the national level, and to encourage community participation in conservation on a larger scale.



## Launch of Marine Conservation Program and Implementation of Sea Turtle Conservation Landing Project

In 2018 GEI set up a new Marine Conservation Program protecting marine ecosystems and promoting sustainable ocean use. Our first project targets sea turtle conservation; focusing on issues such as bycatch, lack of scientific research capacity, and weak public awareness. We worked with fishing communities to reduce negative impacts of fishing on marine biodiversity, with research institutions to geo-track sea turtles, and compiled marine conservation public education materials. These aim to provide information and suggestions on the current situation of sea turtles and their conservation.

Image Source: GEI Gai Guangsheng

### Problems We Hope to Solve

Sea turtles have existed for approximately 100 million years, yet all of its 7 species are endangered due to human activity. The 5 species of sea turtles in China are Green, Leatherback, Pacific, Loggerhead, and Hawksbill. Each encounter a range of threats including illegal trade, fishing bycatch, limited knowledge of sea turtles' status quo, and weak public awareness of conservation. In response to these, GEI launched our sea turtle conservation project to improve effective implementation of China's National Sea Turtle Conservation Action Plan and maintain marine biodiversity.

### What We've Done

On May 23rd, 2018, GEI, the Bureau of Fisheries of China's Ministry of Agriculture and Rural Affairs, the National Aquatic Wildlife Conservation Association, and 95 other institutions launched the China Sea Turtle Conservation Alliance (CSTCA) to protect sea turtles. GEI assisted in tracking the satellite positioning of 5 sea turtles to identify turtle activity areas and migratory routes in China. With our tracking and literature review of recent sea turtle studies in China, we analyzed China's conservation zones gaps. Findings were compiled into a policy recommendation and submitted to the Bureau of Fisheries to support the development and implementation of China's National Sea Turtle Conservation Action Plan (2019-2033).

To address sea turtle bycatch we collaborated with Paracel (Xisha) Islands, Hainan Province, to research methods to reduce fishing impact. We provided scuba diving and conservation training to fishermen to empower conservation participation and combine sea turtle conservation with eco-tourism. To strengthen public awareness, GEI, the National Aquatic Wildlife Conservation Association and other organizations developed the brochure "Sea Turtle Conservation and Sea Turtle Spawning Area Notice" for both fishermen and the general public.

### What We Accomplished

In "The Status Quo and Conservation Action of Sea Turtles in China", we recommended that conservation scope should include key sea turtle habitats, and that stakeholder cooperation must be promoted to achieve conservation and sustainable economic development goals. Existing turtle reserves are insufficient to cover all Chinese turtle activity, thus we should conduct pilot projects on habitat protection and sustainable economic development to acknowledge both coastal residents' socio-economic needs and turtle conservation needs. We suggested for the government to conduct fishery improvement projects to reduce bycatch of marine species, as this is a major cause of sea turtles' injury or death. We are currently exploring bycatch reduction approaches with experts and fishery communities by improving existing fishing practices.

Conservation should also be encouraged in non-sea turtle reserves, supporting sea turtle rescuing capabilities for rangers and management officers. Educational activities should continue in fishery communities to raise awareness and increase sea turtle conservation. Other suggestions included regulating sea turtle release and illegal trade, and setting up data-sharing platforms. We will continue to support awareness of, and capacities for, sea turtle conservation among fishery communities, and provide advice to government regarding sea turtle conservation. We are committed to extending GEI's marine conservation work to mangrove conservation, marine national parks, and sustainable fisheries development.



## Jointly Initiate the “Global Climate Action Initiative (GCAI)” and Provide Technical Support to the GCAI Secretariat

Over the past decade, China’s climate change actions have promoted global progress and support the implementation of the Paris Agreement. To further promote the establishment of a cooperative and mutually beneficial global climate governance system, President Xi Jinping has advocated for active participation in global climate governance systems, to achieve emissions reductions commitments and foster low-carbon sustainable development.

Accordingly, Chinese foundations, universities, research institutions, and NGOs have recognized the dire need for climate action cooperation and non-state actors’ role in creating change. Under the guidance of China’s Special Representative on Climate Change and chief climate negotiator Mr. Xie Zhenhua, GEI, the Institute of Climate Change and Sustainable Development at Tsinghua University, and the Institute for Sustainable Development of the Chinese Academy of Sciences collaboratively led the launch of a “Global Climate Action Initiative (GCAI).” We cooperated to engage 7 other Chinese institutions to participate in launching GCAI accordingly as co-initiators, including the Laoniu Foundation, Yanbao Charity Foundation, SEE Foundation, Vanke Foundation, Tsinghua University Education Foundation, Beijing Qiaonv Foundation, and the China Global Philanthropy Institute.

GCAI’s mission is to increase global climate governance capacities and promote sustainable, low carbon transition of energy and social economies in developing nations. It will mobilize key organizations to support global climate action and sustainable development for strengthened global climate cooperation and attainment of developing nations’ to attain their sustainable development goals.

GCAI’s official launch in September 2018 at the Global Climate Action Summit invited participation with global stakeholders. In November 2018 during the UNFCCC COP24, GCAI held a conference at the China Pavilion to present its agenda and goals, which thus explored the Initiative’s future role in advancing global efforts to combat climate change.

As the technical support institute of GCAI, GEI will continue to provide it with technical support and assist in formulating and implementing its annual work plan. GEI will also promote energy transition and climate resilience related South-South cooperation under the GCAI framework, help ASEAN developing countries achieve their NDC targets to the Paris Agreement, and contribute to the overall realization of Paris Agreement goals.



Image Source: Yu Qingchan

## Global Environmental Innovation Fund (GEIF)

The GEIF program was established in February 2016 to manage GEI funds, with seed money from the blue moon fund. It encourages innovative environmental and development approaches, and supports policy recommendations and market solutions to global environmental issues. Key areas of concern are energy and climate change, conservation and community development, marine conservation and investment, and trade and the environment. It has so far supported 3 projects:

1.The “Scoping Work on Ivory and Illegal Wildlife Trade Issues in China and Southeast Asia in Preparation for Evaluating the Policy Implementation of China’s Forthcoming Ivory Ban”; our first project dedicated to combatting illegal wildlife trade. We completed a market survey of mammoth ivory in Beijing and 2 research reports analysing the risks of the Ivory Trade Ban and anti-trade measures. This laid the groundwork for developing wildlife trade enforcement as a GEI project direction.

2.The “Marine Program Launch”; GEI’s first marine conservation-focused project. The project established the CSTCA supporting China’s sea turtle conservation efforts, and submitted policy recommendations on China’s turtle conservation actions to the Ministry of Agriculture and Rural Affairs. This contributed to China’s National Sea Turtle Conservation Action Plan (2019-2033).

3.The “Evaluation of China’s South-South Climate Cooperation In-kind Aid”; conducted by GEI and the International Cooperation Center of China’s National Development and Reform Commission. This established an evaluation methodology for South-South climate cooperation in-kind aid. It will further provide policy suggestions for the Chinese government to improve climate aid programs and inform China’s South-South Climate Cooperation Fund operation.

GEIF also established the “Inspiration from Nature Sustainable Community Development Fund” with a donation from Shanghai Yunhe Planning & Landscape Design Co. Ltd. It advances community sustainable development capacities by supporting community-based environmental protection, development, and cultural heritage projects. It has provided funding and expert support for 2 community projects; the “Zhonglu Forest School Sustainable Community Development Project” establishing a community natural school in the Mo’ erduo Mountain Reserve and a social enterprise model for sustainable development, and the “Sanjiangyuan Sustainable Community Development Project” in Qinghai province establishing sustainable development of local communities in Sanjiangyuan National Park by launching community-based social enterprises and community natural schools.



Image Source: Dragon Yunhe

Income Statement  
January 1, 2018 – December 31, 2018 (Unit: CNY)

Revenue	Non-restrictive	Restrictive	合计
Grants	32,326,731.90	0	32,326,731.90
Services	217,645.00	0	217,645.00
Investment	0	0	0
Others	1,585,852.96	0	1,585,852.96
Total Revenue	34,130,229.86	0	34,130,229.86
Expenses	Non-restrictive	Restrictive	合计
Activity Spending	15,924,499.42	0	15,924,499.42
Fundraising	0	0	0
Others	0	0	0
Total	15,924,499.42	0	15,924,499.42
Changes of Net Assets	18,205,730.44	0	18,205,730.44

Balance Sheet  
January 1, 2018 – December 31, 2018 (Unit: CNY)

Assets	Beginning of the Year(2018.1.1)	End of the Year(2018.12.31)
Current Assets	39,067,760.03	55,781,053.59
Fixed Assets	191,024.04	202,354.63
Total Assets	39,258,784.07	55,983,408.22
Liabilities	Beginning of the Year(2018.1.1)	End of the Year(2018.12.31)
Current Liabilities	1,540,492.12	59,385.83
Long-term Liabilities	0	0
Total Liabilities	1,540,492.12	59,385.83
Net Assets	Beginning of the Year(2018.1.1)	End of the Year(2018.12.31)
Non-restrictive Assets	37,718,291.95	55,924,022.39
Restrictive Assets	0	0
Total Net Assets	37,718,291.95	55,924,022.39
Total Liabilities and Net Assets	39,258,784.07	55,983,408.22