

# 2021


## Annual report



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

Global Environmental Institute  
Tayuan Diplomatic Office Building  
#14 Liangmahe South Road, Unit #1, Suite 032  
Chaoyang District, Beijing 100600 China

Tel: +86-10-85325910  
Fax: +86-10-85325038  
E-mail: [gei@geichina.org](mailto:gei@geichina.org)  
Website: [www.geichina.org](http://www.geichina.org)

The background features a series of abstract, overlapping shapes and patterns. At the top, there are two triangular areas filled with a light gray dot pattern. Below these, the background is composed of several layers of wavy, horizontal lines in varying shades of gray, creating a sense of depth and movement. The overall aesthetic is clean and modern, with a focus on geometric and organic forms.

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.



# 1

## Energy and Climate Change

1.1 02  
Facilitate "3060" and Explore a New Development Mode of "PV+"

1.2 05  
Renewable Energy Development in the ASEAN-China region

# 2

## Overseas Investment, Trade, and the Environment

2.1 11  
Promoting Law Enforcement Cooperation between China and Other Countries to Jointly Combat the Global Illegal Wildlife Trade Chain

2.2 17  
Exchanges and Cooperation between China and Latin America on Agricultural Expansion and Deforestation

# 3

## Ecosystem Conservation and Community Development

3.1 21  
Ningxia Yunwushan Conservation Concession Agreement and Ecology-Based Poverty Alleviation on the Loess Plateau

3.2 23  
The Development Model of Ecological Service-based Economy and the Ecological Civilization Construction

3.3 28  
Yalu River Estuary Wetland Communities' Participation: The Ecological Service-based Economy and Exploration

3.4 31  
Non-state Actors' Participation in CBD COP15

3.5 39  
And Southeast Asia Community Conservation Network (EASACCN) and Promoting Community Participation in Biodiversity Conservation

# 4

## Global Environmental Innovation Fund

4.1 45  
"Global Environmental Innovation Fund" Project

4.2 48  
"Inspiration from Nature Sustainable Community Development Fund" Project

4.3 53  
"Jianzhou Wanmu Forest Ecological Protection and Development Fund" Project

# 5

## Marine Conservation

5.1 56  
CBD COP15 NGO Parallel Forum | Focusing on ASEAN-China Mangrove Conservation

5.2 59  
UNFCCC COP 26 | ASEAN-China Regional Conservation and Cooperation under the Glasgow Declaration

5.3 61  
Cooperation with Fishermen: Exploration of Fishing Gear Optimization and Sea Turtle Conservation

5.4 64  
Promoting Community Participation in Abandoned Fishing Gear Recycle in Hainan Province

5.5 67  
Promoting Myanmar-China Fishery Exchanges and Supporting Chinese Fisheries "Going Out"

5.6 70  
Multi-parties Aim to Support Mangrove Management and Conservation in ASEAN-China Region to Address Climate Change

5.7 73  
Nature-based Solutions: Practice of Community-based in Mangrove Conservation and Livelihood Development in Southeast Asia

# 6

## 2021 Annual Financial Report



# 1.1 Facilitate "3060" and Explore a New Development Mode of "PV+"

## Energy and Climate Change



### Background

On September 22, 2020, Chinese President Xi Jinping announced at the general debate of the 75th session of the United Nations General Assembly that China would scale up its Intended Nationally Determined Contributions by adopting more vigorous policies and measures and aimed to have CO<sub>2</sub> emissions peak before 2030 and achieve carbon neutrality before 2060.

Under the dual background of global energy transition and COVID-19 pandemic, China's renewable energy development faces challenges and opportunities. To support the national energy restructuring and explore solutions to low-carbon clean energy development, GEI constantly promoted the "Low Carbon Development Planning (LCD) Toolkits" and "Renewable Energy Implementation Toolkit (REI)" in China and Southeast Asia in 2021. We summarized the current photovoltaic pilot projects and the related research, studied, and investigated the current domestic innovative photovoltaic projects in China, to contribute to the realization of the "3060" target.



# What We Did

## Survey and Analysis of PV+ Projects in China

In 2021, GEI cooperated with Shanxi Kecheng Collaborative Innovation Institute of Environmental Industry in systematically studying the types and geographical distribution of domestic PV+ industries with "China PV+ power stations" and "corporate carbon neutrality" as the research objects and carrying out the carbon accounting and emission reduction potential analysis at the enterprise level by focusing on critical industrial enterprises in Shanxi Province.

- 1 • GEI cooperated with Shanxi Kecheng Collaborative Innovation Institute of Environmental Industry in carrying out the "China Photovoltaic Solar+ Investigation and Research" project, sorting out the types and geographical distribution of PV+ projects in China, and conducting field research of PV+ projects in different cities and provinces in China.
- 2 • GEI conducted a comprehensive analysis of China's photovoltaic installed capacity and the development status of photovoltaic power generation projects. We also carried out field research regarding different types of PV+ projects of more than 20 enterprises in Hainan Province, Ningxia Hui Autonomous Region, and Guangdong Province.
- 3 • Based on the survey results and data analysis, we summarized the operating mode, cost-effectiveness, and policy support of PV+ projects in different regions throughout China, and put forward the comments and recommendations relating to carbon neutrality.



## Business Carbon Neutrality in Shanxi

- 1 • According to the influencing factors, such as energy demand, economic contribution, and social employment ratio of Shanxi Province, GEI sorted out and analyzed key energy-using industries in Shanxi Province, screened the key energy-using enterprises in key sectors according to the analysis results, and analyzed their carbon accounting and emission reduction potential.
- 2 • Based on the analysis of emission reduction potential and the results of carbon accounting, we calculated the emission peak, designed the steps and roadmap of carbon neutrality for companies, and evaluated the input-output ratio and the social benefits in the process of emission reduction from the perspective of cost and benefit.

# Future Work

Based on the preliminary research, GEI will complete and release a report on domestic solar PV+ projects in China and a report on business carbon neutrality. Cooperating with local governments, we will carry out the "county-wide photovoltaic promotion" planning pilot projects and constantly carry out the research on the carbon neutrality of enterprises in other sectors based on the research in the industrial sector.



# 1.2 Renewable Energy Development in the ASEAN-China region



## Background

In 2020, COVID-19 swept the world. The spread of the COVID-19 pandemic has had a massive impact on ASEAN countries' economies, production, and life. Meanwhile, the negative effects of climate change are increasing in this region as well. Since 2020, ASEAN countries have been affected by extreme weather (e.g., floods and typhoons) to varying degrees, resulting in an increasingly challenging economic development situation in the ASEAN region. The year 2021 marks the 30th anniversary of establishing ASEAN-China dialogue relations, which have brought tangible benefits to 11 countries and more than 2 billion people. In the field of climate change, China has introduced its own experience, science, and technology to ASEAN countries to help them cope with climate change.

In 2021, GEI's "ASEAN-China Cooperation on Regional Renewable Energy Development" project assisted Indonesia and Vietnam in launching and completing the assessment of their own photovoltaic power generation potential and the research on financing mode. Meantime, we organized several capacity-building workshops for local officials and experts in the field of renewable energy development planning from ASEAN countries.



# What We Did

## Vietnam

From December 2020 to February 2021, GEI cooperated with our Vietnamese partner GreenID and Beijing University of Civil Engineering and Architecture in completing the identification of all rooftop resources in Bac Lieu, Dong Thap, and Quang Tri of Vietnam by using the AI technology, which provides data support for the subsequent development of the Vietnamese government's rooftop PV project for public buildings.

On 5 July 2021, GEI hosted an online workshop for GreenID on the business model, input-output financial analysis tool, and technology for solar project investment, thus providing technical support for subsequent investment and financing analysis of distributed photovoltaic projects in Vietnam.



## Myanmar



In 2021, on the basis of completing investment and financing analysis and business mode scheme analysis of three types of renewable energy investment and financing projects in Myanmar, GEI conducted matchmaking with Chinese financial institutions, investors, and photovoltaic enterprises, respectively, including Ford Impact Investment Team, POLY SOLAR, CHNT PV Myanmar Project leader, LONGI New Energy Assistance Project leader, Shenzhen Power-Solution Small Photovoltaic Home Solution Team, etc. We communicated with various stakeholders to discuss investment possibilities for distributed PV projects in Southeast Asia.

GEI completed the rooftop photovoltaic power generation project in the industrial park of Mandalay City, the off-grid photovoltaic power generation project in small villages of the Mandalay region, and the investment feasibility analysis and financing pattern design of the proposed scheme of switching from diesel-electric power to photovoltaic power in Myeik shrimp farm. These cases were included in the report entitle *Solar Energy Resource Potential and Potential Investible Photovoltaic Projects in Myanmar*. The report was officially released at a seminar on "ASEAN-China Renewable Energy Potential and Investment and Financing Cooperation after COVID-19" held in Yinchuan in September 2021. Meanwhile, GEI completed and updated the business plan for the proposed project of switching from diesel-electric power to photovoltaic power in a shrimp farm in the Myeik Islands region of Myanmar.





## Indonesia

In collaboration with our Indonesian partner Institute for Essential Services Reform (IESR), GEI has analyzed Indonesia's PV resource potential and completed the national PV potential assessment report - *Bringing Indonesia to the Gigawatt Club: Unleashing Indonesia's Solar Potential*. In March 2021, GEI and IESR jointly held an online report release conference. Based on scientific data, the results showed that Indonesia had 16 to 95 times more photovoltaic resources than the Ministry of Energy and Mineral Resources (MEMR) of Indonesia had announced, which significantly increased the confidence of Indonesia in photovoltaic resources development.

## Future Work

GEI will complete the reports on photovoltaic potential and investment and financing modes in Indonesia and Vietnam. In conjunction with IESR t, we will conduct research on Indonesia's national biomass potential and work with the Indonesian Institution - People Resources and Conservation Foundation (PRCF), to accomplish joint research on investment and financing modes and carry out PV solar pilot projects of clean electricity in rural Indonesia.



Overseas  
Investment,  
Trade, and the  
Environment



## 2.1 Promoting Law Enforcement Cooperation between China and Other Countries to Jointly Combat the Global Illegal Wildlife Trade Chain

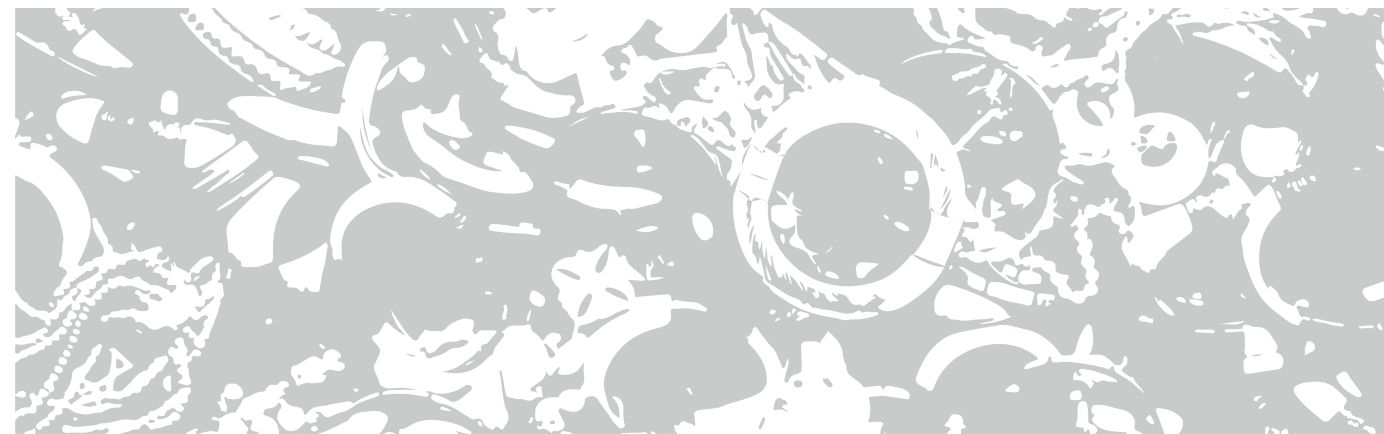


© Wang Kai, Xinhua News Agency

### Background

The global illegal wildlife trade is a significant threat to wildlife and biodiversity conservation, and its supply chains involve multiple sources, such as the transit and consumer countries. As one of the key countries in fighting against global illegal wildlife trade, China has taken a variety of firm domestic policies and law enforcement measures. For example, China stopped the processing and sales of ivories for commercial purposes at the end of 2017; in 2020, China's top legislature adopted a decision to "thoroughly ban the illegal trading of wildlife and eliminate the consumption of wild animals to safeguard people's lives and health."

Through preliminary research, GEI found out that due to the lack of policies and law enforcement between China and other supply-chain countries and regions, as well as coordination and cooperation between relevant governments, enterprises, and non-government sectors, domestic measures taken by China have no significant effect on combating cross-border illegal wildlife trade. In addition, there are some shortcomings in domestic laws and regulations on wildlife trade, utilization, transportation, delivery, and carrying, as well as inter-departmental management and coordination, and this has the potential to hinder the effectiveness of the fight against illegal wildlife trade.



# What We Did

In 2021, GEI constantly coordinated the exchanges and cooperation between China and other critical supply chain countries and regions, promoted law enforcement capacity building and communications, and conducted the demonstration work on community participation in combating cross-border illegal wildlife trade on the China–Myanmar, and China–Laos borders. In addition, through research and discussions, we provided recommendations for legislation and policy formulation on combating illegal wildlife trade at the national and international levels.

## Coordinated bilateral policy exchanges and cooperation between China and other countries, and promoted law enforcement capacity building and exchanges:

- 1 • Under the framework of forestry cooperation agreements between China and Myanmar and between China and Cambodia, we coordinated and promoted dialogues among forestry and CITES authorities in China, Cambodia, and Myanmar. We drafted bilateral cooperation agreements, formulated action plans, and jointly strengthened wildlife-related joint law enforcement, exchanges, and capacity building.
- 2 • We cooperated with Nanjing Forest Police College in jointly compiling a Chinese and English textbook entitled *Law Enforcement Capacity Building against International Wildlife Crimes*, and creating an online training platform and courseware, which were planned to be officially launched at the end of 2021.
- 3 • We successfully hosted the “Capacity Building and Exchange Workshop on Combating Transnational Wildlife Trafficking (China, Cambodia, and Lao PDR)” in Kunming, Yunnan, on 26–27 October 2021. More than 60 government and law enforcement officials from China, Laos, Cambodia, and domestic and international experts and scholars participated in the meeting, online or offline.

## Demonstration of border community participation in combating cross-border illegal wildlife trade:

- 1 • China–Laos border: Within the territory of China, GEI cooperated with Shangyong Management and Conservation Station of Xishuangbanna National Nature Reserve in Yunnan Province in carrying out a pilot project on the mode of Community Conservation Concession Agreement (CCCA) in Nanman Village, Longmen Village Committee, Mohan Town, Mengla County, on the China–Laos border. Within the territory of Laos, GEI cooperated with the Lao Biodiversity Association (LBA), a local organization, in conducting questionnaire surveys and interviews in four village-level communities in Boun Nueu, Phôngsali. A feasibility analysis report on the participation of local communities in combating cross-border illegal wildlife trade was completed, and the recommendations on community selection for future community demonstration projects were put forward.
- 2 • China–Myanmar border: Within the territory of China, GEI cooperated with Gaoligong Mountain National Nature Reserve in Yunnan Province in carrying out a CCCA project in Shibantang, Autonomous Village, Mingguang Township, Tengchong City, on the China–Myanmar border. Meanwhile, within the territory of Myanmar, GEI established preliminary communication with BRIDGE, a local organization, to launch a demonstration project in the Banwa Region on the China–Myanmar border.

## Research and recommendations on illegal wildlife trade and utilization and the relevant international cooperation:

- 1 • We completed the English version of two reports: the *Political Economy Analysis of Illegal Wildlife Trade in Myanmar and the Political Economy Analysis of Illegal Wildlife Trade in Cambodia*.
- 2 • We supported Cheng Yuyan, Professor at the Department of Law Teaching and Research, the Party School of Guangdong Committee of CPC, to complete the *Disrupting Illegal Wildlife Trade in Guangdong-Hong Kong-Macao Greater Bay Area: A Study on policy and enforcement cooperation*.



**3** • We completed a report entitled *Criminal Case Study of Common Destruction of Wildlife Resources for Medicinal Purposes*, sorted out the laws and regulations relating to the crime of destroying wildlife resources for medicinal purposes, and selected and analyzed five to ten cases of legal precedents concerning the destruction of wildlife resources for medicinal purposes. The involved species included: *Manis pentadactyla*, antelope's horn, *Carcinosophus rotundicauda*, etc.



**4** • We constantly researched the bilateral and multilateral cooperation mechanisms for combating wildlife crime under the "Global Initiative to End Wildlife Crime framework" and promoted the strengthening of the international fight against wildlife crime under the United Nations Convention against Transnational Organized Crime (UNTOC) framework.

## Future Work

In the next few years, we will establish a network for NGOs in China and other supply-chain countries to combat illegal wildlife trade, strengthen capacity building, exchanges, and cooperation among local NGOs in various countries. The network will also promote closer cooperation between NGOs and relevant government departments, law enforcement authorities and enterprises, with the following objectives to be achieved:

- 1** • We will constantly assist China to conduct policy dialogues with relevant government authorities in other supply-chain countries such as Myanmar and Cambodia, promote bilateral and multilateral cooperation in combating wildlife trade, and conduct online and offline trainings and exchanges on law enforcement capacity building, and support the promotion of joint regional and global law enforcement actions against illegal wildlife trade chain.
- 2** • We will constantly implement, improve and expand pilot projects for the participation of border communities in combating cross-border illegal wildlife trade, promote cooperation and unity among communities in China-Myanmar, China-Laos, and China-Vietnam border areas, and strengthen efforts to combat cross-border illegal wildlife trade between China and neighboring countries at the community level, establish "cross-border convention implementation demonstration zones" in China, and promote the model of community participation in combating cross-border illegal wildlife trade to other countries in Southeast Asia and Africa through experience sharing.
- 3** • Taking the logistics industry in the Lancang-Mekong region as an example, we aim to promote the establishment of a regional alliance in the logistics industry to support the combat against illegal wildlife trade, promoting the linkage between relevant industries and law enforcement authorities, and carrying out regional cross-industry and cross-sector cooperation in combating illegal cross-border wildlife trade.
- 4** • We will carry out more in-depth research on illegal wildlife trade and utilization and provide recommendations on legislation and policy formulation to combat illegal wildlife trade at domestic and international levels.



# 2.2

## Exchanges and Cooperation between China and Latin America on Agricultural Expansion and Deforestation

### Background

In 2020, China's agricultural imports accounted for about 60% of the global market share. China is a crucial demand-side market for agricultural products globally, and the international supply of agricultural products with quality and quantity guaranteed plays an essential role in China's food security and food and agricultural guarantee. Meanwhile, in the contexts of global climate change and biodiversity conservation, China's domestic demand for and awareness of green agricultural product value chain is gradually increasing. Such market signals can help market participants in the supply chain, especially production countries, understand their potential unsustainable factors and facilitate the transition to a more sustainable agricultural product value chain through various initiatives.



From Latin America-China supply chain management perspective, we believe that the exchanges between China and various stakeholders in Latin American countries need to be improved. The two sides can conduct dialogues, research, and cooperation on agricultural issues, focus on unsustainable factors in the agricultural supply chain, and jointly explore and find solutions to ensure the safety and stability of the supply chain. From the perspective of interdisciplinary management, agriculture and animal husbandry are deeply correlated with biodiversity conservation and climate change, and agriculture and land use account for 25–30% of global GHG emissions. Therefore, GEI aims to put agricultural issues under the framework of critical international issues such as biodiversity conservation and climate change, and explore their relevance and collaborative solutions, to enable the agricultural sector to make substantial contributions.

### What We Did

**1** • GEI cooperated with the project of Transparency for Sustainable Economies (Trase), a British forest management organization, in carrying out surveys on sustainable agricultural development in Brazil to learn more about the impact of local agricultural development on rainforests and the potential food and agriculture risks that China may face. Meanwhile, GEI cooperated with the Earth Innovation Institute to sort out the sustainable development policies and practice cases of Brazil's agricultural sector and analyze the development of future carbon-neutral agricultural products and potential carbon market trading.



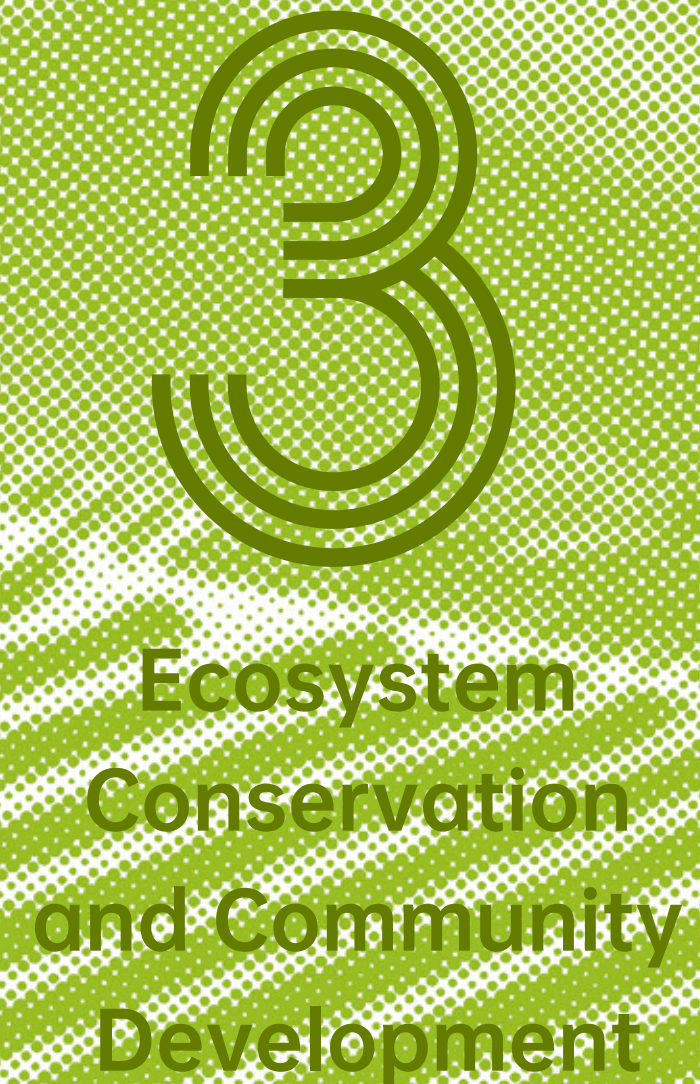
**2** • We cooperated with the China Chamber of Commerce of Import & Export of Foodstuffs, Native Produce and Animal By-Products (CFNA), the National Center for Climate Change Strategy and International Cooperation (NCSC), the China Environmental United Certification Center (CEC), the Chinese Academy of Social Sciences (CASS), etc. in carrying out a series of researches from different perspectives, including China-Brazil trade and investment areas, Brazil's agricultural response and "nature-based solutions," standards and market analysis of carbon-neutral beef products in Brazil, etc.

**3** • GEI participated in the CBD COP15 NGO Parallel Forum as a non-state actor and hosted the sub-forum on "Transformational Actions in China-Brazil Agriculture and Biodiversity Conservation." GEI attended the Chinese Enterprise Corner of the UNFCCC COP26 in Glasgow and hosted the Chinese Enterprise Corner side event themed "Supporting the Sustainable Development of China-Brazil Agricultural Supply Chain through Policy Transformation and Technological Innovations." National and local government representatives, research institutions, and other stakeholders from China and Brazil participated in the side event online and offline. Participants had heated discussions on hot issues in China-Brazil agriculture.

## Future Work

**1** • Based on the previous work, we will promote preliminary consensus between China and the BRI countries (upstream and downstream of the supply chain) on establishing a sustainable agricultural products trade chain with reduced/zero deforestation. To strengthen communications and collaboration with supplier countries, GEI plans to sign a memorandum of understanding with the government and institutions of Mato Grosso, Brazil, to promote the implementation and development of future projects and support innovative agricultural policies and the development of smart agriculture locally.

**2** • We will promote the establishment of China's agricultural sustainable development committee platform, conduct research and facilitate exchanges and cooperation between Chinese stakeholders and producer countries in terms of standards and certification relating to zero deforestation for their agricultural products, such as beef and soybean, and promote mutual recognition of standards for zero-deforestation or zero-deforestation contents of beef. We will improve China's domestic awareness of zero-deforestation agricultural products and provide market support for producer countries to develop sustain-





# 3.1

## Ningxia Yunwushan Conservation Concession Agreement and Ecology-Based Poverty Alleviation on the Loess Plateau

### Background

Yunwushan National Nature Reserve, located in Guyuan City, Ningxia Province, is in the loess hilly semi-arid region of southern Ningxia. Under the wide slope of cropland and little rainfall, local communities live mainly on pasture animal husbandry with low income. Furthermore, due to the establishment of the nature reserves and the whole-area grazing prohibition policy, herders have to change the traditional way of breeding, which increases production costs and jeopardizes local herders' welfare to a certain extent. Since 2011, GEI has cooperated with Ningxia Yunwushan National Nature Reserve Administration and introduced the CCCA mode. We encouraged the nature reserve and the surrounding villagers to sign the "Grassland Conservation Concession Agreement" and participate in the patrol of the nature reserve. Besides, the villagers can get the patrol fee, grass seed, production tools, and others in return.

### What We Did

In 2021, GEI commissioned the nature reserve to complete the Investigation Report on Rural Economic Status of Ningxia Yunwushan National Nature Reserve through a community questionnaire survey. The report analyzed communities' economic and industrial status and the situation of participation in conservation. It advises on conservation and development funds and suggests local communities develop distinguished industries and improve technical training. In March 2021, GEI and the Yunwushan Administration jointly organized the "Training on the Ecological Economy and Rural Revitalization for Communities in Ningxia." We invited experts from the fields of the conservation concession agreement, ecological planting, ecotourism, nature education to share theory and practical experiences and provide technical training on tree pruning for communities to increase fruit yield and income. Meanwhile, experts investigated the primary conditions, landscape resources, cultural resources, and geographical conditions of the nature reserve and the surrounding areas of Guyuan City, which provided a foundation for future eco-tourism development.

### Future Work

As one of GEI's longest-running CCCA projects, the Yunwushan CCCA project has passed the 10th year. We hope that this project can demonstrate community participation in ecological conservation and the development of an environmental service-based economy and provide a reference for the harmonious development of economy and ecology adapting in the semi-arid region of the Loess Plateau.





## 3.2 The Development Model of Ecological Service-based Economy and the Ecological Civilization Construction

### Background

In 2017, GEI applied to the Special Fund for Ecological Protection and Community Development under the China Green Carbon Foundation for the project "Practice and Promotion of Ecological Service-based Economic Development Mode in Communities in Western China." The project mainly relied on the practice projects in Qinghai, Ningxia, Sichuan, Yunnan, and other places to promote the practice of ecological service-based economy. So far, the project has carried out CCCA capacity building for 19 NGOs and research institutions in western China. Cooperating with Renmin University, the project has carried out a preliminary investigation on the foundation of the ecological service-based economy based on the Qinghai project site and preliminarily demonstrated the feasibility and innovativeness of ecological service-based economy. On this basis, from the perspectives of both theory and practice, we further

polished the basic theory of development mode of ecological service-based economy, improved the ecological products supply capacity of the nature reserve and its surrounding ecosystems, established a fundamental mechanism for social enterprises to participate in the development mode of ecological service-based economy, and improved the public's awareness of and participation in the development model of an environmental service-based economy. In addition, based on China's national park system and other systems, the project also constructed "special demonstration zones" for the ecological service-based economy and built and improved the development model of China's ecological service-based economy. It promoted the construction of the economic foundation for ecological civilization.



# What We Did

## 1) Maozhuang Ecological Courier Station

GEI invested 100,000 RMB in Benkanglimin Cooperative in Maozhuang Township to build the 2-story building of the cooperative as an "ecological courier station." Maozhuang ecological courier station is the first stop for tourists to enter Maozhuang Township for ecotourism. The station introduces the principles that ecotourism should follow, such as safety rules, local culture, religious beliefs, and wildlife survival rights. We also compiled the "Qinghai Sanjiangyuan Nangqian Community Natural Experience and Ecotourism Manual," which provides the tour route refer-

ences. According to the preliminary research and investigation, Nangqian ecological travel routes involved natural resources, cultural resources, geological features, intangible cultural heritage science, and education, and included wildlife monitoring via infrared camera, instrument measurement of water quality change, professional identification of wildlife and other protection-related knowledge, thus providing an ecotourism feast for tourists from the perspective of leisure and a professional standpoint.

## 2) The Scientific Bird Conservation at Changannaoer Lake

In collaboration with local cooperatives and NGOs, GEI compiled the Manual on the Management of Dry Salt Lakes and the Manual on Bird Protection for Abaga Banner, Xilin Gol League, and Inner Mongolia Autonomous Region to provide reference and learning materials for bird patrol and protection as well as natural education and training. Together with

local government, cooperatives, and the Chaganzhuo'er Dry Salt Lake Management Association, we jointly organized community-based ecological conservation, ecotourism, and natural education and training to enhance communities' reception capacity for ecological conservation and scientific bird watching.

## 3) Ecological Conservation Development in Guoqie Community

In 2021, we supported the Nangqian Guoqie Lancang River Ecological Protection Group to conduct ecological patrol and protection activities. The project formulated a more detailed Ecological Monitoring, Patrol, and Protection System for Guoqie Temple Community based on the existing environmental patrol and protection mode. We also established the unified monitoring, patrol, and protection data management method. Meanwhile, we funded the ec-

ological conservation team with fifteen telescopes (one for each patrol team) and three infrared cameras so that team members could observe the trail of poachers and animals in the jungle. In addition, we also supported two patrol guards in Guoqie Community to participate in the ecological protection and ecological service-based economy training organized by GEI in Qilian Mountains to learn about the organizational forms and reception mode of ecotourism.







## Future Work

We will further promote the application and scale-up of ecological service-based economy, establish a more comprehensive network of community service-based economy, organize regular training activities, promote national park portal community to practice the development mode of ecological service-based economy, and intensify communities' participation in the ecological conservation, and increase communities' incomes. Besides, we will also carry out the research and demonstration work concerning the national park franchise.

# 3.3 Yalu River Estuary Wetland Communities' Participation: The Ecological Service-based Economy and Exploration

## Background

Yalu River estuary wetland is one of the most important wetlands in Northeast Asia and the only national nature reserve in the Dandong region. However, human activities, such as engineering construction, unsustainable aquaculture, and water pollution, seriously threaten the biodiversity in the area and challenge the environmental conservation of the Yalu River estuary wetland. Therefore, the reserve has been carrying out water quality monitoring, migratory bird protection, and wetland remediation for many years and actively exploring the road of ecological protection and development.



In July 2021, funded by the World Wildlife Fund (WWF), GEI launched the project "Community Participation in Conservation Practice and Exploration Based on Ecological Service-based Economy" in the Yalu River Estuary Wetland Reserve. In 2019, GEI cooperated with the reserve to carry out the first practice and exploration of community participation in wetland and bird protection; in 2021, GEI introduced the development mode of community ecological service-based economy and selected one to two communities for demonstration. By signing the coastal wetland management and protection agreement, the local communities were encouraged to participate in ecological remediation actively, and patrol monitoring of wetland bird habitats explored the ecotourism development mode for bird watching. The project has preliminarily set up the development model of the ecological service-based economy for coastal wetland communities, provided a model for the ecological protection and development of communities around protected areas, and supported their application for World Heritage sites.



# What We Did

In September 2021, GEI went to the reserve to carry out the first community baseline survey by visiting Kulong Village of Dongshan Town, Xutuo Village of Beijingzi Town, Daludao Village of Gushan Town, and a local catering enterprise named "Haibianyuji" in Donggang City. Through questionnaires and interviews, we gathered the data about the ecological protection status, threatened bird habitat, and economic status of the reserve, and preliminarily grasped the relationship between the reserve and the communities as well as the development potential of ecotourism in this region. With the help of the reserve, we completed the Report on Bird Survey in the Yalu River Estuary Wetland Reserve; we are developing the Report on Community Socioeconomic Survey in the Yalu River Estuary Wetland Reserve and the Dykes and Dams Repair Plan and Monitoring Plan for the Yalu River Estuary Wetland Reserve, so as to provide references and recommendations for the development of natural experience-based economy, such as ecotourism and scientific bird watching.



# Future Work

In the future, we will establish the mode of ecological conservation and community-based ecological, economic development in the Greater Yellow Sea Basin, and gradually set up the development system of community ecological service-based economy by cultivating communities' capacity in terms of protection, management, and economic development, especially the reception capacity for ecotourism and scientific bird watching. Meanwhile, we will strengthen the research on the protection of migratory birds and their habitats along migratory birds' flight routes and the relevant practice and establish the international and domestic community-based conservation and development exchange networks in the Greater Yellow Sea Basin. This mode provides a reference model for the ecological protection of other sea basins and the environmental and economic development of communities and a reference for the government in the ecological management of sea and river basins.



# 3.4 Non-state Actors' Participation in CBD COP15

## Background

On October 11, 2021, the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP15) was held in Kunming, China. Under the theme of "Ecological Civilization: Building a Shared Future for All Life on Earth," the international community claims to work together to formulate a new framework and more ambitious conservation targets for global biodiversity conservation in the next ten years. In addition to sovereign states and regions, biodiversity conservation also requires the active participation of all aspects of society, among which "non-state actors" are vital forces in biodiversity conservation. Under this consensus, scientific research institutions, enterprises, non-governmental organizations, local communities, youth, and women's groups promised to protect biodiversity. The actions of non-state actors can arouse the investment by and determination of the whole society in biodiversity conservation while better promoting the UN Convention on Biological Diversity. Huang Runqiu, Minister of Ecology and Environment, pointed out at the CBD COP15 NGO Parallel Forum that biodiversity was the basis for human survival and development; facing the global environmental crisis, we must seriously consider and examine the relationship between human and nature, respect nature, conform to nature, protect nature, and protect Earth—our only home. As an effective bridge connecting the government, enterprises, and the public, NGOs are essential forces in strengthening ecological and environmental protection and promoting green, low-carbon, and sustainable development.

## What We Did

### 1) The CBD COP15 Preheating Activities

July 25 to 26, 2021, GEI successfully held the CBD COP15 parallel activities preheating meeting - "Forum for Non-state Actors' Contributions to Post-2020 Global Biodiversity Conservation." With "Building a Shared Future for Human and Nature: Non-state Actors' Contributions to Post-2020 Global Biodiversity Conservation" as the theme, the conference invited experts, scholars, and youth representatives of governments, research institutions, non-governmental organizations, and universities from more than ten countries around the world to discuss the role of non-state entities' participate in biodiversity conservation.



### 2) The CBD COP15 NGO Parallel Forum

September 27 to 28, 2021, the CBD COP15 NGO Parallel Forum was held in Kunming, Yunnan Province, and more than 400 NGOs and stakeholder representatives from over 30 countries on five continents participated in it. The NGO Parallel Forum was co-hosted by the CBD Secretariat, the Ministry of Ecology and Environment, as well as the China NGO Network for International Exchanges (CNIE), and jointly undertaken by six organizations, including the Global Environmental Institute (GEI), the China Environmental Protection Foundation (CEPF), the Paradise International Foundation, the Society of Entrepreneurs and Ecology (SEE), the All-China Environment Federation (ACEF), as well as ClientEarth. This forum was one of the eight parallel events of CBD COP15 and an important event of the Sharm El-Sheikh to Kunming Action Agenda for Nature and People, which provided a platform for non-state actors, especially NGOs, to participate in the dialogue and experi-



ence sharing on biodiversity conservation. As one of the undertakers of the forum, GEI mainly hosted the theme forum "Nature-based Solutions to Climate Change: Construction of the ASEAN-China Mangrove Ecological Corridor," the theme forum "Intended Contributions by Non-state Actors and Post-2020 Biodiversity Conservation Goals," as well as the closing ceremony of the NGO parallel forum.

The NGO Parallel Forum provided more comprehensive and in-depth references and recommendations for the post-2020 biodiversity conservation and diversified and multidimensional nature-based solutions to climate change, mangrove conservation, and community-based biodiversity conservation. At the forum, we launched the "Initiative for ASEAN-China Mangrove Conservation" and the initiative "Towards Kunming, My Commitments for Nature." Nearly 300 representatives of environmental NGOs, youth groups, women's groups, local communities, media, and other non-state actors from the world participated, online or in person, in signing the initiatives for intended contributions. On behalf of environmental NGOs, Jin Jiaman, Executive Director of GEI and Deputy Secretary-General of Global Climate Action Initiative (GCAI), solemnly promised to make intended contributions as non-state actors.

From October 11 to 15, 2021, GEI participated in the first part of CBD COP15 as an observer to the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity and supported the "Ecological Civilization Forum."



3) Promoting the Non-state Actors Participation in Biodiversity Conservation: The Establishment of the Platform for Africa-China CSOs Dialogue on Biodiversity Conservation

In 2020, GEI, together with the Civil Society Alliance for Biodiversity Conservation (CSABC) and the African CSOs Biodiversity Alliance (ACBA), established the "Platform for Africa-China CSOs Dialogue on Biodiversity Conservation." In 2021, the platform hosted four webinars on hot biodiversity topics, such as "how can CBNRM Deliver Inclusive, Fair, and Equitable Conservation for People and Nature" and "the Role of Indigenous People and Local Communities in the Post-2020 Global Biodiversity Framework." We communicated and discussed with conservation scholars and stakeholders around the world. The platform promoted African CSOs to participate in and fulfill their intended commitments, assisted African stakeholders to participate in the CBD COP15 and the NGO Parallel Forum, and conveyed the voice of African partners on conservation.

In September 2021, GEI assisted ACBA in submitting four best cases to the call of 100+ Biodiversity Positive Practices and Actions around the World selected Highlights. The "Locally Managed Marine Areas in the Western Indian Ocean" submitted by CORDIO East Africa was successfully selected as one of the 100+ Global Typical Cases on Biodiversity.





4) Towards Kunming: My Commitments for Nature

At the beginning of 2020, GEI launched the research on intended contributions by non-state actors and carried out baseline surveys and information collection. With the official authorization of the CBD COP15 Executive Committee Office, we carried out the activity entitled "Towards Kunming: My Commitments for Nature," launched intended commitment training, called for public participation and other related work, and submitted the collected intended commitments for biodiversity conservation to the official platform of COP15 Executive Committee Office and CBD secretariat. As of November 2021, the GEI platform collected 44 intended commitment forms, ten quick commitment forms for institutions, and ten declaration forms for international institutions.

During 11–15 October 2021, GEI participated in the first phase of CBD COP15 as an observer to the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity and co-hosted the "Ecological Civilization Forum". At the closing session of the meeting, Xu Guang, Chairman of China Environmental Protection Foundation (CEPF), read out the consensus and recommendations of the NGO Parallel Forum and made a solemn commitment.



Specific action process

- 1 Pre-registration | Voluntary Commitment Training**  
The voluntary commitment registration started from June 1 to June 25, 2021. Various stakeholders from different fields were encouraged to participate in making commitments to biodiversity conservation.
- 2 Training and Worksho | GEI & CSABC**  
From June 25 to July 25, 2021, institutions and individuals preparing to submit their commitments were trained to regulate the registration forms.
- 3 Commitment Submission |**  
Committed Institutions/ Associations/ Individuals  
From July 10, 2021, to August 30, 2021, institutions and individuals submitted their future biodiversity conservation plans and filled out the commitment online.
- 4 Review and Evaluation | Leading Agency**  
From August to September 2021, reviewed by GEI and the CSABC, the qualified commitments would be submitted to the relevant authorities for final evaluation.
- 5 CBD Secretariat Website Update |**  
COP15 Executive Committee Office / CBD Secretariat  
From September to October 2021, the high qualified commitments were recommended to the CBD Secretariat and displayed on its official website. The representatives from these submitted organizations were invited to the CBD COP15 conference.



5) Public Awareness Increase on Biodiversity Conservation

GEI and Civil Society Alliance for Biodiversity Conservation (CSABC) have published the Biodiversity Newsletter since February 2020. The Newsletter aims to regularly organize and share domestic and international voices and actions on biodiversity-related topics. At the end of 2021, twelve issues were published. Meanwhile, GEI carried out comprehensive cooperation with new media platforms and magazines, such as LOHAS, gongyi.weibo.com, and other social media platforms to increase public awareness of biodiversity conservation, and jointly produced various cultural and creative activities derivatives, including special issues on biodiversity.



Future Work

In the future, we will continue to host dialogues and webinars on the Platform for Africa-China CSOs Dialogue on Biodiversity Conservation and look forward to launching new projects. Based on the post-2020 biodiversity conservation framework, we will follow up on the implementation of intended commitments by non-state actors, further promote civil society to make intentional commitments, take conservation actions and jointly contribute to the realization of the Kunming Declaration. We will also participate in the second phase of CBD COP15 and explore the implementation mechanism and resource mobilization mechanism for intended commitment targets together with the forces of global non-state actors, to provide solutions for the realization of intended commitment targets. In addition, we will work with our African and Southeast Asian partners to carry out popular science campaigns, promote the mainstreaming of biodiversity, and call on more Latin American countries to participate in the process of intended commitments by non-state actors.





## 3.5 East and Southeast Asia Community Conservation Network (EASACCN) and Promoting Community Participation in Biodiversity Conservation



### Background

Many biodiversity hotspots overlap heavily with densely populated areas in East and Southeast Asia. Therefore, environmental protection in East and Southeast Asia is closely related to the development of local communities. Based on this, community organizations in East and Southeast Asian countries have carried out community-based conservation work in succession to encourage community participation in environmental protection and provide corresponding support and guidance. According to incomplete statistics, there are currently nearly ten international NGOs, such as the Conservation International (CI), the World Wildlife Fund (WWF), and the Wildlife Conservation Society (WCS), carrying out community-based conservation work in biodiversity hotspots in China and Southeast Asia. Local NGOs conducting community-based conservation in China and Southeast Asia are even more numerous.

However, after communicating with local NGOs in China, Myanmar, Indonesia, Cambodia, Vietnam, and other countries, we found out that although NGOs in all countries are carrying out community-based conservation projects and playing a particular role in environmental protection, they often lack the related capacities of application for funding, project management, community participation in the sustainability of conservation, environmental monitoring, etc. in their respective implementation of community-based conservation and development work, thus affecting the effectiveness of community-based conservation projects. In addition, the scope of

community-based conservation carried out by NGOs in various countries is distributed in a fragmented manner, and their conservation only solves specific environmental issues on a minor scale. However, these small-scale fragmented conservation efforts do not address many environmental problems, including mangrove degradation, illegal wildlife trade, and non-renewable energy. Therefore, we need to expand the Community Conservation Concession Agreement (CCCA) model on a larger scale and even, through it, influence national policy so that community-based conservation can be implemented more effectively in a bottom-up approach.



# What We Did

## 1) Establishment of the East and Southeast Asia Community Conservation Network (EASACCN)

In January 2021, we jointly launched and established the East and Southeast Asia Community Conservation Network (EASACCN) with 11 NGOs from 8 countries, including China, Myanmar, Laos, Vietnam, Cambodia, Indonesia, the Philippines, and Thailand. To achieve the United Nations Sustainable Development Goals for 2030 and the Post-2020 Global Biodiversity Framework, EASACCN gathered non-profit organizations in many countries, formed transnational and trans-regional cooperation programs for community-based conservation, and let community-based conservation be recognized and supported by all stakeholders. Meanwhile, we also issued five bi-monthly newsletters and a case set of EASACCN members to strengthen the publicity and promotion of EASACCN.

## 2) Cross-border Community-based Conservation Pilot Projects

In cooperation with the Xishuangbanna Natural Reserve in Yunnan Province and the Lao Biodiversity Association (LBA), we set up pilot projects in Mengla County of China and Boun Naua Region of Laos on the China-Laos border. Through the CCCA mode, local communities were more inclined to participate in fighting against illegal wildlife trade, and a community fund of 100,000 Yuan was established. Meanwhile, we cooperated with the Myanmar Forest Association (MFA) and the Indonesian social organization Yagasu Foundation in establishing community-engaged mangrove conservation projects in Shrike Town, Tanintharyi, Myanmar, and East Java, Indonesia, respectively, so as to support seven communities in Myanmar and two communities in Indonesia to carry out mangrove remediation, patrol, and conservation and develop mangrove-related products. We also cooperated with the Indonesian Office of the Peoples Resource and Conservation Foundation (PRCF) and Chinese renewable energy enterprises in conducting energy demand assessments in eight villages in northern Sumatra, Indonesia, combining the CCCA model with rural energy promotion, and establishing a new demonstration business mode.

## 3) Supporting the Capacity Building of the EASACCN Members

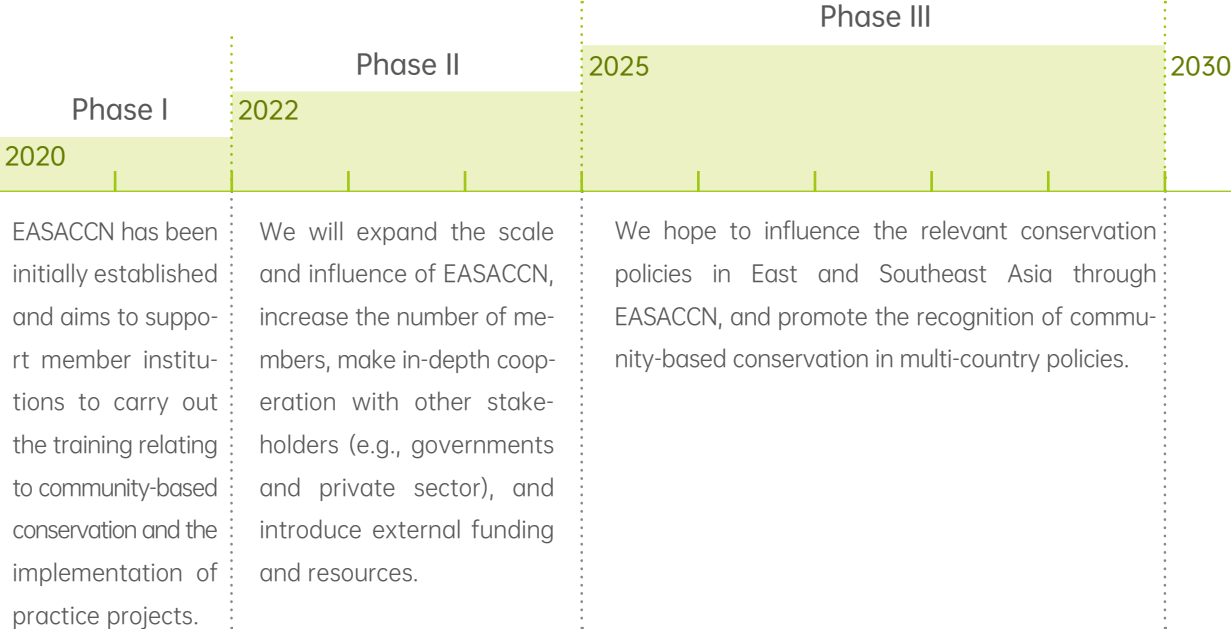
As one of the undertakers of the CBD COP15 NGO Parallel Forum, GEI supported and assisted EASACCN members to participate in the NGO Parallel Forum. Among them, MFA from Myanmar, Yagasu Foundation from Indonesia, and PRCF from Vietnam made speeches at the forum and introduced their working achievements. Meanwhile, the project cases of seven EASACCN member institutions, including GEI, were selected into the 100+ Biodiversity Positive Practices and Actions around the World selected Highlights. In addition, EASACCN supported seven member institutions as non-state actors to commit to making intended contributions to the Convention on Biological Diversity (CBD) "Action Agenda" and design the area of community protected areas, endangered species, and the number and scale of projects to be launched from different directions. Meanwhile, participating institutions will also develop their strategic plans for fulfilling their commitments and monitor the targets to be achieved. In 2021, EASACCN also held two platform training workshops to share the experience of developing the CCCA model in China.





## Future Work

EASACCN will work according to the goals set for the three phases.



In 2022, we will focus on promoting the East and Southeast Asia Community Conservation Network (EASACCN) and invite more domestic and international organizations to join it. Meanwhile, we will support more institutions to carry out project development through EASACCN, implement pilot projects through cooperation, explore the possibility of community participation in solving different environmental issues, and expand the influence of community-based conservation.





# 4.1 "Inspiration from Nature Sustainable Community Development Fund" Project



## Background

In 2021, the "Global Environmental Innovation Fund" project supported and funded three projects:

- ◎ Eliminating the Bad Habit of Indiscriminately Eating Wild Animals;
- ◎ Community-based Conservation Capacity Building for NGOs in China and Southeast Asia;
- ◎ The Sustainable Development of Myanmar Fisheries.

## What We Did

### 1) The Study of the Deficiency of China's Ban on Wildlife Consumption and Its Current Enforcement Mechanism

The project was completed in 2021 and achieved expected outcomes, including sorting out the legal deficiency of the comprehensive prohibition of wildlife consumption, putting forward recommendations on law enforcement and supervision over illegal wildlife trade, and providing scientific study and recommendations for the formulation of the edible terrestrial and aquatic animal "white list" from the perspective of protection. Meanwhile, the project put forward the principles and recommendations for complete prohibition or strict whole-process control of several important wild animals as Chinese medicine.

### 2) Capacity Enhancement of Chinese and Southeast Asian NGOs in Conducting and Promoting Community Conservation Concession Agreement (CCCA)

In 2021, the project officially established the East and Southeast Asia Community Conservation Network (EASACCN). 11 NGOs from China, Myanmar, Laos, Vietnam, Cambodia, Indonesia, the Philippines, and Thailand the co-sponsors of the network. Since the establishment of EASACCN, the project team and membership organizations have jointly implemented the community-based illegal wildlife trade combating project, the mangrove conservation project, and the renewable energy project in the China-Laos border areas, Indonesia, and Myanmar.

### 3) Myanmar-China Fisheries and Aquatic Wildlife Conservation Co-Research

In 2021, the project set up a Myanmar-China fishery cooperation platform, supported by experts from the government and scientific research institutions, to support future Myanmar-China cooperation in sustainable fishery development. In addition, the project actively cooperated with experts to complete two research reports, one is on the general situation and challenges of Myanmar's fishery development, and the other one is about the analysis of Myanmar-China fishery cooperation and the advice and suggestions on sustainable fishery development.



## Future Work

In 2022, the project will hold a series of capacity-building training to strengthen cooperation with the Myanmar government and think tanks. Meanwhile, GEIF will constantly focus on forward-looking and innovative areas and projects in 2022 and provide financial support for GEI to explore new working and researching areas.

# 4.2

## "Inspiration from Nature Sustainable Community Development Fund" Project

### Background

In 2021, the Inspiration from Nature Sustainable Community Development Fund focused on the Genie Mountain area in Litang County, Sichuan Province. Genie Mountain is located in the western part of Ganzi Tibetan Autonomous Prefecture, Sichuan Province, China, which is in the heart of the Hengduan Mountains and at the eastern edge of the Qinghai-Tibet Plateau. Genie Mountain has rich biodiversity and a well-preserved ecosystem with extremely high ecological, scientific, and aesthetic value. Meanwhile, as the critical courier station along the Ancient Tea-Horse Road, Genie Mountain also has significant cultural value. Nonetheless, the local government and relevant departments have little experience making Genie Mountain a national park. In addition, as Genie Mountain is just opened to the public, the development of the whole area faces a series of problems. Meanwhile, the Genie area belongs to traditional Tibetan nomadic communities, where the average annual income of each household is less than 30,000 RMB, and the source of income mainly comes from digging Chinese caterpillar fungus and Chinese herbal medicine. Faced with the constant flow of tourists, local villagers lack basic skills and knowledge of eco-tourism and eco-products. Thus, the Inspiration from Nature Sustainable Community Development Fund launched and supported three projects in the Genie area in 2021 to promote the development of eco-tourism.



# What We Did

## 1) Genieyunhe Ecological Education Center Pilot Project

Taking national park as the path, communities as the main body, and community conservation concession agreement (CCCA) mode as the method, we promoted the development of natural education, research, and ecological economy in the nature reserve through the innovative mode of environmental education and community development center. We hope that through the participatory construction of Genieyunhe Ecological Education Center, we can set up a multi-stakeholder pilot for community-based conservation and sustainable economic development featuring the "national park mode."

In 2021, we coordinated various stakeholders and preliminarily established the CCCA management mechanism, completed the 2021 Tourist Management System of Genie Mountain, the Application for the Franchise of Genie Mountain, and the Pilot Program on Standardizing the Franchise and Sustainable Development of Communities (Outline), and facilitated the Management Committee of Haizishan Nature Reserve and the Government of Genie County to specially permit Genie Company to operate traveling business. Based on the CCCA mode, we provided local horse caravans and women with capacity-building training and assisted them in conducting community-based wildlife conservation and sustainable development activities. In addition, we set up the "Genie Plateau Natural Museum/Natural Classroom" in the community schools to host ecological education courses and activities. Moreover, we designed and implemented a series of eco-friendly environmental education and citizen science activities in the past year.



©Forest school

## 2) Genie Mountain National Park Project

The Genie Mountain National Park Project aims to promote Genie Mountain as a national park and a world heritage and provide preliminary research and path recommendations for this long-term goal.

In 2021, we invited experts to the Genie region. During this field research, we checked the local needs and the current situation of ecological conservation and gave professional advice and recommendations. Communicating with the local government and the nature reserve management department, we established the Genie Mountain Traditional Culture and Environmental Education Center to provide advice and paths for conducting nature education activities in the region. Meanwhile, we communicated with various stakeholders, including the Government of Litang County, Haizishan Management Committee, and Genie Mountain Scenic Area Development Company, to help them understand the national park policy and development prospects of eco-tourism.



3) Genie Mountain Women's Empowerment Project

The project provided the women's group in Zeba Village with livelihood training on ecological services. We invited experts to the village to help increase the group's environmental tourist reception skills. Thus, we improved women's participation and initiative in community development and helped them build up their cultural confidence.

In 2021, we cooperated with China Women's Development Foundation in launching a crowdfunding campaign on Tencent Charity "99 Giving Day." With the fund, Shi Xiaolin, a textile cultural and creative designer from Shanghai, and Hu Jingbei, a plant dyeing expert from Jiangxi, were invited to Zeba Village to host a handicraft workshop for local women to create unique handmade products with traditional Tibetan culture. Under the guidance of the teachers, 13 women in Zeba Village learned to make handmade products with ethnic characteristics and completed a market order worth 30,000 RMB.

Although the project has been completed, we are still looking for opportunities to keep the project sustainable. The project team has hosted a product promotion meeting of the Zeba women's knitting group in Shanghai and gotten three intentions of orders through communicating with buyers and potential partners in Shanghai.



©Shi Xiaolin

Future Work

In 2022, we will actively support the construction of the national park in the Genie region, conduct more profound path research, and promote the construction of an ecological service-based economy pilot in the Genie region. Meanwhile, the Inspiration from Nature Sustainable Community Development Fund will open a new project site in Xiaojin County, Sichuan Province, in 2022 and take Maoshui Village as a pilot village to research the value realization path of ecological products in the western mountainous area and practice the rural revitalization case of east-west cooperation.



# 4.3

## "Jianzhou Wanmu Forest Ecological Protection and Development Fund" Project

### Background

Wanmu Forest in Jian'ou County, Fujian Province, covers an area of more than 1,600 mu. It is a natural forest that has been protected by a family from generation to generation since the Yuan Dynasty. In the past 600 years, Wanmu Forest has gradually evolved from a Chinese fir forest with a simple structure to a subtropical evergreen broad-leaved forest with a complex system and high stability since the Yang family enclosed and protected it. In 1957, Wanmu Forest was designated by the Ministry of Forestry as the first batch of areas prohibiting cutting and chopping natural forests (nature reserve). It is the only nature reserve that originated from an artificial forest in the world.

Although Wanmu Forest has a long conservation history and has become several popular sciences, education, and practice bases, the Wanmu Forest region is still facing the following problems. First, Wanmu Forest has a certain degree of visibility within the province but little reputation in China and the world. Second, the ecological conservation in Wanmu Forest is mainly conducted by the Yang family and lacks scientific research and academic study. At last, the environmental value of Wanmu Forest is not well explored. It cannot be well merged with the national macro policy to promote the ecological development of its surrounding areas.

### What We Did

In 2021, GEI was invited by local enterprises in Fujian Province to investigate Wanmu Forest, Fujian. After several rounds of research and discussions, at the end of 2021, we determined to cooperate with the Fujian Jianzhou Wanmulin Health Wellness and Tourism Development Co., Ltd. in setting up the "Jianzhou Wanmu Forest Ecological Protection and Development Fund" Project, with the aims of playing the respective advantages of social welfare institutions and enterprises and building the Wanmu Forest rural ecological civilization construction and the mode of an ecological service-based economy.

### Future Work

In 2022, we will conduct ecological, cultural education work in the Wanmu Forest region through recruitment and fundraising. At the same time, we will start researching the ecological brand promotion path in the Wanmu Forest region.



# 5 Marine Conservation

## 5.1

### CBD COP15 NGO Parallel Forum I Focusing on ASEAN-China Mangrove Conservation

As one of the co-hosts of CBD COP15 NGO Parallel Forum, GEI organized the first sub-forum - "Nature-based Solutions: The Establishment of ASEAN-China Mangrove Eco-Corridor" - on September 27, 2021.



Mr. Xie Zhenhua, Special Envoy on Climate Change of China and Co-chair of Global Climate Action Initiative (GCAI), Ms. Rachel Anne Herrera, Climate Change Commissioner of the Office of President, the Philippines, and Dr. Thet Thet Zin, President of Myanmar Women's Affairs Federation and former Deputy Minister of Ministry of Natural Resources and Environmental Conservation, attended the meeting online and delivered speeches via video. Mr. Chen Dehai, Secretary-General of the ASEAN-China Centre, and Dr. Chen Guangcheng, Researcher of Third Institute of Oceanography, Ministry of Natural Resources of China, shared their opinions on sustainable development, regional cooperation, and the current mangrove conservation in the ASEAN-China region. NGO

representatives from Myanmar, Indonesia, and China shared with the participants their mangrove conservation cases. In addition, leaders from the Ministry of Natural Resources of China, the Department of Environment and Natural Resources of the Philippines, the Ministry of Environment of Cambodia, and the Department of Marine and Fisheries of Indonesia discussed the challenges of ASEAN-China mangrove forests and marine conservation at the forum. Meanwhile, representatives from the International Finance Forum, Xiamen University, the IUCN Asia Office, WEF's Friends of Ocean Action, and the Critical Ecosystems Partnership Fund also talked about how multiple stakeholders can better cooperate on mangrove conservation.



An aerial photograph of a mangrove forest. The water is a vibrant turquoise color, and the trees are a dense, lush green. The forest is situated along a coastline, with a sandy beach visible in the foreground. The trees are scattered throughout the water, creating a pattern of green islands. The overall scene is a beautiful representation of a healthy mangrove ecosystem.

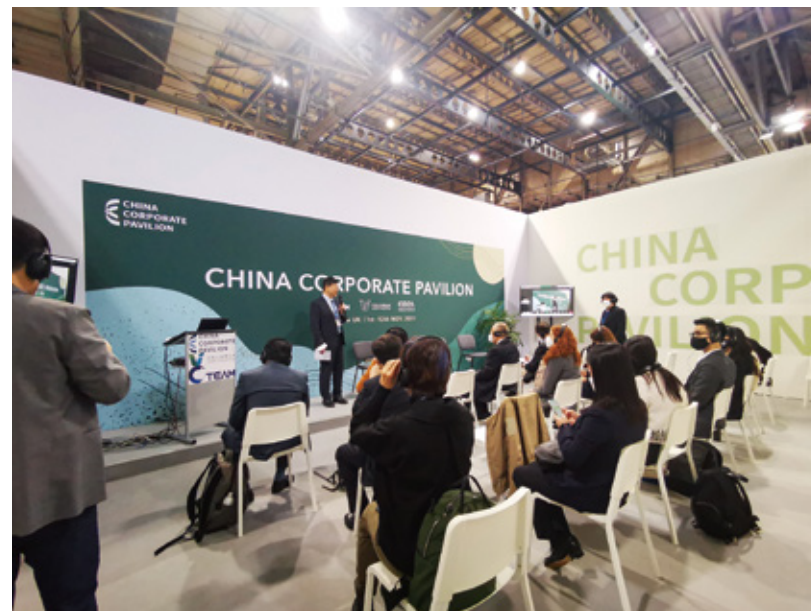
Under the guidance of the GCAI, the forum announced the “ASEAN-China Mangrove Conservation Initiative” and officially launched the Initiative. 19 NGOs from China and five ASEAN countries, including Vietnam, Myanmar, the Philippines, Thailand, and Indonesia, joined the initiative. The initiative marked a new chapter in ASEAN-China mangrove conservation.



# 5.2

## UNFCCC COP 26 | ASEAN-China Regional Conservation and Cooperation under the Glasgow Declaration

On November 11, 2021, GEI held the “Energy Transition and Natural-based Solutions: Practices from ASEAN-China Regional Cooperation” side event on the United Nations Framework Convention on Climate Change (UNFCCC) COP26 to discuss with the experts and scholars some popular issues on climate change, such as international cooperation, the applications of GEI's toolkits in ASEAN countries, and the China-ASEAN mangrove conservation and energy transition.



Dr. Wang Yi, a Member of the Standing Committee of the National People's Congress, Vice President of the Institute of Science and Development, Chinese Academy of Sciences, hosted the event. Mr. Xie Zhenhua, China's Special Envoy on Climate Change, Co-chairman of GCAI, attended and delivered opening remarks, and Mr. Chen Dehai, Secretary-General of ASEAN-China Centre, gave a keynote speech on the environmental cooperation in the ASEAN-China region. Mr. Li Haiyan, Secretary-General of GCAI, and Dr. Zhang Jiqiang, Board Chair of the GEI, delivered a concluding speech at the side event.

As one of the first Chinese environmental NGOs carrying out overseas projects, GEI gained experiences in energy transition and nature-based solutions development in the ASEAN-China region. Our project partners from Myanmar, Indonesia, Vietnam, and the Philippines participated in the conference and shared their works regarding energy transition and mangrove conservation. Addressing climate change requires the efforts of different stakeholders. The conference provides successful experiences and great examples of multi-actor's participation in regional cooperation. We hope that NGOs can get more support from the local governments to effectively promote renewable energy development and mangrove system conservation.



# 5.3

## Cooperation with Fishermen: Exploration of Fishing Gear Optimization and Sea Turtle Conservation



### Background

The emergence and development of modern fishing gear and methods have extended the fishing scale and operating range. At the same time, however, along with the increase of fish catch, the gradual increase in protected marine animals unintentionally caught while fishing has been witnessed. Typical by-catch problems in the world's marine fisheries are grouped into ten categories, one of which is the problem of trawling and sea turtles. Because many shrimp trawling grounds are close to sea turtles' main spawning or feeding sites, shrimp trawling fishery produces more sea turtle by-catch than any other commercial fisheries. In the event of mistaken trawling, sea turtles can be injured or die from being unable to surface to breathe.

Research and practices in reducing bycatch are being conducted actively worldwide in promoting ecosystem-based fisheries management and conservation. Through cooperation with fishers, GEI hopes to explore ways to optimize fishing gear and increase fishers' awareness of environmental conservation to protect threatened marine species and support sustainable fisheries development effectively.



# What We Did

## 1) Conducting Scientific Analysis and Research

Based on the previous analysis of international fishing gear optimization cases and the relevant practices we carried out a review of relevant policies on fishing gear optimization, especially on the use of sea turtle escape devices, in various countries.

## 2) Promoting Fishers' Participating in the Turtle Excluder Device (TED) Experiment

Cooperating with local fishers in Dandong and Zhoushan, we tested the single and multi-bag trawling nets commonly used by fishermen. Meanwhile, we collect fishers' comments and feedback on TED experiments and their inclination toward installation.



## 3) Sea Turtle Rescue Mini-program

Based on fishers' feedback, we modified and updated the current version of the "Sea Turtle Rescue Information Collection Mini-Program." The mini-program was promoted in a variety of ways to collect more bycatch and rescue information, to support the subsequent implementation of sea turtle protection actions.



## Future Work

We hope to unite fishermen groups, governments, scientific research institutions, and other stakeholders through scientific research, practices, and cooperation, to jointly explore the research and practice of optimizing fishing gear, such as trawling net and gill net, to reduce marine animals bycatch and promote sustainable fisheries development.



# 5.4 Promoting Community Participation in Abandoned Fishing Gear Recycle in Hainan Province

## Background

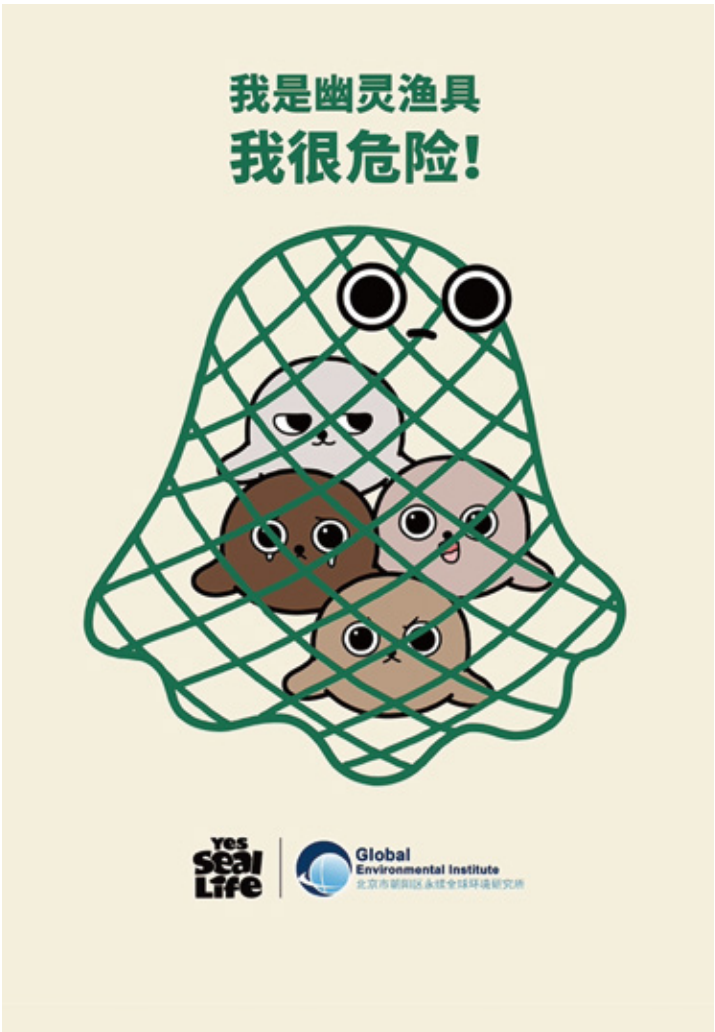
Each year, at least 640,000 tons of fishing gear are lost or discarded in the oceans, accounting for about 10% of global marine debris. These fishing gears are called "ghost fishing gear," also known as "abandoned fishing gear." Abandoned fishing gear is one of the most harmful marine debris and causes many environmental problems that cannot be neglected. Bad weather, operating conflicts between fishing vessels, natural wear and tear, and the imperfect supervision system can cause the emergence of abandoned fishing gears. Abandoned fishing gear can become a potential killer in the oceans, constantly capture target and non-target species, and a significant threat to marine life, marine ecosystem, fishery and human safety. Thus, GEI hopes to explore a tripartite mechanism participated by fishing communities, government, and private sector for recovery and disposal of abandoned fishing gear through the cooperation of fishing communities to effectively reduce the impact of abandoned fishing gear on the ecology, environment, health, and safety of sea turtle habitats and provide a reference for the government to formulate relevant policies at the same time.



# What We Did

In Paigang Village, Tanmen Town, Qionghai City, Hainan Province, GEI cooperated with local government and community in exploring the mechanism participated by the fishing community for recovering abandoned fishing nets:

- 1 · Community co-management in Paigang Village:** We signed a conservation agreement with the community, clarifying the community-based conservation actions, carried out regular and fixed-point patrol and monitoring work, and set up abandoned fishing gear recycle stations managed by local fishers.
- 2 · Exploration of abandoned fishing gear reuse:**Collaborating with the Codes & Things team from Southwest Jiaotong University, GEI explored a unique way of reconstructing fishing gear used by fishers in Tanmen, Hainan Province. Among the 22 schemes, we chose "Smiling Shark Cottage," an ocean-themed interactive art installation, and installed it on the beach of Paigang Village, based on operability and the effectiveness of increasing public awareness.
- 3 · Public education:** Cooperating with our partner, GEI designed and developed the environmental education DIY art product – "Sea Turtle Run." We brought the art product to Rixin Primary School in Tanmen Town, Hainan Province, and taught the kids an exciting handicraft class regarding sea turtles and marine conservation. This course aims to increase the next generation's awareness of marine conservation.
- 4 · Analysis of domestic and foreign cases:** We researched and studied the current instances and methodologies of abandoned fishing gear management and thus provided support for future study of this topic.
- 5 · Exploration of the cross-border cooperation in marine conservation:** We collaborated with Wang XX, a young comic illustrator who created the famous characters of seal and octopus, and How-Bottle, a social enterprise, to reuse and recreate the recycled fishing nets collected from our project site in Hainan Province. Part of the profits will be returned to the community to support the community carrying out fishing net patrol and recovery.



## Future Work

In the future, through the practice and exploration in Paigang Villages, GEI hopes to promote the fisher participation conservation mode to surrounding areas and even more regions. Meanwhile, GEI will effectively explore the back-end market expand the protection scope with fishers' communities as the main body, and provide the government with cases and support in its formulation of relevant policies.



# 5.5 Promoting Myanmar-China Fishery Exchanges and Supporting Chinese Fisheries "Going Out"

## Background

Over the past 70 years, China has grown from deficient fishery production and desperately short supply of fishery products to the world's largest producer and exporter of fish and seafood. China's experience in fishery development can provide a helpful reference for Myanmar and even the entire Southeast Asia region. The fishery is an essential source of the national economy of Myanmar, which provides not only employment opportunities for more than 3 million people but fishery products, a critical protein source for Myanmar people. Maintaining sustainable production and utilization of fishery resources is crucial to Myanmar's economic development and people's daily life.

China has long been good diplomatic relations with Myanmar and has been committed to building a Myanmar-China community with a shared future and pushing Myanmar-China relations into a new era. Nonetheless, the decline of fishery resources, climate change, and human activities are common problems faced both by China and Myanmar in promoting the sustainable development of fisheries. To this end, GEI hopes to promote fishery exchanges and exploration between China and Myanmar and help Chinese fisheries "go out" to promote the sustainable development of Myanmar-China fisheries.

## What We Did

### 1) Scientific Analysis and Research

We cooperated with experts from China and Myanmar in jointly analyzing the general situation, challenges, and opportunities of Myanmar's fishery development, and thus provided a reference for the subsequent formulation of the Myanmar-China fishery cooperation program.





2) Myanmar-China Fishery Exchange Seminar

We co-hosted the "Myanmar-China Workshop on Sustainable Development of Fishery, Aquaculture, and Aquatic Wildlife Conservation Policies and Practices Seminar" with the Department of Fisheries, Ministry of Agriculture, Livestock and Irrigation, Myanmar. Nearly 60 government officers and experts from China and Myanmar's fisheries departments, scientific research institutions, and industry associations discussed critical issues on fishery management, sustainable aquaculture, and marine wildlife protection.



Future Work

We hope to explore the possible cooperation between China and Myanmar in sustainable fishery development through preliminary conservation actions and exchanges and introduce China's effective experience in fishery management and protection to Myanmar through the pilot projects.

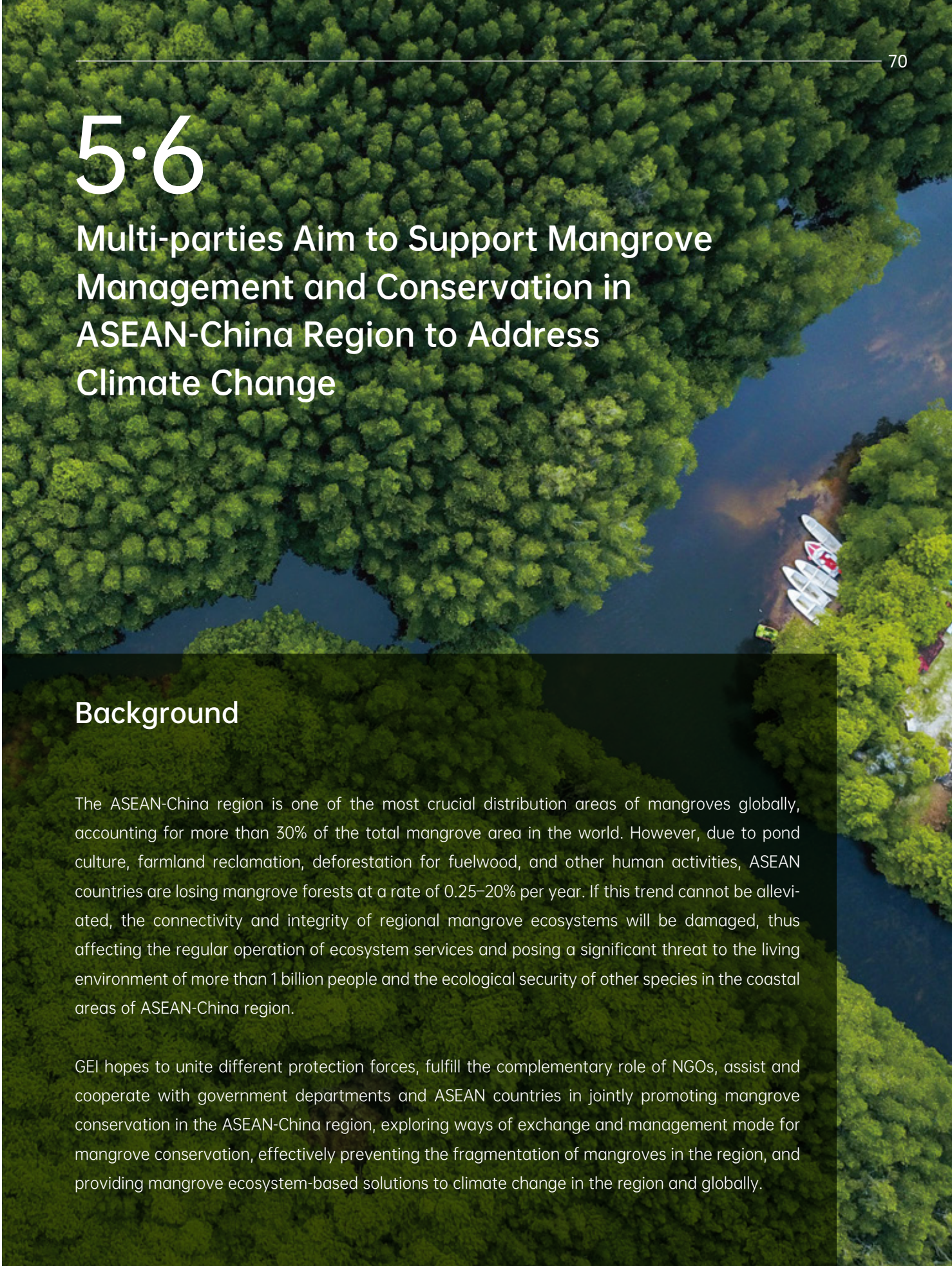
# 5.6

## Multi-parties Aim to Support Mangrove Management and Conservation in ASEAN-China Region to Address Climate Change

### Background

The ASEAN-China region is one of the most crucial distribution areas of mangroves globally, accounting for more than 30% of the total mangrove area in the world. However, due to pond culture, farmland reclamation, deforestation for fuelwood, and other human activities, ASEAN countries are losing mangrove forests at a rate of 0.25–20% per year. If this trend cannot be alleviated, the connectivity and integrity of regional mangrove ecosystems will be damaged, thus affecting the regular operation of ecosystem services and posing a significant threat to the living environment of more than 1 billion people and the ecological security of other species in the coastal areas of ASEAN-China region.

GEI hopes to unite different protection forces, fulfill the complementary role of NGOs, assist and cooperate with government departments and ASEAN countries in jointly promoting mangrove conservation in the ASEAN-China region, exploring ways of exchange and management mode for mangrove conservation, effectively preventing the fragmentation of mangroves in the region, and providing mangrove ecosystem-based solutions to climate change in the region and globally.





## What We Did

### 1) Scientific Analysis

Together with experts from China, Myanmar, the Philippines, Cambodia, India, and Malaysia, we jointly carried out an analysis of the current situation and needs of mangrove conservation in various countries to provide a reference for the subsequent conservation activities.

## 2) Launch of the Joint Initiative

Under the guidance of GCAI, GEI and 19 private institutions in China, Vietnam, Myanmar, the Philippines, Thailand, and Indonesia jointly announced and launched the "ASEAN-China Mangrove Conservation Initiative", which marks a new era in the history the ASEAN-China mangrove conservation.

### 3) Conservation Exchanges

In 2021, GEI participated in and organized the first theme forum of the CBD COP15 NGO Parallel Forum - "Nature-based Solutions: The Establishment of ASEAN-China Mangrove Eco-Corridor" and the side event of "Energy Transition and Natural-based Solutions: Practices from ASEAN-China Regional Cooperation" on the UNFCCC COP26. The conferences increase world-wide, especially ASEAN-China region, awareness of mangrove conservation.

#### 4) Network Building

Under the initiative of GCAI, GEI, the Society of Entrepreneurs and Ecology (SEE), and the Mangrove Conservation Foundation (MCF), worked together to establish the "ASEAN-China Mangrove Conservation Network" and set up the preparatory secretariat. The network was committed to providing no less than 5 million U.S. dollars over the next five years to support the ASEAN-China mangrove conservation and capacity-building activities for network members.



## 5) Regional Influence Enhancement

GEI, together with the local NGOs and schools in China, Vietnam, Myanmar, the Philippines, Thailand, and Indonesia, jointly organize the "Mangroves and I: ASEAN-China Children's Mangrove Art Competition." The competition showed the young generation's determination to protect their homeland and the ecology and environment of mangrove forests and expanded the future influence of the ASEAN-China region.

## Future Work

We hope to establish the ASEAN-China Mangrove Conservation Network under the framework of GCAI and develop a sustainable operation mode. At the same time, we will constantly deepen our cooperation with various stakeholders, find out more funding opportunities to support mangrove conservation hotspots in the region, and conduct research and community-based conservation and mangrove restoration actions.



# 5.7

## Nature-based Solutions: Practice of Community-based in Mangrove Conservation and Livelihood Development in Southeast Asia

### Background

The ASEAN-China region is one of the mangrove degradation hotspots in the world. Human activities, such as aquaculture, rice farming, and palm planting are some of the reasons causing mangrove degradations. At present, more than a quarter of the world's land is directly or indirectly managed by communities. Therefore, making scientific use of natural resources in and near a community while carrying out adequate protection, as well as balancing economic development and mangrove conservation, is a significant challenge for the ASEAN-China region.

GEI hopes to conduct community-based mangrove conservation in Southeast Asia and explore solutions based on mangrove ecosystems.



### What We Did

In 2021, working with our partner organizations, GEI protected and remediated 3,000 hectares of mangrove forests in 10 communities in Myanmar and Indonesia. We also set up CCCA mode and mangrove community forest practices in Tenasserim, Myanmar, and carried out empowerment activities for women in mangrove communities in East Java of Indonesia.



#### 1) Myanmar

The project supported local communities to build patrol teams, enhanced communities' awareness of ecological conservation, and strengthened the ability of management and conservation efforts. To promote the livelihood development of local communities, we distributed breeding pigs to 16 families in poverty and explored the mangrove forests eco-tourism. In addition, GEI worked with partner institutions to actively promote the development of the public-protected forest within the Khanti, Pyin Bu Gyi, and Pyin Bu Nge. At present, the government has officially replied to the proposal.



2) Indonesia

We held formal and informal meetings in Tangsi Village and Klatakan Community to mobilize local communities to participate in ecological protection. We encouraged local people to sign the agreement on mangrove conservation and green development protection and launched several awareness-raising campaigns among villagers and students in the communities, which attracted more than 126 students to attend. Besides, the project conducted alternative livelihood training and explored potential sustainable marketing channels for these products. Seventy-one community women learned how to make eco-friendly mangrove products. In addition to the alternative livelihood training, we also carried out capacity-building workshops on mangrove seedling and planting, ecological monitoring and built community patrol teams to carry out regular patrols and monitoring.

Future Work

We hope to form a policy influence in Myanmar, promote the communities to be certified as protected areas by the government, and support sustainable management and conservation of mangroves in and around the neighborhoods. At the same time, we hope that Indonesia can involve more communities, especially the most vulnerable and vital mangrove communities in Southeast Asia, and women to participate in mangrove conservation. Based on what we did in Indonesia, we plan to expand the community-based mangrove conservation mode to more areas in Southeast Asia.





## Business Activities

January 1, 2021 - December 31, 2021 (unit: RMB)

Income	Unrestricted	Restricted	Total
Donations	17,466,522.50	0	17,466,522.50
Services	207,000.00	0	207,000.00
Other	328,433.18	0	328,433.18
Total	18,001,955.68	0	18,001,955.68
Expenditures	Unrestricted	Restricted	Total
Operating Costs	21,713,213.54	0	21,713,213.54
Other Expenses	921,402.62	0	921,402.62
Total	22,634,616.16	0	22,634,616.16
<b>Change in Net Assets</b>	<b>-4,632,660.48</b>	<b>0</b>	<b>-4,632,660.48</b>

## Balance Sheet

January 1, 2021 - December 31, 2021 (unit: RMB)

Assets	Beginning of Year (2021.1.1)	End of Year (2021.12.31)
Current Assets	68,264,754.11	63,633,173.69
Fixed Assets	110,560.41	73,668.40
Total Assets	68,375,314.52	63,706,842.09
Liabilities		
Current Liabilities	136,450.21	100,638.26
Long-term Liabilities	0	0
Total Liabilities	136,450.21	100,638.26
Net Assets		
Unrestricted Assets	68,238,864.31	63,606,203.83
Restricted Assets	0	0
Total Net Assets	68,238,864.31	63,606,203.83
<b>Total Liabilities &amp; Net Assets</b>	<b>68,375,314.52</b>	<b>63,706,842.09</b>