



—环境资助者网络—
CHINA ENVIRONMENTAL GRANTMAKERS ALLIANCE

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Case Studies

China Environmental Grantmakers Alliance





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Message from the Chairmen

Climate change and environmental pollution are critical challenges both for China and the world. China Environmental Grantmakers Alliance (CEGA), which consists of the most influential environmental foundations in China, joins hands with all parties to compact the challenges. These foundations have accumulated profound experience and scored fruitful achievements in respective practices. We would like to hereby share our experience and success stories through this Case Studies report. The specific and vivid cases included in this report cover a wide range of aspects, such as ecological protection, pollution prevention and control, climate change, dissemination and education, and environmental public interests lawsuits. These are also innovative development stories and nature based solutions. We hope to provide you a rewarding and inspiring reading experience. In the mean time, we would appreciate your comments and suggestions so that we can improve our work in the future.

Established on January 29, 2018, CEGA aims to employ the concept of strategic philanthropy, promote the collaboration and development of environmental grantmakers, guide the grant direction of environmental philanthropy and maximize the social benefits of environmental charitable funds. Conducting this Case Studies



Co-chair of CEGA: Lei Yongsheng



Co-chair of CEGA: Zhang Li

report is our practice to fulfill our mission. We not only share our success stories and experience, more importantly, by selecting and studying these cases, we recap our work, inspire our deep thinking, figure out our priorities, be certain about the direction, and adjust strategies going forward.

We would like to thank Ms. Zhang Ruiying, Executive Director of CEGA, and Mr. Ma Tengyu, Assistant to Director for organizing CEGA's members to carefully select cases and compiling this report. We would also express our appreciation to China Foundation Center (CFC) for its support to CEGA's operation.

Profile of CEGA

Founded on January 29, 2018, CEGA is a platform for the communications and collaborations among Chinese environmental grantmakers. Its mission is to employ the concept of strategic philanthropy, promote the collaboration and development of environmental grantmakers, guide the grant direction of environmental charity and maximize the social benefits of environmental charitable funds.



CEGA isn't an independently registered legal person and operates by relying on CFC. CEGA sets up the Decision-making Committee to guide its operation. The first Decision-making Committee is composed of SEE Foundation, Alibaba Foundation, Beijing Qiaonyu Foundation, Shenzhen Mangrove Wetlands Conservation Foundation, Lao Niu Foundation, Guangdong Harmony Foundation, The Paradise International Foundation, Vanke Foundation, China Green Carbon Foundation, China Environmental Protection Foundation and Friends of Nature Foundation. Each term of the Committee is three years. The Chairman of the Committee is constituted by election of the Committee. Lei Yongsheng, Director of Lao Niu Foundation, and Zhang Li, Secretary General of SEE Foundation, are the first co-chairs of CEGA. Zhang Ruiying serves as the first Executive Director of CEGA.

Major work areas of CEGA

1. Establishing the Data Center for Environmental Charity Organizations, comprehensively analyzing environmental charity projects and providing support for the work of the members;
2. Issuing the annual white paper of environmental charity and guiding the future work direction of environmental charity;
3. Organizing and convening the annual CEGA meeting and promoting the communications among the members and enlarge impact of environmental grantmaking as whole;
4. Promoting international communications and collaborations in environmental philanthropy field and organizing the members to attend important international conferences in relevant fields;
5. Putting in place the classification standards for environmental charity projects and the influence assessment indicator system, thus evaluating the social influence of environmental charities in a systematic and correct way.

SEE Foundation

Established on June 5, 2004, SEE Conservation is the very first social organization in China that takes Society as its own duty, Entrepreneurs as the mainstay and Ecology protection as its target.

SEE Conservation launched SEE Foundation (registered as Beijing Entrepreneurs Foundation for the Protection of the Environment) in 2008. SEE Foundation is dedicated to aiding financially and supporting the development of Chinese non-governmental environmental charities, and building the social environmental protection platform that facilitates ecological protection and sustainable development through joint efforts from entrepreneurs, environmental charities and the public. At the end of 2014, SEE Foundation was upgraded to a public-raising foundation. It regards the development of environmental philanthropy as the cornerstone, and focuses on three fields, including desertification control, green supply chain and pollution control, and ecological protection and natural education.

In 2018, SEE Conservation initiated SEE Philanthropic Foundation (private), which is committed to providing sustainable capital sources for environmental charities and projects.

In order to effectively promote the development of local environmental protection projects, SEE has set up 26 centers for environmental protection projects, and successively initiated many local environmental foundations, social organizations and enterprises, such as Shenzhen Mangrove Wetlands Conservation Foundation, Changjiang Conservation Foundation, Guangzhou Association for Corporate Environmental Production Industry, Xi'an Entrepreneurs Foundation for Environmental Philanthropy, Taiwan Environmental Friendly Association, SEE Ecological Philanthropy Training Institute, SEE Environmental Industry Association, and Beijing Weixi Agriculture Co., Ltd., as it endeavors to constantly promote the steady development of environmental philanthropy in localities.

As of now, SEE has had over 900 entrepreneur members; and supported the work of more than 550 non-governmental environmental charities or individuals in China, either directly or indirectly.

Going forward, SEE will further mobilize and integrate the input of entrepreneurs and social resources, call upon public support and engagement of the general public, give full play to the value of the social environmental protection platform, and jointly protect blue sky and green water.

China's Real Estate Industry Green Supply Chain Action

I. Project Overview:

1. Implementation Time: June 5, 2016 – Present

2. Implementation Scope: The project is implemented across China, with the Secretariat set up at SEE, Beijing.

3. Executing and Cooperating Agencies:

The Secretariat of China's Real Estate Industry Green Supply Chain Action (GSC) is set up at SEE. The decision-making body is made of 9 organizations. Specifically, Tian Ming, Chairman of Landsea Green Group and Rotating Chairman of China Urban Realty Association (CURA), serves as the Chairman, Qian Xiaohua, the sixth Chairman of SEE, is the Executive Director. Committee members include Zhang Li, Secretary General of SEE Foundation, Li Jie, Secretary General of CURA, Zhang Xuezhou, Vice Chairman of China Real Estate Chamber of Commerce (CRECC), Zhao Zhengting, Secretary General of CRECC, Zhou Guomei, Vice Director of the Foreign Economic Cooperation Office (FECO) of the Ministry of Ecology and Environment, Ma Jun, Director of Institute of Public and Environmental Affairs (IPE), Wang Yun, Vice President of Vanke Group, Xie Yuanjian, Vice President of Landsea Green Group, Wang Bing, Chairman of Beijing New Building Material (Group) Co., Ltd., and Yang Xiwei, Vice Secretary General of China Association of Building Energy Efficiency (CABEE). The staffers dispatched by each organization constitute the GSC Working Group.

GSC has six senior consultants, including Ren Zhiqiang, the fifth Chairman of SEE, Nie Meisheng, Honorary Chairman of CREEC, Ai Luming, Chairman of SEE, Chen Jinsong, Chairman of WorldUnion Group, Wu Yong, Chairman of CABEE, and Yu Liang, Chairman of Vanke Group.



China's Real Estate Industry Green Supply Chain Action was officially launched on June 5, 2016.

4. Implementation Process:

Real estate enterprises and their suppliers are the major players under the mechanism of GSC, and green purchasing is pursued by selecting different product varieties based on the specific development conditions of the industry and enterprises. Third-party independent organizations, such as NGOs and testing and certification institutions, provide technical support and scientific remediation plan for suppliers after collecting the instruction documents of the supply chain and testing necessary documents. Meanwhile, the Promotion Committee composed of the co-organizers and the Working Group deliver the white list of purchasing to real estate enterprises, coordinate and oversee their implementation conditions, and urge suppliers with irregularities to make rectification.

II. Direct Project Deliverables:

1. Releasing Report:

Completing the project of “Supply Chain Research of Real Estate-related Industries and Analysis on the Potential of Green Supply Chain Management” of the FECO, finishing typical case analysis, and coming up with policy consultation and suggestions for green supply chain management; participating in the compilation of the chapter of Real Estate Green Supply Chain of Green Supply Chain – Policies and Practices of the FECO; and submitting the manuscript of “Study on Innovative Application of Green Supply Chain” comprehensively planned and mainly edited by the Ministry of Industry and Information Technology.

2. Numbers of Training and Attendees:

GSC conducted training and sharing of hands-on experience concerning green purchasing, wood supply chain management, and environmental compliance scheme of suppliers in 2018. About 100 representatives and purchasing managers of real estate enterprises attended the training, which has enlarged the influence of GSC, and more enterprises have hence joined GSC. The project also hosted the communication and training meeting themed on climate change and carbon market trading, and exchanged views with more than 30 member enterprises of SEE on the development of China’s carbon market and the potential of enterprises to participate in carbon trading. Experts were invited to train more than 60 purchasing managers from over 30 real estate companies at the eighth batch of CURA Centralized Purchasing training and exchange meeting. In 2019, experts of different varieties were invited to provide training for more than 130 purchasing managers from 40 real estate enterprises at the ninth batch of CURA Centralized Purchasing bid planning meeting.

III. Significant Influences:

Based on market mechanism, GSC practices green purchasing by promoting the alliance of real estate enterprises and suppliers. In this purchasing mode, real estate enterprises, as purchasers, require

suppliers to provide eco-friendly and low-carbon products, thus realizing pollution emission reduction and carbon emission reduction from the supply chain. Currently, 100 real estate enterprises have joined GSC, with the annual sales volume approaching RMB2 trillion or about 20% of the total scale of the industry, involving more than 2,000 suppliers of the industrial chain. When it comes to green purchasing this year, we maintain active collaboration with CURA, promoting the green purchasing of 5 varieties among over 150 real estate enterprises and putting into real practice the white list of suppliers. This represents the contribution made by the commercial community and entrepreneurs to achieve the Intended Nationally Determined Contributions (INDC) China pledged under the framework of the Paris Agreement.

IV. Lessons Learned:

Firstly, thanks to the strong assistance from domestic and overseas non-governmental environmental organizations and research institutions, a set of systematic management methods and decision-making mechanism for green supply chain of real estate industry have basically taken shape upon constant explorations and improvements in practice. Secondly, the scope of relevant product varieties under the white list of suppliers has been enlarging continuously, so have the enterprises involved in the white list of a single variety, and enterprises with environmental irregularities have been constantly removed from the white list. As of June 5, 2019, the white list had been updated again. 3,491 enterprises of four varieties are included in the white list, and 1,112 enterprises will be expected to provide public explanation given their record of environmental irregularities in the past three years. As the alternative enterprises of the white list, they can be included in the white list if their previous irregularities are overhauled and explained publicly, and they do not have new irregularities. Thirdly, a certain number of real estate enterprises have been enlisted to join the project as their purchase quantity of building materials and equipment is vital for suppliers, with the number growing from 70 in November 2016 to 100 for now. Fourthly, some green vanguard real estate enterprises, such as Landsea and Vanke, have started to follow the track of the environmental compliance status of their upstream suppliers, and require enterprises with environmental irregularities to take effective overhaul and disclose relevant information to the public. Fifthly, the project has worked with CURA to conduct environmental compliance retrieval on 41 varieties by facilitating the ninth batch of Centralized Purchasing of green real estate and allying with 38 real estate enterprises. This has substantially enlarged green purchasing of real estate. Sixthly, more and more people have been able to know GSC via the official website, WeChat Official Account and relevant publication, and by attending important environmental activities both at home and abroad, such as the Conference of the Parties of the United Nations Framework Convention on Climate Change, and the Working Group has made real estate GSC the benchmark and paradigm of Chinese entrepreneurs' active participation in global environmental protection. Seventhly, the Working Group plans to combine with the Centralized Purchasing of CURA and other institutions,

communicate with the person-in-charge of Centralized Purchasing, and facilitate real estate enterprises to drive the environmental improvement of suppliers via purchasing quantity. Meanwhile, the project is also pushing forward the combination of green finance and green supply chain, and granting awards to real estate enterprises participating actively, such as the “Elite Habitat – Green Supply Chain Enterprise” award of CURA, with a view to encouraging the practical action of real estate enterprises.

Pollution Prevention and Control -- Weilanxia

I. Project Overview:

1. Implementation Time: 2011 – Present

2. Implementation Scope: Nationwide

3. Executing and Cooperating Agencies:

Weilanxia project is co-initiated by SEE, Alibaba Foundation, and Energy Foundation, etc.

4. Implementation process:

By supporting domestic environmental charities, the project is committed to facilitating the disclosure of pollution information, public supervision on pollution sources, enterprise pollution reduction and sustainable development, and accelerating the settlement of water, air, soil pollution and other environmental pollution.

II. Direct Project Deliverables:

1. Funding Chinese Environmental Charities:

A total of 53 mainstream environmental charities in 19 provinces across China had been directly supported as of the end of 2018 via project fund, entrepreneur resources, expert resources and other resources. The first session of the project in 2013 funded 14 projects with RMB1.002 million; the second session in 2014 funded 8 projects with RMB880,000; the third session in 2015 funded 21 projects with RMB2.78 million; the fourth session in 2016 funded 16 projects with RMB3.004 million; the fifth session in 2017 funded 29 projects with RMB5.62 million; and the sixth session in 2018 funded the projects of six environmental charities with a cumulative figure of about RMB3 million.

Disclosure of environmental data:

The project has provided financial aid of over RMB 25 million in cumulative terms for environmental data application partners, with the data covering 3 million enterprises across China and the data

size exceeding 1.4 billion; and formed two public APPs -- Weilan Map APP and Amap Environmental Map. Currently, Weilan Map APP can provide the air quality, water quality of rivers, name of pollutant discharge enterprises, pollution source and other information of more than 300 Chinese cities; more than 10,000 enterprises (with a peak of over 100,000) are included in the list of key pollution discharging units monitored each year.

2. Policy Promotion:

Wan Jie, Member of the National Committee of the Chinese People's Political Consultative Conference, submitted relevant proposals on pollution prevention and control and ecological protection for the 6th consecutive year in 2018, and received positive feedback from relevant departments; this time, he submitted several proposals on pollution prevention and control and ecological protection, including the Proposal on Further Implementing Environmental Protection Law, Atmosphere Law, and Water Law and Promoting the Disclosure of Environmental Information of Major Pollutant Discharging Units and the Proposal for the State Oceanic Administration on Enhancing Mangrove Protection. In 2018, partner Friends of Nature Foundation was funded to submit 8 proposals during the Annual Two Sessions, and successively participate in the legislation and revision of 10 environmental laws and regulations.



Weilanxia – addressor: Wan Dao

3. Environmental Study:

Green Hunan College & University Volunteer Team collected altogether 1,005 effective questionnaires, and produced 12 investigation reports during the 2018 summer holiday. SEE North China Project Center and IPE jointly conducted a field survey on the treatment of black and odorous water bodies of Beijing and submitted the investigation to the official platform via Weilan Map APP in 2018. SIP Lvse Jiangnan Public Environment Concerned Center (PECC) worked with IPE in conducting the investigation into environmental pollution of Ichia Electronics on May 12, 2018.

4. Releasing Report:

Ma Jun, Director of IPE, officially released the SEE 2017 Supervision Report on Black and Odorous

Water Body for the first time at the Water China Forum on March 22, 2018.

5. Public Interest Lawsuit:

In 2018, the Changzhou soil pollution lawsuit was concluded, with funded partner Friends of Nature Foundation, one of the plaintiffs, winning in second trial; three enterprise appellees offered an apology to the public concerning their pollution behaviors via national-level media, paid RMB230,000 to Friends of Nature Foundation and China Biodiversity Conservation and Green Development Foundation (CBCGDF) in attorney fee and travel expense, and paid RMB100 in court acceptance fee in the first trial and second trial respectively within 15 days after the ruling took effect. PECC and Huanyou Science & Technology filed a joint environmental public interest lawsuit against Ichia Electronics on October 30, 2018, which was accepted at the Suzhou Intermediate People's Court.

III. Significant Influences:

By supporting mainstream environmental organizations in China, Weilanxia has found 150,000 enterprises with irregularities and excessive emission on an annual average, and promoted the overhaul of 2,500 enterprises each year via governmental law enforcement, green supply chain and other levers. For example, Chongqing Liangjiang, partner funded by Weilanxia, revealed the "North China Seepage Pit Scandal", which was widely followed by government and media, and facilitated the joint field instigation by the Ministry of Environmental Protection with the People's Government of Hebei Province and the Tianjin Municipal People's Government. Then, professional environmental protection companies were selected upon open tendering to treat waste water and polluted soil.

Users can look over location-based information, such as emission of surrounding enterprises, surface water quality and land pollution via public applications that publicize environmental data, including Weilan Map APP and Amap Environmental Map. By virtue of "Internet + environmental pollution", the project has enabled the public to understand the environment and participate in supervision on enterprises, formed the sound interaction between the public and environmental agencies and polluting enterprises, and facilitated the settlement and improvement of environmental protection issues. For now, over 9,300 enterprises have explained on their pollution conditions, and most of them have started rectification within required timeline. In the second year after Weilan Map APP was released, Vanke and other real estate enterprises joined GSC, and kept iron & steel and cement enterprises with bad data on the database of Weilan Map out of the competitive tender.

In 2018, the public interest lawsuit of the Changzhou soil pollution case promoted the promulgation of the Soil Pollution Prevention and Control Law of the People's Republic of China on August 31, which includes the basic principle that polluters are responsible, and adds that the party responsible for pollution is duty bound to practice risk control and renovation and shall cover all relevant costs, and other provisions.

IV. Lessons Learned:

Firstly, as a long-term project which specially supports pollution prevention and control, the funding of Weilanxia has enabled the survey into and disclosure of industrial pollution in China by domestic environmental charities, and formed the complete environmental logic chain of “public supervision – government follow-up – corporate governance”. Secondly, the funding of Weilanxia has promoted the formation of the public application of environmental data, enriched public understanding about environmental status and enhanced supervision on local enterprises, and improved public participation in environmental protection cause. Thirdly, by releasing environmental supervision report on Water China and other major forums, the project has summed up experience, facilitated more effective treatment of environmental pollution, and enhanced the attention and recognition of people from all walks of life over environmental charities. Fourthly, some green vanguard real estate enterprises have screened their upstream suppliers via the database of Weilan Map APP, given up iron & steel and cement enterprises with bad data, and forced industrial upgrading through market selection. Fifthly, the judgment of second trial of the public interest lawsuit of the Changzhou soil pollution case has made an active exploration in improving the judicial adjudication rules applicable to soil pollution cases, pointed to the impairment of national interest and social benefit arising out of environmental infringement, and provided a reasonable space for non-public charities to file environmental public interest lawsuits against similar cases in the future; demonstrated the concept of refined judgment, showing the ever-maturity of environmental judicial practice; and offered guidance for the standard of case acceptance fee of public interest lawsuit, which will be judged based on major appeal rather than property cases. Sixthly, the project has submitted relevant proposals on pollution prevention and control and ecological protection to the Annual Two Sessions for the seventh consecutive year, co-submitted 12 proposals to the Annual Two Sessions and participated in the legislation and revision of 10 environmental laws and regulations, and promoted the progress in environmental legislation in China. Seventhly, the College & University Volunteer team supported by environmental charities visited the conservation area of centralized drinking water source, looked up surrounding villages, publicized knowledge related to the protection of waterhead area to the residents, and enhanced their environmental awareness.

Endangered Species Protection – “Noah’s Ark” Community Protection Project of Black Snub-nosed Monkey on Baima Snow Mountain

I. Project Overview:

1. Implementation Time: 2016 – Present

2. Implementation Scope: Baima Snow Mountain National Nature Reserve

3. Executing and Cooperating Agencies:

SEE Southwest China Project Center set up and developed the special topic of Noah's Ark Biodiversity Protection in 2011. The main purposes of the special topic are to establish the mode of natural conservation with community as the main body, develop ecological industry that conforms to natural law, build the effective route for the connection between community and market, benefit villagers in protection, form the long-term mechanism under which protection promotes development and development consolidates protection, and earnestly protect the biodiversity of southwestern mountainous area. By protecting existing endangered species, especially protecting ecologically critical area and flagship species, we arouse the public awareness of protection and participation, and gather together social resources. In so doing, we expand habitat protection from points to vast stretches, cover the protection of other species in the same area, effectively facilitate biodiversity protection, and replicate the effective demonstration of protection in southwestern area.

As a special non-governmental association established under the administration of Yunnan Baima Snow Mountain National Nature Reserve, Shangri-la Black Snub-nosed Monkey Protection Association is committed to the protection of black snub-nosed monkey and the comprehensive development of local communities. It is a platform for the communication and collaboration of protecting black snub-nosed monkey, and endeavors to facilitate the contact with wildlife and natural protection organizations and individuals in the Chinese mainland, the regions of Hong Kong, Macau and Taiwan, and from abroad, to jointly organize scientific research, academic communication, popularization of science and special technical training programs related to black snub-nosed monkey, and assists competent authority to undertake certain industrial management work.

By partnering with local protection institutions, SEE Noah's Ark Project protects natural resources and endangered species, puts into effect the action strategy of joint management and protection, values the capacity-building of local protection institutions in the funding project, works to enhance their executive capacity in action, funds and co-implements the following projects.

4. Implementation Process:

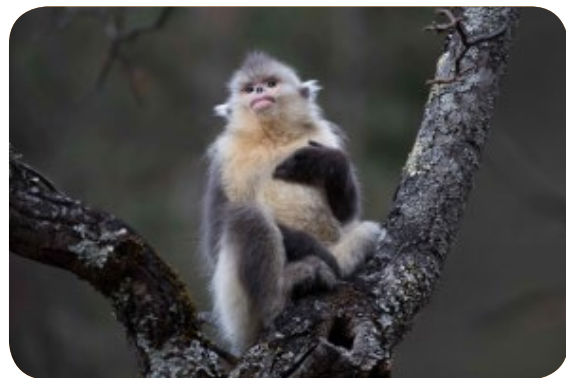
Black snub-nosed monkey is the primate inhabiting on the highest elevation in the world. It is included in the endangered species of international red list, species under first-grade state protection, and is also the flagship and critical species in the virgin forest of Yunnan northwestern area. At this point, the significant strategies for protecting the biodiversity ecological system in Yunnan northwestern area are to protect black snub-nosed monkey, and take it as flagship species to mobilize the conservation of the ecological system of the virgin forest of Yunnan northwestern area.

Since 2016, "Noah's Ark – Community Protection Project of Black Snub-nosed Monkey" has joined

forces with scientists, entrepreneurs, local governments, communities and environmental organizations in elevating the grass-roots patrol and management capacity by improving the patrol equipment of forest rangers within the Reserve of black snub-nosed monkey, with a view to building a more perfect patrol system of the Reserve. In the meantime, the project has raised the income of villagers of surrounding community of black snub-nosed monkey by increasing their means of livelihood; offered natural education, enhanced the awareness of community residents about animal protection, mobilized the enthusiasm and participation of community, and harnessed the synergy of all parties to form a sound atmosphere of protecting black snub-nosed monkey.



Black snub-nosed monkey (Photo provider: SEE Southwest China Project Center)



Black snub-nosed monkey

II. Direct Project Deliverables:

The project has started cooperation since 2016 and achieved the following effects:

1. Building up the capacity of patrol team and the Black Snub-nosed Monkey Protection Association at Baima Snow Mountain Reserve, and enhancing community patrol capacity

(1) Purchasing personal accident insurance, improving patrol equipment, and enhancing the patrol safety assurance and professional ability of forest rangers; buying nearly 300 sets of camouflage coats, thermal boots, outdoor clothing and combat clothing for 151 rangers of Baima Snow Mountain Reserve; constantly purchasing personal accident insurance and medical insurance for forest rangers of Baima Snow Mountain Reserve in Tacheng, Weixi Lisu Autonomous County. The forest rangers of two families died from accident in 2018, and their family members received the full insurance compensation of RMB200,000/person;

(2) Offering 10-plus professional training sessions during the proceedings of the project, improving the capacity and confidence of forest rangers in managing patrol and executing project, and smoothly completing the task of monitoring 15 monkey groups within the scope of Baima Snow Mountain; providing patrol monitoring training for 200 grass-roots forest rangers each year concerning the duties of forest rangers, basic knowledge of field patrol, establishment of infrared camera, forest fire prevention,

and field survival skills; inviting the middle management of the Reserve to Xishuangbanna to attend the training on design of natural education course at Xishuangbanna Botanic Garden and on infrared camera technology; and inviting the senior management of the Reserve to attend the communication and study at the Fanjing Mountain National Nature Reserve;

(3) Assisting financially-stressed forest rangers, and providing financial aid for their children to finish higher education, so that they can throw themselves in patrol work wholeheartedly without worries; providing financial aid for children of 7 forest rangers to complete higher education during the proceedings of the project, including RMB1,500/person/semester for 5 children, RMB2,500/semester for 1 child, and RMB5,000/semester for 1 child.

2. Developing sustainable livelihood by utilizing local native species and resources to help local villagers increase income, and protecting the harmony and sustainability of animal protection and economic development

(1) Providing more than 10 training sessions for villagers of the core habitats of black snub-nosed monkey concerning bee-keeping and the cultivation of traditional Chinese medicinal herbs, including Xiaruo Township of Deqin County, Tacheng Township of Weixi County, and Nanren Township of Deqin County, issuing over 600 sets of training materials, benefiting more than 2,400 person-times, providing 2,875 beehives and 104,000 Dianchonglou (*Paris polyphylla*) seedlings. As a result, 100 households of 4 townships within the scope of the Reserve have mastered the skills and abilities of bee-keeping and cultivation of traditional Chinese medicinal herbs, started to engaged in the movable-frame hive aquaculture of Himalaya bee and cultivation of endangered traditional Chinese medicinal herbs, and therefore, the family income of forest rangers of black snub-nosed monkey and villagers of surrounding community has been lifted. Specifically, the amount of Himalaya bees cultivated by Yu Xinhua, Feng Xuewen and other technical backbones has been kept at 30-60 hives, and the income of honey per beehive can exceed RMB500 per year on average;

(2) Producing 9 local technical backbones in bee-keeping and cultivation of traditional Chinese medicinal herbs for 4 communities surrounding the Baima Snow Mountain Reserve, and setting up bee-keeping mutual cooperatives in 3 areas respectively, namely Xiaruo Township of Deqin County, Tacheng Township of Weixi County and Yangla Township of Deqin County, so that bee-keeping masters can reach out to communities to train villagers, thus establishing the grass-roots network system for technical training;

(3) Putting into use 25 sets of ecological sanitary ware in Xiangguqing and Xiaruo respectively;

3. Launching natural protection publicity and education, and enhancing the protection awareness of local grass-roots administration and patrol villagers

(1) Releasing 10 reports in the series of black snub-nosed monkey on Man & Nature, releasing 12

articles on China Week, and delivering public interest advertisements on both journals successively, with a view to spreading stories about black snub-nosed monkey to the public and introducing the value and meaning of its protection;

(2) Conducting 2 sessions of Baima Snow Mountain Ecological Trailwalk and 3 sessions of Black Snub-nosed Monkey Expedition Summer Camp; attracting SEE members, general public and children from nationwide to learn more about black snub-nosed monkey at the Reserve. Altogether 32 trailwalkers joined the 2018 Baima Snow Mountain Ecological Trailwalk, with 3 of them from Swiss families. This event raised RMB245,000 for boosting the equipment and capacity of forest rangers of the Reserve;

(3) Collecting a series of growth photos of black snub-nosed monkey in Xiangguqing for 10 consecutive months, forming a series of stories about black snub-nosed monkey, including *Danba – Ambitious Hero Wandering in Xiangguqing*, and spreading them to the public via cooperative platforms.

4. Witnessing the steady growth of infant survival rate and population quantity of black snub-nosed monkey groups

In 2014, the population quantity of black snub-nosed monkey of the Baima Snow Mountain Reserve was only about 44; in 2015, 12 were born, with 10 surviving; in 2016, 12 were born, with 10 surviving; in 2017, 8 were born, with all surviving; in 2018, 11 were born, with 10 surviving. After excluding immigration and emigration, the total number adds to about 71.

III. Significant Influences:

The project has improved the livelihood of some local villagers via the training on the cultivation of traditional Chinese medicinal herbs, bee-keeping technology and other alternative means of livelihood, and reduced the dependence on forest wildlife resources, thus achieving the protection of local ecological environment and sustainable economic development.

At the community level, forest rangers and their families have largely enhanced their acceptance of patrol work of the Reserve, and the enthusiasm and initiative of forest rangers and managerial staff of the Reserve have been lifted via constant capacity-building of the Reserve. In 2018, the first-line staffer of the Reserve Zhang Pengwan proposed shooting *Story of Qijin*, a documentary that reflects the work and life of grass-roots forest ranger, and middle management of the Reserve also suggested solutions to reduce community wood usage and actively facilitated the implementation thereof. Meanwhile, the government of Yulong County neighboring to the Reserve actively contributed RMB900,000 to buy the training service of alternative means of livelihood -- bee-keeping and movable-frame hives for local residents. Yu Xinhua and other leaders of the bee-keeping mutual cooperatives initiated democratic management within the cooperatives, and voluntarily trained villagers on bee-keeping and cultivation of

traditional Chinese medicinal herbs. Driven by them, the villagers independently tracked out the skills of producing Dianchonglou and other endangered traditional Chinese medicinal herbs, and suggested building a greenhouse that cultivates seedlings of rare and precious traditional Chinese medicinal herbs such as Dianchonglou to improve livelihood. At this point, the entire community has formed a sound closed cycle of spontaneous protection of the environment, which enjoys strong sustainability.

When it comes to public publicity and education, the project has partnered with Man & Nature, China Week and other well-known Chinese journals to spread the story of protecting black snub-nosed monkey across the country, demonstrate the story of forest rangers and the species image of black snub-nosed monkey, and enhance public recognition about black snub-nosed monkey and public awareness of protecting the species. Ecological Trailwalk, “Monkey King Invites You to Protect Monkey in the Year of Monkey” initiated on Tencent platform, and other fund-raising and publicity events launched by the project have been positively responded by SEE members, enterprises and the public, contributing to the constant improvement of the social influence of the project. In the Black Snub-nosed monkey Expedition Summer Camp for adolescents and children in 2017 and 2018, the course design of “leadership training + development education + concept of United Nations Sustainable Development Goals” has attracted dozens of primary and secondary school students from various regions to pay attention to and participate in the activity of protecting black snub-nosed monkey.

IV. Lessons Learned:

Regarding the design and execution of biodiversity protection project, work in four aspects shall be taken into account:

1. It is important to employ biological science and technology to develop technology for communities that can utilize local resources in a constant way, realize the goal of protecting endangered species, and transcend the limitations of scientific research.

2. It is important to use biotechnology to find the market value of the continuous use of local natural resources, transform villagers’ destructive method of acquiring natural resources in livelihood, benefit the livelihood and increase the income of community villagers, and enable local people to benefit from protection.

3. It is important to establish the system for spreading biological science and technology, including developing course, courseware and simple textbook about technology utilization, and helping community establish training system and collaborative learning group.

4. It is important to enable cooperation between NGOs, scientific institutions and villagers, and grass-roots governments, so as to integrate resources, harness synergy, and promote the transfer of biological science and technology to the public and enhance the biotechnology substitution capacity in

community livelihood.

We hereby share with the readers the following points concerning project design and execution:

1. Project design, execution, monitoring and other links witness the participation of governments, local NGOs, scientists, villagers, entrepreneurs and other parties. Each of them gives play to their respective strengths and harnesses synergy, thus ensuring the scientific nature and sustainability of the project.

2. Based on current forest rangers, the project has enhanced their enthusiasm for work and sense of pride by improving their hardware, including equipment perfection and guarantee for their basic life and property, and built up their service ability from software via capacity-building.

3. The project has provided ecological-friendly means of livelihood, enabled local people to benefit from protecting the ecological environment, and stimulated their initiative to protect the living environment, so that the project can be moved forward in a sustainable manner.

4. Thanks to publicity and education, the project has, on the one hand, enhanced the environmental protection awareness of local people, and guided local villagers to develop and explore towards the environmental-friendly direction; on the other hand, attracted the public to pay attention to the protection of black snub-nosed monkey, conducted experience activity to give the public access to nature, and helped fund-raising while enhancing the influence of the project.

Biodiversity Conservation and Community Development – “Noah’s Ark” Himalaya Bee Protection and Apiculture

I. Project Overview:

1. Implementation Time: 2014 – Present

2. Implementation Scope: Core areas of the Three Parallel Rivers of Yunnan Protected Areas in Lijiang and Diqing Tibetan Autonomous Prefecture of Yunnan Province, area covered by virgin forest, and community of habitat of black snub-nosed monkey

3. Executing and Cooperating Agencies:

SEE Southwest China Project Center set up and developed the special topic of Noah’s Ark Biodiversity Protection in 2011. The main purposes of the special topic are to establish the mode of natural conservation with community as the main body, develop ecological industry that conforms to natural law, build the effective route for the connection between community and market, benefit

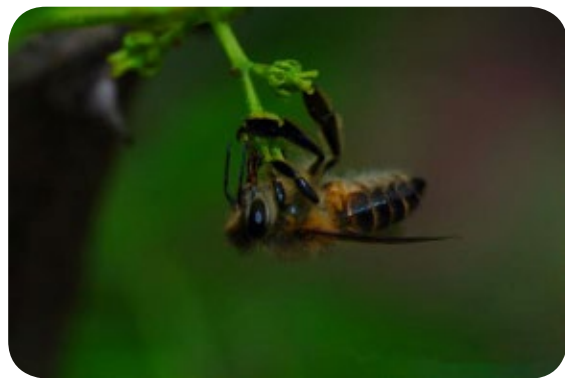
villagers in protection, form the long-term mechanism under which protection promotes development and development consolidates protection, and earnestly protect the biodiversity of southwestern mountainous area. By protecting existing endangered species, especially protecting ecologically critical area and flagship species, we arouse the public awareness of protection and participation, and gather together social resources. In so doing, we expand habitat protection from points to vast stretches, cover the protection of other species in the same area, effectively facilitate biodiversity protection, and replicate the effective demonstration of protection in southwestern area.

Himalaya bee is a subspecies of *apis cerana*, and can be found in southern Tibet, the Three Parallel Rivers of Yunnan Protected Areas and mountainous area of Gaoligong Mountain, mostly in the wild and semi-wild state. The number of bee swarms is less than 200,000, making it a regional tiny population highly resistant to high and cold environment. Himalaya bee spreads pollen for over 70-80% of wild plants in the natural forest of the Three Parallel Rivers of Yunnan Protected Areas. Against the backdrop of the sharp decline in pollinating insect population in the world, it is significant to protect the typical bee species of China and maintain local pollinating insects in the Three Parallel Rivers of Yunnan Protected Areas. Such species is a critical factor that maintains the health and ecology of 10,000 types of higher plants in the Three Parallel Rivers of Yunnan Protected Areas. In the meantime, Himalaya bee is also a sustainable local biological resource that develops the biological industry and mobilizes villagers of remote areas to become rich.

By partnering with local protection institutions, SEE Noah's Ark Project protects natural resources and endangered species, puts into effect the action strategy of joint management and protection, values the capacity-building of local protection institutions in the funding project, works to enhance their executive capacity in action, funds and co-implements the following projects.



SEE new-type beehive



Pollinating Himalaya bee (photo provider: Kuang Haiou)

4. Implementation Process:

Since 2014, SEE Southwest China Project Center has worked with bee-keeping experts and professionals in training community residents of the protective areas on the apiculture technology

of Himalaya bee and issuing specially customized beehives, popularized large-scale apiculture of Himalaya bee, acquired honey and increased family income. To begin with, the project chose those people with bee-keeping history or villagers interested in bee-keeping in the protective areas to open collective training course which covers knowledge about swarm composition, bee habits, annual bee apiculture and management technology, utilization of new-type movable-frame hive, management technology of large-scale apiary, acquisition of bee products, and other technologies; 9 bee-keeping mutual-aid teams have been established, with active bee-keeping leaders as the backbones, thus facilitating active participation and learning, attracting local people with sound bee-keeping technology, large bee-keeping scale and benefits to provide door-to-door guidance for local people to increase income via bee-keeping; the project has established “Qianhuami” brand, a public interest honey brand, given the most ecological honey from high elevation to public interest investors, and helped beekeepers to find a market for honey.

II. Direct Project Deliverables:

Deliverables of the project since 2014 are as follows:

1. The project has organized 50 training sessions, including 14 in spring, 10 in summer, 14 in autumn and 12 in winter, convened 4 advanced training courses, and summarized bee-keeping training courseware;
2. Since the implementation of the project, our bee-keeping technical training has reached out to over 3,000 person-times, and we have issued over 4,000 specially customized movable-frame hives in cumulative terms;
3. We have printed and issued 2,000 teaching materials -- Manual for Scientific Chinese Bee Apiculture Technology and Manual of Honey Plants, produced systematic bee-keeping training courseware, and set up bee-keeping development WeChat group through which we have answered bee-keeping issues online.
4. Over 500 villagers have mastered the basic apiculture technology of movable-frame hive, and shifted from old bucket bee-keeping to apiculture in movable-frame hive; 30 villagers have increased the number of bee swarms to 40 hives, over 50 villagers have learned bee queen apiculture and artificial swarming technology, and about 30 villagers have independently handled artificial swarming and artificial bee queen apiculture. As a result, bee-keeping has gradually become the stable income source of some families;
5. The project has set up 9 bee-keeping mutual-aid teams in northwestern Yunnan; leading active bee-keeping households and technical backbones of the locality have offered field trouble-shooting for villagers, and provided basic bee-keeping technology training for local residents;

6. The project has put in place the administrative measures, identified the management mechanism, provided subsidy for the activity of mutual-aid teams; and local foregoers have mobilized the development of local bee-keeping industry;

7. The number of bee swarms has increased by over 10,000 in northwestern Yunnan via the spreading of bee-keeping technology and provision of beehives. In addition, pollinating Himalaya bee plays a role in conserving and protecting the vegetation of virgin forest of northwestern Yunnan.

III. Significant Influences:

1. The number of bee swarms has increased. As bee pollinates the vegetation of local virgin forest, a beehive can conserve and protect 4-5 mu (about 0.27-0.33 hectares, 1 mu=0.067 hectare) forest, and protect 20,000 mu (about 1,333.33 hectares) mountain forest in the surrounding area. Bee-keeping has become the steady income source and means of livelihood of some families;

2. Family income has been elevated, thus reducing the behaviors of villagers who destroy the ecology due to hunting, tree felling, and medicinal material excavation as the means of livelihood. After understanding honey plants and the relationship between plant and bee to local residents, they have joined the endeavor of protecting virgin forest because they know the better the vegetation, the better the honey harvest.

3. The output of honey products can be directly given to charitable donors and beehive donors. This has increased the donation willingness of the donors, helped the project get access to more social resources, and allowed more people to be part of public welfare.

IV. Lessons Learned:

We have taken into account the following points during project design and execution:

1. It is important to employ local species resources and modern science and technology to develop technology for communities that can utilize local resources in a constant way, and realize the goal of protecting endangered species.

2. It is important to use biotechnology to find the market value of the continuous use of local natural resources, transform villagers' destructive method of acquiring natural resources in livelihood, benefit the livelihood and increase the income of community villagers, and enable local people to benefit from protection.

3. It is important to establish the system for spreading biological science and technology, including developing course, courseware and simple textbook about technology utilization, and helping community establish training system and collaborative learning group, and promote the transfer of

biological science and technology to the public and enhance the biotechnology substitution capacity in community livelihood.

Biodiversity Conservation and Community Development – “Noah’s Ark” Protection of Rare and Endangered Resources of Medicinal Plants

I. Project Overview:

1. Implementation Time: October 1, 2014 – Present

2. Implementation Scope: Core areas of the Three Parallel Rivers of Yunnan Protected Areas in Lijiang and Diqing Tibetan Autonomous Prefecture of Yunnan Province, and community of habitat of black snub-nosed monkey

3. Executing and Cooperating Agencies:

SEE Southwest China Project Center set up and developed the special topic of Noah’s Ark Biodiversity Protection in 2011. The main purposes of the special topic are to establish the mode of natural conservation with community as the main body, develop ecological industry that conforms to natural law, build the effective route for the connection between community and market, benefit villagers in protection, form the long-term mechanism under which protection promotes development and development consolidates protection, and earnestly protect the biodiversity of southwestern mountainous area. By protecting existing endangered species, especially protecting ecologically critical area and flagship species, we arouse the public awareness of protection and participation, and gather together social resources. In so doing, we expand habitat protection from points to vast stretches, cover the protection of other species in the same area, effectively facilitate biodiversity protection, and replicate the effective demonstration of protection in southwestern area.

Protection and utilization of rare and endangered resources of medicinal plants is a cooperative project between SEE Noah’s Arm Team and Lijiang Alpine Botanic Garden, Chinese Academy of Sciences. As the only alpine and subalpine botanic garden in the world with the highest altitude, rich vegetation forms and complete vertical zonation of vegetation, Lijiang Alpine Botanic Garden relies on the Germplasm Bank of Wild Species, a major national scientific project, and Kunming Office of the Institute of Tibetan Plateau Research, Chinese Academy of Sciences. It is a scientific botanic garden focusing on biodiversity protection and mainly covering the introduction and acclimation of rare and endangered plants, special categories and important economic plants of alpine and subalpine areas with over 2,800m altitude, for Eastern Himalayas and Tibetan Plateau. It integrates scientific research, species

conservation, introduction and acclimation, new variety breeding, science popularization service, and sustainable utilization of plant resources.



Garden of endangered resources of medicinal plants
– Chonglou (*Paris polyphylla*) nursery garden
(photo provider: SEE Southwest China
Project Center)



Chonglou
(photo provider: SEE Southwest China
Project Center)

Wild medicinal resources have been exhausted in 40 years of rapid economic development. Firstly, rural residents have excavated wild herbal medicines in quantity to become rich, making vast wild and natural plant resources dry up. Secondly, wild and endangered resources of medicinal plant have reproduced and grown slowly, and been exposed to danger arising out of low natural reproductive rate. Thirdly, the efficacy of wild medicinal resources excavated and planted by villagers has been cut down largely due to improper technology and application of pesticide and fertilizer, imposing a crisis that affects the quality of Chinese herbal medicine.

4. Implementation Process:

Since 2014, SEE Southwest China Project Center has financially aided and partnered with Lijiang Alpine Botanic Garden, Chinese Academy of Sciences in choosing the most endangered medicinal plants with high market value for introduction and acclimation; and developed reproduction and planting technology in view of the challenge of difficult natural reproduction of endangered plants; SEE Noah's Ark Project is responsible for establishing the diffusion system that popularizes technology to community, and has established training materials and 9 community mutual-aid teams. Since 2015, the project has provided planting training for rural community by season each year. As a result, the conservation base of endangered medicinal plants, technology diffusion system and practical training base, and community backbone technical force have basically taken shape.

II. Direct Project Deliverables:

Deliverables of the project since 2014 are as follows:

1. At the beginning of 2016, the project built up a 1,500-m² greenhouse for wild endangered

medicinal plants and rare and endangered plants introduced and conserved, and established container workstation. Since then, the project has conducted local survey of wild plants in the Three Parallel Rivers of Yunnan Protected Areas each year, collected and cultivated tiny population and endangered species, conserved the living female plant of endangered medicinal plants, studied and reproduced seedlings.

2. The project has collected endangered medicinal plants and other rare and endangered species of northwestern Yunnan, introduced seed resources and living plants, mainly collected 150+140+136 seeds, submitted 50+60+60 wild resources to southwestern seed bank for introduction and protection, and submitted them to the Germplasm Bank for species conservation.

3. The project has developed the technology for reproducing and planting endangered medicinal plants: mainly developed the technology for reproducing and planting 5 rare and endangered medicinal materials with high market value in the resource garden: Datou Xuduan (*Dipsacus chinensis*) (10m²), Dianmudan (*Paeonia delavayi*) (20m²), Dianhuangjing (*Polygonatum kingianum*) (20m²), Dianchonglou (*Paris polyphylla*) (100m²) and Zhuzishen (*Rhizoma panacis majoris*) (150m²), formed the introduction and artificial production technology of local good wild varieties, including the system for variety screening, seedling breeding, moving back and planting, and technical training, and developed training materials.

4. The project has expanded the collection of wild medicinal plants, introduction and conservation. The Yunnan Northwestern garden for planting medicinal plants has collected 20 varieties of medicinal plants, mainly including Dianchonglou, Baiji (*Rhizoma bletillae*), Jintiesuo (*Psammosilene tunicoides*), Zhuzishen, Yuyesanzi (*Panax bipinnatifidus* seem), Danggui (*Angelica sinensis*), Yumuxiang (*Saussurea costus*), Huangqinjiao (*Veratrum baillonii*), Datou Xuduan, short-pedicel aconite root, Beimu (*Fritillaria thunbergii*) (including Suoshabeimu (*Fritillaria delavayi* Franch), Anzi Beimu (*Fritillaria unibracteata*), Ping Beimu (*Fritillaria ussuriensis*), Chuan Beimu (*Fritillaria cirrhosa*)), Yanhuanglian (*Corydalis saxicola bunting*), and Dianbiandahuang (*Rheum delavayi*).

5. The project has put in place the network for core technology research and development, township-based planting base, and technical diffusion to peasant household. The project has offered training to over 3,000 people of more than 10 townships of 5 counties of Lijiang, and Diqing of northwestern Yunnan for 4 consecutive years. In the first half of 2018, the project provided guidance for the cultivation of medicinal plants for the cooperative base and practical training stations of Ludian, Jidian and Sanchahe for 7 times. In March, April and September 2018, the project offered 3 training sessions at Qibie Village, Tacheng Township of Weixi County, Shibazhaigou, Tacheng Township of Yulong County, Lunan Village, Longpan Township of Yulong County, and Liangmei Village, Shangjiang Township of Shangri-la. Over 400 people participated in the training concerning the planting of Chonglou, Zhuzishen, Baiji, Huangqinjiao, and Danggui, including soil treatment, seed germination,

planting and pest control, and medicine market.

6. The project has facilitated the diffusion of high-quality seedlings. The project has donated about 30,000 high-quality seedlings of endangered medicinal plants every year, or 141,500 seedlings in total, for 4 consecutive years to forest rangers of the critical area of habitat of Black snub-nosed monkey and villagers of the protective area, and donated 1 billion seedlings to other areas, with a total market value of RMB724,500, with a view to encouraging community residents of forest to reduce the acquisition of forest and learn reproduction and planting independently.

7. The project has formed the long-term science popularization park and demonstration base, and participation and experience activity. Cooperating organizations have made donation to activities where the public participated in high-end plant expedition and ecological trailwalk, observed the reproduction of endangered medicinal plants and rare and endangered plants, experienced the collection of sample and seed of germplasm resources, return-to-planting and the like. Besides, training, scientific popularization and publicity of medicinal plants were conducted in the garden of medicinal plant resources.

III. Significant Influences:

1. After implementation, the project has realized the system for the protection, research and development, technology and social promotion of rare and endangered medicinal plants, established the cooperative platform for scientific research and collection of germplasm resources via cooperation with the civil society, and science popularization and education, and also put in place the long-term base for research and development and technology diffusion for the biodiversity protection and ecological remediation and recovery of northwestern Yunnan.

2. The project has provided guidance for the cultivation of medicinal plants and pest control, and established the demonstration and practical training station of planting base to serve surrounding residents by fostering the planting bases of Ludian, Jidian, Sanchahe and relevant cooperative units.

3. The project has popularized the training of planting technology of 5 endangered medicinal plants in over 10 townships of 5 counties of 2 prefectures, mobilized local communities to sustainably utilize local medicinal plant resources, increase income, and alleviate the conflict between villagers' livelihood and environmental destruction, and played a sound demonstration effect in protecting biodiversity and ecological environment.

4. Villagers who have carefully learned and scientifically planted Chinese herbal medicines have started to look for high-quality herb seeds and reproduce by themselves, and reduced the excavation of herbal medicines in mountain forest. Those who sold Muxiang (*Radix aucklandiae*) and Chonglou in 2017 and 2018 saw their income rise.

IV. Lessons Learned:

Regarding the design and execution of biodiversity protection project, work in four aspects shall be taken into account:

1. It is important to employ biological science and technology to develop technology for communities that can utilize local resources in a constant way, realize the goal of protecting endangered species, and transcend the limitations of scientific research.

2. It is important to use biotechnology to find the market value of the continuous use of local natural resources, transform villagers' destructive method of acquiring natural resources in livelihood, benefit the livelihood and increase the income of community villagers, and enable local people to benefit from protection.

3. It is important to establish the system for spreading biological science and technology, including developing course, courseware and simple textbook about technology utilization, and helping community establish training system and collaborative learning group.

4. It is important to enable cooperation between NGOs, scientific institutions and villagers, and grass-roots governments, so as to integrate resources, harness synergy, and promote the transfer of biological science and technology to the public and enhance the biotechnology substitution capacity in community livelihood.

Alibaba Foundation

Alibaba Foundation (the “Foundation”), jointly initiated by 4 subsidiaries of the Alibaba Group, is a national private foundation registered with the Ministry of Civil Affairs in December 2011. In order to better fulfill corporate social responsibility, establish a long-term and stable charitable funding mechanism, and quickly respond to sudden natural disasters and expand the scope of charitable subsidies, Alibaba Group is committed to earmarking three-thousandths of its annual operating income for public interest cause (the “Three-thousandths Charitable Fund”), which offers the main source of funding for the Foundation.

As a non-profit organization established by an Internet company, the Foundation is built on Alibaba’s philanthropic concept with focusing on environmental protection, in a bid to create a green planet where people and nature coexist in harmony and realize the vision of “bluer sky and warmer heart”. By leveraging the Internet thinking, technical means and platform advantages, the Foundation encourages the wide participation of enterprises and the public, in an effort to facilitate the healthy and orderly development of the environmental protection industry, and strive to create truly sustainable value.

Green Supply Chain CITI Index

I. Project Overview:

In April 2017, Alibaba Foundation launched the “XIN Partner Initiative” to provide long-term strategic fund and resource support to the most influential, most innovative and fastest-growing social organizations in the environmental philanthropy sector to help them break through development bottlenecks, develop mutual assistance and collaboration and jointly cope with the serious environmental issues. At present, 5 organizations including the Friends of Nature, the Institute of Public & Environmental Affairs (IPE), the Green Hunan, the Heyi Institute, and the Guangzhou Green Data have become “XIN Partners”. With the support of the Foundation, they are making concentrated efforts in such areas as legal and policy advocacy, environmental big data applications, volunteer network construction, and social organization cultivation respectively and collaboratively, so as to jointly contribute to the ecological progress in China.

IPE, as the core strategic partner of the “XIN Partner Initiative”, focuses on the quantitative evaluation system for corporate green supply chain management performance – the Green Supply Chain CITI Index under the support of the Foundation. Such practice of environmental big data application supported by the Foundation has played a significantly positive role in promoting environmental information disclosure and improving corporate environmental performance.

II. Direct Project Deliverables

In 2018, IPE released the fifth issue of the report of Green Supply Chain CITI Index, using public data such as government supervision, online monitoring, confirmed public reports, corporate disclosure, and third-party environmental audits to conduct dynamic evaluation on the environmental management performance of corporate supply chain in China.

Some 362 companies in China and beyond have been evaluated by the Index, covering 19 industries including IT, textiles, automobiles and pharmaceuticals. The Index has prompted nearly 60 leading domestic and foreign companies such as Apple, Dell, Adidas, Inditex, Huawei, and TCL to incorporate supply chain environmental management into their procurement standards.

III. Significant Influences:

The Green Supply Chain CITI Index can effectively promote companies to enhance their environmental awareness and environmental protection capabilities towards the green and sustainable environmental performance. In the fifth issue of evaluation, a total of 38 companies began to adopt ecological chain management. Through networked and automated solutions, these companies' green procurement management efficiency was significantly improved, effectively saving their management costs. During the evaluation period, domestic and foreign companies prompted 2,598 suppliers in China to communicate with environmental protection organizations on environmental rectification and information disclosure. Among them, 1,206 suppliers successfully rectified non-compliance issues upon confirmation by independent third-party audits. The year-on-year increase of 280% of this Index highlights the rapid growth of China's green procurement scale.

IV. Lessons Learned:

The project can effectively help companies themselves and supply chain companies to reduce the environmental load of the production process, make the supply chain green and sustainable, while promoting the active use of corporate environmental credit risk assessment system by industry institutions, financial institutions, and enterprise organizations. It has provided strong support and motivation for corporate green transformation.

“Green Action” Plan

I. Project Overview:

The "Green Action" plan represents a green and low-carbon exploration in logistics industry initiated by the Alibaba Foundation, Alibaba's Cainiao Network and the China Environmental Protection Foundation and joined by 6 express companies including ZTO Express, YTO Express, STO Express, Best Express, Yunda Express and Tin Tin Express. By technology empowerment, intelligent management and collaborative resources, this plan has established green infrastructure, and supported and promoted green upgrades in the logistics industry, so as to address the social and environmental issues entailed by the rapid growth of express packaging.



II. Direct Project Deliverables:

The “Green Action” plan has directly supported and promoted the green upgrades of the express logistics industry. The four major actions, such as “green parcels, green recycling, green warehousing and distribution, and green intelligence”, enabled green logistics to achieve “convenient and green delivery”:

Green parcels: In the distribution of the national retail stores of Alibaba Retail Connect, nearly 40% of deliveries were made in original box and 30% were recyclable cartons, thus saving a lot of resources. The Cainiao Network teamed up with Tmall supermarket to promote the original box delivery and recycling carton delivery, sending hundreds of millions of green and low-carbon parcels to consumers in one year. In particular, the ratio of original box delivery was nearly 50% with “zero” new packaging, therefore significantly reducing the use of packaging materials.

Green recycling: In more than 200 cities across the country, about 5,000 “green recycling stations” have been set up (expected to increase to 50,000 by the end of 2019), involving more

cartons in the loop, and protecting a large number of precious natural resources. The data shows that green recycling was welcome by social participation. About 13 million cartons were recycled offline across the country during Tmall Double 11 Shopping Festival from November 8 to 20, 2018.

Green warehousing and distribution. New energy vehicles (NEVs) have been promoted in urban distribution to cut urban carbon emissions. Currently, 40 cities are covered. Taking Shenzhen as an example, Cainiao smart NEVs were used, the single-vehicle driving distance was reduced by 30%, unloaded ratio was reduced by 10%, and more than 20% of costs were saved.

Green intelligence: The Cainiao packing algorithm can save more than 15% of packaging use. By the end of 2018, this algorithm had been used in 510 million packaging cartons and courier bags; and replacing traditional express sheets with electronic ones can drive industry-wide savings by more than 30 billion paper sheets on a yearly basis.

III. Significant Influences:

Through network advantages, technology upgrades and model innovations, the “Green Action” has sped up the greening of the logistics industry, “slimmed” the express packaging, and made widely available the whole set of green solutions.

The innovative environmental protection action championed by the “Green Action” plan was praised in the in-depth coverage of CCTV Focus Interview on December 1, 2017; the “Green Logistics City Cooperation Project” won the grand prize at the first session of Partnering for Green Growth and the Global Goals 2030 (P4G) in Copenhagen on October 20, 2018, Beijing time.

The Cainiao carton recycling campaign was selected as the top ten 2019 public participation cases of “Act to Build a Beautiful China” in the home event of the World Environment Day in Hangzhou on June 5, 2019.

IV. Lessons Learned:

The “Green Action” plan has combined data and technology to integrate green environmental protection concepts into the operation of logistics companies. In addition, it has mobilized social forces to jointly advance the greening of logistics industry in terms of policy advocacy, industry development and public promotion, and sparked the innovative and creative power across the logistics industry chain through technology leadership, model innovation and ecological synergy.

“Environment Map” Project

I. Project Overview:

Alibaba Foundation has been always attaching importance to the combination of technology and data. It has been always prioritizing the environmental data transformation and application in terms of environmental protection, so as to help the society and the public quickly obtain environmental information and pay attention to environmental quality, and then carry out targeted environmental protection actions.

In 2018, the Foundation promoted Guangzhou Green Data to cooperate with the Amap of Alibaba Group to launch an environment map on the Amap, and taking this as an opportunity, carry out comprehensive sorting and improvement for the existing environmental data of the Green Data, thus improving the integrity and reliability of data, establishing the basic data quality standards, and laying a solid foundation for the wider environmental data applications on a larger scale.



II. Direct Project Deliverables:

The inclusion of the environment map on Amap, a popular App with over 700 million registered users, can give direct access of environmental data to hundreds of millions of users. Amap has also risen as the world's largest environmental mobile Internet application.

III. Significant Influences:

In the public aspect, the LBS function of the environment map has established a convenient channel for the public to inquire about the surrounding environmental information, greatly enhancing their environmental attention and participation ability. The public can keep abreast of the air, water and pollution sources around themselves through the environment map, and supervise the surrounding pollution sources and the process of black-odor river management.

In terms of government affairs, the environment map has gathered environmental data previously scattered in the websites of local environmental protection departments, and put them in public fields for inquiry. They can also be used for horizontal and vertical comparison and analysis by professional institutions. After the environment map was launched, a large number of local environmental protection departments have paid attention to the environment map and checked the environmental data released by themselves. This indirectly elevated the level of government environmental information disclosure and data quality. The user-friendliness of the LBS function provides a reference for local government departments to develop websites and public platforms. Taking the environment map as a model, the Smart City Platform of the Jiaxing Municipal Government and the "Electronic Health Record Sharing

System” of the Health Commission of Shandong Province were successively connected to the Guangzhou Green Data for urban management and the risk management of environmental implications on health.

In the market field, the demonstration by the environment map has attracted more attention to and investment in the environmental data by environmental and technical commercial companies, thus promoting the development and application of environmental data products.

IV. Lessons Learned:

Thanks to the collaboration of technical enterprise and environmental charity, the environment map has pioneered in the implementation of big traffic and mature technology product of environmental data. It is not only a successful case of Internet + philanthropy, but also a model for charity product.

The essence of public welfare is to "awake" people's goodwill, while the "public participation" is an effective way to foster the public's environmental awareness. Alibaba Foundation is sustaining its efforts to push forward the development of China's nature education industry, and striving to build a public nature education base. By an array of public participation forms, it encourages the public to approach and walk into nature, and experience the beauty of nature, so as to shape the connection between human and nature, and awaken more people's environmental awareness.

Nature Education Base: Dreamland Nature Center Project

I. Project Overview:

The Dreamland Nature Center was established in the Herb Garden of the Hangzhou Botanical Garden in April 2017. Originated from the “the Training Camp of Botanical Specialist” under the support of Alibaba Foundation, the Center was jointly built by the Hangzhou Botanical Garden, the Alibaba Foundation and the Paradise International Foundation. It is dedicated to providing the public with a diverse and rich form of nature education programs to guide them to approach, learn and protect nature by different learning methods including games, experience, exploration, lectures, and training, among others. Aiming to “embrace nature and change your life”, it has visions of creating a green paradise for the public, providing a platform for nature education and setting an example for urban nature centers.

Six major types of activities are carried out in the Center, including Daily Course Activities, the Green Vest Guardianship, the Long Creek Youth Water Conservation Program, the Nature Education Network, the Industry Training, and the Natural Carnival. It mainly involves parent-child families, students,

teachers, corporate employees, the general public, and practitioners in the nature education industry.



II. Direct Project Deliverables:

From January to December 2018, the Center launched more than 600 natural experience activities for a diversified group of over 40,000 people. So far, it has created three influential nature education brands, developed a set of original nature education programs based on the characteristics of Hangzhou's local resources, and built an excellent nature education volunteer team.

As of May 2019, there were 522 volunteers from schools, communities, and scenic spots in the “Green Vest Guardianship” of the Dreamland Nature Center. They entered 15 communities, 17 schools, and formed 22 lines (including natural explanations and experience). A total of 832 activities were carried out to directly serve 16,781 participants.

At the first session of “Natural Carnival” of the Center, 16 institutions were involved and more than 3,000 people were served. By the fourth session, the figures have grown to over 150 and 30,000, respectively. The Carnival is gradually turning into a highly anticipated parent-child natural event in Hangzhou, evolving from a simple natural game experience to the diversified experience blending different concepts, such as natural music, natural reading, and natural bazaar.

III. Significant Influences:

The establishment of the Dreamland Nature Center has promoted the development of the nature education industry, enhanced the city's nature education atmosphere, and driven the entire society's attention to the natural environment.

Since the very beginning, the Center has established a nature education network in Hangzhou. Through the offline exchanges and public activities, the understanding and cooperation between institutions was promoted to shape the Hangzhou nature education ecosphere. After the establishment of the Center,

it has attracted wide attention in Hangzhou, especially from those related to nature education. The biannual Natural Carnival and the weekly Nature Education Program is bringing rich natural experience and nature education to citizens in Hangzhou and surrounding areas, while improving the nature education atmosphere of the entire city. During the Carnival, the visitors to the Hangzhou Botanical Garden increase by 4-5 times year on year. At the same time, the Center also attracts the participation of many enterprise employees including Alibaba charity members and 3-hour volunteers. Alibaba's 140 employees have transformed daily life waste into natural science supplies, and through natural crafting, they incorporated them into a cartoon for the journey of "Making a New Earth", which became a popular video on the Internet.

IV. Lessons Learned:

The Dreamland Nature Center is a demonstration base built by the Alibaba Foundation in the field of nature education. The project has integrated multi-party resources and focused on technology applications while paying attention to the combination of international and local environmental education programs. By innovatively transforming traditional teaching processes, it firstly attracts the attention of audience to deeply think about the relationship between people and the environment, and then mobilizes them to volunteer to act for environmental protection.

Green and Ecological Studies for Primary and Secondary Students in Wuhan

I. Project Overview:

The "Green and Ecological Studies for Primary and Secondary Students in Wuhan" project is an innovative project jointly launched by the Alibaba Foundation and the Wuhan governmental departments. By integrating various social resources, a youth nature education model featuring "Urban Park Government + NGO + Primary School" has taken shape.



II. Direct Project Deliverables:

“Five-ones” were formed in the project: one set of nature education professional textbook with local characteristics, one professional-level volunteer team, one group of professional education institutions capable of leading children to approach nature, one collection of natural notes with unique features and one nature education model with government support, institutional participation, and public benefit.

In 2018, the project has linked more than 150 schools and 28 parks, allowing 350,000 primary and secondary school students to walk into the park next to them, follow the nature mentor, open up the five senses, and learn natural observations and take notes. With one year of efforts, the project has collected many excellent natural notes and named “lake chiefs”, “tree growers” and “garden heads” in the Wuhan education system.

III. Significant Influences:

Against the backdrop of lacking mature model of nature education and green and ecological studies nationwide, the “Green and Ecological Studies for Primary and Secondary Students in Wuhan” has swiftly carved out a feasible way for innovation.

Throughout the whole year, the Changjiang Daily Newspapering Group continued to publicize and follow up on the project. The innovative work including nature education in Wuhan was also highlighted in the headline of Guang Ming Daily under the title of “These Parks Stand Out” on April 26, 2018.

IV. Lessons Learned:

The in-depth, extensive and representative project of the “Green and Ecological Studies for Primary and Secondary Students in Wuhan” can be an excellent model for nature education and ecological research in the country in the future. In terms of depth, the project penetrated nature notes in the learning process, enabling children to enjoy precious time with nature, learn to draw the form of nature, and

inspire thoughts on protecting nature and cherishing life; with regards to breadth, it was firstly carried out in 150 schools citywide, and achieved full coverage of primary and secondary schools in the city in 2019, while laying emphasis on the collaboration and linkage of the government, media, NGOs, schools and experts for wider impact. Going forward, a youth nature education model can be gradually explored for nationwide reference and promotion.

In addition to applying platform technology and awakening public participation, Alibaba Foundation is creating sustainable social values through an innovative model featuring “philanthropic mentality, business approach”.

Qiandao Lake Water Fund

I. Project Overview:

Qiandao Lake Water Fund is the first implemented project of “China Water Source Protection Charity Trust” jointly sponsored by the Alibaba Foundation and the Minsheng Insurance Charity Foundation. It is currently the largest water fund in China. The project entrusts the Nature Conservancy (TNC) as a scientific consultant on environmental protection endeavors and the Wanxiang Trust as fund manager. This model featuring “philanthropic mentality, business approach” realizes the long-term protection of water sources, improves farmers' production methods and environmental awareness, creates a “financial + environmental protection” fund management model, and achieves the sustainable agricultural non-point source (NPS) pollution control with agricultural, environmental and economic benefits in place.



II. Direct Project Deliverables:

In 2018, the project first carried out improvement demonstrations in the 30-mu (about 2 hectares) paddy field in Shangwuxi watershed, Anyang Township, Chun'an County. It has proven to be a success story – reducing input of pesticides and fertilizers by 30% and using UAVs for plant protection is helpful to protect water source, improve the cultivation methods of crops in the water source region, greatly reduce the non-point source pollution of the water source caused by farming operation, and increase the production capacity and quality of the agricultural products. The “Qiandao Chun Rice” developed by the Qiandao Lake Water Fund has achieved the sustainable operation of the large-scale planting non-point source pollution control project, helping farmers to save costs and double income.

To attract more public attention to the protection of water sources, the Qiandao Lake Water Fund partnered with Sina Weibo on launching the “Half Cup of Water” and “Own Qiandao Lake” campaigns in late March, 2018, attracting 26,400 participants in registration.

III. Significant Influences:

Combining philanthropy and business, the Qiandao Lake Water Fund has realized the restoration of water sources and the protection of the ecological environment for the first time via charitable trust.

The ongoing agricultural NPS pollution monitoring carried out by the College of Environment & Resource Sciences of Zhejiang University during project implementation found that the pollution on the watershed by the reasonable application of fertilizer and the precise implementation of pest control was much lower than that by the traditional large-scale rice planting. This project has significantly decreased the agricultural NPS pollution.

Meanwhile, the yield and quality of rice grown by technology and environmental protection methods remained stable, and large-scale planting reduced costs. According to the professional statistics and calculations after rice harvesting, compared with traditional agricultural and forestry plant protection, the costs of fertilization and intelligent UAV plant protection in the demonstration project were relatively lower. Compared with the control group of traditional large-scale rice planting, each experimental field can save costs by RMB86-196 or so.

IV. Lessons Learned:

Built on the concept of “philanthropic mentality, business approach”, the Alibaba Foundation has joined forces to introduce a charitable trust structure, leverage the advantages of the trust system, and deeply explore the enormous potential of financial instruments for the cause of environmental protection. It has linked farmers, environmental charities and social enterprises to shape the cooperative landscape of interaction, collaboration, sharing and win-win, while exploring the research and eco-tourism innovation

model themed “water source conservation education”. This kind of project operation method not only protects the water source, guarantees the clean water usage of the villagers, but also increases the income of the local farmers with a sustainable development mechanism. By means of river chief training, water environment exchanges, and nature education practice, the concept and experience of the Qiandao Lake Water Fund can be widely promoted and disseminated. In the future, the Qiandao Lake Water Fund model is expected to be extended to a larger watershed.

Beijing Qiaonyu Foundation

One day, in November 2012, a normal environmental charity was founded in a normal building in Beijing. Just like its logo, Beijing Qiaonyu Foundation was then just a little sprout, rooted in the soil, facing the sun, and caring for the earth. After a lapse of five years, it has grown stronger. In 2017, its strategic focus became clear: to conserve biodiversity, which means to nourish the land for the whole society, to protect all living species on the planet and to contribute to the dream on ecological civilization.

Now this little sprout is rising as one of the most influential nature conservation organizations in the world, with impressive achievements to celebrate. The Nature Research Institute, the High Tech and IT Support Center, the Project Management Center, the Livelihood Development Center and the Environmental Education Center have all brought great strength to this team. And this strength has already been delivered to the mountains, oceans and forests in China and around the world. Every piece of protected area is the fruit of our work and wisdom as human beings. The more fruits we made, the humbler we will be since we deeply understand that is the only way to live and thrive with nature.

Looking back, we still stay true to its original mission. We are full of awe in nature, love for life, faith in protection, and infinite affection for philanthropy. The only difference is that, more and more seeds have come to sprout and joined our team to safeguard the earth together.

Xinjiang Mount Tianshan Snow Leopard (*Panthera Uncia*) Protected Area Philanthropy Project

I. Project Overview:

1. Implementation Time: December 2017 – Present

2. Implementation Scope: Urumqi County, Xinjiang Uygur Autonomous Region

3. Executing Agency:

Beijing Qiaonyu Foundation

4. Cooperating Agencies:

Urumqi County People's Government, Eastern Tianshan Mountains State-owned Forest Management Bureau, Banfanggou Branch of Eastern Tianshan Mountains State-owned Forest Management Bureau (Banfanggou Forest Farm), Nanshan Branch of Eastern Tianshan Mountains State-owned Forest Management Bureau (Urumqi Nanshan Forest Farm), Wild Xinjiang (Non-governmental environmental protection agency in Xinjiang).

5. Implementation Process:

Tianshan spans China, Kazakhstan, Kyrgyzstan and Uzbekistan. Stretching about 2,500km, Tianshan is one of the seven largest mountain systems and the largest independent latitudinal mountain system in the world. With more than 6,000 large and small glaciers, it is a water tower in Xinjiang and even in Central Asia. It is located in the priority area of biodiversity conservation in the southwestern part of China's Tianshan-Junggar Basin. The central and eastern Tianshan Mountains under the management of Eastern Tianshan Mountains State-owned Forest Management Bureau are about 985 kilometers long from east to west and 250 kilometers wide from north to south. The total operating area is 46.65 million mu (about 3,110,000 hectares) with 22.79% of forest coverage rate. More than 50 large and small rivers originate in Tianshan Mountains. Endowed with abundant wildlife resources, it is an irreplaceable ecological barrier for the sustainable development of the New Silk Road Economic Belt, where the ecosystem protection means a lot.

Located on the northern slope of eastern Tianshan Mountains, the Tianshan Snow Leopard (*Panthera Uncia*) Protection Management Philanthropy Project is under the jurisdiction of Eastern Tianshan Mountains State-owned Forest Management Bureau. The first phase of the project has an implementation area of approximately 1,360 square kilometers, covering the upper reaches of the Urumqi River.

On December 7, 2017, the launching ceremony of the Xinjiang Tianshan Snow Leopard (*Panthera Uncia*) Protection Management Philanthropy Project and the unveiling ceremony of the Tianshan Qiaonyu Nature Conservation Center were successfully held in the Tianshan Grand Canyon National Forest Park in Xinjiang. The project is the first in-situ biodiversity conservation philanthropy project initiated by the Beijing Qiaonyu Foundation since its establishment. The project will create more habitats for wild animals such as snow leopard through natural education, industrial support, transferring herdsmen's job, livelihood transformation and precision poverty alleviation. At the same time, a series of biodiversity resource surveys and protections around the region will be carried out to promote the harmonious development of people and nature in the forest area of Eastern Tianshan Mountains.

6. Since the project was launched, the main activities are as follows:

From March to June 2018, Kazakh swan embroidery experts were invited to conduct Kazakh swan embroidery training at Shihezi University and Salchok Village.

In May 2018, with the support of the local agriculture and animal husbandry department, blood samples were collected from livestock in the project protection area to monitor livestock diseases;

In June 2018, the relevant counties, township governments and communities were visited on several occasions to solicit opinions and jointly explore ways to resolve human-wildlife conflicts in the project protection area;

In July 2018, two sessions of pilot search training were carried out in the protected area to train the detection dogs to locate snow leopard feces;

In August 2018, a survey on the natural ecological environment of protected area and an interview and investigation on herdsmen and communities were conducted.

In October 2018, the project team attended a discussion about the implementation plan of the snow leopard population and habitat investigation and monitoring project of the Eastern Tianshan Mountains State-owned Forest Management Bureau, and assisted in the investigation and monitoring technical training;

From November 2018 to January 2019, the project team participated in the investigation of the snow leopard habitat project carried out by the Banfanggou Branch and Wunan Branch of the Eastern Tianshan Mountains State-owned Forest Management Bureau, providing some investigation equipment, and completing 70% of infrared cameras monitoring work in the jurisdiction.

II. Direct Project Deliverables:

1. Snow leopard investigation, research and protection

The Tianshan Conservation Center of Qiaonyu Foundation has set up 58 infrared cameras in the project area, found more than 30 snow leopard traces, and collected more than 10 samples of feces. The snow leopard investigation, monitoring and protection project training and field work involved in the project have provided important support for the monitoring and protection of snow leopard in Tianshan and nationwide.

2. Enhancing the level and popularity of Kazakh embroidery

The Kazakh swan embroidery training has enabled the villagers to improve their production techniques, aesthetics and later craft packaging. The certificates of completion were issued for the villagers participating in the training, providing a talent reserve for the transformation of livelihood and the

expansion of production scale. At the same time, the Qiaonyu Foundation and embroidery experts have effectively expanded the sales channels of Swan embroidery products and enhanced the popularity of local Kazakh embroidery crafts through various means such as Internet platform, WeChat platform and Qiaonyu Foundation's internal trade fair.



3. Actively carrying out human-wildlife conflicts and livelihood surveys to promote the ecological transformation of the masses

The interview and investigation of herdsman and communities have been carried out to gain a better understanding of local human-wildlife conflicts and the development of herdsman's livelihoods. The pilot work plan for human-wildlife conflicts and the report for livelihood development were formulated, including the Report on the Project of SK Settlement Breeding Area in Baiyanggou Village, Urumqi County, Tianshan, the Report on the Vision for Tourism Development of Salchok Village in Tianshan Protected Area, the Report on the Development of Beekeeping and Flower Ecological Sightseeing Parks in Tianshan Protected Area and the Survey on Cooperative in Majiazhuang Village.

4. A full picture of the health status of livestock, providing scientific basis for prevention and control of animal diseases

By means of questionnaires, livestock blood sample testing and the like, the livestock health and grazing methods were surveyed to assess livestock and wildlife health threats and investigate wild herbivore disease transmission systems. The results were used to improve management methods and reduce the threat of disease against the ibex (*Capra ibex*), livestock and snow leopard. The conservation dogs were used to help find the corpses of ibex and other wild animals for disease research, and their application in snow leopard investigation, research and conservation was explored.

III. Significant Influences:

Influence 1: The snow leopard population survey and monitoring project has been carried out to have an understanding of the wildlife species represented by snow leopard and their distribution in the protected area, laying an important scientific foundation for the protection of endangered wild animals in

the project area;

Influence 2: The investigation on the human-wildlife conflict and livelihood status of the Tianshan protected area in Xinjiang was completed for the first time, laying the foundation for the next step of community ecological transformation and livelihood development.

Influence 3: The training of the Kazakh swan embroidery class has fueled the local herdsmen's enthusiasm for the inheritance of traditional handicrafts. The selection of skilled experts can drive more villagers to realize the production of large-scale handicrafts.

IV. Lessons Learned:

The Urumqi County Development Plan divides the county into three regions: the eco-source of the capital, the Nanshan eco-tourism scenic spot, and the comprehensive development zone around capital. In recent years, the local government has made eco-protection and livelihood transformation efforts such as shutting mines, relocating herdsmen, and encouraging the transfer of agricultural surplus labor to urban and secondary and tertiary industries. However, due to factors such as the level of education and skill level, some herdsmen will have greater difficulties in their livelihood transformation. According to the results of social investigation of the protected area, the aboriginal village leaders and the villagers have a strong willingness to increase the economic income and solve the living problems. Therefore, the strong willingness of the aborigines to cooperate is one of the factors for the advancement of project. Secondly, the government departments such as the Urumqi County People's Government and the Eastern Tianshan Mountains State-owned Forest Management Bureau support the biodiversity conservation work, and the vision of the Beijing Qiaonyu Foundation fully complies with the guidelines and policies of ecological civilization construction of the Xinjiang Uygur Autonomous Region, which is conducive to the project implementation. Last, the Beijing Qiaonyu Foundation facilitates the development of the conservation work by attracting social capital and injecting funds, while working closely with the local government and the State-owned Forest Management Bureau to jointly drive the progress of the project.

Baizha Protected Area Philanthropy Project in Nangqian County, Qinghai Province

I. Project Overview:

1. Implementation Time: December 2017 – Present

2. Implementation Scope: Baizha District, Sanjiangyuan National Nature Reserve, Qinghai Province

3. Executing Agency:

Beijing Qiaonyu Foundation

4. Cooperating Agencies

Nangqian County People's Government, Nangqian County Environmental Protection and Forestry Bureau, Yushu Prefecture Environmental Protection and Forestry Bureau, Chinese Felid Conservation Alliance (CFCA), and Global Environmental Institute (GEI).

5. Implementation Process:

The Nangqian County borders the Hengduan Mountains in the south and the main part of the Qinghai-Tibet Plateau in the north. It has undulating terrain, complex geomorphology, diverse habitat types and rich species, as one of the 35 biodiversity hotspots in China. There are abundant surface river waters in the territory. The five large rivers of Zhaqu, Ziqu, Baqu, Requ, and Jiqu run from the northwest to the southeast through the whole territory. The surrounding areas of the project area are rich in ecosystems such as river wetlands, alpine wetlands, alpine meadows, alpine flowstone slope, glaciers, and the rare and typical canyon forest ecosystem of the Qinghai-Tibet Plateau. The project area is the ecological function area with the largest scope of influence in China, as well as an area that has an important impact on the world climate.

Established in 1967, Baizha Forest Farm in Nangqian County is the core area of Sanjiangyuan National Nature Reserve. Its total area is 744.52 square kilometers, of which the forest area is 400 square kilometers. Elevated at about 3,700 meters, Bamai Village, the project community and livelihood development demonstration village, enjoys a cultural history of more than 1,000 years.

On December 19, 2017, the launching ceremony of the Baizha Philanthropy Project of the Nangqian County and the unveiling ceremony of the Nangqian Qiaonyu Nature Conservation Center were successfully held in Nangqian County, Yushu Prefecture, Qinghai Province. The project was the first protection project of Beijing Qiaonyu Foundation in Qinghai Province. The Qinghai provincial government also expressed great concern about the ecological protection work in the Baizha area of the Nangqian County, in the hope that Beijing Qiaonyu Foundation can explore a new type of replicable protection and development model based on the county's protection project to make new contributions to Sanjiangyuan protection.

In March 2018, Beijing Qiaonyu Foundation and CFCA conducted infrared camera monitoring on the wildlife in the Baizha protected area, dividing the Baizha forest farm into 36 grids according to the 5 km × 5 km specification. The infrared camera monitoring images were collected in batches in May, August and December 2018.

In April 2018, Nangqian Qiaonyu Nature Conservation Center invited the top Chinese handicraft expert Liu Dan to host a community craft training class in the Bamai Village;

In May 2018, the staff of the Nangqian Qiaonyu Nature Conservation Center worked with the villagers to recycle garbage in the three road sections of Bamai Village and the residential area, school, riverway and both sides of road according to the resource category;

In July 2018, NetEase snail reading "+∞Natural Philanthropy Library" opened in Bamai Village, Baizha Township, Nangqian County, Qinghai Province. By means of WIFI connection and GPS positioning space coverage technology, the plan realized non-timed reading of e-books in a specific area;

In June 2019, the researchers from the Beijing Qiaonyu Foundation conducted a survey on the medicinal plant resources of Baizha Township, and planned to carry out planting and demonstration of medicinal plants of fritillaria and podophyllum.



Qiaonyu Foundation's scientific investigation team is collecting data on the deployed infrared camera



Qiaonyu Foundation films the leopard in the protected area for the first time

II. Direct Project Deliverables:

1. Monitoring results

The infrared camera worked in the field for 288 days, was triggered for 84,488 times, obtained 41,261 effective photos (videos). The effective rate of trigger shooting was 48.8%, and the cumulative effective working days of the infrared camera were 13,573 days. A total of 8 orders, 20 families and 42 species of wild animals were identified by infrared camera monitoring. Among them, 5 orders, 12 families, 20 species were mammals; 3 orders, 8 families, 22 species were birds. It covered 4 national level I protected wild animals: leopard (*Panthera pardus*), snow leopard (*Panthera uncia*), Alpine musk deer (*Moschus chrysogaster*) and white-lipped deer (*Przewalskium albirostris*); and 12 national level II protected wild animals, including rhesus monkey (*Macaca mulatta*), brown bear (*Ursus arctos*), beech marten (*Martes foina*), Eurasian otter (*Lutra lutra*), Eurasian lynx (*Lynx lynx*), Tibetan red deer (*Cervus wallichii*), Chinese serow (*Capricornis milneedwardsii*), etc. The number of national I and II protected

species accounted for 38.1% of the total monitored number.

The species with the largest population in the Baizha Forest Farm includes mountain goat (*Oreamnos americanus*), gray-tailed rabbit (*Lepus oiostolus*), white-eared pheasant (*Crossoptilon crossoptilon*), Tibetan red deer, Alpine musk deer, and white-lipped deer. There is a rich population of rhesus monkey, wolf (*Canis lupus*), Eurasian lynx, Chinese serow, Himalayan marmot (*Marmota himalayana*), and leopard; There are a group of snow leopard (*Panthera uncia*), blood pheasant (*Ithaginis cruentus*), red fox (*Vulpes vulpes*), Asian badger (*Meles leucurus*), brown bear, wild boar (*Sus scrofa*), Moupin pika (*Ochotona Thibetana*); a small number of Tibetan snowcock (*Tetraogallus tibetanus*), beech marten, Eurasian otter, leopard cat (*Prionailurus bengalensis*) and Tibetan partridge (*Perdix hodgsoniae*).

The wildlife community in the Baizha Forest Farm showed seasonal differences. The leopards' activities have two peaks, one between April and May and the other around October. The former may be due to the mating season, when it needed to inspect a wide range of areas, find mates and resist rivals. The latter may be subject to the need to store more energy for living through the winter.

Most herbivore activities are closely related to plant growth (Fig. 3-6). Mountain goat and Tibetan red deer are the most active species in herbivores. The mountain goats' activities showed two peaks in June and September. Activities throughout the early summer and summer season were more frequent. The Tibetan red deer showed a typical unimodal structure, which gradually increased from spring activity until peaking in September, and then quickly descended to other areas with lower altitudes.

2. Effectively improving the level of craftsmanship of Nangqian felt art

Through the training in the craftsmanship of Nangqian felt art, the craftsmanship, aesthetics and later craft packaging were improved, and more than 30 technically strong villagers were selected to cultivate reserve talents for the later expansion of production scale.

3. Achieving waste sorting and resource recycling

The villagers have recycled 4 trucks of garbage according to waste sorting, initially classified as hazardous, cotton wool, aluminum cans, meal waste, and plastic products, and transported them to the garbage disposal plant of the Nangqian County for treatment.

4. Nature Philanthropy Library enriched the cultural life of villagers

Netease Snail Reading Software provides more than 20,000 classic e-books and newspapers, covering natural sciences, life care, classics, parenting, success motivation, novels and biographies, politics and laws, humanities and social sciences, and history and military. Some 200 copies of the physical books were distributed to the Bamai Village Community Library. The establishment of the Nature Philanthropy Library has effectively increased the publicity of the community, expanded the knowledge of the villagers and primary school students, and enriched their cultural life.

5. Exploring medicinal plant resources to achieve sustainable development of livelihoods

Through the investigation of the origin and planting of fritillaria cirrhosa, podophyllum hexandrum and related adulterants in the six provinces of China, 30 germplasm resources of offritillaria cirrhosa and podophyllum hexandrum were collected. The seedling experiments of offritillaria cirrhosa and podophyllum hexandrum were conducted in the Baizha Forest Farm and Beijing, respectively. In this way, the way of accelerating the after-ripening of the fritillaria cirrhosa seeds was initially found out, and the seedling raising technique of podophyllum hexandrum was established.

III. Significant Influences:

Influence 1: The first large-scale survey of wildlife resources was carried out in the Baizha philanthropy protected area of Nangqian to get an understanding of the types and general distribution of wildlife in the area; precious image data of snow leopard and leopard were obtained and the region was confirmed as the area where snow leopard and leopard live, which is of great significance for the future study of the inter-species survival competition; this area has a large number of wild animals with high value of wildlife conservation.

Influence 2: The training sessions of the Nangqian felt art has effectively stimulated the enthusiasm of the villagers in the Bamai Village for the inheritance of traditional handicrafts. The selection of skilled experts can drive more villagers to realize the production of handicrafts with scale.

Influence 3: The Natural Philanthropy Library can establish a bridge connecting the outside world to the villagers and primary school students in the Bamai Village, improve the lack of reading resources in poverty-stricken areas, actively promote the reading habits of the whole village, and gradually establish the connection and integration of traditional and modern culture, thus forming a common understanding, attitude and thinking of society.

Influence 4: The planting and experimental demonstration of medicinal plants can help the Bamai Village gradually reduce predatory dependence on grassland resources, realize sustainable green livelihoods to supplement the income of indigenous people, and solve the contradiction between community protection and development, therefore achieving harmony between human and nature.

IV. Lessons Learned:

Baizha Township of Nangqian County is one of the national poverty-stricken counties. The main source of income of the herdsmen is the sales of Chinese caterpillar fungus and animal husbandry, accounting for 34.8% and 10.7% of the total income respectively. In addition, grassland ecological awards and ecological patrol subsidies account for 16% of total income. According to the results of the social and economic interviews in the Bamai Village, the leaders and villagers of aboriginal villages

have a strong willingness to increase the economic income and solve the living problems of the poor families. Therefore, the strong willingness of the aborigines to cooperate is one of the factors for the advancement of project. Secondly, the government departments such as the Nangqian County People's Government, the County Forestry and Environmental Protection Bureau support the biodiversity conservation work, and the work of the Beijing Qiaonyu Foundation fully complies with the guidelines and policies of Qinghai Province's ecological civilization construction, which is conducive to project implementation. Last, the Beijing Qiaonyu Foundation will facilitate the development of the work by attracting social capital and injecting funds, while linking the government, Baizha Township and Baizha Forest Farm to jointly drive the progress of the project.

Mangrove Conservation Foundation

Shenzhen Mangrove Wetlands Conservation Foundation (MCF) was established in July 2012 by the Society of Entrepreneurs & Ecology, public-spirited entrepreneurs and relevant departments in Shenzhen. Wang Shi and Ma Weihua are co-chairs, Lei Guangchun, dean of the School of Nature Conservation of Beijing Forestry University, is the board chairman, and Zhang Bigong, the former president of Shenzhen University, is the honorary chairman.

Since its inception, MCF has been deeply committed to coastal wetlands in Shenzhen, working for the protection and education of coastal wetlands represented by mangroves.

MCF has established a dedicated team covering conservation, education, and research. With the support of governments at all levels, experts, scholars, enterprises and charities, MCF has opened up a natural conservation model of social participation.

- Vision: Human and wetlands living in harmony
- Mission: Rooted in wetland protection for promising human-wetland future, for which we:
 1. Promote active wetland management and enhance the biodiversity of wetlands;
 2. Promote the establishment of a wetland education center that connects people and wetlands;
 3. Promote the transformation of more unprotected land into the protected areas.

Saving Spoon-billed Sandpiper (Phase I)

I. Project Overview:

Spoon-billed Sandpiper (*Calidris pygmaea*) is one of the most endangered and rare birds on the planet. About 120-228 pairs of spoon-billed sandpiper can be propagated in the world. The global population of spoon-billed sandpiper is much lower than that of giant pandas and is reduced at a rate of 26.4% per year. In 2008, the IUCN Red List upgraded its current status from Endangered (EN) to

the highest endangered level – Critically Endangered (CR). It is of great significance to protect spoon-billed sandpiper as the flagship species of the East Asian-Australasian Flyway (EAAF), especially of the coastal wetland.



Group photo of participants

At the end of 2018, MCF and the Center for East Asian-Australasian Flyway Studies (CEAAF) of Beijing Forestry University jointly launched the “Saving Spoon-billed Sandpiper” project to support scientific research on the mechanism of protecting endangered spoon-billed sandpiper; improve the protection effectiveness of spoon-billed sandpiper habitat and the capacity of the management institutions on the scale of the migration area; establish the protection network of spoon-billed sandpiper combining monitoring, research and protection, and curb the population depression trend of spoon-billed sandpiper and save them through custody and participation in the protected land management.

II. Progress and Key Deliverables:

(1) In January 2019, the 2018-2019 Chinese spoon-billed sandpiper wintering survey was launched and welcomed by many birdwatching organizations, associations, institutions and bird watching groups in the nationwide spoon-billed sandpiper distribution area. There were 20 survey points, with more than 100 participants.

(2) In March 2019, it was included in the application review meeting through Alibaba Philanthropy Baby key project to obtain project support.

(3) In April 2019, the EAAF Waterbird Conservation Forum was held in Yancheng, Jiangsu. Nearly 100 representatives from the National Forestry and Grassland Bureau, international protection experts and representatives, international and non-governmental environmental organizations, protected area personnel, universities and research institutes attended the event where the establishment of the world's first spoon-billed sandpiper was announced and the survey training was hosted.

The establishment of the Conservation Alliance marks the joint voice of China's wetland authorities, wetland nature reserves, wetland parks, bird watching societies, and all local government and non-governmental protection organizations, enterprises, and environment-loving people who are concerned about the protection of spoon-billed sandpiper. It has received high praise and support from the participating international organizations, Next, the extensive exchanges and international cooperation with the countries where the flyway is located will be jointly promoted, so as to create a platform for information communication, experience exchange, project cooperation, personnel training, and institutional capacity building.



Spoon-billed sandpiper Photo by Sun Lili

III. Important Value:

“Saving Spoon-billed Sandpiper” is a rare project in China that puts wetland and migratory bird protection actions in a global perspective. In full response to the national green “Belt & Road” strategy, it innovates cooperation model, and builds a platform for communication and collaboration between government departments, research institutes and non-governmental organizations. Oriented towards monitoring data and scientific research, the goal is to shape a replicable protected land model and policy recommendations, providing reference for species and habitat protection projects in China and even regions.

Lao Niu Foundation

Inner Mongolia Lao Niu Foundation ("Lao Niu Foundation") is a charity foundation funded by Mr. Niu Gensheng, the founder, former chairman and president of Mengniu Dairy Group, and his families with their holdings of all the shares and most of the dividends of Mengniu Dairy at the end of 2004.

By the end of 2018, the Foundation has cooperated with 170 institutions and organizations to carry out 236 philanthropy projects in 31 provinces (autonomous regions/municipalities/special administrative regions) and the United States, Canada, France, Denmark, Nepal, Africa and other places. The total philanthropy expenditure reached RMB1.43 billion.

For the sixth consecutive year, the Foundation came top in the "China Philanthropy Transparency Report" and "China Foundation Transparency Index"; it ranked among the top in the "China Private Foundation Donation List" for four consecutive years; won the "Top 10 Family Foundations", "Smart Donation Advocates", and "Top 10 China-Europe Green Foundation Award"; was awarded "National Advanced Social Organizations" by the Ministry of Civil Affairs of the People's Republic of China, "5A Social Organizations" by the Civil Affairs Department of Inner Mongolia Autonomous Region, and "Outstanding Philanthropy Contribution Award" by the Hohhot Municipal Government; and won the award of "Advanced Grassroots Party Organizations" in the Inner Mongolia Autonomous Region.

Inner Mongolia Shengle International Ecological Demonstration Zone Project won the "Most Influential Project" of the China Charity Award from the Ministry of Civil Affairs of the People's Republic of China; Inner Mongolia "Brightness Action" social philanthropy initiative won the "Most Influential Project" award of China Charity Award, and the special award of "Touching Inner Mongolia", and the "Asian Special Contribution Award" from the Asian Foundation for the Prevention of Blindness; the Lao Niu Children's Discovery Museum Project and the Zhangjiakou Lao Niu Carbon Sink Forest Project successively won the "Top Ten Charity Philanthropy Projects of the Year".

Ecological Restoration and Conservation (Lao Niu Carbon Sink Forest) Project

I. Project overview:

1. Implementation Time: 2010 – Present

2. Implementation Scope: Hohhot City, Chifeng City, Xilin Gol League, Inner Mongolia; Zhangjiakou City, Hebei Province

According to the Assessment Report on Land Degradation and Restoration published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in 2018, it is estimated that 4 billion people will live in arid and semi-arid regions by 2050. The region will be subject to multiple factors such as climate change and land degradation. Land degradation and climate change are expected to reduce global crop yields by an average of 10% and by an average of 50% in some regions, resulting in significant losses in biodiversity and ecosystem services.

Since 2010, the “Ecological Restoration and Conservation (Lao Niu Carbon Sink Forest) Project” has been dedicated to providing locally feasible plan featuring “eco-economic development” for arid and semi-arid areas that cover approximately one-third of the total land area of the Earth, and spread over more than 50 countries and regions around the world and their marginal areas. Thanks to continuous investment, the project has made periodic progress.



Before and after the implementation of the Lao Niu carbon sink forest project in Horinger County, Inner Mongolia

II. Project Deliverables and Influences:

1. Mode Exploration:

In 2010, in the arid and semi-arid regions of Horinger County, Inner Mongolia, China's important ecological barriers, the exploration and demonstration of ecological restoration were carried out from four aspects, namely climate adaptation, vegetation restoration, water resources management and

green industry. Nearly 40,000 mu (about 2,666.67 hectares) of degraded land was restored, and more than 3.3 million trees were planted, with over 90% of survival rate. The biodiversity has increased from less than 30 species to more than 80 species. The soil erosion has been effectively controlled with average annual fixed soil of 25,000 tons and the increase of total potential water storage capacity of land from 4 million tons to 5.3 million tons. In the next 30 years, these trees are expected to absorb and fix 220,000 tons of carbon dioxide, of which 160,000 tons have been subscribed by Walt Disney Company. Based on the results of ecological restoration, the sustainable development model of “complementary economic development and ecological restoration” has formed. The residents of 13 administrative villages in the project area benefit from the climate-smart agriculture and smart grassland management. The cooperative households increase their income by more than RMB10,000 per year.



Smart agriculture



Smart grassland management

2. Promotion and Improvement:

The “Smart Grassland Development Plan” is provided to Inner Mongolia Xilin Gol League, with planned restoration of 50,000 mu (about 3333.33 hectares) of grassland in 2019; the “Climate Smart Agriculture Development Plan” is provided for Chifeng City, Inner Mongolia, and has been implemented on 1,000 mu (about 66.67 hectares) in 2019; the “30,000 mu (about 2,000 hectares) carbon Sink Forest Ecological Restoration Plan” is provided to Zhangjiakou City, Hebei Province to restore 30,000 mu (about 2,000 hectares) of degraded land. The globalized progress of ecological restoration and conservation work is promoted. At present, the Foundation and the Nature Conservancy have discussed the intention of cooperation with Mongolia. An agreement is expected in 2019 to provide a suitable “eco-economic harmonious development” program.

Lao Niu Wetland Protection Project

I. Project Overview:

1. Implementation Time: 2012 – Present

2. Implementation Scope: 11 provinces and cities along the coast of China, Nanchang City, Jiangxi Province, Shigatse City, Tibet Autonomous Region

In the past half century, China has lost 53% of temperate coastal wetlands, 73% of mangroves and 80% of coral reefs, and offshore seafood resources have almost been exhausted. Other inland wetlands have been threatened by different levels of reclamation, pollution, overexploitation and utilization

The “Lao Niu Wetland Protection Project” has mainly carried out two tasks. One is to promote the special frontier research on wetlands and provide scientific theoretical support for China's wetland protection. The second is to build and rely on the wetland network to carry out professional talent training and capacity building. From the aspects of theory and management operations, it provides assistance for the protection of wetlands in China.

II. Project Deliverables and Influences:

1. Special Studies:

In cooperation with the Paulson Institute, it has researched and published the Studies on China Coastal Wetland Conservation Management Strategy to systematically sort out the main problems existing in China's coastal wetlands and propose scientific and executable solutions. The research results have been adopted by domestic environmental protection organizations as a basis and guide for the development of coastal wetland protection.



Results of the Studies on China Coastal Wetland Conservation Management Strategy were released



Mount Everest wetland hydration

The NO.3 Poyang Lake Wetland Ecology Research Collection has been formulated through research. Together with the former collection, it records the valuable data on wintering waterbirds, plants, hydrology and meteorology from Poyang Lake since 1999, providing scientific support for the protection of Poyang Lake.

In cooperation with Tibet Pendeba Society, the Report on Plateau Wetland Protection and Community Sustainable Development has been formulated through research. Environmental publicity and education

were carried out for 12,055 people in 29 administrative villages in Dingri, Nyalam and Gyirong County, and 50,000 mu (about 3333.33 hectares) of plateau wetland was restored.

The Research on China's Mangrove Conservation and Restoration Strategy has been formulated through research, analyzing and assessing the spatial layout of the key construction projects of restoration of nearly 50,000 hectares of mangrove, and proposing the specific conservation and restoration plans.

The China Coastal Waterbirds and Their Habitats Data Set has been formulated through research. Built on this Data Set, the waterbird habitat query and information reporting system based on mobile phone applications, was developed and the China Key Coastal Bird Area Comprehensive Report was released.

2. Capacity Building:



Coastal Wetland Conservation Network was established in Fuzhou, Fujian Province



Management Training Course

The “China Coastal Wetland Conservation Network” has been formed and constituted the “two horizontal and one vertical” conservation landscape with the Yangtze River and Yellow River wetland conservation networks, basically shaping the large-scale and long-span wetland protection framework within China. Built on the network, the “Hong Kong Mai Po Wetland Management Training Course” has been made available to provide professional guidance to 236 coastal wetland business officials and the professionals in protected area management.

Carbon Neutral Project (Lao Niu Zero Carbon Action)

I. Project Overview:

1. Implementation Time: 2011 – Present

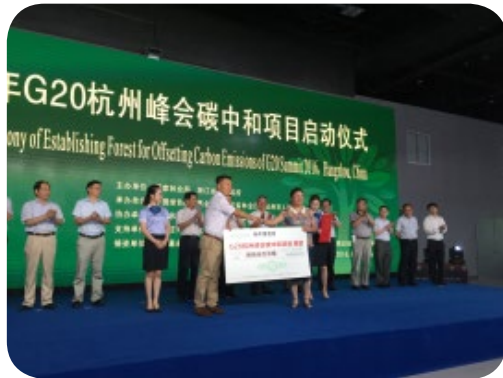
2. Implementation Scope: Hohhot City, Inner Mongolia, Wuwei City, Gansu Province, Lin'an City, Zhejiang Province

According to the 2018 Global Energy & CO₂ Status Report, published by the International Energy Agency (IEA), global energy-related CO₂ emissions reached 33.1 billion tons in 2018, the fastest growing year since 2013. In order to curb the global greenhouse effect and promote the transformation of the world economy into a green economy and a sustainable economic development, it is imperative to reduce emissions and increase carbon sink.

The project was officially launched in 2011. It is dedicated to encouraging the organization or individual to deal with the directly or indirectly generated carbon emissions within a certain period of time, and achieve the goal of “zero emission” in the form of forest planting, increasing carbon sink or reducing carbon emissions. up to now:

II. Project Deliverables and Influences:

Conference support: The Lao Niu Foundation has provided conference support for the 2016 China G20 Summit in Hangzhou and the China Green Companies Summit (for 9 consecutive years) to achieve the goal of “Zero Carbon Conference”.



The launching ceremony of carbon neutralization project at 2016 China Hangzhou G20 Summit



Carbon Forest, 2015 China Green Companies Summit

A total of 950 mu (about 63.33 hectares) of forest was planted with over 87% survival rate. In the next 10 years, it can “offset” 8,878 tons of carbon dioxide equivalent. The concept of energy conservation and emission reduction has been passed on to 1,000 enterprises and 50 environmental protection social organizations, affecting more than 23,000 people.

Lao Niu Environmental Management Capacity Building Project

I. Project Overview:

1. Implementation Time:2012 – Present

2. Implementation Scope:Beijing, Hainan

In the face of the increasing global environmental problems and refinement of types, the missing standard in emerging and frontier environmental issues, inadequate environmental professionals, low public awareness of the seriousness of environmental problems, and the lack in crisis awareness, Lao Niu Foundation has launched the “Lao Niu Environmental Governance Capacity Building Project”, and has been committed to participating the research of emerging and frontier environmental issues and the preparation of industry standards; training environmental professionals and popularizing the public awareness of environmental protection.



Global International Students from the School of Environment, Tsinghua University participates in international exchanges



GEP accounting standards development

II. Project Deliverables and Influences:

At present, the Lao Niu Foundation is working on the development of ecological assets and gross ecosystem product (GEP) accounting standards and the natural education industry standards. The Foundation and the School of Environment, Tsinghua University have signed a “Strategic Cooperation Agreement” to support environmental school teachers in conducting research on frontier issues and funding outstanding talents in environmental science for international study and exchange. The project has accumulatively funded 89 international students of the School of Environment from 10 countries.

Guangdong Harmony Community Foundation

The Harmony Environmental Fund was established in 2012 by the Guangdong Harmony Community Foundation, the Society of Entrepreneurs & Ecology, and the American Rockefeller Brothers Foundation. The Executive Office is located within the Harmony Community Foundation. The Fund currently has a sustainable community project.

A sustainable community space is important for creating a sense of well-being and happiness among residents. In the Pearl River Delta region where the economy is developing at a high speed, high environmental quality and green lifestyle are of great significance for improving the quality of local public life and promoting the harmonious development of economy, society and environment. Against the background of increasing global warming, extreme weather disasters such as high temperature, heat waves, rainstorms and typhoons in the Pearl River Delta community are becoming more and more serious. While actively responding to disaster prevention and mitigation, the community public should also make contributions to slowing carbon emissions and practicing a low-carbon green life.

Through the Sustainable Community Project, the Harmony Environmental Fund supports and promotes the close cooperation between community actors and NGOs and governments, enterprises and academics, actively and innovatively participates in the sustainable development of the community, and establishes the replicable work models in such areas as drinking water safety, and low-carbon development of community for reference.

The project has effectively organized the charity organizations involved in water conservation in the Pearl River Basin to provide them with a powerful platform and financial support, help them establish and promote effective work models such as public participation, environmental education, information disclosure, policy advocacy, so as to better ensure drinking water safety in community. The project explored how to encourage community residents to take low-carbon and green action, and improve the awareness and ability to prevent extreme weather disasters through publicity and education, and pilot cases. The project also worked with Shunde's leading appliance companies to support them in incorporating supplier environmental records into supply chain management and using market-based measures to reduce the harm of corporate emissions on the community environment.

Shunde Home Appliance Industry Green Supply Chain Project

Green supply chain management is considered to be an environmental model based on business relationships - market players (usually large purchasers) use their influence to prompt suppliers to take actions such as environmental compliance, energy and water conservation, and resource and energy use, so that products can be “greener” in the whole life cycle of raw materials, design and manufacturing, sales and transportation, recycling and reuse. Compared with the government regulation focusing on “the bottom line”, the green supply chain management led by leading enterprises is more flexible and diverse, covering a wide range of links, which can enable more environmentally-friendly enterprises to gain market recognition as a key way for market players to promote social green development.

For enterprises, green supply chain management is an independent choice based on the perspectives of their own sustainable development, brand building and response to consumer concerns. It is more common in internationally renowned brands and is usually included in the CSR department as part of the sustainable supply chain construction of enterprises.

The international experience of green supply chain development shows that the effective participation of social organizations is a key link in building a green supply chain. Charities have played an indispensable role in creating public opinion atmosphere, improving consumer awareness, and supporting technical capabilities. However, there are still few charities that are committed to promoting green supply chain management in China.

In 2016, the Harmony Community Foundation decided to facilitate the incorporation of implementation of the green supply chain in local enterprises into the environmental project strategy. Through industry scan analysis, we believe that due to the current lack of consumer environmental awareness, the inadequate public opinion supervision and environmental information disclosure, China's local brand enterprises generally have low awareness of green supply chain. In terms of the “cross-industry” participation in supervising and improving the environmental protection and low-carbon level of business partners, enterprises lack recognition and capacity, thus posing greater challenges against green chain management. Based on the specific analysis, we believe that local enterprises' impetus, pressure and capacity in green supply chain management need to be further improved.



Fig. 1 Analysis of the driving force of green supply chain by enterprises

At the same time, governments at all levels are becoming more and more strict in environmental law enforcement. In particular, after suppliers were shut down by the government due to environmental noncompliance, the entailed production risks sounds the alarm for brand enterprises, laying foundation for our discussions with enterprises on green supply chain management. We realize that different industries and enterprises face different opportunities and problems. We should select the industries with long supply chain, concentrated leading enterprises and obvious brand benefits to find breakthroughs.

With the support of the local government, in 2017, Guangdong Harmony Community Foundation and Shunde Energy Conservation Association jointly established the Shunde Home Appliances Green Supply Chain Project. Through the investigation and negotiation with local leading home appliance manufacturers in Shunde, the project has formulated and implemented the green chain management group standards in line with the current operation and management status of enterprises in Shunde, with a view to finally improving environmental protection and energy conservation levels in the product supply chain. The project was funded by partner organizations such as the Hewlett Foundation, the Environmental Defense Fund Beijing Office, the Society of Entrepreneurs & Ecology, and the Oak Foundation.

I. Project Background:

China is the world's largest home appliance producer. According to relevant reports, China's major home appliance output has accounted for 56.2% of the global total¹. In 2017, the main business income of the home appliance industry reached RMB1.5 trillion, and the total profit was nearly RMB116.9 billion². In 2018, despite various unfavorable factors, China's home appliance exports reached a new high. The export value of traditional home appliances such as refrigerators, washing machines and air conditioners was USD33.34 billion, up 11.2% over the same period of last year; the export volume of

¹ Home Appliance Industry Status and Outlook Report, Korea Electronics Association, 2017, as reported by Tencent Technology <http://tech.qq.com/a/20171007/006416.htm>

² China Household Electrical Appliances Association, as reported by Sina News <https://news.sina.com.cn/c/2018-11-21/doc-ihmutuec2282750.shtml>

small home appliances was USD29.92 billion, up 10.8% year on year³.

The home appliance industry has a long supply chain of enterprises with elaborate division of labor. From the analysis of the environmental factors of the whole life cycle, the environmental problems caused by the leading enterprises in the production process are small while high energy consumption and high pollution mostly occur in the production links of the suppliers. If the supplier's environmental problems are not managed, it will be difficult to control the environmental pollution and energy consumption of the entire life cycle of home appliances.

Taking air conditioners and refrigerators as examples, environmental impacts are closely related to supply chain management during the product design, production, consumption and recycling phases of their entire life cycle:

Analysis of Environmental Impact Factors of Home Appliances Like Air Conditioning and Refrigerator During Whole Life Cycle

	Environmental factors	Pollution factors	Environmental impact	Management tools
Product design phase	Housing material	Sheet metal, plastic	Solid waste	Supplier management
	Parts	Metal, plastic	Solid waste	Supplier management
	Motor	Metal, plastic	Solid waste	Supplier management
	Compressor	Metal, plastic	Solid waste	Supplier management
	Control System	Metal, plastic	Solid waste	Supplier management
	Refrigerant	CFC	air	Supplier management
Manufacturing phase	Welding	Welding fumes	air	Supplier management
	Sheet metal	Waste	Solid waste	Supplier management
	Plating	Plating cleaning wastewater	water	Supplier management
		Waste plating solution	water	Supplier management
	Painting	Degreasing wastewater	water	Supplier management
		Surface conditioning water	water	Supplier management
		Phosphating wastewater	water	Supplier management
		Painting wastewater	water	Supplier management
		Spray exhaust	Air	Supplier management
		Paint, paint residue	D a n g e r o u s waste	Supplier management
	Final assembly	Metal, plastic	Solid waste	Business self-management
		Refrigerant leak	Air	Business self-management
		Packaging waste	Solid waste	Business self-management

³ China Industrial Development Research Network <http://www.chinaidr.com/news/2019-03/124745.html>

	Environmental factors	Pollution factors	Environmental impact	Management tools
Consumption use phase	transport process	Gasoline	Atmosphere	Business self-management
	Power use	/	Energy	Business self-management
	Refrigerant	Refrigerant leak	Atmosphere	Consumer self-management
Recycling phase	Scrap metal	Heavy metal	Soil	Business self-management
	Waste plastic	Waste plastic	Soil	Business self-management
	Waste refrigerant	Waste refrigerant	Atmosphere	Business self-management

* Extracted from the 2018 Home Appliance Industry (Refrigeration Products) Green Supply Chain Project Final Report made by Guangdong Harmony Community Foundation and Beijing Zero Carbon Era Management Consulting Co., Ltd.

Located in Foshan City, Guangdong Province, Shunde is a famous “home appliance capital” in China. It has more than 3,000 home appliance production and supporting enterprises, and its output value accounts for about 15% of the national appliance industry⁴. Shunde is also one of the most successful regions for the building of local home appliance brands in China, with such well-known brands as Kelon, Ronsheng, Midea, Macro, Galanz and Vanward. Among them, Midea, Hisense Kelon, Galanz, Vanward have a main business income of more than RMB10 billion, and two home appliance enterprises have been ranked China's top 500⁴.



Fig. 2. Discussions with Shunde Economic and Technological Bureau on joint promotion of corporate participation in September 2017

With the gradual implementation of the national “ecological civilization” construction, the environmental supervision in Guangdong Province has been continuously strengthened. Due to the high concentration of high-pollution industries, small size of enterprises, and low management level, the Pearl River Delta region has seen serious environmental pollution problems caused by enterprisers and prominent

⁴ Shunde, capital of home appliances in China, have more than 3000 home appliance enterprises with annual income of RMB1.51 trillion! Sohu, Dec. 18, 2018 http://www.sohu.com/a/282627444_119960

business risks posed by environment problems. Since 2016, the central government has conducted multiple environmental law enforcement inspections in Guangdong. Many home appliance industry enterprises in Shunde District have been forced to suspend production and rectification due to environmental problems. Many leading enterprises have also been unable to complete export orders on time as their suppliers fail to supply materials in time, resulting in losses of up to several billion yuan.

II. Main concerns of enterprises:

The project team found that many business managers in Shunde District have a certain understanding of the necessity of suppliers' environmental compliance, and they have a personal understanding of the operational risks brought about by the suspension of production by suppliers during the central environmental protection inspection. Some export-oriented enterprises have also established some environmental protection requirements for suppliers upon the request of international purchasers, but these requirements are not transparent to the outside. With the development of the industry and the upgrading of domestic consumption, many enterprises have realized that they must comply with the trend of green consumption, establish a green brand image, and enhance the brand's "green competitiveness" in domestic and foreign markets while promoting product quality. But they lack means to facilitate such endeavors.

For the establishment of green supply chain management in the home appliance industry, the concerns of Shunde leading enterprises are concentrated on:

① The home appliance industry is the "Red Ocean" of competition. Although the market share of China's top ten brands is greater than 90%, the differences between brands are limited and product price competition is fierce. Enterprises are concerned about whether green supply chain management will increase costs and reduce product competitiveness.

② Enterprises also generally lack full-time staff in the field of sustainable development or social responsibility, and high-level awareness and organizational impetus to carry out this work. They mostly consider that the environmental problems of suppliers are "unrelated to themselves", and fail to recognize their social responsibility in corporate purchase.

③ Business managers believe that their own companies, although large in scale, have a partnership with suppliers. In the face of peer competition, they have limited capacity to mobilize suppliers and fail to align with international companies in supply chain management.

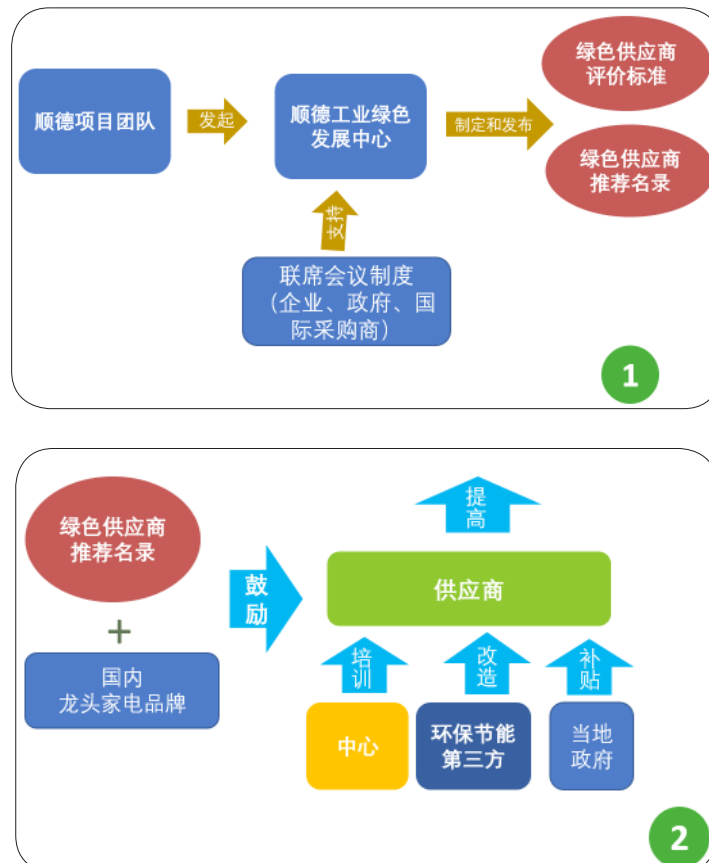


Fig. 3 Research and discussions on supplier management process in Midea Refrigeration in August 2017

III. Mode of the Shunde project:

The project team believes that, in order to promote the green supply chain construction of domestic enterprises, it is necessary to propose a flexible and controllable supply chain “greening” method based on the current influence and market position in their supply chain from the perspective of corporate managers. While establishing standards and management systems, corporate concerns need to be effectively dealt with. The effectiveness should be emphasized at this stage, supplemented by the support of corporate brand building. The goal should not be too high, and it can be set to drive enterprises to kick off green chain management.

The driving model we designed can be summarized as:



1. Establishing a platform for corporate participation and cooperation

In order to mobilize the participation enthusiasm of leading enterprises and avoid bad competition in the same industry, the project established a joint conference platform for Shunde's leading home appliances manufacturers. Eight large companies in Shunde, including Hisense Kelon and Midea, join the meeting on a quarterly basis. Through the discussion of business representatives, it promotes and improves the understanding of the importance of green supply chain management, and develops a locally suitable promotion method. The formulation and promotion of "green supplier evaluation criteria" prompts suppliers to improve environmental compliance and energy management.

On the basis of the joint conference, the project team also held a number of trainings for the suppliers of the leading enterprise to improve local companies' awareness of the issue.

2. Developing standards to formulate the corporate green supplier evaluation standards/tools

The green supplier evaluation criteria have been formulated (the Evaluation Criteria for green Suppliers of Electronics and Home Appliances in Shunde), aiming to provide information and basis for brand enterprises to incorporate greening into supplier management. The third party evaluates the "green" level of the supplier's production process, which not only provides information for the purchasers to distinguish green suppliers, but also encourages suppliers to improve the level of environmental protection and energy conservation. The establishment of common criteria can reduce the costs and promotion difficulties of green supply chain management in individual enterprise, and it is easier to obtain social recognition. A number of Shunde enterprises have clearly expressed their willingness to adopt this standard to manage their suppliers.



Fig.4. The draft of the Evaluation Criteria for green Suppliers of Electronics and Home Appliances in Shunde was discussed at the second corporate joint conference in December 2017

3. Establishing third-party service agencies

In view of the fact that domestic enterprises generally do not have relevant posts and need external

professional support, the project has established the “Shunde Green Development Center”. The Center continues to provide relevant evaluation services for buyers and suppliers, and provides risk management information services for supply chain links to leading enterprises. The service team with the local institution as the core is more aware of the business situation of Shunde enterprises, which puts it in a better position to quickly establish trust and partnership with local enterprises, formulate feasible work plans, and be easily accepted by enterprises.

IV. Main Deliverables:

1. The leading enterprises issued the Shunde Declaration.

On October 26, 2018, the project held the Shunde Green Supply Chain Conference. About 60 participants from Foshan City and Shunde District Government, representatives of local leading enterprises and supplier companies, experts and scholars attended the conference. At the conference, Hisense Home Appliances Group, together with seven core companies such as Midea Refrigeration, Xinbao Electrical Appliances, Tamay New Materials, GMCC, Jingyi and Lesso, read the Shunde Green Supply Chain Declaration to the society. The declaration, which was hailed by the media as “the first horn of the green supply chain of China's home appliance industry”, also marks the deepening implementation of the green supply chain construction led by companies such as Hisense and Midea.



Fig. 5 Seven leading companies including Hisense Home Appliances Group read the Shunde Green Supply Chain Declaration in October 2018

2. Establishing Shunde Green Development Center

The “Shunde Green Development Center” was successfully listed at the Shunde Green Supply Chain Conference in October 2018. The “Shunde Green Development Center” was jointly established by seven companies that participated in the project activities in Shunde, as well as the Harmony Community Foundation and the Society of Entrepreneurs & Ecology. As a long-term independent operation organization, the Center will promote the green supply chain construction of Shunde's home appliance industry as the main goal in the future, thus ensuring the sustainability of project influence.



3. Effectively enhancing the green supply chain awareness and ability of enterprises

In 2017 and 2018, the project held 4 corporate green supply chain case presentations and supplier training sessions, with a total of about 120 participants. In addition, three joint conferences of leading enterprises were held to discuss and formulate the Evaluation Criteria for green Suppliers of Electronics and Home Appliances in Shunde, which improved the understanding of leading enterprises in green supply chain management.

V. Summary:

Since 2018, Shunde's home appliance green supply chain project has received relatively positive response and participation from leading enterprises and supplier companies. Impressive progress has been achieved in improving the company's green supply chain management awareness, promoting capacity improvement, and assisting leading enterprises to develop relevant management systems.

Next, we will continue to cooperate with leading appliance companies in Shunde, and continue to promote the release and promotion of green supplier evaluation standards and the construction of Shunde Green Development Center service platform. In addition, we will continue to build enterprise capacity in Shunde, especially to help the senior decision-makers of the company to raise awareness.

We realize that the green supply chain construction of local enterprises is a long-term task. While taking advantage of the national ecological civilization construction and green development, it is also pertinent to progress in such areas as the overall development stage of China's economy and manufacturing industry, corporate brand building capacity, and consumers' environment awareness. We must work hard to proceed at a fair speed for the best. Charities must combine government policies and the status quo of enterprise development, and adopt various means such as encouragement, assistance, and supervision in a timely manner. We should also pay special attention to cooperation among charities, and coordinate the division of labor to create an external environment for enterprises to encourage and supervise green supply chain management.

Vanke Foundation

Founded in 2008 and under the charge of Ministry of Civil Affairs of the People's Republic of China, Vanke Foundation is a national private foundation sponsored by CHINA VANKE CO., LTD., and reviewed and approved by Ministry of Civil Affairs of the People's Republic of China and the State Council of the People's Republic of China. The foundation was identified as a charity organization in 2017.

Vanke Foundation focuses on the topics that will affect future profoundly with the concept of “Facing The Future, Dare To Be The First”, and promotes environmental protection and community development with the goal of “Sustainable Community”.

China Business Climate Action (CBCA) initiative of Vanke Foundation

I. Project Overview:

Vanke Foundation has sponsored C Team and SEE Foundation to implement the China Business Climate Action (“CBCA”) Project in China, the US, and Poland since April 2018.



Adopting the strategy of building the business advocacy and action platform, CBCA is dedicated to realizing the following long-term goals: widely mobilize the business power to jointly tackle challenges and utilize opportunities brought about by climate change in China and around the globe, and play an increasingly important role in international dialogues, speaking for China and sharing China's solutions for tackling climate change.

CBCA took six steps to build the platform smoothly: 1. consolidate relationships and expand the network; 2. determine core members; 3. communicate and determine the initiator of the business action platform; 4. release the business proposals; 5. establish the steering committee; 6. run the pilot capacity building. As of the end of 2018, the main activities launched under CBCA were:

- ① Co-held the China Business Green Future Forum themed on "The Future Being Changed by 2 Degree Celsius" on the World Environment Day June 5, 2018;
- ② In September 2018, at the Global Climate Action Summit ("GCAS") in California, USA, CBCA joint secretariat, C Team and SEE Foundation called together over 30 partners including relevant industry associations, leading enterprises, NGOs, and think tanks to co-launch the CBCA and debut the business climate action proposal. The proposal calls on industrial and commercial enterprises to incorporate climate change into their business development strategies and social responsibilities, and calls on leading enterprises, industry associations, chambers of commerce, and unions to catalyze the carbon emission reduction and green transformations of the whole industry chain and industrial clusters.
- ③ Held the CBCA strategic planning seminar, organized a steering committee, and implemented two sessions of training workshops for business professionals.
- ④ In December 2018, held the side event titled "Making Collective Impact of Corporate Climate Action" at the China Pavilion at the UN Climate Change Conference, COP24 in Katowice, Poland to further consolidate the foundation for cooperation and promote joint climate actions of Chinese enterprises led by and under the support of industry associations and NGOs.

II. Direct Project Deliverables

By the end of 2018, the CBCA project had

- Brought together 21 initiators, 19 members, and 2 supporters;
- Issued the business climate action proposal and 8 action strategies;
- Organized and held 1 national forum, 2 international conferences, and 2 workshops, in which:
 - > At the China Business Green Future Forum, 26 guests from academia, business, NGOs and government departments were organized to participate in dialogues and share cases, which led

to 350 attendees and numerous medias' further attention and understanding on climate change and inspiring their climate actions.

> At the business side event of China Pavilion at the Global Climate Action Summit, 15 honored Chinese and oversea guests from industry associations, enterprises, think tanks and environmental NGOs were organized to participate in dialogues and share cases, which promoted the international communications and exchanges over CBCA. About 100 people attended the event, and 22 media agencies issued 33 news releases and 4 video reports collectively.

> At the side event "Jointly Build the Business Climate Action Platform" of China Pavilion at the UN Climate Change Conference, COP24 in Katowice, Poland, 32 Chinese and oversea guests from industry associations, enterprises, think tanks, and environmental NGOs were organized to participate in dialogues and share cases, and research and discuss "how the business action platform can wield aggregate influence?" About 100 people attended the event, and 27 media agencies and 6 social media platforms issued 53 news articles and 4 video reports collectively.

> The first CBCA workshop "Climate Change and Business Development" was co-organized with the US Climate Reality Project. 70 people took part in the workshop.

> The second CBCA workshop "The Risks and Opportunities to Business Operation from Climate Change" was co-organized with the Paulson Institute. 59 people took part in the on-site workshop, and 12 attended online.

III. Significant Influences:

The event of "The GCAS in California demonstrated the capability of Non-State Actors in climate action" was selected as one of the "Ten Big Events in the Climate Energy Circle" issued by Greenovation Hub, an environmental charity, and ThePaper.cn. The issuance of the "CBCA" proposal at the GCAS in California encouraged private sectors to take climate actions, which is a good example of the action capability of the non-state actors in China.

By the end of 2018, the number of enterprises represented by industry associations and the leading enterprises (supply chain included) joining the CBCA platform had reached 1 million. Whatever their sizes, these enterprises are being or will be influenced by the top-down action proposal of CBCA platform.

VI. Lessons Learned:

The cause (greenhouse gas emission) of climate change is invisible by the public directly, and the reduction of greenhouse gas emission by enterprises would not bring vast and visible results

immediately. Hence, the perception of enterprises on the urgency of climate change is weaker than and lagging behind that of visible air pollution, water pollution, waste pollution, and other types of pollution nuisances. Encouraging large carbon emitters in contributing to the substantial climate change mitigation still has a long way to go. Thanks to the support from the leading figures Xie Zhenhua, Wang Shi, and Ai Luming, as well as from Al Gore, an internationally influential climate leader, CBCA was able to establish a business advocacy and action platform. Besides, the CBCA platform attracted the participation of industry associations such as the China Federation of Industrial Economics, China National Textile and Apparel Council, China Chain-Store & Franchise Association, and Green Supply Chain in Real Estate Industry in China, as well as large enterprises such as Vanke and JD.Com. In this way, CBCA serves as a platform where industry associations and large enterprises take the lead in climate actions, to raise the attention of more enterprises on climate change, and drive the market, industry and policy trends.

Mount Qomolangma Snow Leopard (*Panthera Uncia*) Protection Plan of Vanke Foundation

I. Project Overview:

The Qinghai-Tibet Plateau, known as "The World's Third Pole", is an essential ecological security barrier for China. Located at the junction of Tibet Autonomous Region and Nepal, the Mount Qomolangma, as the highest peak of the Himalayas (the main part of the Tibetan Plateau), is one of the critical habitats of snow leopard – the flagship species in plateau ecosystem. To intensify the protection on and publicity of snow leopard, in September 2013, by signing the "Memorandum of Cooperation between the Forestry Department of Tibet Autonomous Region and Vanke Foundation," **Forestry Department of Tibet Autonomous Region and Vanke Foundation** co-initiated the "Mount Qomolangma Snow Leopard (*Panthera Uncia*) Protection Project". In May 2014, the "**Mount Qomolangma Snow Leopard Protection Center**" was established jointly by the Mount Qomolangma National Nature Reserve Authority and Vanke Foundation. The center is committed to creating a resource integration platform for Mount Qomolangma snow leopard protection. In the same year, the initiators also published the action of "Snow Leopard Protection Plan" jointly. The action emphasizes snow leopards and the situations of their habitats, and strives to, under the background of national leopard protection plan, realize the active participation and role-playing of the civil power of China. The project will attract broad involvement of entrepreneurs, scientists, scholars, media, etc. to be the supplementary resources to the national snow leopard protection network. At present, the center has built stable partnerships with four research institutes or universities: **Beijing Forestry University, Institute of Zoology, Chinese Academy of**

Sciences, Yunnan University, and Guizhou Normal University, and prioritized work on scientific research, community protection, public propaganda and education, and talent cultivation. To be specific, the center initially completed the investigation and assessment on the status quo and threatened status of Mount Qomolangma's ecosystem and its representing species--snow leopard, formed the long-term detection system and technical standard for Mount Qomolangma snow leopard, acquired technological achievements such as the **Research on *Snow Leopard* Populations in the Mount Qomolangma National Nature Reserve** and published many papers in international academic journals. The Mount Qomolangma snow leopard protection center will continuously and positively promote efforts in the four priorities from 2017-2020.



II. Project Deliverables:

1. Deliverables of Natural Science Research

A. Through scientific and systematic species monitoring design, the project team carried out monitoring and research on snow leopard populations in Gyirong county and Tingri county of Mount Qomolangma nature reserve. The monitoring area is about 1,500 square meters, with nearly 400 infrared cameras installed in it, and 1.56 TB of data was collected; initially understood the current distribution status/density of snow leopard populations in the Mount Qomolangma region and cooperated with the national-level research on snow leopard populations; published the *Investigation Report on Snow Leopard Populations in the Mount Qomolangma Reserve*.

B. Taking Mount Qomolangma reserve as the research object, the project team conducted comprehensive research on the ecosystem of the world's third pole. The team carried out the remote sensing monitoring and change research, phenological change monitoring and research, climate change research, wetland research, and grassland research in all Mount Qomolangma reserve (33,800 square meters), and then published many special research reports such as the *Remote Sensing Monitoring of Mount Qomolangma Reserve*.

2. Deliverables of Community Development Project

A. Developed the Community Small Grants Project, and carried out community development support work in lots of communities within Mount Qomolangma reserve.

B. Conducted community baseline investigation, looked into the fundamental development situation of over 300 village communities under 32 towns in 4 counties within the Mount Qomolangma reserve, and issued the *Baseline Investigation Report on Communities within the Mount Qomolangma Reserve*.

C. Developed the Cultural Industry Innovation Project of Protecting Communities in Mount Qomolangma Reserve, looked for distinctive local culture, and created community handicraft products embodying protection concepts.

3. Deliverables of Protection and Management Capability Building

A. Supported the Mount Qomolangma Reserve Authority in carrying out protection and management business training to a total of over 100 people from branches of 4 counties.

B. Supported the staff of the Mount Qomolangma Reserve Authority to travel to inland reserve for exchanging ideas over the protection and management business capabilities, and provided exchange opportunities for over 30 people.

C. Supported the front-line staff of inland reserve to come to the Mount Qomolangma reserve for business exchange and taking training, and provided exchange opportunities for over 20 people.

D. Supported partners and the Mount Qomolangma Reserve Authority to co-cultivate young scholars. Over 10 masters were cultivated, and many of them continued study for a doctorate.

E. Supported the Mount Qomolangma Reserve Authority to carry out the informatization construction of protection and management, and promoted the development of mobile patrol app.

4. Deliverables of Public Participation and Communication

A. Got the images about snow leopards' movement in the Mount Qomolangma region for the first time.

B. About 50 relevant media reports

C. Launched dozens of activities online and offline.

III. Significant Influences:

1. Support the Government Department of Protecting Mount Qomolangma to Improve Business Capabilities

Since the establishment of the snow leopard protection center, the Mount Qomolangma Reserve Authority has carried out cooperative projects with a group of inland scientific research teams with rich

protection and management experience relying on the flexible work pattern and the platform-oriented ideas of the center. Besides, the Authority also conducted learning exchanges with the government departments in inland reserves. Through these projects and activities, the Authority has continuously improved its business capacity and made much progress in intensifying the cooperation with competent departments. Meanwhile, with the help of the center as a social organization, the Authority explored the working mechanism of coordinated and complementary government & society. This provided a salutary lesson similar government departments (public institutions) can learn to improve their business capabilities and create new working ways and means in the future.

2. Explore the Systematic Working Mode of Mount Qomolangma Species Protection

The establishment of Mount Qomolangma snow leopard protection center marked the first time that a social organization is introduced into Mount Qomolangma region to join the species protection, and an essential move in exploring how to protect species inhabiting the world's third pole. Over the past five years, the center has made significant achievements in scientific research (the research and monitoring on snow leopard and its habitat), capability building (cultivation of local talents), the coordinated development between protection and community, and public communication. Moreover, the protection of one single species systematically covered multiple values such as scientific research, ecological protection, community development. These achievements offered significance insights into the implementation of species protection in the world's third pole in the future.

VI. Lessons Learned:

1. Institutional Building should be highlighted in the Deep Cooperation between Social Organization and Government

The working mechanism, paces, and efficiency of social organizations are different from those of government departments because of many reasons, such as varying management mechanisms. Explorations to build deep cooperation between the Mount Qomolangma snow leopard protection center and the government led to a realization when deeply involved in the public administration business of a government department, a social organization should, according to actual situation, adjust actively its working ideas/organization structure /management system to coordinate with the government department to promote and improve the latter's capability in business work, forming a virtuous cycle of mutual complementarity and mutual encouragement.

2. The Protection of Mount Qomolangma Species should Be Based on Holistic and Systematical Thinking

As the world's third pole, Mount Qomolangma has a rich ecosystem, so the development of local communities of the four counties there plays a significant role in its protection. Over years of practice

on protecting snow leopard, the multiple ecological, social and cultural values of Mount Qomolangma Reserve to climate change, wetland protection, community development, and the inheritance of minority culture has become gradually recognized. The work in the Mount Qomolangma Reserve requires a global and systematic view.

China Green Carbon Foundation

As the first national public-offering foundation in China that targeted at increasing carbon sinks, reducing carbon emissions and tackling climate change, China Green Carbon Foundation (hereinafter referred to "the Foundation") registered with Ministry of Civil Affairs on July 19, 2010 upon the approval of the State Council. The foundation is also a charitable organization with the qualification for public fundraising, approved by the Ministry of Civil Affairs. The foundation is directly managed by National Forestry and Grassland Administration. In 2012, the foundation was approved by the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) as an observer to the Conference of the Parties; in 2013, the foundation was assessed as a 4A foundation by the Ministry of Civil Affairs; in 2015, it was selected as the member of International Union for Conservation of Nature (IUCN); in the same year, it was granted the title of "National Advanced Social Organization" by the Ministry of Civil Affairs. The "Inner Mongolia Shengle International Ecological Demonstration Zone Project" was awarded the "China Charity Prize--the Most Influential Charitable Project Prize."

Project of Ecological Rehabilitation Engineering in Kangbao County, Hebei Province

Kangbao County, Hebei Province is located in the Beijing-Tianjin sandstorm source area and the ecological water conservation area. To improve the county's environment, reduce the harm of sandstorm on Beijing and see more blue skies in Beijing, the Special Fund of China Green Carbon Foundation for Mother Earth has funded Kangbao County in planting trees and grasses in Mandetang Village and Kangbao Town since 2014, as part of ecological rehabilitation engineering. The project is planned and designed by Beijing Forestry University, with 4,011 mu (about 267.4 hectares) of farmland fenced to plant arbor, shrub, and herbage for vegetation restoration. The trees planted are *Pinus sylvestris*, elm, spruce, white birch, wild apricot, *rosa xanthina*, clove, *caragana microphylla*, *Hippophae rhamnoides*, etc. and the pastures planted include *medicago sativa*, *astragalus adsurgens*, and so on. Besides, cash crop *prunus humilis* and medicinal materials *astragalus* and *radix scutellariae* were cultivated experimentally.

The project has double functions of slowing down and adapting to climate changes. Meanwhile, it has also produced multiple good results such as promoting the income and reducing poverty for farmers, protecting the biodiversity in Kangbao County and reducing the wind-sand hazards to Beijing. In September 2017, the independent checking and acceptance testing by the investigation planning and design institute of the Authority found that over 280,000 tree seedlings of various types had been planted, with an average survival rate of 90%. Particularly, the survival rate of *pinus sylvestris* reached over 99%. The eco-forestation engineering in the arid aeolian sand region of northern China became international best practice. The high-quality forestation, together with the experimental cultivation of cash crops like *prunus humilis* and medicinal materials such as *astragalus* and *radix scutellariae*, has pointed the way to and accumulated experience for the ecological remediation of Kangbao County and similar regions in China, which is beneficial for the ecological progress and development of green industry of Kangbao County. Spring Group is a pioneer among Chinese enterprises in supporting the land afforestation in China and coping with climate change with large donations, and explored duplicable, propagable, and successful experience in ecological poverty alleviation for the participation of social power in forestry construction.

The Special Fund of China Green Carbon Foundation for Mother Earth was sponsored by Spring Group, Spring Airlines, and 24 natural persons including Mr. Wang Zhenghua. The fund is committed to protecting Mother Earth, rehabilitating ecology, improving the environment, promoting ecological progress and building a beautiful China. Meanwhile, the fund aims to increase the income of farmers and herdsmen in poverty and promote the sustainable development of the society and economy. During the planning and implementation, the project gained great support from Hebei Provincial Forestry Administration, Zhangjiakou Forestry Bureau, and the government and forestry bureau of Kangbao County. The project was organized and implemented by Shanghai Changning Ecology Protection Agency for Mother Earth, which contracted Beijing Tianyi Green Landscaping Engineering Co., Ltd. and Zhangjiakou Chongli District Landscaping Engineering Co., Ltd. to complete the engineering construction.

Project of the Hong Kong Jockey Club in Carbon Sink through Afforestation at the Source of East River

To protect the ecological environment of the source of East River, positively cope with climate change and promote the sustainable development of society and economy, the Hong Kong Jockey Club actively performed social responsibilities to implement an 8,000 mu (about 533.33 hectares) afforestation project. The project was carried out in the place where the drinking water of Hong Kong citizens

originates, namely, the source of East River in Longchuan County, Guangdong Province. In the project, locally grown indigenous broad-leaved tree species such as *Catanopsis hystrix*, *Castanopsis fissa*, *schima Superba*, and sweetgum were selected to create a mixed stand featuring high diversity and sound ecological effects. The project covers a total afforested area of 8,000 mu (about 533.33 hectares) with over 710, 000 trees, which is equivalent to the area of 748 football fields or about 9 times bigger than the area of Hong Kong University of Science and Technology. So far, the trees planted are growing very well, and the survival rate of afforestation almost reaches 100%, far beyond the national standards. Most tree seedlings cropped in 2014 has grown to over 4 meters high, and most planted in 2015 and 2016 are over 3 and 2 meters high respectively. According to the measurement of a third party, the 8,000-mu (about 533.33 hectares) forest will absorb 210,000 tons of carbon dioxide in the next 20 years, which will play an essential role in mitigating climate change.

The project meets both the requirements on ensuring the sustainable water supply to Hong Kong, and the requirements put forward on the 18th National Congress of the Communist Party of China for accelerating low-carbon development and building the ecological civilization and a beautiful China. In an era where the global society is positively coping with climate change, it is hugely significant for the Hong Kong Jockey Club to continuously sponsor the tree planting at the source of East River and implement the afforestation project, namely, the Jockey Club Forest Project. Firstly, the project is beneficial to protect the source of East River, conserve water, preserve water and soil, improve water quality, and bring more and cleaner drinking water to Hong Kong citizens, which satisfy the fundamental interests of Hong Kong citizens and promote the sustainable development of the city; Secondly, through planting trees to absorb carbon dioxide and produce carbon sink, the project helps the Club practice low-carbon operation and voluntary emission reduction, and promote the mitigation of and adaptation to climate change; Thirdly, The project proves effective not only in increasing local farmers' employment and income and driving targeted poverty alleviation, but also in improving ecological environment and promoting the building of the ecological civilization and a beautiful China.

The demonstrations of the project at the UNFCCC and several conferences held in and outside China have received close attention and praises from home and abroad. In October 2015, at the Hong Kong Jockey Club East River Source Afforestation and Sustainable Forest Management Forum held in Guangzhou, the project gained much recognition from the state-, province-, city- and county-level governments, alongside colleges, universities, scientific research institutes, other jockey clubs of Hong Kong, and personages of all circles. Besides, the project has been propagandized and reported widely by mainstream media such as Xinhua News, People.cn, and China Green Times, and become a well-known Hong Kong-sponsored brand project in Mainland China.

2018 L'Oreal Carbon-Neutral Staff Flights Project

As part of carbon-neutral actions of L'Oreal China Co. Ltd., the project aims to build a 334-mu (about 22.27 hectares) forest in Anyuan County with a donation of RMB 600,000 to China Green Carbon Foundation. In the next 16 years, the amount of carbon dioxide absorbed by the forest can neutralize no less than 8,000 tons of carbon discharged by the planes that served all staff of L'Oreal China Co. Ltd. during 2018.

On October 9, the launching ceremony of the project was held in Anyuan County, the attendees including Shi Zhiguo, the deputy director of project division of China Green Carbon Foundation, Liu Jinghai, vice chairman of Anyuan County CPPCC Committee, Laure Lemarquis, director of sustainable development of L'Oreal China Co. Ltd., and Chen Haichun, director of Anyuan County Forestry Bureau.

The project marks the second time the carbon-neutral brand project of China Green Carbon Foundation has cooperated with a well-known global business (the first was cooperation with Hermes in Carbon Neutral Forest in 2017). The project aims to improve the ecological environment in China by afforestation. It is believable that this public interest activity integrating enterprise social responsibility, publicity of green production, and promotion of land greening will be further popularized.

China Environmental Protection Foundation

Established on April 27, 1993, China Environmental Protection Foundation is the first national public offering foundation specializing in environmental philanthropy business registered with the Ministry of Civil Affairs. In June 1992, at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, professor Qu Geping, the first director of National Environmental Protection Agency was awarded the United Nations Environment Prize. He donated all the 100,000 US dollars received and founded the China Environmental Protection Foundation, and took up the post of president of the council, a position later taken over by Fu Wenjuan. Wan Li, the former Chairman of the Standing Committee of the National People's Congress, Mr. Huang Hua, the former State Council Vice Premier and the Minister of Foreign Affairs, and Cheng Siwei and Jiang Zhenghua, the former Vice-chairmen of the Standing Committee of the National People's Congress had served as honorary presidents of the Foundation council successively. The council consists of delegates from government departments, associations, universities, and enterprises enthusiastic about environmental philanthropy, and it acts as the policy-making body of the foundation.

Since its establishment, China Environmental Protection Foundation has strictly performed the Regulation on the Administration of Foundations issued by the State Council and built a standard system of fund raising, administration, and use. Based on the purposes of "Taking funds from the people, using them for the people, protecting the environment, and benefiting mankind", the foundation, through extensively raising funds and focusing on the ecological civilization construction, launched a series of public interest activities, including "China Environment Prize", "environmental carnival", "environmental project funding", "poverty alleviation through ecological progress", "environmental logistics", "safe drinking water", "funding environmental activities led by college students", and "environmental public interest lawsuit and training". These activities covered fields of environmental pollution prevention and control, improvement of ecological environment, biodiversity protection, green development, and water resources protection. All yielded significant environmental and social benefits, and many projects were granted the China Charity Prizes. The foundation obtained the "Special Consultative Status" with the United Nations Economic and Social Council(ECOSOC) in 2005; was granted the titles of "National Leading Social Organization" by the Ministry of Civil Affairs and "2010 Leading Group" by the Ministry of Environmental Protection in 2010; obtained "5A" honor in the assessment of national foundation organizations organized by the Ministry of Civil Affairs in 2013; was granted the title of "Leading Group

in Protecting Capital Environment” by Beijing Municipal People's Government in 2015; was assessed as “Leading Group” by the Ministry of Environmental Protection, and firstly identified as “Charity Organization” by Ministry of Civil Affairs in 2016; was granted the “Excellent Case of Party Building in Social Organization Sponsored by Central and State Organs” by the working committee of central and state organs in 2018. Besides, in the most authoritative global think tank ranking report--2017 Global GO To Think Tank Index Report prepared by the TTCSP of the University of Pennsylvania, USA, China Environmental Protection Foundation was one of the four Chinese foundations on the list of “Top Environmental Policy Think Tanks”.

March towards Ecological Civilization Salute Environmental Pioneers

I. Project Overview:

1. Implementation Time: April 2016 – Present

2. Implementation Scope: Around China

3. Executing Agency:

China Environmental Protection Foundation

4. Cooperating Agencies:

China Environmental Protection Foundation (organizer), China Foundation for Poverty Alleviation (organizer), School of Environment, Tsinghua University (co-organizer), United Nations Environment Programme (UNEP) China Office, FAW-Volkswagen Automotive Co. Ltd.



5. Implementation Process

① Activity information is published via platform; recommending units prepare the list of environmental pioneers; the recommended pioneers submit materials for review; the materials submitted by applicants are collected for selection purposes.

② The work team sorts the materials received and investigates for verification.

③ According to the project evaluation index system, 50 projects are selected for the second evaluation.

④ According to project evaluation index system, 20 finalists are selected from the 50 mentioned above.

⑤ The team makes plans and work manuals for the 20 finalists; carries out site investigations; summarizes investigation results.

⑥ The 20 finalists enter into final presentations, and the list of winners will be determined by experts.

II.Direct Project Deliverables:

Since its initiation in May 2016, the three-year-old environmental philanthropy funding plan “March towards Ecological Civilization Salute Environmental Pioneers” has contributed cumulatively over RMB 15,000,000 in funding 60 environmental social organizations and produced excellent social benefits. Significant improvements were seen in environmental issues of the fields supported by the project.

III.Significant Influences:

The project has communicated the idea of Chinese president Xi Jinping on ecological civilization widely, mobilized and helped lots of environmental protection organizations and the public to take actions on ecological civilization advancement and ecological environment protection.

VI. Lessons Learned:

As an essential force for the environmental protection work, the environmental social organizations always need to work at the grass-roots level where conditions are severe and funds are scarce. However, passionate about the cause of environmental protection, they have made brave and persistent efforts for environmental philanthropy. Given this, it is hoped that sponsorship can be available to help them alleviate fund scarcity to some extent, support their sound development and encourage them to make full use of their unique advantages in the process of advancing ecological civilization.

“Green Hada Action” -- Qinghai-Tibet Plateau Ecological Greening Project

I. Project Overview:

1. Implementation Time: June 2011 – Present

2. Implementation Scope: Tibet

3. Executing Agency:

Institute of Geographic Sciences and Natural Resources Research, CAS

4. Implementation Process:

- ① The Institute of Geographic Sciences and Natural Resources Research, CAS signs the Land Use Agreement with the local authority to determine the location of forage grass planting lot jointly.
- ② Forage grass seeding and daily fields management; set up a billboard near the implementation area, and mark on it the project name, donating unit, entrusting unit and executing unit.
- ③ Forage grass planting lot irrigation and weeding, daily patrol and protection, and other management.
- ④ Carry out the activity of “Witness Trip” with donors in the implementation area of the project.
- ⑤ Harvest green wheat straw or triticale and allocate them to local farmers and herdsman.
- ⑥ Irrigate the land with over-winter water.
- ⑦ Submit the annual summary report and take annual inspection and acceptance.



II. Direct Project Deliverables

As of 2018, the forage grass planting area in Tibet brought about by “Green Hada Action” had accumulated to 12,250 mu (about 816.67 hectares or 8,166,667 square meters). The total net absorption of carbon dioxide reached 3,383 tons, 1,884,331 cubic meters, which benefited 9,693 local villagers.

III. Significant Influences:

The project has helped the recovery of local ecological environment and replenished enough supplementary forage grasses for livestock, which, to some extent, relieved the grazing pressure on natural mountain grassland and helped realize the natural recovery of degraded pasture. The project made possible the realization of multi-win objectives such as the improvement in the degraded grassland, the sustainable development of grassland livestock farming, and the steady increase in rural incomes.

VI. Lessons Learned:

As an open public interest platform, the Green Hada Action has successfully integrated all social forces including government departments, non-government organizations, celebrities and stars, cooperating enterprises, media agencies, and consumers. The project created a new set of philanthropy mode with sustainability, flexibility, and operability, fully pooled the resources and advantages of all parties to maximize the value of philanthropy actions, and brought about practical changes to the ecological environment in Tibet region.

In July 2018, the white paper Ecological Progress on the Qinghai-Tibet Plateau issued by the State Council Information Office pointed out that after long-term and unremitting efforts, the ecological civilization construction on the Qinghai-Tibet has obtained remarkable effect. But it also faces many challenges. The tasks of consolidating and promoting the results of the ecological progress are still arduous. The “Green Hada Action” would continue to serve as a green philanthropic force in driving Tibet to continuously make strides in green ecology.

China Environment Prize

I. Project Overview:

1. Project Review

The “China Environment Prize” was set up by China Environmental Protection Foundation in 2000 to commend and reward the group or individual who has contributed to or achieved outstanding results in environmental protection causes in China, and to promote the development of such causes in China.

The prize is the top-class social award in the field of environmental protection in China. In 2009 when the Chinese government launched a campaign to cancel some awards set up by social organizations to commend activities, the prize was retained.

2. The Organizing Committee for the China Environment Prize

The Organizing Committee for the China Environment Prize consists of 11 ministries and commissions under the State Council and units, including Environment & Resources Protection Committee of NPC, Population, Resources & Environment Committee of CPPCC, Ministry of Ecology and Environment of the People's Republic of China, etc. The 11 units will collectively direct the work for China Environment Prize. China Environmental Protection Foundation undertakes the specific work. The Secretariat of the Organizing Committee is set up under China Environmental Protection Foundation.



Shen Yueyue, Vice-Chairperson of the NPC Standing Committee (left above) attended the 9th award ceremony of China Environment Prize and gave out the prize to a winner.

3. The Evaluation Committee for the China Environment Prize

The Evaluation Committee for the China Environment Prize consists of the experts, scholars, administrators, and public characters in the field of ecological protection and others. The members of the Evaluation Committee are recommended by the member units of the Organizing Committee, and the Secretariat of the Organizing Committee sets up the judge database according to the recommended list.

4. The Process of Evaluation and Commendation

The China Environment Prize is granted every two years, and the process of evaluation and commendation is: Application and recommendation -- inquiry -- preliminary assessment -- publicity -- investigation -- re-evaluation -- review -- commendation

5. Awards Setting

The China Environment Prize is given with 5 categories, including urban environment, environment management, enterprises' environmental protection, ecological protection, and propaganda of environmental protection. For each category, no more than 5 groups and individuals would be selected (a total of no more than 25); in each category, no more than one winner (a total of no more than 5) would receive the China Environment Prize.

II. Project Deliverables:

By 2019, a total of 215 groups and individuals who made outstanding efforts in the field of environmental protection in China have received the China Environment Prize, among whom 136 are groups, and 79 are individuals. These winners played active roles in their industries and fields. They also devoted themselves to disseminating environmental protection concept, creating new environmental protection technologies and raising environmental awareness. Meanwhile, the Organizing Committee of China Environment Prize has also launched various thematic exchange activities such as “Miles of Travel,” “City Forum,” and “Winners Experience Sharing Meeting” on the platform of China Environment Prize. These activities mark the contributions of the Organizing Committee in increasing the passion of the public to participate in environmental protection, advocating green life concept, and promoting ecological civilization construction.

III. Social Influences:

A 19-year journey wins China Environment Prize a high reputation in the field of ecological civilization construction and environmental protection. During the evaluation, the excellent deeds of each winner would be disseminated via newspapers & journals, video websites, Internet media, Weibo (Microblog), WeChat, and so on. The impact of these deeds has reached beyond local area and the industry of environmental protection. Third parties consider the award to be a highly professional one that has an extensive coverage and a significant influence on society. As a social prize, it is believed to have given full play to the functions of affirmation, selection, demonstration, and advocacy. All awards in the five categories can play goods roles of governance in promoting the realization of the multi-governance of environmental issues.

China Environmental Protection Foundation TOTO Water Environment Fund

I. Project Overview:

1. Implementation Time: July 7, 2008 – Present

2. Implementation Scope: The project is nationwide, and its Secretariat is set up in China Environmental Protection Foundation, Beijing.



3. Executing Agency and Cooperating Agency

The Secretariat of China Environmental Protection Foundation TOTO Water Environment Fund is in Beijing. Its Management Committee, consisting of seven members, directs the project activities each year. In the Committee, Toru Fukazawa, general manager of TOTO (CHINA) Co., Ltd., takes the post of director of the Administrative Committee, and Xu Guang, Secretary-General of China Environmental Protection Foundation, is the vice director. Other committee members include Wang Wei, director of National Building Material Industry Building Envelope and Pipes Quality Supervision and Test Center, Yin Jian, deputy director of Energy & Water Saving Environmental Protection Department of Product Certification Department 6 of China Quality Certification Center, Takafumi Shinozaki, head of Business Management Department of TOTO (CHINA) Co., Ltd., Wang Fang, director of General Affairs Department of TOTO (CHINA) Co., Ltd., and Wang Yihong, director of Project Management Department of China Environmental Protection Foundation.

In 2016 and 2017, Shi Xiaojuan, the deputy secretary of the Party committee and secretary of the discipline inspection commission of Foreign Economic Cooperation Office of Ministry of Ecology and Environment (MEE), PRC, and Chen Liang, director of Foreign Economic Cooperation Office of MEE, were invited by the Management Committee of TOTO Water Environment Fund as guests.

4. Implementation Process:

The Management Committee of TOTO Water Environment Fund regulates and monitors the actual operation, expenditure, and use of the funds. As a regular working organization, the office of TOTO Water Environment Fund is in charge of the specific organization, implementation, and completion of every public interest activity designated by the Management Committee. The fund targets college students and sets up scholarships in Beijing University of Technology, Shanghai University, Dalian University of Technology, and Sun Yat-sen University. According to the recommendation of local propaganda centers across the country, the fund also assists in constructing a water environment engineering project for a village/school every year. Meanwhile, industry associations, charity organizations, voluntary expert teams are invited to participate in college student propaganda groups, and the implementation of natural water projects.

II. Direct Project Deliverables:

1. Reports Released:

The project provided patent application fees for 18 inventions and 57 utility models concerning water-saving, which to some extent promotes the development of water resources utilization industry in the society. The project has also funded 41 research topics of water conservation and wastewater discharge reduction, helping accelerate the construction of a water-saving society, and provide the scientific basis for forming both the industrial standards and national standards on water conservation. Besides, the project collected teaching materials about “A Lesson of Cherishing Water” from primary and middle schools, teachers, popular science educators, and other enthusiasts across China, and compiled these materials into a case collection as the textbooks for training teachers and volunteers to teach “A Lesson of Cherishing Water”.

2. Numbers of Training and Attendees

Over the past 10 years since its establishment, the fund has donated over RMB 16 million in launching activities for water environmental protection. These activities include propagandizing water conservation, popularizing the knowledge and technologies of water environment protection and water-saving, cultivating the environmental protection awareness of all levels of society and strengthening their abilities of protecting water environmental resources, solving the problems of safe drinking water for vulnerable communities in remote regions, and improving the water environment in small areas. The project involved training 600 water environment managers at the grassroots county level, with an impact on over 10,000 environment managers. The project also offered training to 200 teachers and volunteers, which, later, benefited 20,000 primary and middle school students. These training sessions played a positive role in raising the awareness of students at elementary education stage on the water environment and helped them develop a water-saving habit.

III. Significant Influences:

The project has sponsored 173 university associations to launch water environment protection activities, which improved their hands-on skills and abilities of innovation, practice, and organization. Besides, the project has assisted in ensuring safe drinking water for 5 schools in 7 unincorporated villages of Xinjiang Autonomous Region, Inner Mongolia Autonomous Region, Shanxi Province, Gansu Province, Hebei Province, Jiangxi Province, and Hunan Province. They directly benefited over ten thousand people and 50,000 domestic animals, and significantly improved the production and living conditions of people in impoverished areas.

VI. Lessons Learned:

1. Achievements:

With the great help of research institutions in China and from abroad and after ten years of exploration and improvement in operation, the project has set up a mature operation mode and formed a set of systematic management methods and decision-making mechanism of a special fund. The project has funded more and more organizations and units, and to some extent influences students majoring in Architecture and Art Design and Environmental Science and Engineering from famous universities such as Shanghai University and Dalian University of Technology. These students in turn drive primary and middle school students and community residents to participate in water environment protection, especially drinking water safety in villages, helping solve problems of drinking water safety for thousands of people each year. These are all tangible efforts to serve the government and bring benefits to the people. Through cooperating with Environmental Education Periodical Office, the fund has developed and promoted environmental education courses and helped more people master the knowledge of water environmental protection through spreading these courses via the official website, WeChat Official Account, and relevant publications, and through holding annual meetings of environmental education. These actions have exerted positive effects on water environment protection in China.

2. Shortcomings:

The drive of mobilizing industry associations and college students to join the implementation of TOTO Water Environment Fund Project is still insufficient. The ability to offer donations is limited. Years of fundamental investigation, research, and requirements collection by TOTO Water Environment Fund Project found lots of urgent demands on water engineering in impoverished and remote areas. However, the Fund is unable to satisfy all the requirements at present. To solve these problems, the Fund Office plans to cooperate with more public interest enterprises and building materials associations to encourage more businesses to take actual actions.

China's Environmental Rule of Law Public Interest Platform

I. Project Overview:

1. Implementation Time: December 2018 – Present

2. Implementation Scope: The project is nationwide, and its Secretariat is set up in the China Environmental Protection Foundation.

3. Executing and Cooperating Agencies:

The Secretariat of China's Environmental Rule of Law Public Interest Platform is set up under the China Environmental Protection Foundation. An Expert Steering Committee is established for advising on the establishment and operation of the platform. Members of the platform are Chinese and international experts experienced in environmental public interest lawsuit, environmental governance, legal training & education, and the development and capacity building of non-governmental organizations. China Environmental Protection Foundation acts as the executing agency, and the law schools of some renowned universities and some publishers are the cooperating agencies.

4. Implementation Process:

China's Environmental Rule of Law Public Interest Platform aims to improve the capability of Chinese participants in environmental laws, optimize the role of legal tools in the work of eco-environmental protection, and promote the implementation of the strategy of law-based state governance. Around the themes of training, publication, communication, and donation, the platform has launched several projects such as the environmental rule of law ability improvement, environmental damage appraisal fund, the publication of books series on environmental rule of law, and the non-governmental environmental protection organization capacity building fund.



II. Direct Project Deliverables:

1. Environmental Rule of Law Ability Improvement Project--The project aims to enhance the abilities of Chinese social environmental protection organizations, judges and procurators in basic People's Courts dealing with environmental resource trials, and staff of basic environmental protection administrative organs in environmental protection activities, especially their ability in these activities by understanding and applying environmental laws. Under the project, 8 sessions of training classes concerning environmental rule of law ability improvement have been opened in Tianjin University and Renmin University of China. These classes are opened around themes of environmental legislation, environmental compliance and law enforcement, Sino-US environmental public interest lawsuit, eco-environment damage survey and assessment, and procuratorial public interest lawsuit. Over five 550 people have taken the classes, including judges from basic people's courts, procurators from people's procuratorates, workers from non-governmental environmental protection organizations, environmental layers, workers from environmental protection administrative organs, and environmental protection enterprises. These activities enhanced the knowledge of front-line workers in environmental rule of law in China, and optimized the role of legal tools in eco-environmental protection.

2. Publication of China's Environmental Rule of Law Series Books--Relevant experts have been organized to compile book series on China's environmental rule of law. Professor Qu Geping wrote the introduction for the series. The first book Selected Cases of Environmental Public Interest Lawsuit has attracted extensive attention and received a lot of praises since publication. The book intellectually supports environmental law practitioners and environmental workers to apply legal tools to the environmental protection work.

3. Environmental Damage Appraisal Fund--The fund aims to cover the appraisal fee when the People's Court has to suspend an environmental public interest lawsuit for appraisal fee-related reasons. The fund also provides financial and technical support for environmental judicial organs at each level by funding the environmental damage appraisal, analyzing remediation methods, introducing cases about successful legal remedies in China and abroad, etc. After the establishment, the fund has received support from the People's Courts at all levels. In 2018, the fund successfully offered an appraisal fee and evaluation fee for two environmental public interest lawsuits, respectively, which effectively accelerated case hearing.

4. Non-governmental Environmental Protection Organization Capacity Building Fund--The project funds the non-governmental environmental protection organizations legally registered in China in building their capabilities, including but not limited to recruiting professional staff, offering necessary training, and launching public interest projects concerning eco-environmental law. Its aims are to satisfy the needs of non-governmental environmental protection organizations and support their healthy development through providing funds. The project pays close attention to funding the non-governmental organizations

specializing in environmental law, hoping to promote the progress in China's environmental rule of law. In 2018, the funding opportunity announcement brought 63 formal applications. After the expert review, it was determined that the first batch of financial support involved eight social organizations such as Friends of Nature Foundation and All-China Environment Federation. The sponsorship played a useful role in enhancing their ability and facilitated their healthy and stable development.

III. Significant Influences:

Improved the fundamental abilities of Chinese non-governmental environmental protection organizations and other environmental law participants in environmental public interest lawsuit and environmental management, and pushed China's ecological civilization construction into a new phase.

VI. Lessons Learned:

1.Achievements:

First: Built a public interest platform of multilateral communication and cooperation, protecting the environment and constructing ecological civilization through understanding and applying environmental laws; Second: Provided help and guidance on capability building, intellectual support, and financial support for environmental-law-related groups.

2.Shortcomings:

Need more participants in the project.

Friends of Nature Foundation

Founded in 1993, Friends of Nature aims to build an environmental protection platform for public participation to make the environmental protection awareness a popular belief and turn it into a conscious action. In 2013, it initiated a private foundation, Friends of Nature Foundation, to support grassroots environmental protection actions and industry development. Over the years, it has sponsored over 100 environmental protection organizations and action teams and promoted important proposals and development of sub-sectors of environmental protection by focusing on strategic funding projects.

With the support from the Alibaba Foundation, the Friends of Nature Foundation initiated “Environmental Public Interest Lawsuit Supporting Fund” in 2014 and accumulatively funded over 30 lawsuits nationwide with the beginning of “First Environmental Public Interest Lawsuit under the New Environmental Protection Law”. By supporting the professional legal actions of local environmental protection organizations, it mobilizes funds of more than RMB 600 million in the fields of environmental management and ecological restoration while setting up the environmental public interest lawsuit network to promote the legal process of environmental protection. In 2015, with the support of cooperative funds of the Ginkgo Foundation, it initiated the Zero Waste Foundation, the first foundation in China focusing on waste governance, continuously supported dozens of the most dynamic organizations dedicated to waste topics and pushed forward the effective development of the industry by supporting the China Zero Waste Alliance.

While supporting professional proposals, Friends of Nature is exploring the support of XXX for environmental protection activists communities, in a bid to support more environmental protectionists communities to become major forces driving Chinese people to engage in environmental protection through effective funding and empowerment.

Environmental Public Interest Lawsuit

I. Project Overview:

This project officially started in July 2014. With the continuous support of Alibaba Foundation, SEE Foundation, China Environmental Protection Foundation and other organizations, Friends of Nature

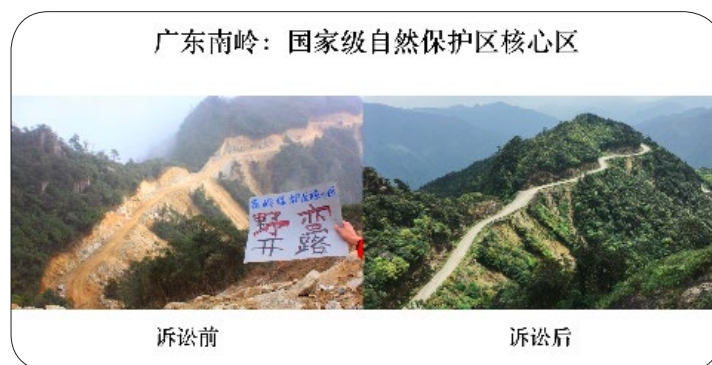
initiated environmental public interest lawsuit and the supporting found to promote environmental protection for public health rights and interests as well as ecological safety. As of December 2018, Friends of Nature had filed over 40 environmental public interest lawsuits in more than 15 provinces and cities across China, including 8 cases officially closed in 2018. It also supported China's dozens of environmental organizations engaged in environmental rule of law through "Environmental Public Interest Lawsuit Supporting Found". Through these professional law efforts, it has effectively curbed environmental destruction activities in many places, promoted pollution control as well as ecological restoration. Besides, it also invested nearly RMB 10 million to mobilise RMB 600 million environmental protection fund to exert the social influence and leverage effect of environmental public interest lawsuit.



Plaintiff team in the second trial of Changzhou soil pollution public interest lawsuit

II. Direct Project Deliverables:

Friends of Nature wins the final trials in the "Changzhou toxic land", "Jilin air pollution" and other public interest lawsuits which catch national attention. Its environmental public interest lawsuits are selected among "40 years since China's reform and opening up·40 'firsts'" by People's Daily. It thoroughly participated in China's major environmental legislation, policy making and other professional work, and it engaged in enacting nearly 40 environmental laws and public policies, including the amendment of Environmental Protection Law, the enactment of Judicial Interpretation of Environmental Public Interest Lawsuit, and the enactment of Soil Pollution Prevention and Control Law.



After Guangdong Nanling National Natural Reserve Key Area was destroyed, Friends of Nature filed an environmental public interest lawsuit to urge the ecological compensation and restoration process of the defendant.

III. Significant Influences:

Friends of Nature initiated China's first climate change public interest lawsuit "the wind power and solar power curtailment in Gansu" and the first wild animal protection preventive public interest lawsuit "Yunnan green peacock". Through a series of ground-breaking public interest lawsuits, it expanded the space and influence of environmental public interest lawsuit system in areas such as climate change and energy, biological diversity protection, and ocean protection.

It has thoroughly participated in the enactment of China's major environmental legislation and policies as well as other professional areas and has engaged in the enactment of a total of 10 environmental laws and public policies in the whole year. Through the legislation research project of the Soil Pollution Prevention and Control Law entrusted by the Ministry of Ecology and Environment, it actively facilitated the enactment of China's first soil protection law. The Soil Pollution Prevention and Control Law was passed after the deliberation of the standing Committee of the National People's Congress in August 2018, and took effect officially on January 1, 2019, exerting great influence on China's environmental protection undertaking. Apart from that, Friends of Nature also conducted a series of policy research on environmental rule of law and released the second volume of China's Environmental Public Interest Lawsuit Annual Observations.



Map of Environmental Public Interest Lawsuits Launched by Friends of Nature

IV. Lessons Learned:

As China's "law-based governance" strategy is advanced, the voice for environmental rule of law and progresses has been growing. As early as in 2014, Alibaba Foundation and Friends of Nature entered this area with vision and effectively sponsored appropriate organizations and programs taking the most proactive actions. In this process, Friends of Nature's professional ability and operation have all improved, and it has put forward proposals and led the industry. It not only expanded practical effort itself, but also sponsored and supported the development and collaboration of more social organizations and academic institutions in the field of environment, forming greater industrial driver and influence.

From this project, we can see that for a professional environmental sponsor, how to see the policy development trend accurately, to sponsor and plan with vision and to find strategic partner to insure the effectiveness of the sponsorship are important areas worth noting particularly.

Zero Waste Foundation

I. Project Overview:

Established in 2011, China Zero Waste Alliance paired with Friends of Nature to establish Zero Waste Foundation in 2015. Through supporting the proposal platform Zero Waste Alliance, Zero Waste Foundation sponsored charities active in the field of garbage disposal, such as garbage classification, garbage reduction, plastic pollution prevention and control, and waste incineration supervision to push forward the practice of community garbage classification, and reduce pollution from plastics and incinerators. Through the sponsorship, it not only facilitated the development of these charities and their business expansion in garbage classification, but also filled the gap in garbage disposal actions. For example, it sponsored the intervention in plastic microparticles, and pushed the policy of plastic particle elimination driven by external environment.

II. Direct Project Deliverables:

In 2018, Zero Waste Foundation's direct sponsorships worth of RMB 2,896,000 supported 72 programs nationwide. From RMB 3,000 in small grants to RMB 243,000 in special programs, the investment covered 52 social organizations with an active presence in garbage-related issues, centering on community garbage classification, plastic and incineration. The foundation supported the release of private *Implementation Report on 10-year Plastic Bag Ban*, *Information Disclosure and Pollutant Discharge Reports of 359 Domestic Waste Incinerators*, *Briefing on Disclosure of Environmental Dioxin Monitoring Information for 140 Waste Incinerators*, *Zero Waste Boundary and Essence* and other reports. It submitted *Suggestions on Enacting Plastic Waste Management Law*, *Suggestions on Upgrading the "Plastic Bag Ban"*, *Suggestions on Banning Plastic Microbeads in Personal Care and Cosmetics*, *Suggestions to the Ministry of Ecology and Environment on the Amendment of Law on the Prevention and Control of Environmental Pollution by Solid Wastes (Draft for Comments)* and other policy suggestions. It also sponsored 741 activities in 141 communities, reducing a total of 311.8063 tons of waste with participation from 52,613 citizens and 4,099 volunteers.

III. Significant Influences:

Garbage topics have always been an important and dominant part of the environmental challenges faced by China. Due to the long-term lack of garbage disposal funding strategies in large-scale foundations, real-world practices have long been facing funding difficulties. Zero Waste Foundation supports private organizations especially small organizations' development in garbage topics. Despite the fact that the foundation's most investments are relatively small, they fill in the blanks in terms of sponsorship access for some places and organizations. The Foundation has provided initial operating funds for some projects undertaken by small organizations and offered funds for their organizational development. For instance, with its help, Wuhan Flower Fairies completed the organizational process, and social worker organization Qingdao You and Me gradually paid attention to garbage classification. Besides, the project has invested some funds to fill the gap in garbage disposal actions, so as to draw more attention to the topic of garbage. Efforts included the sponsorship in the intervention in plastic microparticles, the promotion of plastic microparticle elimination policy driven by the external environment, and the promotion of information disclosure of waste incineration plants by supporting waste incineration monitoring continuously.

IV. Lessons Learned:

Among the Zero Waste Foundation's quest with small grants, some projects have seen initial success, but some lack more strategic considerations for sponsorship. Especially as the garbage classification in China is gradually advanced, how social organizations can play a better role in garbage classification and what role they should play in the wave of garbage classification need to be considered from the top-level aspects, including the features and niche of different organizations, in order to make sponsorship more effective and its effects bigger. In addition, due to the complexity of garbage issue itself, besides garbage classification, there is consumer-side reduction, policy intervention and disposal-side supervision. Therefore, in the design of sponsorship, it is necessary to conduct forward-looking funding and layout. As Vanke Foundation took waste classification as its flagship project in 2018, the funding ecology in this field will be more diversified, rich and professional.

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CEGA

Building a New Environmental Future



— 环 境 资 助 者 网 络 —
CHINA ENVIRONMENTAL GRANTMAKERS ALLIANCE

A vibrant photograph of a forest with tall, slender trees and lush green foliage. Sunbeams (crepuscular rays) are visible, streaming through the canopy from the upper right, creating a warm and hopeful atmosphere. The image is framed by a white, curved border at the top and bottom.

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