

GEF Small Grant Programme China on *China Weekly*



Page 2: Preface –Sowing the seeds of consciousness from “The tragedy of the Commons” by Jiankun Yang, the chief editor of China Weekly

The first female winner of Nobel Prize in Economics in history- Ostrom, cutting in from small scale public resource in her world-known writing "*Governing the Commons*", launched a new theory for self-organization and public enterprise governance and paved a new road for people confronting "The tragedy of the commons".

Sowing the seeds of consciousness from "The tragedy of the commons"- Global Environment Facility is an international mechanism that consists of 183 countries and regions and have already provided over 12.5 billion dollars grant and leveraged over 58 billion dollars joint financing to 165 developing countries. Through Small Grants Programme, GEF has already offered over 20,000 sums of grant for CSOs' initiatives, with a total of 1 billion dollars.

Small Grants Programme, facilitates the community to constitute self-organization in governing public affairs regarding biodiversity, climate change, land degradation, sustainable forest management, and implements a series of prospective trials, by means of transforming energy structure in community production and living, reducing fossil fuel and greenhouse gas emission, improving heating and transportation efficiency, and increasing forest cover etc..

Develop a point to an area, is a well-known quote in China.

Though point seems to be a tiny unit with no actual amount, we still believe that an enormous area is comprised of countless points. We have faith in the soft power of the seeds. Though small as SGP GEF projects seem to be compared with immense flow of human activities in quantity or public recognition, we should strongly believe in the soft power of seeds.

Persist in sowing the seeds of consciousness from "The tragedy of the Commons" and we will have a vast harvest from these great seeds.



Page 26-27: Cover Story- Sowing the seeds of consciousness from “The tragedy of the Commons”

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Quote from Mr. Guo Wensong, OFP of GEF in China, and Division director of Ministry of Finance

China has been facing complicated environmental problems and challenges of development. SGP comes to China at a critical time to support hundreds of growing CSOs for addressing biodiversity, climate change, land degradation, chemical pollutions and trans-boundary water issues in a bottom up pattern. It reaches the most vulnerable people and rarely touched areas by large conservation and development projects to solve the conflicts between development and conservation on the ground. Beyond a financial mechanism, SGP also serves as a nurturing center for the CSOs and local communities to develop their capacities for a sustainable livelihood and sound resource management. SGP also provides a platform for the CSOs, local communities and other stakeholders to share experiences and lessons learned, to build partnerships, to exchange information, to support each other and to feel like a part of meaningful work. With small grants, SGP has leveraged additional resources to achieve its goals and has generated a profound and wide impact in China. The continuous upholding by CSOs and local communities, and the acknowledgement by government and other stakeholders that the SGP has received will undoubtedly inspire this programme to perform even better in China.

Page 28: The GEF Small Grants Programme in China

At the second floor in UNDP China Office in Beijing, the national coordinator of Small Grants Programme in China, Yi Liu, proficiently introduced the past and current SGP projects, at a map with over seventy projects spreading in China territory.

In 2009, Chinese government approved the implementation of Small Grants Programme in China. Yi Liu started to establish the National Steering Committee (NSC) in the first place. The National Steering Committee is composed of members from Ministry of Finance, State Forestry Administration, Ministry of Environmental Protection, NGO Research Center of Tsinghua University, College of Urban and Environmental Science of Peking University, China Environmental Protection Foundation, and China Association for NGO Cooperation etc.. As Yi Liu said, “Most of the members work for SGP since its beginning, they have been strongly supported and devoted to SGP for a long time, with consistent selflessness and dedication to public welfare.” The working principle of Small Grants Programme has three pillars: first, is to support environmental protection and ecological conservation; second, to combine environment projects with the improvement of community livelihood, or poverty alleviation; third, to empower communities, in which SGP facilitates the communities to constitute the mechanism of self-organization and self-participation, so that the communities can design and management projects by themselves, and ultimately reach community self-development. In environmental protection, SGP realizes that the reason of a lot of destructive behaviors is to earn a living. Therefore, SGP promptly adjusts itself, to help these communities to identify a way that could develop a sustainable alternative livelihood without destroying the environment, which also matches the principle of Chinese government -take targeted measures to help people lift themselves out of poverty. For example, in one of SGP project sites at the source of Yangtze River, the project helped the local community to promote the yak hair handicrafts in all the key phases from inviting professional designers to design products, searching textile enterprises to produce, to market outreach.

Meanwhile, as the acquaintance society in Chinese rural communities, SGP projects arouse the enthusiasm of local communities, facilitate them in discussion, negotiation, carrying out solutions and implementing plans of their own. SGP China has successfully implemented this strategy in its rural projects and accomplished “community empowerment”, such as in Diqing Prefecture, Yunnan Province, which abounds with endangered tricholoma matsutake, the community employed a sustainable tricholoma matsutake management plan through inner-community negotiation and mutual supervision. This not only brings tricholoma matsutake harvesting to a sustainable pattern, but also unites the community with the principle they hold together.

This is also the main goal of SGP China: communities coordinate with their own situation, communities design and manage projects by themselves, and improve their own capacity. Besides, some projects also expand the vision and open the mind of local residents from the perspective of human development. For instance, in one community conserved area, with the support of SGP, local people formed a self-management mechanism that controls the usage of GPS, to project snow leopard from the track of the poachers.

Small Grants Programme has accomplished unprecedented results in improving the common sense of grass-root class and becomes the public image of GEF. Stakeholders including governmental institutions have praised SGP for its prompt and efficient mechanism of using GEF funding.

For the one world, we will always on the move.

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封面报道
Cover Story / CHINA WEEKLY 2016.11

河南村和时村的成功例子，正是实现了小额赠款计划最重要的目的：社区结合自身条件，自己设计并管理项目，提升了自身建设的能力。有他项目，更是让当地人拓展了视野和思维，站上了更高的全人类角度。

在一个处于山区的小额赠款计划项目社区中，因为周边时常有野猪等国家级珍稀保护动物出没，为了加强当地野生动物保护队的力量，项目为社区提供了GPS红外相机。“有了这个相机，一些有偷猎打算的人就不敢来这个区域，因为他们害怕违法行径被拍到。”同时，红外相机还解决了人力不足的问题。“有时候晚上人手不够，不能把所辖区城都巡逻到，那么把相机固定在那里，可以起到很好的作用。”不过李刚没有想到的是，当地再次来到这个社区，巡护队从那里主动来找他交流，千方百计地劝说，千方百计地相机随便发放。“他们特别严肃，跟我说这个相机有GPS定位，如果什么人进去，会给你发短信来请去的意思。”而在他们的巡护队内部，也只有少数几个能看懂的巡护队员才可以接触相机。“这件事让我特别感慨，因为他们从自己的困难走向关爱所在区域生态，这一步的跨越令人振奋，更令人希望！”

从2009年小额赠款计划进入中国以来，在各方人财物和众多NGO全身心投入的努力下，越来越多的社区焕发了活力，重新凝聚起凝聚力，不仅在项目进行时不断提升自我管理能力，发展的能力，而且在项目结束后依然保持着良好的态势……“因为当地人，不论是牧民还是农民，他们对自己脚下土地的认识和体会是最切身的，让他们认识到，他们需要这种自下而上的自我管理发展。”

小额赠款计划在提高当地居民的环境意识方面产生了前所未有的效果，它正逐渐成为GEF的公众形象，项目由社区和民间公益组织直接实施，由国家指导委员会制定赠款决策的特点，决定了其在很大程度上是一个国家所有项目，其利益相关方包含政府机构和民间，都对小额赠款项目快速、有效使用GEF资金的表现表示赞赏。

滇西北、青海三江源、广西北部等——当刘怡再次站在地图前，用手划过这三块区域，声音变得很坚定：“未来三年，我们会重点关注这三个全球生物多样性热点地区，为所有利益相关者提供一个平台，大家共同商讨替代能源、替代生计的方向，让这些地区已经非常脆弱的生态状况得到改善，特别是北部。”因为目前国内做海洋保护的NGO能力尚弱，刘怡希望通过小额赠款计划，多发展一些做海洋保护的NGO，培养、锻炼他们的能力，把中国的海洋保护工作，提升到更高水平。

“为了同一个地球，我们会始终在行动。”



Carsten Germer
联合国开发计划署
助理副主任

“中国的NGO能有一个像全球环境基金小额赠款计划这样的渠道，在地方层面应对全球最重要的环境问题，是极为重要的。NGO在应对当地环境挑战方面的参与性和对项目的拥有感不应该被低估。支持当地参与的环境问题解决方产生影响力是小额赠款计划的核心理念之一，而NGO则是实现这个目标的行动机制。小额赠款计划和中国NGO是‘全球性思考，本土化行动’这一著名口号的直正倡导者。”



沈泽昊博士
北京大学教授

“小额赠款计划像一个火种，通过它的眼神、视野、方法、模式、传播可持续发展与自然保护的理念。小额赠款计划所遵循的方法对整个项目的实施起到了杠杆作用或者放大效应。”



李伟
中华环境保护基金会
副理事长

“小额赠款计划在其指导原则和执行实践中培养、提高了环保NGO的能力，促进了环保事业的发展，小款项，大意义。”



陈茜博士
清华大学NGO研
究所副所长

“小额赠款计划有清晰的愿景、透明的程序，用很小的资金来资助可持续的项目，它采用参与式的方法，让草根NGO可以参与其中，贡献于中国民间社会的发展。”



谢志
中国国际贸易组织
合作贸易合理
理事长

“小额赠款计划的独特之处在于其对中国民间社会组织标准、健康发展的支持，通过项目的实施，民间社会组织的能力得到提高，民间组织与其他利益相关者的交流、对话、互动与合作得以促进。”



陈茜
原北京天恒可持续
发展研究所所长

“小额赠款计划对受赠方及其项目的筛选标准使得赠款资金达到了倍增和最大的效果。”



余立
环保部对外合作中
心副主任

“小额赠款计划的独特之处在于它对项目效果和影响力的影响，尽管项目都很小，在对每个项目进行选择和设计时，项目的影响力和‘用一经验带动全区域’的辐射传播作用被充分考虑和深入挖掘。这不仅能增强项目参与者的内在潜力，还能调动外部的积极性来宣传项目影响力，吸引其他利益相关者的关注，使项目效益最大化。”

Quotes from NSC members

Carsten Germer, Assistant Country Director of UNDP China

NGO's in China has a vehicle such as the GEF Small Grants Programme to address global environmental issues at local level is of tremendous importance. The ownership and engagement NGO's can provide towards addressing local challenges through cannot be underestimated. Providing targeted engagement for an on the ground impact is one of the strong suits of the SGP and the NGO community are the delivery mechanism for this. The SGP and the Chinese NGO's are true proponents for the well-known slogan “Think globally act locally”

Dr. Shen Zehao, Prof. of Peking University

By providing its valuable spirit, vision, methods and models, SGP acts as a kindling, or a seed of fire, to drive the dispersion of the idea of sustainable development and conservation of the nature. The approach followed by SGP provides a leverage effect or an amplification effect for this program. The efficiency and absolutely positive response of this programme is rare and very impressive.

Dr. Jia Xijin, Vice director of NGO Research Center of Tsinghua University

SGP has clear prospects and transparent procedures, with small amount of grants to stimulate sustainable projects. It has a participatory way intending to involve grassroots NGOs and so, contributes to China's civil society.

Mr. Chen Qing, Former Director of South-North Institute for Sustainable Development

The SGP criteria for grantees and projects bring multiplying and amplifying effect to the grant.

Dr. Ran Dongya, Division director of State Forestry Administration

SGP provides small grants but brings big benefits. As a seed fund, it leverages local government and other stakeholders to invest in environmental protection, brings innovations in terms of idea and management mechanism, promotes local development and farmer's livelihoods.

Mr. Yu Lifeng, Deputy Director of FECO of Ministry of Environmental Protection

The uniqueness of SGP is its emphasis on project impacts. Although the project is small, project impacts and the radiation propagation idea of 'using the experience of a selected spot to promote the work in the entire area' are highly important and carried out when selecting and designing each project. This not only inspires participants' internal potential capacities, but also mobilizes external enthusiasm to disseminate project impacts and draw attention from other stakeholders, which creates the greatest benefits.

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Dr. Huang Haoming, Chairman of board of directors, China Association for NGO Cooperation

The uniqueness of SGP is to support the standard and healthy development of civil society organizations in China. Through the implementation of SGP, the capacity of Chinese civil society organizations are improved; the communication, dialogue, interaction and cooperation between CSOs and other stakeholders are promoted.

Mr. Li Wei, Deputy Director of board of directors, China Environmental Protection Foundation

SGP has nurtured and improved the capacity of environmental NGOs, and has promoted the development of environmental protection causes through its principled guidance and operational practices, achieving great things with small grants.

Page 32-93: Case Stories

Page 32-39: Reborn of used computer, inspire the vitality for public benefits and environment protection



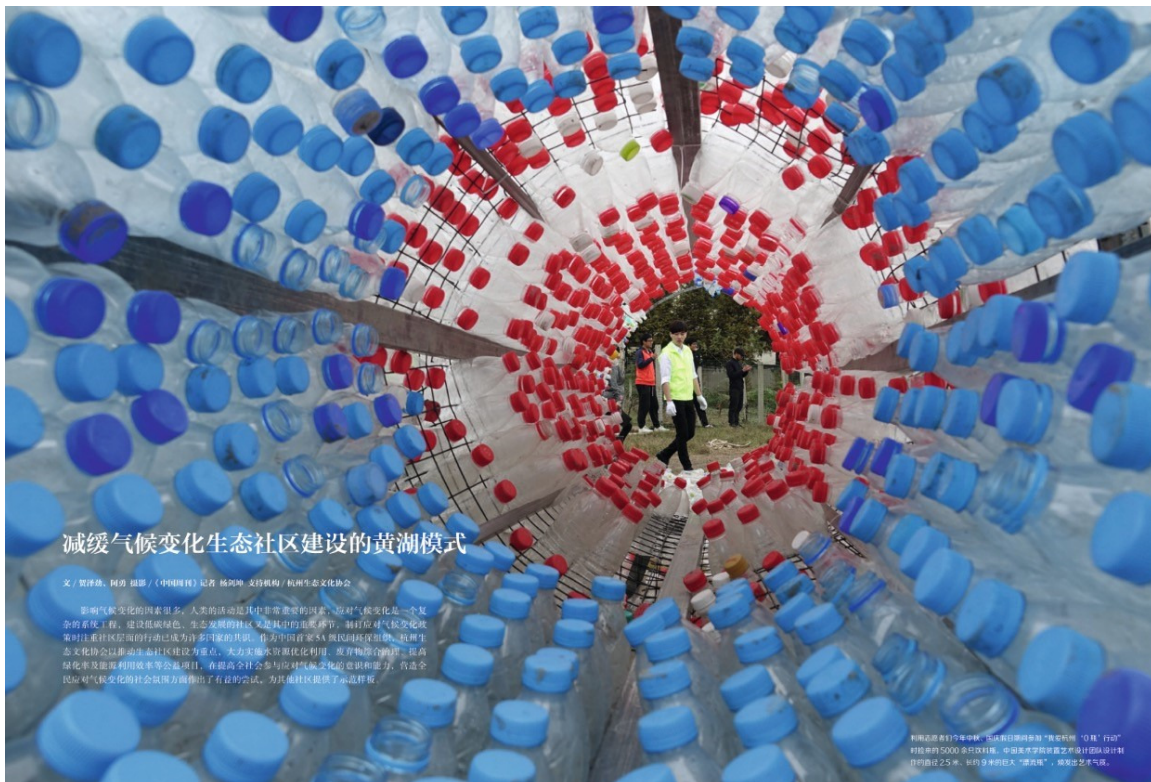
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On October 11, 2016, “*Recycling and Environmentally Sound Disposal of Used Computers*” was awarded as the best project at “Workshop on Environmental Protection NGOs’ Exchange and 2014-2016 Wrap-up Meeting for SGP China”. According to their proposal, over 5 million computers were eliminated every year in China, half of which still could be utilized. However, more than 70% of these usable eliminated computers are under reckless trade and disposal, which could cause environmental pollution and impair public health. The project contains initiatives of public participating environment protection, public benefits, and circular economy that accord with the spirit of SGP.

As of May 2016, with the help of SGP, Zhonggu Charity has built 50 green computer classrooms across 19 provinces and autonomous regions in China, including Xinjiang, Tibet, Yunnan, Guizhou. Following the operation mechanism of social enterprises, Zhonggu Charity explored a self-sustaining mode. With the support of SGP, Zhonggu Charity built a platform of recycling used computers for the public. After specified test and repair, the used computers will be delivered to targeted schools in rural areas. Not only did this project reduced large amount of e-waste, but also provide the students in rural areas the first opportunity to use computers. They also offered a long-term partnership with the schools in telephone guide, remote test, and follow-up visit. This project also educates the public about the usage of recycled computer and let the children in the rural areas have an equal opportunity to receive advanced education. What SGP

attracts Zhonggu Charity most is not the money but the platform, especially the opportunities of project promotion and cooperation with other CSOs, enterprises and foundations. Recently, with the recommendation by SGP, Zhonggu Charity has received grant from Aiyou Foundation. Zhonggu Charity plans to build 80-100 green computer classrooms per year in the coming future. Every year, thousands hundreds of computers are eliminated in China, however there are only few organizations are working on used computer recycling. Zhonggu Charity hopes their project mode could be replicated by more organizations in more places.

Page 40-47: Huanghu Pattern: Ecological community construction that slows down the climate change



Human activity is one of the major factors that caused climate change. To reduce the impacts from human beings, the construction of low-carbon, green, ecological community is an important way to mitigate climate change. Through “*Ecological Community Demonstration Project in Addressing Climate Change*”, Hangzhou Ecological Culture Association aims at promoting the construction of ecological community and implementing public benefit projects including optimized usage of water resource, comprehensive management of waste chemicals, and improving green coverage. Hangzhou Ecological Culture Association conducted several successful trials in promoting the public consciousness and capability of participating in the activities to relieve climate change, which also provided valuable demonstration for other communities.

With the grant support from Small Grants Programme, *Ecological Community Demonstration Project in Addressing Climate Change* is able to spread its activities to various

communities. To coordinate with the local community situation, the project has been holding environment protection workshop at least once a month, and assisted the community in building community volunteer team for ecological conservation, in which a lot of active participators are women and children. The project also established the long-term sustainable volunteer service system, built an exchange platform for community self-organizations and a governance platform for community participatory decision-making process. At the Huanghu demonstration site, the project practised a series of activities including vertical planting, rain water harvesting, micro solar power irrigation system, old things recycling and reusing, waste composting, ecological water pool and so on. The demonstration site provides a menu type of solutions in addressing climate change, which other communities can select and replicate. The Huanghu ecological community has received 12000 visitors during the project duration including Richard Louv, the author of *Last Child in the Woods* and Michael Spencer, the chair of the Global Alliance for Water Stewardship. It has become a model for other communities to address climate change.

Page 48-51: Bike Guangzhou: Public benefit exploration that advocates bicycling green mobility

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封面报道 Cover Story / CHINA WEEKLY 2016.10



拜客 倡导自行车绿色出行的公益实验

文 / 《中国周刊》特约记者 李朝朝 摄影机构 / 广州市海珠区拜客绿色出行宣传活动中心

广州的公共自行车系统建设始于2010年，为解决城市中“最后一公里”而生。但是，和许多推行公共自行车的城市一样，属于运营问题、道路资源分配不均等，一直备受利用率不高的诟病。

创新城市发展的理念，倡导低碳环保的发展方式，显得日益迫切。这不仅是中国的课题，也是世界的问题。

2009年，一个倡导绿色出行的公益组织，拜客绿色出行成立了。几个年轻人聚在一起，画了一幅广州自行车友好城市的蓝图。他们希望通过媒体发声，对政府建言献策等方式推动单车出行。这个看似“天真”的项目，却在2013年获得了“全球环境基金小潮计划”的青睐与支持。从小潮计划重生到广州大桥增设自行车道，在媒体、人大代表等倡导与呼吁之下，

1.2亿元升级公共自行车系统正式走进市财政预算。

危殆重生记

在河网密布的广州，小潮计划实在不是为奇。2013年，这座平凡的包桥，在媒体上和广州的单车圈里成为焦点，引起不小的风波。

小潮计划始建于2009年，是当年广州大学城建设的施工便桥，原本计划的使用年限是三年。2013年1月，超期服役十年的小潮计划封闭同侧，被鉴定为存在严重安全隐患的危桥，建设部门拟定拆除危桥且不再进行重建。

小潮计划自建成之后，一直是连接小洲村与大学城的重要通道，更重要的是，它几乎是自行车进出大学城的一道。千载难逢的机遇，小



潮计划承载的是无数人的记忆，那是小潮早茶的味道，满载喜悦的快乐，坐上35、86、252、565路公交车的纪念，穿梭于广州大街小巷的记忆。

拆桥消息出来之后，拜客绿色出行发起了一场挽留留住小潮计划的投票活动，最终有1649人呼吁不拆。同年7月，建设部门最终同意加固小潮计划，新的桥面设计使用年限为10年。2014年，加固后的小潮计划重新通车，并修建了宽2米的专用自行车道。

拜客绿色出行算过一笔账，小潮计划建成之后，以周一到周五行人和自行车一天流量约1000人，周六日流量约为4000人，平均节约3公里的机动车行驶路程来算，一年可减少300吨碳排放，以广州市目前的限行交通规划，3000台公共自行车每天服务10万人（每人以公共自行车代步4公里，每一个公共自行车一天服务3-4人次来估算），一年累计减排29200吨……

“我们谈自行车友好城市、谈路权、谈城市该如何建设，归根到底还是落到如何让让车的城市回到人的城市。”拜客绿色出行在他们一篇文章的开头，如是说。

挽留小潮计划，只是拜客绿色出行行动之一。在倡导自行车低碳出行，建设广州慢行交通系统方面，拜客一直有在步。当看上公共自行车的人越来越多，对骑行配套设施的需求就越大，这也促使政府去改善城市的骑行道路，骑行环境的改善，反过来让更多的人愿意使用公共自行车。这是一个良性循环。

拜客绿色出行创始人陈丽俊是公益圈子里赫赫有名的“拜客一姐”，他曾说：“探讨自行车，并不仅仅关注自行车出行，更深层次是关乎城市，关乎人们生活，城市未来的发展模式。广州已经步入发达城市行列，城市精神和市民对城市生活的诉求也在悄然发生变化，我们应该重新审视

想想：面对气候变化的其中一个建设就是推广低碳交通，所以市民选择绿色出行（公共交通自行车等）则能减少城市公共道路拥堵及其他问题，以城市居民健康的变化，拜客绿色出行通过自行车骑行带来的社会公平与建立生命共同体，通过生命与健康的活动来传播“环保的骑行”的公益理念；拜客绿色出行倡导促进广州市自行车出行环境的改善。

Guangzhou public biking sharing system is designed to solve the “last mile” problem in the city. Constrained by the inefficient operation and road resource allocation, the utilization ratio of biking system is relatively low. “*Project on Promotion Bicycle Traffic in Guangzhou City*” hopes to promote bicycling through public media and initiatives for the government. With the support of Small Grants Programme, Bike Guangzhou released a report on bike mobility in central areas of Guangzhou City in 2015. The report shows that the ridership in Guangzhou has

decreased from 35% in 1984 to 7-8% in 2015, far behind other first-tier cities in China. The report drawn public attention from research institutes and governmental agencies and caused a heated discussion on media.

“*Project on Promotion Bicycle Traffic in Guangzhou City*” has successfully pushed the government to initiate bicycle friendly actives including renovation of Xiaozhou Temporary Bridge for bicycle users and setting up bike lanes on Gunagzhou Bridge. With the efforts from Bike Guangzhou, media, and people’s congress deputies, 120-million-RMB fiscal budget has been assigned to public bicycling system upgrade. Starting from the beginning of 2016, over 130,000 public-share bicycles will be available to the public, 13 times than before. At the same time, Guangzhou government also carried out implementation plan of setting up new bike share sites, renovating bike lanes, and optimizing information platforms for bikers.

Page 52-57: Building energy-efficient residence in rural areas of Beijing

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封面报道 Cover Story / CHINA WEEKLY 2016.11

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缔造节能新农宅

北京农村低能耗农宅示范工程项目

文 / 张丹 支持机构 / 中国环境文化促进会

随着天气的转冷，以中国北方为代表的雾霾天气开始肆虐街头。尽管，随着京津冀一体化推进以及节能减排一系列举措的实施，北京等地的空气正在逐步好转。有时候，北京市民也开始在手机上刷蓝天白云的照片。但大多数日子，让人心情愉悦的天气环境还是属于稀缺资源。

再观蓝天白云，节能耗建筑大有可为。雾霾治理任重道远，但无论是在城市还是在农村，中国人从没停止过节能减排的尝试，一直努力践行保护大气环境的承诺。

有数据显示北京的城镇化率已达86%，但全市仍有3000多个燃煤供暖村庄。数百万农民依然靠燃煤取暖。北京农户多为独立农宅，保温节能性能差，冬季分户取暖，燃料以煤炭为主。

中国建筑科学研究院的一项研究表明：北京集中供暖和周边农村地区燃煤燃烧对大气环境中PM2.5的一次来源贡献量共计8400吨左右，北京周边农村地区采暖对大气环境中PM2.5总贡献量为2320吨左右。所以，减少并替代冬季供暖用煤，使用清洁能源，对于北京大气污染防治来说至关重要。为探索综合性低能耗建筑的示范推广，在北京顺义农村，一场新的农宅节能改造试点悄然实施。

中国环境文化促进会“全球环境基金小赠款计划”支持下，与北京顺和顺宝信信和有限公司及北京市顺义区石家营村村委会合作，在石家营村建造一栋2层示范农宅。这栋

上图：低能耗农宅工程二层工程施工时俯瞰景象。

右下图：项目受益村民张大爷，政府代表、项目政府代表团等参加竣工验收。



Although the air quality of Beijing is getting better with the development of integration of Beijing-Tianjin-Hebei region and regulations on energy-saving and emission reduction, the good air quality is still rare resource in Beijing. The city is facing several stubborn and serious problems. Over 3,000 communities still rely on coal as their major fuel. Around 2320 tons of primary pollutants of PM2.5 come from heating system in the surrounding rural areas of Beijing. Small Grants Programme assisted “*Beijing Rural Low Energy Consumption Houses Demonstration Project*” to build a two-floor demonstration rural residence in Shijiaying village, which aimed at improving energy efficiency and lowering the energy consumption in this

building. Several new technologies are adopted and integrated in this building, for example, installing an integrated grid shear wall with heat preservation structure to improve the wall's heat insulation, enhance its earthquake resistance and reduce transportation emission and cost; enhancing the density and insulation of the doors and windows; integrating solar, hydro and air source heat pumps to generate heat, and hot and cold water at the same time to maximize energy efficiency and ultimately dispense with coal-fired heating; installing solar PV panels to reduce the residents' reliance on grid power and the solar energy generated could be shared in the grid system to generate income for residents. These facilities could decrease the energy consumption of the building, increase energy efficiency, and help the residents cut down on their electricity and water bills. As a result, the energy cost of the demonstration residence is only 50%-70% of other similar buildings.

The project not only won the recognition from local community residents, but also attracted interest from private sectors in emerging new-type material firms. Apart from Beijing governmental agencies and initiatives, agencies from Britain, Germany, and the United States also expressed strong interests in the projects. Beijing Municipal Commission of Housing and Urban-Rural Development and Iranian delegation also visited the project on site.

Page 58-63: Technology promotes the green innovation of ethnic traditional architecture

10



科技促进民族传统建筑的绿色创新

文 / 李冰、色色 支持机构 / 云南竹产业协会

在如花似锦的傣族村寨，一种独特而现代的竹楼建筑在翠竹森林之中，曲折的小径环绕着竹楼……西双版纳州位于云南省西南部，是云南省唯一国土面积完全位于热带地区的州市。在这里世代居住着傣族同胞，竹楼就是他们的安栖之所，而傣家竹楼也成为西双版纳最突出的地理标识。

2010年3月，由“全球环境基金小额赠款计划”支持，云南省竹产业协会与昆明理工大学联合开展的“西双版纳新型竹楼民居研究与示范”跟踪及宣传教育活动在西双版纳州勐海县实地展开。

Dai bamboo folk dwelling is a notable symbol of Xishuangbanna Prefecture, the only tropical municipality in Yunnan Province. In March 2010, supported by Small Grants Programme, Yunnan Bamboo and Rattan Industry Association implemented *Research and demonstrative project of new bamboo folk dwellings in Xishuangbanna* at Menghai County of Xishuangbanna.

Compared with other dwelling of the same area, each new-type bamboo building could reduce 25 tons of CO2 emission, 243 m3 of water, and efficiently relieve the impacts of climate change. Yunnan Bamboo and Rattan Industry Association held activities including research of new technology of bamboo structure, light bamboo heat insulation wall, design of new Aini ethnic group demonstration bamboo building, and workshops for green dwellings. One significant merit of bamboo is recyclable, easy to acquire, and requires a relative short term for construction. This project not only brings a sustainable income from bamboo materials, but also builds up the brand of folk architecture, which is an all-win to the community. The technology demonstrated by the project has included into recommended new technology of construction by the local government to reduce energy-inefficient construction materials such as steel bar, cement and wood.

Page 64-69: Lighting up the sky of pastoral community

064 封面报道
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封面报道 Cover Story / CHINA WEEKLY 2016.11

用新科技点亮牧区的夜空

文 / 曹慧慧 图 / 王阔华 支持机构 / 北京半导体照明科技促进中心

2013年，一群特别的人来到了卓尼。他们带着新型的太阳能发电板与LED照明设备，准备为这个电力匮乏、生态脆弱的牧区做一些重要的改变。他们是“全球环境基金小额赠款计划”的中期项目之一“甘肃省卓尼县农牧社区离网‘零碳’照明及其它应用示范项目”（以下简称“离网‘零碳’照明项目”）的执行团队。

天苍苍，野茫茫，风吹草低见牛羊。位于西北内陆的卓尼，处于黄土高原与青藏高原接壤的狭长地带，境内海拔约2000米，属于典型的高原气候，年均气温4.6℃，年降水量584毫米，气候干燥，光照充足，被誉为“伏加爾斯在黄河这条玉带上的绿宝石”。高远明净的蓝天下，“碧波荡漾”的草原上，成群的牛羊悠闲地吃草，身穿厚藏袍的牧民，因为长期的风吹日晒，皮肤显得黝黑而粗糙，不近不远的牛羊，浑圆地躺着。

卓尼的牧民遵循着祖传的生活，春季、夏季和秋季，都在不同的牧场间转场，扎帐篷、吃羊奶，这是最理想的地方。一年中有四分之三的时间，牧民都要在牧区生活。开展游牧，居住却无其数，80%的居民无电网覆盖，广袤的牧场，太阳落山后，大地就是一片漆黑，牧民只能使用煤油灯和蜡烛照明，不仅光线极为昏暗，并且容易引起火灾。

“小小的一方书桌上，豆大的光源跳动着，借着这一点微弱且不稳定的光，书本上的字才变得依稀可见。倘若没有煤油灯和蜡烛的陪伴下，大地将是一片漆黑。”离网“零碳”照明项目负责人、北京半导体照明科技促进中心的专家杨鹤博士向记者回忆他刚到卓尼时在户牧民家看到的情景。黎明时分，天还未亮，勤劳的牧民们就开始挤牛奶，时常天黑了，还需要进行挤生牛乳和羊乳的工作，由于昏暗的光线，极易造成挤生牛乳的情况几乎无可避免。

除了放牧的牧场，卓尼县农牧社区的户外道路、学校公共区域和家庭院落90%都没有照明。由于缺乏公共区域照明，当地居民夜间基本无法出行，生活极为不便。半农半牧区50%的居民无电网覆盖，部分公共区



摄影：半农半牧区50%的居民无电网覆盖，使用煤油灯和蜡烛照明，不仅光线极为昏暗，并且容易引起火灾。

太阳能发电板与LED照明设备，准备为这个电力匮乏、生态脆弱的牧区做一些重要的改变。他们是“全球环境基金小额赠款计划”的中期项目之一“甘肃省卓尼县农牧社区离网‘零碳’照明及其它应用示范项目”（以下简称“离网‘零碳’照明项目”）的执行团队。

Zhuoni County, the emerald on Tao River, has an important ecological status and fragile ecological environment. The local residents spent more than 75% of a year in the pastoral area. The scattered distribution blocks 80% of the community from access to electricity. More than 90% of public roads, school district and community yards are not equipped with electricity either.

“Demonstration Project on Off-grid Zero Carbon Lighting and other Application at Farming and Pastoral Communities in Zhuoni County” proposed public lighting mode and solutions in farming and pastoral areas by promoting off-grid electricity system in local community, which effectively utilized the advantage of strong and constant illumination.

With the assistance of Small Grants Programme, Beijing SSL S&T Promotion Center installed 96 LED road lights, provided 135 LED portable lights, and 3 small LED power generation systems to reduce the usage of kerosene lights and improve quality of life for local herdsmen. Together with the physical renovation, the project also held several workshops to educate local residents about climate change to transform production and living habits of local community. The contribution in reducing climate change won the project recognition from local government and harvest precious experience for other projects. With the demonstration of the project, the local government has invested and installed 264 LED road lights after the project cycle.

Page 70-77: Biogas makes the giant panda habitats more prosperous



Baoxing County, Ya'an, Sichuan, is the place to first witness giant pandas and the core zone of panda habitats. On the one hand, the establishment of nature reserve protects endangered species; on the other hand, the long-lasting deforestation, reclamation, and cultivation break the ecological balance and threaten the existence of endangered species. The paradox between development and conservation become the major challenge for the local community.

In 2010, with the support of Small Grants Programme, the Global Environmental Institute launched “*Project on Renewable Energy Promotion and Ecological Agriculture in Baoxing Nature Reserve*” to promote biogas use in this area. Through setting up a demonstration project, Global Environmental Institute gradually have the community accept the biogas digesters. The organization also held technical training and user training workshops for the community. One 8 cube meters’ biogas digester can reduce 50% of firewood usage of the local households, equal to the growth amount of 3-4 Mu (1 Mu= 0.0667 hectare) trees in one year. The project emphasized the importance of women and children in transforming living habits. *Project on Renewable Energy Promotion and Ecological Agriculture in Baoxing Nature Reserve* not only protect the natural environment, but also cut the living expense cost and increase the income from ecological agriculture. The mechanism of agricultural promotion could be introduced and copied to the rural communities in other developing countries.

Page 78-83: Activate the public consciousness of energy-saving and emission-reduction

078 封面报道
079



激活公众节能减排意识流

文 / 李磊 图 / 胡蔚、熊佳桐 支持机构 / 重庆市制冷学会

在无意识的情况下我们会浪费掉多少能源？重庆市制冷学会编《中国周刊》提供了一份数据：重庆市有三千万人口，一千万户家庭，每个家庭有一台空调计划，每台空调每年耗电量有 10 度电，有手机耗电的还有笔记本电脑、电热水器等多种设备，因此全重庆市待机能耗耗电量高达数亿度。而生产 1 亿度电将消耗 3 万吨煤炭，排放 8 万吨二氧化碳；同时，使用电取暖器取暖比使用热泵空调取暖能耗高 50% 以上，使用电热水器比使用热泵热水器能耗高 70% 以上，不正确的使用空调也会使能耗大幅度增长。重庆市的耗电情况是中国的一个缩影。一边是大规模地能源消耗，另一边是



来源：重庆市制冷学会的工作人员为居民讲解，讲解过空调的构造。

无节制地使用，中间隔着一道“意识”的河流。如何让公众具备节能减排的意识？如何让每个人都参与节能减排行动？2014 年 10 月，在“全球环境基金小额赠款计划”支持下，重庆市制冷学会发起了“重庆市公众参与节能减排行动”。一场唤醒公众节能减排意识的行动，在山城悄然开始。

多年不洗的空网过滤网

2010 年 8 月，吴治刚接任重庆市制冷学会（下称学会）副秘书长一职。5 月的重庆天气闷热，刚到办公室，吴治刚就发现办公室空调的过滤网脏得厉害，一些灰尘都没有，制冷专业出身的吴治刚，立即请来空调维修工入查看问题。

“打开来一看，空调过滤网完全堵死了，脏得一塌糊涂。”吴治刚至今还记得当时那脏过滤网，已经发霉发黑，拿起来对灯也透不出一点光亮。这让吴治刚开始反思：我作为制冷空调专业人员，我都没有清洗空调过滤网的意识，那么老百姓怎么会意识到这个问题？

“无意识”是吴治刚经常念叨的一个词。公众对环保的无意识，是很多环保机构面临的一个难题。“开车在加油站加油时就不会觉得紧张，家里面有电就不会有节约的意识，但是大家不知道我们国家的资源能源消耗，是浪费节约的，我们国家 2005 年只有 5 亿装机容量，到了 15 年达到了 15 亿装机容量，三倍的增长，但是老百姓不知道。”吴治刚忧心地说。

因此，从 2010 年开始，吴治刚就在学会内部推广空调过滤网清洗，且联合学生志愿者，在重庆市的各个小区，帮助居民免费清洗空调过滤网。

Public unconsciousness is a major challenge for addressing environmental problems. In 2014, Small Grants Programme funded Chongqing Association of Refrigeration to launch “*The Participation of Chongqing Public in Energy Saving Actions*” to promote energy-saving and emission-reduction and advocate the public participation.

Chongqing is a city with over 30 million populations or 10 million households. Due to the hot summer and cold winter, air-condition using is very popular. However, improper usage can bring dramatically increasing of energy consumption. For example, one stand-by air-

condition can consume 10 kWh electricity per year; uncleaning air-condition can increase the energy consumption.

The project organized large-scale energy-saving activities at local communities and schools. Through data visualization and project presentation, community members acquired a better perception on energy-saving and emission-reduction. At a frequency of twice a week, Chongqing Association of Refrigeration held over 200 speeches on the topics varying from air conditioner filter cleaning to garbage classification that could efficiently reduce daily energy consumption. In two years, 8,000 people participated in the activities, saving over 500,000 kilowatt-hour electricity, 150,000 tons of coal consumption, and 400 tons of CO2 emission.

Page 84-89: Environment protection and ecological conservation chain in a northwestern community



一个西北村庄的环保生态链

文 / (中国周刊) 特约记者 刘陶川 支持机构 / 宁夏扶贫与环境改造中心

全球气候问题，与中国西北一个村庄产生了联系。
宁夏回族自治区盐池县，得名于境内 20 余个大小不一的盐池，系中国著名的滩羊集中之地。
盐池自古是“游牧居地”，干旱草原与荒漠化草原贯穿南北。农耕民族

上图：当地青年和
妻子种植、照料防风
林沙枣树。

与游牧民族在此交融，形成当地特有的生产景象。
千年牧场也正遭遇全球气候变化的挑战。地处黄河上中游的宁夏，三面被沙漠包围，荒漠化土地面积 297.4 万公顷，占全县总面积 57.2%，其中沙漠土地 118.3 万公顷，占全县总面积的 22.8%，所涉的 13 个县、300 多万人口长期饱受风沙包围。
盐池县是宁夏面积最大的县，也是宁夏沙漠化最严重的地区。其沙漠面积 16 万公顷，占全县总面积的 20%。
如今，一场生产、生活方式的革新，正在改变着盐池县营西村的面貌。

禁牧
强烈的风沙，是从上世纪 80 年代开始的。
“70 年代，这里也曾是‘风吹草低见牛羊’的景象，有树有水。”土生土长的盐池人张峰回忆。但随着生产力的发展，农耕技术提高，大面积的草原被开荒种地，农业机械化的深度开垦，破坏了草原土层，沙化层越来越深，加之全球气候变化所带来的影响，于旱少雨的情况愈加明显，曾经水草丰美的景象消失不见。“沙子漫地堵路时有发生，早上出发经过的路，晚上回来就被沙子埋了，找不到了。”
风沙逼着人们年年搬家，人心思走。据公开土壤普查数据，至 1983 年，盐池县的沙漠化面积近 36 万公顷（540 万亩），全县近 75% 的人口和耕地被沙区包围。风沙侵袭下，几千人被迫陆续迁往他乡。
封园禁牧，盐池县沙化面积进一步恶化。2000 年以来，盐池县使用国家“三北”防护林体系建设、退耕还林等项目进行生态修复，力促风沙，收敛肆虐。
当地政府逐渐意识到，超载过牧使植被遭到破坏，草的生长速度跟不上羊啃食的速度，一边治理一边破坏，盐池县陷入苦战。
当地人形容那时的盐池是“天上一片云，地下一片云”。千年牧场上，盐池人“靠畜牧、靠畜牧、靠畜牧”，几乎户户放牧，家家养羊。盐池县，全县有 86 万只滩羊在草原上啃食植被，草场退化，黄土浮现。
盐池县农牧局局长黄玉邦回忆。
在 2000 年提出的“生态立县”战略基础上，2001 年末，盐池县委、政府率先宁夏之先，实行全境封山禁牧。
然而，传统的畜牧产业并没有在严厉的禁牧政

Yanchi County, Ningxia Hui Autonomous Region is well-known as tan-sheep production. This millennium pasture is confronting a conjuncture from global climate change and has suffered the most severe desertification in Ningxia Region. Over-grazing further hinders the environmental improvement.

Started in 2010, Small Grants Programme funded Ningxia Center for Environment and Poverty Alleviation to implement “*Environmental Sustainable Development Project in Yingxi Village*”, in which community participatory methodology was introduced to facilitate community governance and management in prevention of desertification. 260 households has benefited from

the project. The project activities including artificial cultivation of forage grass to reduce livestock pressure to grassland, demonstration of energy-saving stoves, energy-saving heating system, biogas digesters and passive solar house to reduce energy consumption, cultivation of windproof and sand-fixation trees, awareness raising of local community on climate change and transforming living patterns. After one-year project, the new facilities could reduce 3 tons of coal consumption and 7.7 tons of CO₂ emission for a family of five per year. *Environmental Sustainable Development Project in Yingxi Village* also provides ample experiences that have been replicated in other villages in this county and could be followed by other places in northwest China.

Page 90-93: Sancha Village: Solve the climate change challenge of forestry community

090 封面报道

封面报道 Cover Story / CHINA WEEKLY 2016.11



三岔村 破解城市林区应对气候变化难题

文/张静、郑大林 支持机构/北京林业学会

“我希望找到一个这样的地方。人们依旧在耕种，他们的工作节奏与农时相吻合。那里是安静的，周围有一种想法。想过那种田园式的作家生活——从城市生活中悄悄抽身，把手中的工作暂时放下来。……我带着《中国地图》，沿长城的线口标志在那些小路上穿梭着。那个地方因为石灰岩层上的一道裂隙而得名。当地人把它变成了种菜——一道沿着两尊佛像、一个装满香灰的香炉、一只盛着红果的盘子。在洞的上方，有一段长城。沿着山脊向上延伸，连接着一个巨大的烽火台。这里是北京以北的第一道屏障。在平地上，从烽火台那里看去，四周的景色简直令人惊叹不已。一边是薄雾弥漫的田野，另一边则是蓝灰色的层峦叠嶂。但是，吸引住我视线的，是西北方山上一座古建筑。这一座古建筑位于一座小山丘上，完全与世隔绝。方圆几公里之内都看不到别的居民点。我们从长城上走下来，上了车子，在一条土路的尽头找到了那个村庄。那个地方叫作三岔。”

彼得·海斯勒在《寻路中国》中这样描述了三岔村。

三岔村，北京怀柔区西北与延庆区交界处的小村庄。它隶属于渤海镇，以林业为主要收入来源，是典型的林业社区。村庄很小，全村有76户172人，土地面积18831亩，其中林地面积13831亩，占全村土地面积的79%以上。

2010年3月，由北京林业学会负责实施的“全球环境基金小赠款计划‘密云水库流域林业社区应对气候变化综合能力提升项目’”开始在三岔村实施。项目开展的主要项目活动有应对气候变化培训、低效灶具改造、森林经营和可持续薪炭采集等。

让百姓关注气候变化的危机。

俗话说，靠山吃山，靠水吃水。三岔村森林资源丰富，村民祖祖辈辈主要生活来源来自森林。无意识的对森林资源造成了不同程度的破坏和浪费，直接影响了森林固碳能力。而全球最大的碳排放源是工业，最大的碳吸收者是森林。在全球气候变化的大背景下，森林在应对气候变化中的特殊作用日益受到国际社会关注。

如何提高村民保护森林资源的意识，减少对薪炭的需求量，促进林木生长，推动经济增长方式转变提高林业社区应对气候变化的能力？”

北京林业学会在三岔村实施的“应对气候变化综合能力提升项目”培训中，发现并解决了很多问题。

关于减缓气候变化的主题，对于村民来说是一个陌生的话题，村民能够感受到气候变化异常，极端天气增多，村庄变得越来越干旱等事实，却不会意识到每天的生活习惯也是改变气候变化因素的关键。而减缓气候变化知识培训又是一个很微弱的概念。只有提高村民的自主意识，提高村民的积极性，才能获得一定的收益。

在项目实施人员郑大林工程师的

带领下北京林业学会一行5人对三岔村村民开展气候变化的认知培训。培训中，在培训中从农村中听到大都是老人、小孩及妇女等弱势群体，文化水平不高甚至不识字，有文化的年轻人都外出打工，看不懂宣传材料，对宣传的内容理解困难。“还有很多村民忙于个人家务事，没有时间参加培训。”郑大林说。所以，很多村民对气候变化的培训，气候变化与森林的关系都不了解。

北京林业学会不断坚持利用广播、会议、现场培训等宣传手段，让村民更直观地了解气候变化的关键就在他们的身边和他们日益消减的森林存在很大关系。

夜幕降临，在三岔村村委会会议室由北京林业学会举办的应对气候变化和节能减排技术培训会上座无虚席，工程师郑大林——解答了三岔村党支部书记刘秀英等在内的60多位村民的问题。村民对森林保护、薪炭浪费、个人生活等问题的积极提问让郑大林脸上露出了满意的笑容。“这么多天的努力没有白费，再接再厉坚持下去。”

北京林业学会让村民提高保护森林资源的意识，减少林木生长三个方面的培训，让当地村民受到潜移默化的影响，起到一个示范作用，为北京“林业社区减缓气候变化能力建设”提供了一个可供借鉴的模板。

“三岔地，一头牛，老婆、孩子，热炕头”，曾经是北方农村百姓幸福生活的真实写照。如今，虽然农村的生活发生了翻天覆地的变化，但“热炕头”仍然是村民，尤其是林业社区村



图：北京林业学会项目人员在三岔村的森林经营培训中，解答了村民关于森林经营的问题。

Forestry communities rely on forest for their livelihood. Deforestation reduces the carbon storage capacity of forest. How to raise community's will on forest protection, how to reduce the demanding of firewood, how to promote the growth of forest, how to transfer community's economic development pattern and how to enhance community's capacity to address climate change are questions the project will answer. Small Grants Programme funded Beijing Forestry Society in 2010 to implement project "*Capacity Development for Forestry Communities to Address Climate Change in the Miyun Reservoir Watershed*" at Sancha village, the suburb of Beijing. The project includes training on addressing climate change, renovation of low-efficiency stoves and heating system, forest management for carbon storage increasing and collection of firewood in a sustainable manner.

Through renovating low-efficiency facilities by installing energy-saving stoves and heating systems, the community is able to save 90 tons of firewood per year. Through forest management and sustainable firewood collection, the forest stand level is improved and the water and soil are conserved. The community then built a 1500-m trail by the forestry waste from tree pruning, which has become a must-see tourist site in the community. Beijing Forestry Society also helped the community to set up forest ranger team to take the responsibilities of fireproofing and guard against illegal logging. With the protected forest, the community has attracted lots of visitors and more and more villagers have improved their living standard through developing ecological tourism. The development mode in Sancha village has tackled several stubborn problems that forestry communities are facing under the situation of climate change.