



联合国粮食及  
农业组织



全球环境基金  
为地球的生存而投资



国家林业和草原局  
国际合作交流中心

中国森林可持续管理提高森林应对气候变化能力项目

## 项目通讯（第十一期，河南专刊）

### GEF-056 Newsletter

### Issue No. 11 Henan Special

(November 2023)

#### 目录 Contents

#### 1、河南省 GEF 项目办开展秋季“林间课堂”活动

Henan PMO held “forest classroom” for autumn 2023

#### 2、新县林场向农民推广珍贵树种育苗技术

Xinxian Forest Farm extended rare tree species to farmers

#### 3、南湾林场开展二代杉木林近自然混交改造

Nanwan FF naturalized Chinese fir plantation coppices

#### 4、民权林场“槐花节”推进社区生态旅游

Minquan FF Black Locust Flower Festival eco-tourism

#### 5、广西、海南 GEF 项目与黄柏山林场现场交流可持续经营经验

Huangbaishan FF site exchanged SFM experience with Guangxi and Hainan GEF counterparts

## 1、河南省 GEF 项目办开展秋季“林间课堂”活动

2023 年 11 月 5 日，河南省 GEF 项目 2023 年秋季“林间课堂”活动在国有信阳市南湾林场开展。GEF-056 首席技术顾问、中国林科院资源信息研究所王宏教授级高工作“国家储备林政策和制度体系建设”的报告，GEF-056 省级专家、河南省林科院监测监测中心李良厚研究员作“气候变化与森林碳汇：原理与进展”的报告。河南省 GEF 项目办介绍了全省项目执行的概况，南湾林场汇报了项目执行进展和技术示范模式。与会人员现场考察研讨了南湾林场杉木林抚育加强、珍贵树种补植造林和目标树作业的现场。河南 GEF 项目办、南湾国有林场、新县国有林场、黄柏山国有林场等技术管理人员约 20 人参加了课堂活动。河南省 GEF 项目办景红卫副主任主持了课堂交流。



图 1 “林间课堂”上的专家讲座

王宏对河南省项目的技术示范表示肯定，就下一步工作提出四点指导建议：一是提高各试点单位技术主管对于“森林可持续经营推进气候变化”根本目标的理解、实施能力和实施效果；二是狠抓项目实

施质量，特别是新增项目资金的项目活动；三是做好试点良好实践的总结、宣传和推广；四是查漏补缺，为项目竣工做好前期准备。

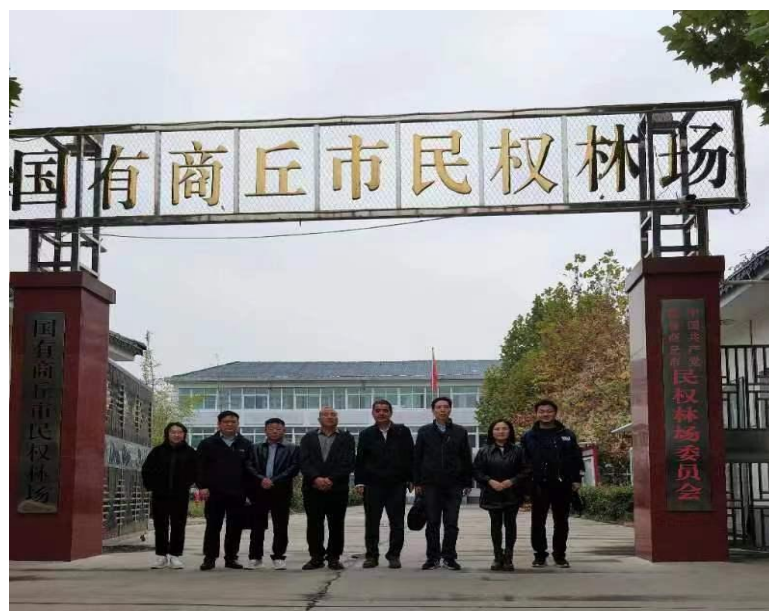


图 2 项目首席技术顾问访问国有民权林场

河南省 GEF 项目办开展 2023 年秋季“林间课堂”活动之前，王宏等对民权国有林场 GEF 项目试点在人口密集区平原造林绿化，发挥森林多种功能的做法和经验进行了考察。

Henan PMO held “forest classroom” for autumn 2023

**On November 5 of 2023, the Henan provincial Forest Classroom autumn training course for GEF-056 was held at Nanwan state-owned forest farm in Xinyang City. The Chief Technical Advisor Wang Hong from Forest Resource and Information Techniques Institute of the Chinese Academy of Forestry delivered a lecture on “National Timber Reserve Forest Policy and Technical Norms”; Dr. Li Lianghou the GEF -056 provincial expert and researcher from the monitoring center of Henan Academy of Forestry made a report on “Climate change and forest carbon sequestration: principles and progress”. The Henan**

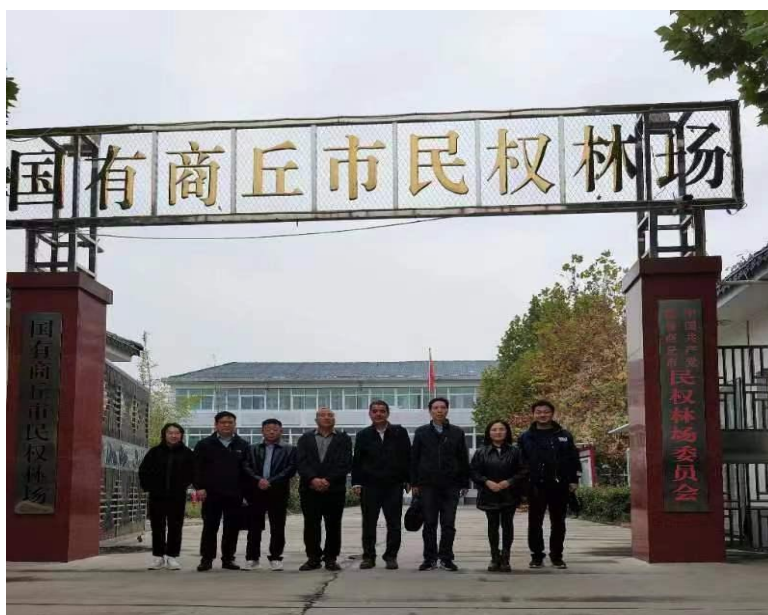
**Provincial Project Office introduced the current situation and progress of GEF-056. The Nanwan Forest Farm reported the progress of the GEF-056 implementation and the technical demonstration models. The participants visited and discussed the demonstration sites of strengthening forest tending of Chinese fir, replanting precious tree species and target tree operations. About 20 technicians and managers from the Henan GEF PMO, Nanwan forest farm, Xinxian forest farm and Huangbaishan forest farm attended the training. Jing Hongwei the Deputy Director of the GEF project office of Henan province presided over the classroom activities.**



**Fig. 1** Expert lecture for the Forest Classroom

**Wang Hong affirmed the technical demonstration operations of Henan Province project with four suggestions for the next step: firstly, to improve the understanding, implementation capacity and effectiveness of the pilot technical managers in advancing climate change objectives through sustainable forest management; secondly, to improve the quality of project implementation, in particular the newly added project funds for the project demonstration activities;**

**thirdly, to do a good job in extraction of good practices, publicity communication and community participation.**



**Fig 2** GEF-056 CTA visited Minquan forest farm for its GEF demonstrations

**Before the autumn Forest Classroom, Wang Hong and his provincial colleagues visited the afforestation sites at GEF-056 Minquan pilot forest farm located at populated plain area so emphasizing multiple functions of forest trees.**

(Chen Xiaowei, Henan PMO)

## **2、新县林场向农民推广珍贵树种育苗技术**

国有新县林场在实施 GEF 项目时，与有关高等院校合作调查研究，查明该林场自然分布的国家级和河南省级重点保护珍贵树种共 37 种，其中国家级重点保护树种 10 种，河南省级重点保护树种 27 种，还解决了主要珍贵树种香果树播种育苗难以发芽的技术难题，为与当地社区合作共同实施 GEF 项目珍稀树种育苗活动奠定了基础。

在金兰山街道办事处吴尖山村，国有新县林场租用农户土地并负责育苗技术指导和苗木销售，农户出人工，林场技术人员把有关育苗



技术传授给参与育苗生产和管理的农户劳动力，提高参与农户的育苗生产技能。在该村建设了面积约 20 亩的苗圃，培育了香果树、冬青、马褂木和枫香等树种苗木，年出圃苗木约 15 万株，其中约三分之二用于林场造林，剩余约三分之一作为商品苗出售。

在沙窝镇新润农民专业合作社，林场与合作社签订购买苗木协议，由林场负责提供育苗需要的林木良种和育苗技术给合作社和农民，合作社负责提供苗圃土地和育苗生产管理。该合作社建设了 25 亩的苗圃，培育了香果树、檫木和枫香等树种苗木，年出圃苗木约 20 万株。这些苗木先按照订单销售给林场，剩余部分向社会销售。



图 3 新县 GEF-056 项目专业合作社吸纳当地农民育苗

GEF 合作育苗方式吸纳当地农村劳动力参与，提高了参与育苗生产和管理农民的生产技能，增加了农户收入，也实现了对于珍稀树种的保护。

Xinxian Forest Farm extended rare tree species to farmers

**During the implementation of the GEF-056, the Xinxian County Forest Farm collaborated with relevant institutions and universities to survey and study**

**the natural distribution of 37 national and provincial-level priority protected tree species in the farm of which 10 are national key protected tree species and 27 provincial key protected tree species, and solved the technical difficulty of germination of *Emmenopterys henryi* and this laid good foundation for the joint implementation of the GEF project rare tree species seedling raising activity in cooperation with the local community.**

**At the Wujianshan Village of Jinlanshan Street office, the Xinxian Forest Farm rents land from farmers but responsible for the technical guidance and sales of seedlings and the farmers provide manual labor. The forest farm technicians educated the seedling-raising techniques to the farmers involved. With these, a nursery covering an area of about 20 mu has been set up in the village with trees of *Emmenopterys henryi*, *Aquifoliaceae*, *liriodendron chinense* and *Liquidambar formosana* cultivated. About 150,000 tree seedlings are grown in the nursery each year with two-thirds of them used for project afforestation, the remaining sold as commercial seedlings.**



**Fig. 3** Forestry cooperatives in project area hired local farmers to raise seedlings

**In the Xinrun Farmer Professional Cooperative in Shawo of Xinxian County, the Xinxian Forest Farm and the Cooperative signed an agreement to purchase seedlings with the Forest Farm responsible for providing the Cooperative and the farmers with improved seeds and seedling techniques needed for seedling cultivation, and the Cooperative shall provide nursery land and the management**

labor of nursery production. With these, the Cooperative has built a 25-mu nursery, cultivating *Emmenopterys henryi*, *sassafras* and *Liquidambar* and other tree species seedlings with annual nursery seedling production about 200,000. These seedlings are sold to the forest farm according to the contract with the rest sold to other social customers.

The cooperative seedling production approach in Henan involves local rural labor, improves technical production skills of farmers involved in seedling production and management, increases the income of farmers and contributed to conservation of local rare tree species.

(Li Lianghou, Henan PMO)

### 3、南湾林场对二代杉木林进行近自然混交改造

南湾林场现有 4 万多亩杉木二代萌生林，由于第一代杉木人工林初植密度大，萌芽更新后萌条多，加上林场资金困难，后期抚育管理又不及时，导致大面积杉木萌生林林分密度大，生长不良，缺乏主干，林地生产力低，严重影响生态功能的发挥。

2019 年至 2020 年，南湾林场实施全球环境基金（GEF）赠款中国森林可持续管理提高森林应对气候变化能力项目，累计完成面积 11766 亩，总投资 385.48 万元。GEF 项目主要针对林场杉木二代萌生林，以近自然经营理念为指导，将杉木二代萌生林功能定位于水源涵养兼顾大径材培育，采取抚育间伐和补植等综合技术措施。在抚育间伐方面：通过目标树作业法，实施生长伐，间伐蓄积强度 25%左右。之后开展补植，以块状、群团状补植香椿、山桐子、枫香、檫木、马褂木等乡土树种，每亩补植 20-40 株，逐步形成针阔异龄混交林。





图 4 南湾林场对杉木萌芽林实施强度间伐，促进天然更新并为补植创造条件

项目实施三年多来，根据前后两期样地监测结果，经营的杉木二代萌生林林分质量得到明显提升，林分平均胸径生长量提高了 20% 以上，林下植被更加丰富，林分结构趋于合理，森林生态系统更加稳定，在当地林农和林场产生积极影响。

#### Nanwan FF naturalized Chinese fir plantation coppices

**Nanwan Forest Farm has more than 40,000 mu of Chinese fir coppice plantation forest. Due to the high initial planting density and lack of tending due to financial difficulties, these coppice forest now has dense sprouts, slow growth, poor trunk formation, low productivity which limits the play of forest ecological benefit.**

**From 2019 to 2020, Nanwan implemented the GEF-056 for a forest area of 11,766 mu and total investment of 3,854,800 yuan to improve the forest quality of the Chinese fir coppice forest. Under the guidance of the close-to-nature management concept, the functions of the Chinese fir forest is determined for water conservation and large-diameter timber cultivation. To realize these**

**functions, two main technical measures are taken including tending thinning and replanting. For the tending thinning, the target tree operation method is adopted and growth felling is conducted with cutting intensity about 25%. After that, local tree species such as *Toona sinensis*, *Idesia polycarpa*, *Liquidambar formosana*, *Sassafras* and *Liriodendron* are planted in clumps or patches with density 20-40 plants per mu to gradually form conifer-broadleaf mixed uneven-aged forests.**



**Fig 4** Chinese fir copping thinning for replacement planting and natural regeneration at Nanwan forest farm

**According to the monitoring results of the treated and untreated plots over the past three years, it is found that the quality of the treated coppice stands of Chinese fir has been significantly improved, with the average DBH of the stands increased by more than 20%, understory vegetation more abundant, the stand structure tended rational for a stable forest ecosystem, which has thereby attracted more local foresters to follow suit.**

(Ru Taoqin, Wang Hong)

#### **4、民权国有林场“槐花节”推进社区生态旅游**

民权林场是一个沙区林场,经营面积 6.9 万亩,有林地面积 5.5 万亩,

林木总蓄积量 18.7 万立方米，经营的平原人工防护林带呵护着周边 40 多万亩农田，发挥着良好的防风固沙生态功能。近年来，民权林场通过 GEF 项目实施将纯林改造为混交林，增加乡土常绿、彩叶、艳花树种，改善现有林分的景观功能，将林场打造为集防护、生态、旅游为一体的生态旅游景区，促进当地社会经济发展。

利用 GEF 项目再造林活动，民权林场引进了窄冠刺槐、加拿大红枫、五角枫、黄山栎、玉兰、雪松、苦楝等景观防护树种，丰富了民权林场森林景观内涵。林场在每年刺槐花开的 4 月 20 日至 5 月 1 日举办“中国·民权槐花节”。全省各地游客蜂拥观光赏花，为林场周边居民带来商机，游客享用当地美食，购买当地土特产、民间绘画和工艺品，有效增加了当地居民的收入。



图 5 民权林场“槐花节”为社区创造发展机遇

民权林场通过 GEF 项目营造的混交林改变了数十年来林场以杨树为主的树种结构，提升了当地的生物多样性水平。大量游客和学生观光游览接受自然教育，开展采风、摄影、写生踏青等活动，有效发挥了森林的社会文化效益，促进了平安、和谐林区建设。



## Minquan FF Black Locust Flower Festival eco-tourism

**Minquan Forest Farm is a desert area forest farm with a land area 69,000 mu, forest area 55,000 mu and a total forest stock of 187,000 cubic meters. The planted shelterbelt forest for decades has protected more than 400,000 mu of farmland with important ecological functions of windbreaking and sand fixing. In recent years, through the GEF-056 project, the farm has transformed single-species poplar forest into mixed forest by adding indigenous evergreen, colorful-leaf and flowers tree species to upgrade the landscape functions of existing stands, to improve the protective, ecological and tourist functions of forest for eco-tourism and local community economic development.**

**By the GEF project reforestation pilot demonstration activities, the farm has introduced narrow-canopy Black Locust, Maples, *Koelreuteria paniculata*, Magnolia, cedar, neem etc to enrich forest tree species structure. During the annual Black Locust Blossom period from April 20 to May 1, the farm held “China Minquan Black Locust Flower Festival” for which tourists from all over the province flocked to the farm to view the flowers. The tourists bring business opportunities to the farmer residents around the forest farm by enjoying local delicacies and buying local farm specialties, folk paintings and handicrafts, which effectively increased the income of the local people.**



**Fig 5.** The entrance of Minquan Forest Farm Black Locust Flower Festival that creates income and cultural opportunities for local communities

**With GEF project funded mixed forest replacing the poplar monoculture for higher landscape biodiversity, a large number of tourists and students receive natural education in sightseeing, and photographing and painting etc which effectively bring into play the social and cultural benefits of forests for peaceful and harmonious forest community development.**

(Yan Dongfeng, Henan PMO)

## **5、广西 GEF 项目办与黄柏山林场交流可持续经营经验**

2023 年 9 月 20 -21 日，广西 GEF 项目办副主任班汉珍、海南省 GEF 项目办徐东科长一行 12 人赴河南省国有商城黄柏山林场交流调研 GEF 项目建设和森林可持续经营工作。信阳市林茶局、黄柏山林场有关人员陪同调研。

广西和海南的同事们实地查看了 GEF 项目黄山松近自然经营示范林、黄山松单改混示范林、长期监测样地等项目建设情况，就持续推进森林可持续经营应对气候变化能力建设、GEF 项目示范林建设、项目良好实践总结、项目技术示范推广和林业碳汇等问题进行现场交流。广西和海南 GEF 项目建设单位人员高度肯定了黄柏山林场森林可持续经营和森林保护工作，一致认为黄柏山林场 GEF 建设成效显著，形成了可复制可推广的建设经验和模式，并极大地促进了林场森林可持续经营工作。





图 6 三省（区）GEF 项目技术管理人员考察黄柏山林场  
GEF 林分技术示范点

河南、广西和海南 GEF 项目建设单位有关人员还分享交流了各自 GEF 项目管理的经验教训、与利益相关方的交流、今后林业外资项目建设方向等。

Huangbaishan FF site exchanged SFM experience with Guangxi and Hainan GEF counterparts

**During September 20-21, 12 staff and technicians from the Guangxi Zhuang Autonomous Region GEF PMO headed by Deputy Director Ban Hanzhen and Hainan GEF PMO headed by the Section Chief Xu Dong visited Huangbaishan Forest Farm to exchange views and experiences on the implementation of the GEF-056 regarding sustainable management of forests. Staff of Xinyang Forest and Tea Bureau and Huangbaishan Forest Farm accompanied them for the field visit.**

**The Guangxi and Hainan colleagues site inspected the close-to-nature management model forest of *Pinus taiwanensis*, the monoculture-to-mixed forest and the monitoring plots of GEF project. They also exchanged good practices on**

capacity building for sustainable forest management and climate change adaptation, construction of demonstration forests, extraction of good practices, extension of demonstrative technologies and forestry carbon sequestration. The Guangxi and Hainan highly affirmed the forest sustainable management and forest protection work of Huangbaishan Forest Farm agreeing that the GEF project at Huangbaishan has achieved remarkable results, and that the construction experience and technical model can be disseminated to other parts of the country.



**Fig. 5** The three provinces (regions) GEF project staff visited GEF technical demonstration sites of Huangbai

The three GEF project provinces also discussed interested practices of other management issues such as the experience and lessons of the GEF project execution, communication with stakeholders, and future focus of the foreign-funded forestry projects etc.

(Chen Xiaowei, Wang Hong)