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Biodiversity Strategy and Action Plan in the Yellow River Basin in Henan Province

河南省黄河流域生物多样性保护战略与行动计划 (2024-2030年)

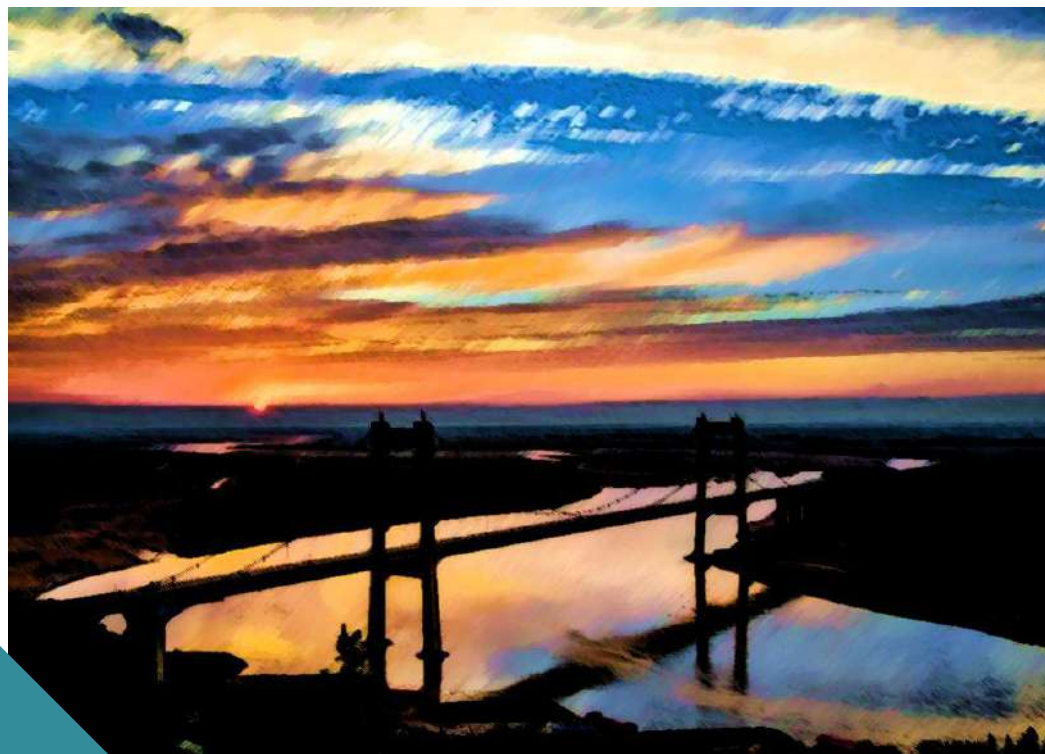
河南省林业生态建设发展中心

May 2023

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介绍

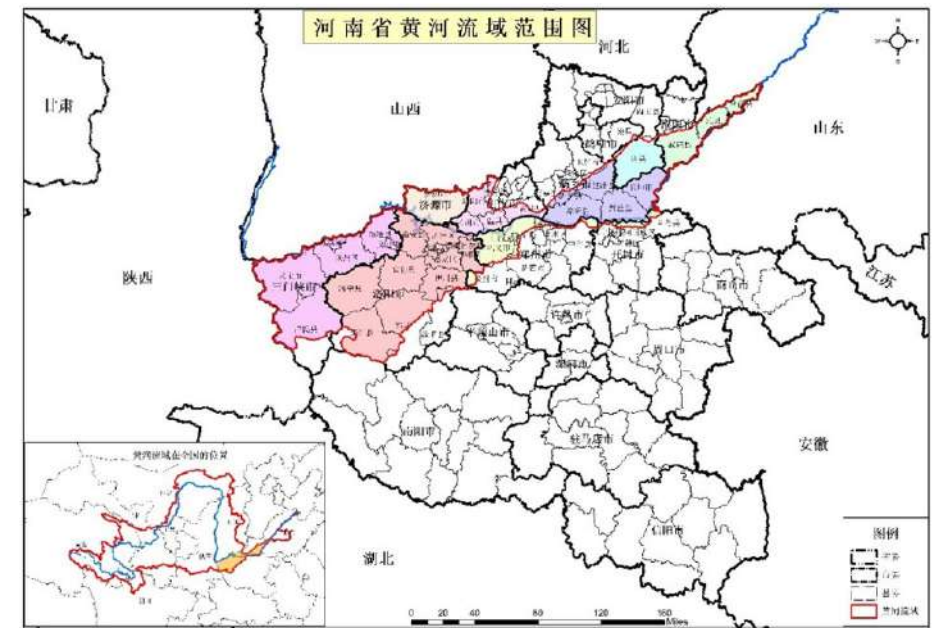
Introduction

项目范围

Project Background

河南黄河流域位于河南省中北部，地理坐标在东经 $110^{\circ}21' \sim 116^{\circ}6'$ ，北纬 $33^{\circ}39' \sim 36^{\circ}7'$ 之间。本项目具体研究范围是指水文意义上的黄河流域。自陕西潼关进入河南，西起灵宝市，东至台前县，河道总长711公里，流域面积3.6万平方公里，占黄河流域总面积的5%，占河南省总面积的21.7%，涉及10个省辖市（济源示范区）52个县（市、区）。

The Yellow River Basin in Henan Province is located in the north central part of Henan Province. Its geographical coordinates are between $110^{\circ}21' \sim 116^{\circ}6'$ E and $33^{\circ}39' \sim 36^{\circ}7'$ N. The Yellow River enters Henan from Tongguan, Shaanxi Province, starts from Lingbao City in the West and reaches Taiqian County in the East. The total length of the river course is 711km and the drainage area is 36,000 square kilometers, accounting for 5% of the total area of the Yellow River Basin and 21.7% of the total area of Henan Province. The scope of the project involves 10 provincial cities (Jiyuan demonstration area) and 52 counties (cities and districts).



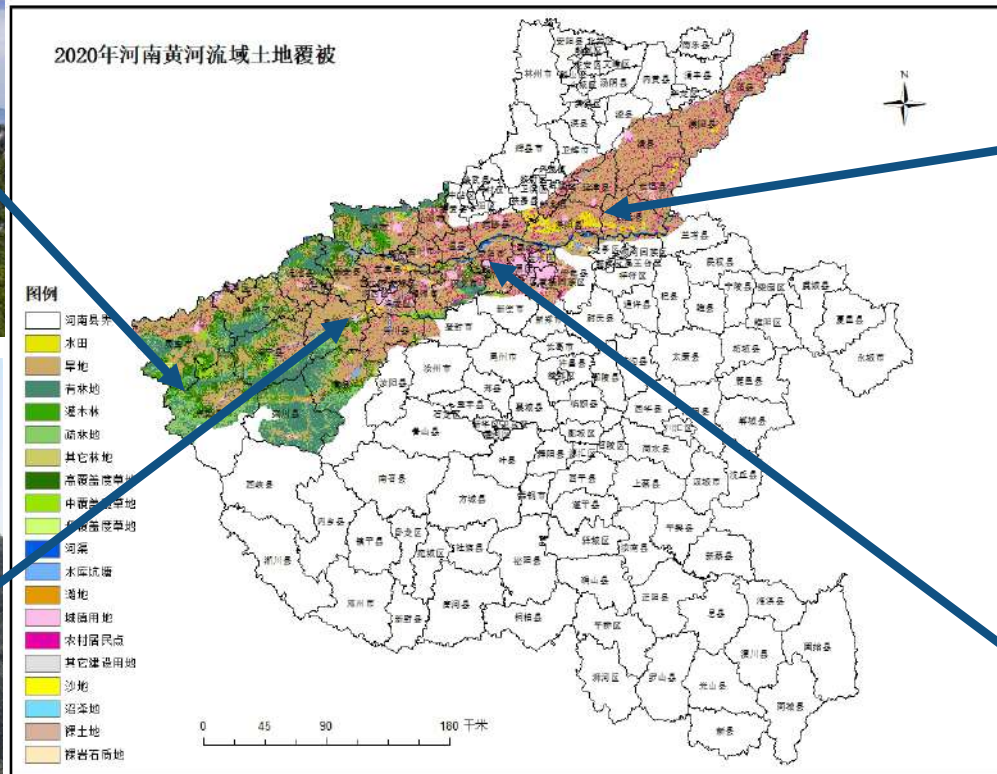
Topographic and Geomorphic Distribution Map of Henan Province



项目范围

Project Background

项目区共涉及常住人口3,054.51万人，城镇化率60%，人口密度603人/平方公里。项目区土地总面积390万公顷，其中耕地210万公顷，占总面积的53.76%；水域13万公顷，占3.3%；林地82万公顷，占21.11%；草地35万公顷，占9.07%；建设用地49万公顷，占12.70%。The project area involves a total of 30.5451 million permanent residents, with an urbanization rate of 60% and a population density of 603 people per square kilometer. The total land area of the project area is 3.9 million hectares, of which 2.1 million hectares are cultivated land, accounting for 53.76% of the total area; 130,000 hectares of water, accounting for 3.3%; 820,000 hectares of forest land, accounting for 21.11%; 350,000 hectares of grassland, accounting for 9.07%; 490,000 hectares of construction land, accounting for 12.70%.



项目描述 Project Profile:

项目地点：河南省黄河流域

项目周期：2022年1月21日-2023年12月31日

项目资金：30万美元

执行机构：河南省林业局

实施机构：河南省林业生态建设发展中心

项目目的：支持河南省政府部门加强河南省黄河流域的生物多样性保护

Project Location: Yellow River basin in Henan Province

Duration: January 21, 2022 to December 31, 2023.

Amount: USD 0.3 million

Executing agency: Henan Forestry Administration

Implementing Agency: Forestry Ecological Construction Development Center of HFA.

Objective: Support relevant departments of Henan Province to strengthen the biodiversity conservation in the Yellow River Basin in Henan Province

项目成果和产出 Project Outcome and Outputs:

项目成果： 加强河南省黄河生物多样性和生态系统服务保护

Outcome: Conservation of Yellow River biodiversity and ecosystem services in Henan Province strengthened

- **产出 1：** 分析省级保护政策框架和黄河生物多样性及生态系统服务价值
- **Output 1 :** Analysis of provincial conservation policy framework and Yellow River biodiversity and ecosystem service values produced.
- **产出 2：** 编制河南省黄河流域五年生物多样性战略和行动计划
- **Output 2:** Five-year Biodiversity strategy and action plan for the Yellow River basin in Henan Province prepared.
- **产出 3：** 加强生物多样性保护方面的知识和能力
- **Output 3:** Knowledge and capacity on biodiversity conservation enhanced.

- 启动报告、中期报告、终期报告 Inception report, midterm report and final report
- 一份河南省黄河流域五年生物多样性战略和行动计划 A Five-year BSAP of Henan Province in the Yellow River Basin
- 三份技术指南 Three technical guidelines for biodiversity conservation
- 一份关于技援调查结果的技术书籍 A technical book publication on the TA findings
- 一份简短的视频纪录片 A brief video documentary
- 一份政策简报 A policy brief
- 两次技术培训 Two technical trainings

技援团队

Team Introduction

Position	Name of Specialist	Organization
National Team Leader/Wetland Specialist 国内组长/湿地专家	ZHANG Mingxiang 张明祥	Beijing Forestry University 北京林业大学
National Deputy Team Leader/Forest Ecologist 国内副组长/森林生态专家	YAN Dongfeng 闫东锋	Henan Agricultural University 河南农业大学
International Biodiversity and Conservation Planning Specialist 国际生物多样性和保护规划专家	Christoph ZOCKLER	Self-employed 独立专家
National Natural Capital and Ecosystem Services Specialist 国内自然资本和生态系统服务专家	XIE Gaodi 谢高地	University of Science and Technology of China 中国科学技术大学
National Policy and Legal Specialist 国内政策和法律专家	LI Zhou 李周	Self-employed 独立专家
National Finance Specialist 国内财务专家	YAO Shunbo 姚顺波	Northwest A&F University 西北农林科技大学
National Hydrological and Climate Change Specialist 国内水文和气候变化专家	XU Hongmei 许红梅	National Climate Center 中国气象局国家气候中心
National Geographic Information System and Mapping Specialist 国内地理信息系统和制图专家	DENG Tan 邓坦	Henan Forestry Investigation and Planning Institute 河南省林业调查规划院
NAREE Project Manager 纳睿项目经理	LI Yue 李悦	NAREE
NAREE Project Assistant 纳睿项目助理	SHEN Xuanrong 申轩榕	NAREE
NAREE Project Director 纳睿项目总监	WANG Mengjue 王梦珏	NAREE
NAREE Project Director 纳睿项目总监	ZHOU Lijun 周丽君	NAREE

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生物多样性价值和保护状况

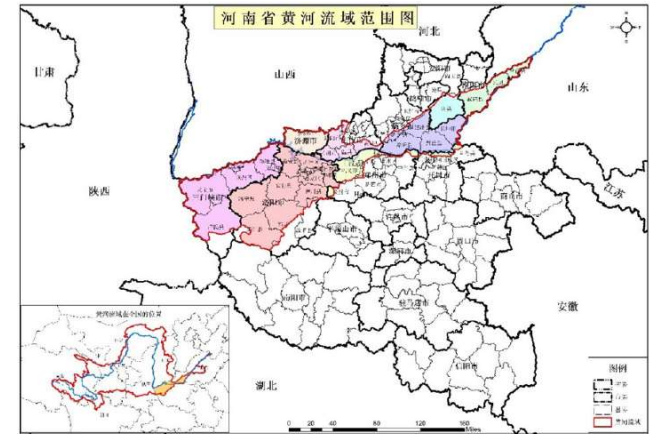
Biodiversity Values and Conservation

01 概述

Overview

河南是中国生物多样性最丰富的省份之一，重点野生动植物物种保护率达95%。河南省黄河流域位于我国第二阶梯和第三阶梯的过渡地区，地处气候带交汇区，是我国生物多样性的关键地带，是我国中西部重要生态保护屏障和物种基因库。河南黄河流域植被分布具有明显的地带性；黄河干流及其支流鱼类资源丰富，三门峡水库和小浪底水库是大型鱼类聚集地；河南黄河流域也是候鸟的重要越冬地和繁殖地，已知观测到的鸟类约有336种，其中国家一级重点保护鸟类有20种。

Henan is one of the provinces with the richest biodiversity in PRC, with a key wildlife species conservation rate of 95%. The Yellow River basin in Henan Province is located in the transition area between the PRC's Second and Third Ladder, and is situated at the north-south climate geographic boundary of PRC. It has the special geographical location and is a key zone of biodiversity in PRC and an important ecological protection barrier and species gene pool in central and western PRC. The vegetation characteristics of the Yellow River basin in Henan Province have obvious zonal characteristics, influenced by climate and topography, showing the transitional nature of different zones and the complexity. The main stream of Yellow River and its tributaries are rich in fish resources. The Sanmenxia Reservoir and Xiaolangdi Reservoir are large fish gathering places. The Yellow River basin in Henan is an important wintering area and resting place for migratory birds. There are 20 national schedule I protected wildlife species and 53 national schedule II protected species in the TA area.



Topographic and Geomorphic Distribution Map of Henan Province

02项目区生物多样性价值

Biodiversity Values in the Project Area

植物

Plant

根据《国家重点保护野生动植物名录（2021年）》，河南黄河流域存在国家一级保护植物7种，分别为：银杏、红豆杉、南方红豆杉、水杉、紫斑牡丹、曲茎石斛、华山新麦草。

According to the "List of National Key Protected Wild Animals and Plants (2021)", there are 7 national schedule 1 protected plants in the Yellow River basin in Henan Province, namely: *Ginkgo biloba*, *Taxus wallichiana* var. *chinensis*, *Taxus wallichiana* var. *mairei*, *Metasequoia glyptostroboides*, *Paeonia suffruticosa* var. *papaveracea*, *Dendrobium flexicaule*, *Psathyrostachys huashanica*.



银杏（分布广泛，嵩县集中分布）

Ginkgo biloba (widely distributed, concentrated in Song County)



红豆杉（分布广泛）

Taxus chinensis (widely distributed)



南方红豆杉（分布广泛）

Taxus chinensis var. *mairei* (widely distributed)

02项目区生物多样性价值

Biodiversity Values in the Project Area

■ 生物多样性价值 Biodiversity Values



水杉 (伏牛山)
*Metasequoia
glyptostroboides*
(Funiu Mountain)



紫斑牡丹
Paeonia rockii



曲茎石斛
*Dendrobium
flexicaule*



华山新麦草
Psathyrostachys huashanica

02项目区生物多样性价值

Biodiversity Values in the Project Area

➤ 哺乳动物 Mammals

区域内共有62种哺乳动物。国家一级保护哺乳动物4种，分别为豹、豺、大灵猫、林麝。

According to the point data distribution map in the Chinese Mammals Guide (2008), 62 mammal species have been recorded in the TA area. There are 4 national first-class protected mammals, namely, *Panthera pardus*, *Cuon alpinus*, *Viverra zibetha*, and *Moschus berezovskii*.

➤ 鸟类 Birds

黄河流域湿地是迁徙候鸟的重要越冬地和停歇地，有336个物种。包括20个受国家野生动物保护一级保护的物种和另外53种二级保护的物种。一级保护物种包括青头潜鸭、中华秋沙鸭、大鸨、卷羽鹈鹕、小青脚鹬、彩鹮、猎隼、黄胸鹀、2种鹳类、3种鹤类、7种鹰科鸟类。The wetlands in the Yellow River Basin are important wintering and resting places for migratory birds, with 336 species including 20 species under national first-class protection and 53 species under second-class protection. First-class protected species include *Aythya baeri*, *Mergus squamatus*, *Otis tarda*, *Pelecanus crispus*, *Tringa guttifer*, *Plegadis falcinellus*, *Falco cherrug*, *Emberiza aureola*, 2 species of storks, 3 species of cranes, and 7 species of eagles



林麝
*Moschus
berezovskii*



大鸨
Otis tarda



青头潜鸭
Aythya baeri

02项目区生物多样性价值

Biodiversity Values in the Project Area

➤ 爬行动物 Reptiles

河南现生爬行动物计有2目8科28种。其中乌龟为国家二级保护动物。

There are 28 species of reptiles living in Henan, belonging to 8 families and 2 orders. Among them, the *Mauremys reevesii* is a national second level protected animal.

➤ 两栖动物 Amphibians

河南省现有两栖动物计有2目6科13种。大鲵和宁陕齿突蟾2种为国家二级保护动物，其中大鲵为我国特有珍稀濒危两栖动物。

There are 13 species of amphibians in Henan province, belonging to 2 orders and 6 families. Among them, two species, *Andrias davidianus* and *Scutigera ningshanensis*, are second-class protected animals in China, and the giant salamander is a rare and endangered amphibian unique to China.

➤ 鱼类 Fish

河南黄河流域的鱼类117种，分别隶属于9目24科69属。鲤科各亚科属种分布变化鲤科是最大科，分布于9个亚科。

There are 117 species of fish in the Yellow River Basin in Henan province, belonging to 9 orders, 24 families, and 69 genera. The *Cyprinus* family is the largest family, distributed in 9 subfamilies.



黄河鲤鱼 *Cyprinus carpio*



大鲵

Andrias davidianus



虎纹蛙

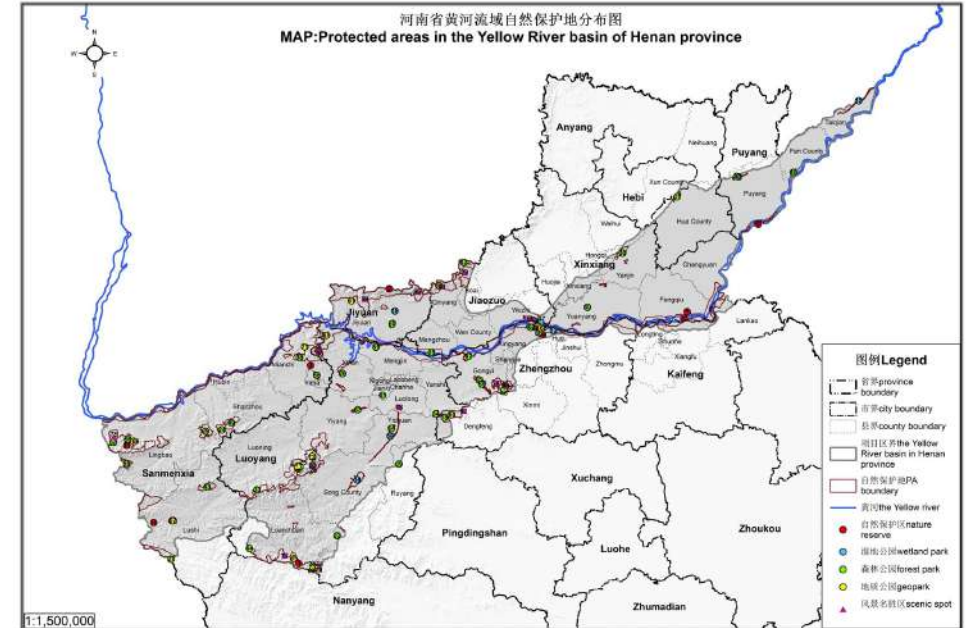
Hoplobatrachus rugulosus

03 生物多样性保护现状

Conservation Status

保护区网络 Protected area network

- 现有自然保护地85个，面积占流域总面积的10.20%。自然保护区、湿地公园等各类自然保护地的设立，使项目区国家重点保护野生动植物保护率达到95%以上。
- national wetland parks, which are mainly distributed in the coastal areas of the main and tributaries of the Yellow River basin. The key
- 河南省黄河流域重点的森林保护地和以森林为生境的野生动物类型的自然保护地包括3个国家级自然保护区、3个省级自然保护区和11个国家森林公园，总面积27.26万公顷，其中黄河流域重点森林保护地面积14.23万公顷。
- The key forest protected areas in the Yellow River basin in Henan Province and the protected areas of wildlife with forests as habitat include 3 national nature reserves, 3 provincial nature reserves and 11 national forest parks, with a total area of 272,600 hectares, including 142,300 hectares of key forest protected areas in the Yellow River basin.
- 河南省黄河流域重点的湿地保护地和以湿地为生境的野生动物类型的自然保护地共包括2个国家级自然保护区、3个省级自然保护区和5个国家湿地公园，重点湿地保护地涉及黄河流域面积12.92万公顷。
- The key wetland protected areas in the Yellow River basin in Henan Province and the protected areas of wildlife with wetland as habitat include 2 national nature reserves, 3 provincial nature reserves and 5 national wetland parks, which are mainly distributed in the coastal



- 流域内自然保护地主要分布在太行山、伏牛山及黄河流域的干支流沿岸地区，保护地内分布有大量天然林、天然湿地。通过建立保护地，有效保护河南省重要的森林、湿地生态系统和野生动植物物种。
- The protected areas in the basin are mainly distributed in the Taihang Mountain, Funiu Mountain and the coastal areas of the main and tributaries of the Yellow River basin. There are a large number of natural forests and natural wetlands in the protected areas. Through the establishment of the protected areas, it can effectively

03生物多样性保护现状

Conservation Status

■ 保护成效 Conservation Effectiveness

- 河南黄河流域生物多样性保护工作成效显著。各级各类保护地通过打击破坏野生动物栖息地的专项行动和自然保护区建设工程，使野生动植物栖息地得到有效保护，一些珍稀、濒危野生动植物的数量得到明显增加，流域生态环境明显改善。相对于未被保护的临近区域，各类自然保护区的植被和野生动物栖息地生态环境明显改善，现有的植被得到充分的发育，物种数量明显增加。
- The biodiversity conservation in the Yellow River basin in Henan Province has achieved remarkable results. Various protected areas have effectively protected the habitats of wild animals and plants through special actions to combat the destruction of wildlife habitats and nature reserve construction projects, and the numbers of some rare and endangered wild animals and plants have been significantly increased.

■ 生物多样性威胁 Biodiversity Threat

- 河南黄河流域生物多样性遭受威胁的主要原因包括：生态系统退化、气候变化、社区居民生产生活、重大建设工程（包括高速公路、水利工程等）、旅游开发、环境污染、外来物种入侵等。
- The main threats to the biodiversity of the Yellow River basin in Henan Province include: degradation of ecological functions, climate change, production and living of community residents, major construction projects (including highways and water conservancy projects), tourism development, environmental pollution and invasion of alien species.

3

生物多样性保护面临的挑战

Challenges for Biodiversity Conservation



技援概述 – 存在不足

Project Profile - Shortcomings



黄河流域人类活动频繁，过度放牧、采砂、排污、围垦等严重影响着黄河流域的生态系统健康，而且黄河流域生态系统类型多样并对全球变化敏感，导致生态系统结构和功能退化以及生物多样性降低。

河南黄河流域生态系统本底脆弱，大部分地区属于半干旱、半湿润地区，经过长期发展已成为生态系统负荷“过满状态”，这集中表现在水资源严重短缺、生态破坏和环境污染，“水少”已成为黄河流域保护和发展的主要瓶颈。

Human activities are frequent in the Yellow River basin. Over grazing, sand mining, sewage discharge, reclamation, etc. seriously affect the health of the ecosystem in the Yellow River basin. Moreover, the ecosystem in the Yellow River basin is diverse and sensitive to global change, resulting in the degradation of the ecosystem structure and function and the reduction of biodiversity.

The ecosystem of the Yellow River basin in Henan Province is fundamentally fragile, with most areas belonging to semi-arid and semi humid regions. After long-term development, it has become an overloaded ecosystem, which is mainly manifested in severe water resource shortage, ecological damage, and environmental pollution. "Water scarcity" has become the main bottleneck for the protection and development of the Yellow River basin



- **2、河南黄河流域生物多样性面临诸多挑战 Challenges faced by the Biodiversity of Henan Yellow River Basin**
- (1) 目前，河南黄河流域内湿地面积占比较小，且受人类活动影响大；森林生态系统简单，林龄普遍较低，人工林多而天然林少。生境破碎化严重，野生植物保护亟待加强，野生动物栖息地亟待修复和保护。
- (1) The biodiversity of the Yellow River Basin in Henan Province faces many challenges. At present, the wet area of the Yellow River Basin in Henan is relatively small and greatly affected by human activities; The forest ecosystem is simple, with generally lower forest age, more artificial forests and less natural forests. The habitat is severely fragmented, and the protection of wild plants urgently needs to be strengthened. The habitat of wild animals urgently needs to be repaired and protected.



济源黄河三峡



三门峡灵宝破碎化的山区植被



■ 河南黄河流域生物多样性面临诸多挑战Challenges faced by the Biodiversity of Henan Yellow River Basin

(2) 黄河城市段旅游开发严重，对生态平衡产生了潜在威胁。河南黄河流域的三门峡市、洛阳市地处我国北亚热带向暖温带过渡区，保存有典型过渡区的物种多样性，具有很高的生物多样性保护价值，但是该区也是矿产开发区，生态系统受损和生境破碎化严重，存在严重的生态系统退化和生物多样性丧失的风险，生态系统服务功能急需提升。

(2) The intensive tourism development in the urban area along the Yellow River poses a potential threat to ecological balance. Sanmenxia City and Luoyang City of the Yellow River basin in Henan Province are located in the transition zone from the northern subtropical zone to the warm temperate zone in PRC. They preserve the species diversity of the typical transition zone, and have high biodiversity conservation value. However, this zone is also a mineral development zone, with serious ecosystem damage and habitat fragmentation. There is a risk of serious ecosystem degradation and biodiversity loss, and the ecosystem service function needs to be improved urgently.



小浪底黄河三峡景区





技援概述 – 存在不足 Project Profile - Shortcomings

- **河南黄河流域现有生态修复与生物多样性保护理念、方法和技术体系有待完善。The existing ecological restoration and biodiversity protection concepts、methods and technology system in the Yellow River Basin of Henan Province and is yet to be improved.**
- 在生物多样性保护中，一方面，现有的生态修复与生物多样性方法和技术还有待完善，需要进一步加强以指导生物多样性工作实践。另一方面，顶层设计，因地制宜、分类施策的建设与管理模式还需要加强。
- In biodiversity conservation, on one hand, the existing ecological restoration and biodiversity conservation methods and technologies should be improved for the guidance on biodiversity conservation. On the other hand, The construction and management model of tailored and classified policies still needs to be strengthened.



黄河湿地修复，杨树林？



退鱼塘还湿地，黄河湿地



02生物多样性保护存在的管理挑战

Challenges faced by biodiversity conservation

- **法律和政策框架。**生物多样性保护法律和政策体系尚不完善。相关部门间的合作机制有待继续加强。The legal and policy system of biodiversity conservation is not perfect, The cooperation mechanism between relevant departments needs to be further strengthened.
- 生物多样性保护还没有主流化。公众参与保护的积极性不够高，对生物多样性的重要性认识不足，特别是对重要动植物资源保护意识不够强。Biodiversity conservation has not yet been mainstreamed. The public is not sufficiently aware of the importance of biodiversity, especially the awareness of protecting important plant and animal resources.
- 生物多样性基础调查、监测和评估能力有待提高。Biodiversity basic survey, monitoring and assessment capacity needs to be improved.
- **保护管理经费不足。**建设管理运行经费普遍缺乏，保护管理机构不完善，与其他职能存在交叉重叠，生物多样性保护工作强度大；生物多样性保护执法体制、机制尚未理顺，执法难度大；从事野生动植物保护的队伍薄弱，人员素质不能很好适应高质量生物多样性保护工作的要求。Insufficient funds for protection and management. There is a general lack of funds for construction management and operation, incomplete protection management institutions, overlapping with other functions, and a high intensity of biodiversity protection work; The law enforcement system and mechanism for biodiversity conservation have not been rationalized, making law enforcement difficult; The team engaged in wildlife conservation is weak, and the personnel quality cannot adapt well to the requirements of high-quality biodiversity conservation work.

4

生物多样性保护战略和行动计划

Biodiversity Conservation Strategy and Action Plan

01 背景

Background

中国幅员辽阔，陆海兼备，地貌和气候复杂多样，孕育了丰富而又独特的生态系统、物种和遗传多样性，是世界上生物多样性最丰富的国家之一。黄河流域是连接青藏高原、黄土高原、华北平原的生态廊道，拥有三江源、祁连山等多个国家公园和国家重点生态功能区，构成我国重要的生态屏障，支持着全球重要的生物多样性价值。河南省黄河地处黄河中下游，属我国西部山地、丘陵与东部平原的过渡地带，地理位置独特，生态系统多样，物种丰富，是迁徙候鸟的重要越冬地和停歇地。为进一步加强河南黄河流域的生物多样性保护工作，有效弥补区域生物多样性保护空缺，迎接新问题和新的挑战，亚行生态修复与生物多样性技援团队编制了《河南黄河流域生物多样性战略与行动计划》（2024-2030年，以下简称“行动计划”）。

Biodiversity is the sum of ecological complexes formed by living organisms (animals, plants, microorganisms) and the environment and the various ecological processes associated with them. Biodiversity is essential to human well-being, providing the foundation for human survival and development. The Yellow River basin is an ecological corridor connecting the Qinghai Tibet Plateau, the Loess Plateau and the North China Plain. It has many national parks and national key ecological functional areas such as the Three-River-Source National Park and the Qilian Mountains. It plays an important role in the PRC's ecological construction layout and constitutes an important ecological barrier in PRC. The Yellow River in Henan Province is located in the middle and lower reaches of the Yellow River, which is a transition zone between the mountainous hills in the west and the plains in the east of PRC, with a unique geographical location, diverse ecosystems and rich species, and is an important wintering ground and resting place for migratory birds. To strengthen the biodiversity conservation in the Yellow River basin in Henan Province and effectively respond to new issues and challenges of biodiversity conservation faced in the region, the Project has prepared the draft Biodiversity Strategy and Action Plan (BSAP) in the Yellow River Basin in Henan Province (2024-2030).

02 目的

Objective

在对项目区生物多样性的现状特点、物种保护情况、保护政策框架、自然资产和生态系统服务价值进行详细分析论述的基础上，本行动计划按照国家要求，结合河南黄河流域实际情况，提出了到2030年和2050年生物多样性保护行动目标，制定了河南黄河流域生物多样性保护策略、行动计划以及保障措施，为今后一段时期内河南黄河流域生物多样性保护工作的开展提供一定的参考价值 and 指导。

Based on a detailed analysis and discussion of the current characteristics of biodiversity, species conservation, conservation policy framework, and natural capital and ecosystem service values of the project area, the BSAP, in accordance with national requirements and in combination with the actual situation of the Yellow River basin in Henan Province, proposes action objectives for biodiversity conservation by 2030 and 2050, and strategies, action plans, and supporting measures for biodiversity conservation in the Yellow River basin of Henan Province. It will provide certain reference and guidance for the implementation of biodiversity conservation in the Yellow River basin of Henan Province in the future.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 指导思想 Guiding Ideology

以《黄河保护法》为遵循，立足黄河流域生态保护与高质量发展，坚持生态优先、绿色发展，以有效应对生物多样性面临的挑战、全面提升河南黄河流域生物多样性保护水平为目标，扎实推进生物多样性保护重大工程，持续加大监督和执法力度，进一步提高保护能力和管理水平，确保河南黄河流域重要生态系统、生物物种和生物遗传资源得到全面保护，将生物多样性保护理念融入生态文明建设全过程，共建万物和谐的美丽家园。

The overall goal is to achieve the conservation of key ecosystems, biological species and biological genetic resources in the Yellow River basin in Henan Province and integrate the concept of biodiversity conservation into the entire process of ecological civilization construction to build a harmonious home for all living beings, guided by the Yellow River Protection Law, based on ecological protection and high-quality development in the Yellow River basin, adhering to ecological priority and green development, aiming at effectively addressing the challenges facing biodiversity and comprehensively improving the level of biodiversity conservation in the Yellow River Basin in Henan Province, as well as through promoting major biodiversity conservation projects, continuing to increase supervision and law enforcement, and further improving the protection capacity and management level.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 基本原则Basic Principles

- **保护优先，持续恢复。** 牢固树立尊重自然、顺应自然、保护自然的生态文明理念，坚持保护优先、自然恢复为主。
- **Prioritize protection and continue restoration.** Respect nature and conservation first. It shall firmly establish the ecological civilization concept of respecting nature, responding to nature, protecting nature, adhere to the priority of protection, natural restoration.
- **健全体制，统筹推进。** 在河南省委、省政府的领导下，发挥统筹协调作用，完善年度工作调度机制。各有关单位各司其职，协调一致，密切配合，互通信息，有序推进河南黄河流域生物多样性保护工作。
- **Improve the system and make overall progress.** Under the leadership of the Henan Provincial Party Committee and the People's Government of Henan Province, improving the annual work scheduling mechanism. All relevant agencies should perform their respective duties, coordinate, cooperate closely, exchange information, and orderly promote the biodiversity conservation of the Yellow River basin in Henan Province.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 基本原则 Basic Principles

- **科学规划，合理利用。** 遵循科学规律，合理规划，促进河南黄河流域生物资源可持续利用，科学、合理和有序地利用河南黄河流域的生物资源。
- **Scientific plan and rational utilization.** It shall follow scientific laws, make reasonable planning, promote the sustainable utilization of biological resources in the Yellow River basin in Henan Province, and make scientific, reasonable and orderly utilization of biological resources in the Yellow River basin in Henan Province.
- **政府主导，多方参与。** 发挥河南省沿黄地区各级政府在生物多样性保护中的主导作用，加大管理、投入和监督力度，建立健全企事业单位、社会组织和公众参与生物多样性保护的长效机制，提高社会各界保护生物多样性的自觉性和参与度。
- **Government-led and multi-party participation.** It shall give full play to the leading role of governments at all levels in the biodiversity conservation along the Yellow River in Henan Province, increase management, investment and supervision efforts, establish and improve a long-term mechanism for enterprises, institutions, social organizations and the public to participate in the biodiversity conservation, improve the awareness and participation of all sectors of society in the biodiversity conservation.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略目标 Strategic Goals

- 到2030年，全面完成河南黄河流域生物多样性保护优先区域的本底调查与评估，构建河南黄河流域生物多样性监测网络和相对稳定的生物多样性保护空间格局，以自然保护区为基础的自然保护地占陆域面积的10.50%（现有的占10.20%），湿地保护率达到52.0%（现有的占50.0%），退塘还自然湿地4980公顷，国家重点保护野生动植物物种保护率达到97%，超过90%的陆地生态系统类型得到有效保护，形成生物多样性可持续利用机制，基本建立河南黄河流域生物多样性保护相关政策、法规、制度、标准和监测体系。
- By 2030, Henan Province fully complete the baseline survey and assessment of priority areas for biodiversity conservation in the Yellow River basin in Henan, builds a biodiversity monitoring network and a relatively stable spatial pattern for biodiversity conservation. The protected areas based on natural reserves accounts for 10.50% of the land area (the existing ones account for 10.20%), the wetland protection rate reaches, 52.0% (the existing ones account for 50.0%), and 4,980 hectares of the ponds are returned to natural wetlands, the protection rate of the number of species of wildlife under national key protection reaches 97%, more than 90% of the terrestrial ecosystem types are effectively protected, a mechanism for sustainable utilization of biodiversity is formed, and the relevant policies, regulations, systems, standards and monitoring systems for biodiversity conservation in the Yellow River basin in Henan Province are basically established.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略目标 Strategic Goals

- 到2050年，河南黄河流域生物多样性保护政策、法规、制度、标准和监测体系全面完善，形成统一有序的河南黄河流域生物多样性保护空间格局，森林、河湖、湿地等自然生态系统状况实现根本好转，自然保护地占河南黄河流域陆域国土面积的11.0%以上，典型生态系统、国家重点保护野生动植物物种、濒危野生动植物及其栖息地得到全面保护，生物遗传资源获取与惠益分享、可持续利用机制全面建立，保护生物多样性成为公民自觉行动，形成生物多样性保护推动绿色发展和人与自然和谐共生的良好局面。
- By 2050, the biodiversity conservation policies, regulations, systems, standards and monitoring systems in the Yellow River basin in Henan are comprehensively improved, a unified and orderly spatial pattern of biodiversity conservation in the Yellow River basin of Henan is formed. The condition of natural ecosystems such as forests, rivers, lakes and wetlands is fundamentally improved, the area of protected areas accounts for more than 11.0% of the land area of the Yellow River basin in Henan. Typical ecosystems, national key protection wildlife species, endangered wildlife and their habitats are comprehensively protected, the mechanism of access to biogenetic resources, benefit sharing and sustainable use is fully established. Biodiversity conservation becomes a conscious action of citizens, and a good situation of biodiversity conservation promoting green development and harmonious coexistence between human beings and nature is formed.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略任务 Strategic Tasks

1、完善生物多样性保护相关政策、法规和制度 Improve relevant biodiversity conservation policy, laws and regulations.

- 具体行动包括：4个行动，即（1）制定生物多样性保护和可持续利用的政策，（2）建立生物多样性保护与可持续利用的法规体系，（3）加快建立和完善生态补偿机制，（4）建立和完善生物多样性保护和管理机构，完善跨部门协调机制。
- Include 4 specific actions: (1) formulating policies for biodiversity conservation and sustainable use, (2) establishing a regulatory system for biodiversity conservation and sustainable use, (3) accelerating the establishment and improvement of ecological compensation mechanisms, (4) establishing and improving biodiversity conservation and management institutions, and improving cross-departmental coordination mechanisms.

2、推动生物多样性主流化，将生物多样性保护纳入其他行业（例如：农业、交通）相关规划 Promote the mainstreaming of biodiversity and integrate biodiversity conservation into the relevant planning of other sectors (such as agriculture and transportation)

- 具体行动包括：3个行动，即（1）加强生态环境和林业部门生物多样性主流化工作，将生物多样性保护纳入部门和区域规划；（2）建立重要生态功能区，划定生态保护红线；（3）加大生物多样性执法力度，遏止野生动植物资源破坏。
- Include 3 specific actions: (1) strengthening the mainstreaming of biodiversity in the ecology and environment and forestry agencies, and integrating biodiversity protection into sectoral and regional planning; (2) Establishing important ecological functional areas and delineating ecological protection red lines; (3) Strengthening biodiversity law enforcement efforts to curb the destruction of wildlife resources.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略任务 Strategic Tasks

3、优化保护地空间结构，增加自然生态系统连通性和完整性 Optimize the spatial structure of protected areas and increase the connectivity and integrity of natural ecosystems

- 具体行动包括：3个行动，即（1）加强生物多样性保护优先区域的保护；（2）加强自然保护地的连通性和完整性建设；（3）加强自然保护地外的重要物种及其生境的保护。
- Include 3 specific actions: (1) strengthening the protection of priority areas for biodiversity conservation; (2) Strengthening the connectivity and integrity construction of protection areas; (3) Strengthening the protection of important species and their habitats outside protected areas.

4、促进生物多样性保护与资源开发、利用和价值实现的协调 Promote the coordination between biodiversity conservation and resource development, utilization and value realization

- 具体行动包括：3个行动，即（1）开展生态系统价值评估和价值量化；（2）促进生物多样性资源的可持续利用；（4）推动生物多样性价值的实现。
- Include 3 specific actions: (1) conducting ecosystem value assessment and value quantification; (2) Promoting the sustainable use of biodiversity resources; (4) Promoting the realization of the value of biodiversity.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略任务 Strategic Tasks

5、加大生物多样性保护能力建设，提高应对生物多样性面临的新威胁和挑战的能力 Enhance capacity building for biodiversity conservation and improve the ability to respond to new threats and challenges that biodiversity faced

➤ 具体行动包括：3个行动，即（1）加强自然保护区的能力建设与可持续管理；（2）加强生物多样性保护与可持续利用人才的引进和培养；（3）制定生物多样性保护应对气候变化的行动计划。

Include 3 specific actions: (1) strengthening the capacity building and sustainable management of protection areas; (2) Strengthening the introduction and cultivation of talents for biodiversity conservation and sustainable utilization; (3) Developing an action plan for biodiversity conservation in response to climate change.

6、加强生物多样性本底调查和监测评估工作 Strengthen the background investigation and monitoring and evaluation of biodiversity

➤ 具体行动包括：4个行动，即（1）开展生物物种资源和生态系统本底调查，建设生物多样性保护基础信息；（2）开展生物多样性监测和预警，建立监测网络和专业队伍；（3）加强生物多样性保护信息共享平台建设；（4）开展生物多样性综合评估。

➤ Include 4 specific actions: (1) conducting a background survey of biological species resources and ecosystems, and building basic information for biodiversity conservation; (2) carrying out biodiversity monitoring and early warning, establishing monitoring networks and professional teams; (3) strengthening the construction of a biodiversity conservation information sharing platform; (4) conducting a comprehensive assessment of biodiversity.

04 生物多样性保护战略与行动计划

Biodiversity Conservation Strategy and Plan

■ 战略任务 Strategic Tasks

7、加强气候变化下水资源风险管控，维持生物多样性的韧性和恢复力 Strengthen the risk management and control of water resources under climate change and maintain the resilience of biodiversity

➤ 具体行动包括：4个行动，即（1）加强气候变化对水资源的影响评估和风险预估；（2）推进气候变化对优先物种和关键生物多样性区域影响的监测和评估；（3）加强水利工程运行的水文生态和环境影响监测；（4）制定实施生态流量保障方案，加强监管确保生态用水。

Include 4 specific actions: (1) strengthening the impact assessment and risk estimation of climate change on water resources; (2) promoting the monitoring and assessment of the impact of climate change on priority species and key biodiversity regions; (3) strengthening the monitoring of hydrological ecology and environmental impacts during the operation of water conservancy projects; (4) developing and implementing ecological flow guarantee plans, and strengthening supervision to ensure ecological water use.

8、加强社区生物多样性科普教育，提升公众参与能力 Strengthen science popularization education on biodiversity and improve the public participation mechanism

➤ 具体行动包括：3个行动，即（1）加强生物多样性科普教育工作；（2）建立公众广泛参与机制；（3）推动建立生物多样性保护伙伴关系。

➤ Include 3 specific actions: (1) strengthening biodiversity science popularization education; (2) establishing a mechanism for broad public participation; (3) promoting the establishment of partnerships for biodiversity conservation.

5

生物多样性保护优先区域

Priority Areas of Biodiversity Conservation

项目区生物多样性价值及保护识别

Biodiversity Values in the Project Area and Identification of Conservation Priorities

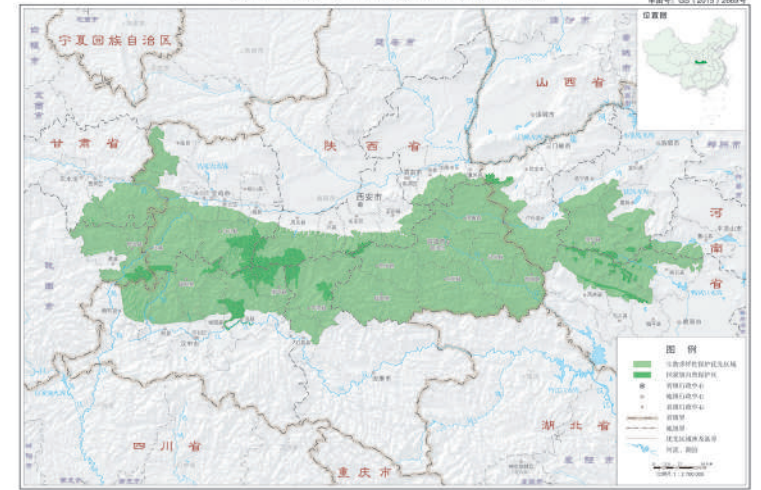
■ 优先保护区域 Area for priority protection

河南黄河流域位于具有重要生物多样性保护价值的区域内。在全球层面，WWF's Global 200 项目数据表明，作为地球上142个陆地生态区之一，中国西南温带森林包含了河南黄河流域的伏牛山、熊耳山、小秦岭等部分区域。Yellow River basin in Henan Province is located within the area with important biodiversity conservation value. At the international level, the World Wildlife Fund (WWF) Global 200 project shows that as one of the 142 terrestrial ecological regions on earth, temperate forests in Southwest PRC include some areas such as Funiu Mountain, Xiong'er Mountain and Xiaoqinling Mountain in the Yellow River basin of Henan Province

《中国生物多样性保护优先区域范围》（2015年）划定的35个生物多样性保护优先区域中，涉及黄河流域的有2个。这2个区域分别是太行山生物多样性保护优先区域和秦岭生物多样性保护优先区域。Among the 35 priority areas for biodiversity conservation defined in the Scope of Priority Areas for Biodiversity Conservation in China (2015), 2 involve the Yellow River Basin, which are Taihang Mountain priority areas for biodiversity conservation and Qingling priority areas for biodiversity conservation.

根据《河南省国土空间规划（2021-2035年）》，河南省规划建设小秦岭-伏牛山国家公园、太行山国家公园、大别山国家公园3处国家公园，其中前2个均在河南黄河流域，因此，该区域生态修复和保护意义重大。According to the Land and Spatial Planning of Henan Province (2021-2035), Henan Province plans to build three national parks: the Xiaoqinling-Funiu Mountain National Park, the Taihang Mountain National Park, and the Dabie Mountain National Park, with the first two located in the Yellow River Basin of Henan Province. Therefore, ecological restoration and protection in this region are of great significance.

秦岭生物多样性保护优先区域



06 河南黄河流域生物多样性保护优先区域

Priority Areas of Biodiversity Conservation

- 根据空缺分析，结合实际情况，综合判定，确定6个生物多样性保护优先区域，分别是**太行山生物多样性保护优先区域、小秦岭生物多样性保护优先区域、熊耳山生物多样性保护优先区域、伏牛山生物多样性保护优先区域、河南黄河湿地生物多样性保护优先区域、新乡黄河湿地鸟类生物多样性保护优先区域。**
- According to the natural environment condition of Henan Province, the characteristics of biodiversity and the direction of conservation and utilization, with reference to the previous gap analysis and considering the local context, six priority areas for biodiversity conservation were identified, which are **Taihang Mountain Biodiversity Conservation Priority Area, Xiaoqinling Biodiversity Conservation Priority Area, Xiong'er Mountain Biodiversity Conservation Priority Area, Funiu Mountain Biodiversity Conservation Priority Area, Henan Yellow River Wetland Biodiversity Conservation Priority Area, and Xinxiang Yellow River Wetland Bird Biodiversity Conservation Priority Area.**





06 河南黄河流域生物多样性保护优先区域

Priority Areas of Biodiversity Conservation

➤ 太行山生物多样性保护优先区域 Taihang Mountain Biodiversity Conservation Priority Area

该区域主要有河南太行山猕猴国家级自然保护区，是中国生物多样性保护优先区域范围中的“太行山生物多样性保护优先区域”的重要组成部分，该区森林是河南省太行山地唯一幸存的林相较好的天然森林植被，是重要的水源涵养林区。

The region mainly includes the Taihang Mountain Macaque National Nature Reserve in Henan Province. This area is an important part of the priority area for biodiversity conservation in Taihang Mountain, which is within the scope of priority areas for biodiversity conservation in PRC. The forest in this area is the only natural forest vegetation with good forest appearance that survives in Taihang Mountain in Henan Province, and is an important water conservation forest area.

➤ 小秦岭生物多样性保护优先区域 Xiaoqingling Biodiversity Conservation Priority Area

该区域含有小秦岭国家级自然保护区，是中国生物多样性保护优先区-秦岭生物多样性保护优先区的重要组成部分，地跨我国南北地理分界线，具有重要的生态系统功能。

The region mainly includes Xiaoqingling National Nature Reserve. This area is an important part of the Qinling biodiversity conservation priority area within the scope of PRC's biodiversity conservation priority area. It is located at the north-south geographical boundary of PRC and belongs to the temperate and warm temperate transition zone forest ecosystem.

➤ 熊耳山生物多样性保护优先区域 Xiong'er Mountain Biodiversity Conservation Priority Area

该区域含有洛阳熊耳山省级自然保护区，是中国生物多样性保护优先区域-秦岭生物多样性保护优先区域的重要组成部分，主要保护对象为暖温带与北亚热带过渡带森林生态系统和金钱豹、金雕、黑鹳、林麝等重要物种及其栖息地。

This area mainly includes Luoyang Xiong'er Mountain Provincial Nature Reserve, which is an important part of the Qinling Mountain biodiversity conservation priority area within the scope of PRC's biodiversity conservation priority area. The main protection objects are the comprehensive forest ecosystem in the transition zone, rare and endangered species, precious tree species and their living environment.

06 河南黄河流域生物多样性保护优先区域

Priority Areas of Biodiversity Conservation

➤ 伏牛山生物多样性保护优先区域 Funiu Mountain Biodiversity Conservation Priority Area

该区域包含伏牛山国家级自然保护区，是中国生物多样性保护优先区域范围中的秦岭生物多样性保护优先区域的重要组成部分，主要保护对象为过渡带综合性森林生态系统和银杏、红豆杉、豹、林麝、黑鹳、金雕、白肩雕、白尾海雕等重要物种及其栖息地。

This area mainly includes Funiu Mountain National Nature Reserve, which is an important part of the Qinling biodiversity conservation priority area within the scope of PRC's biodiversity conservation priority area.

➤ 河南黄河湿地生物多样性保护优先区域 Henan Yellow River Wetland Biodiversity Conservation Priority Areas

该区域含有河南黄河湿地国家级自然保护区，主要保护对象是三门峡水库、小浪底水库、黄河干流及周边湿地和珍稀濒危物种及其生存环境。

The region mainly includes Henan Yellow River Wetland National Nature Reserve. The main protected objects are Sanmenxia Reservoir, Xiaolangdi Reservoir, the main stream of the Yellow River and surrounding wetlands, rare and endangered species, precious tree species and their living environment.

➤ 新乡黄河湿地鸟类生物多样性保护优先区域 Xinxiang Yellow River Wetland Bird Biodiversity Conservation Priority Area

该区域含有新乡黄河湿地鸟类国家级自然保护区。主要保护对象为珍稀候鸟和栖息地，以及黄河下游特有的内陆湿地生态系统，重点保护对象是大鸨、鹤类、天鹅及其它珍稀水禽和湿地生态环境。

This area mainly includes Xinxiang Yellow River Wetland Bird National Nature Reserve. The main protection objects are rare migratory birds and habitats, as well as the unique inland wetland ecosystem in the lower reaches of the Yellow River, and the key protection objects are the *Otis tarda*, *Gruidae*, *Cygnus* and other rare waterbirds and wetland ecological environment.



青头潜鸭（新乡鸟类保护区）
Aythya baeri (Xinxiang Birds Reserve)

THE **END**

Thank you for your attention