

# Shanxi environmental project sets new standard



Protection of Lyuliang Mountains' ecology receiving direct support from State

By YUAN SHENGGAO

Sustainable development is gaining traction in North China's Shanxi province after a key provincial environmental project was included in a national program and won strong financial support from the State.

The Lyuliang Mountain and Water Project, aimed at protecting the ecological environment of the western region of the Lyuliang Mountains, was included on June's national list of key integrated protection and restoration projects for mountains, rivers, forests, farmland, lakes, grasslands and sandy areas. It will receive 2 billion yuan (\$275.15 million) of national financial support, according to an announcement by the Ministry of Finance on June 19.

Covering 14 counties, county-level cities and districts in the three prefecture-level cities of Lyuliang, Linfen, and Yuncheng, the project includes 62 subprojects, with a total investment of 5.51 billion yuan.

Zeng Bo, an official in charge of ecological restoration at the Shanxi Department of Natural Resources, said the provincial department has received the first allocation of funds, worth about 400 million yuan, from the Ministry of Finance and the money will be distributed to the 14 county-level locales after assessing their budgets. He said the significant support from the State will give a strong boost to the Lyuliang Mountain and Water Project.

"Upon its completion, we expect the project will increase the rate of soil erosion control by 10 percent, reduce the annual input of sediment into the Yellow River by 20 million metric tons, increase the area of forest and grassland by more than 3 percent, significantly enhance water con-



**Clockwise from top:** Tourists visit a sunflower farm in Guanjiabao township, Zuoyun county. RUAN YANG / FOR CHINA DAILY Decades of soil erosion control has turned the Yellow River a cleaner river. PROVIDED TO CHINA DAILY The Fenhe River has witnessed an improving environment over the recent decades. LI ZHAOMIN / FOR CHINA DAILY

servation capacity and effectively protect biodiversity in the western part of the Lyuliang Mountains," Zeng said.

The ecological protection and restoration initiative is a crucial part of Shanxi province's efforts in curbing soil erosion and building a demonstration zone for the environmental protection and high-quality development of the Yellow River drainage basin.

Located east of the Yellow River, the Lyuliang mountain range stretches about 400 kilometers in the west of Shanxi. The 5,464-km Yellow River, originating from Qinghai-Tibet Pla-

teau and emptying into Bohai Bay, is the second-longest river in China.

The Shanxi section of the Yellow River is 965 km in length. More than 73.1 percent of the land in Shanxi, covering 114,600 square kilometers across 11 cities, is included in the river's drainage basin.

As Shanxi is located on the Loess Plateau, soil erosion has been a challenge to the ecological environment for thousands of years. In the early 1950s, the area of erosion in Shanxi was 108,000 sq km — more than half of which, or 67,600 sq km, was in the Yellow River drainage basin. Soil erosion-induced annual sediment in the



river was 366 million tons during that period.

Shanxi launched its campaign to curb soil erosion in the 1950s and the pace has accelerated since 2012. After years of continuous efforts, 63 percent of the province's territory was freed from soil erosion by the end of 2022, according to the Shanxi Department of Ecology and Environment.

"The Lyuliang Mountains are a part of the Loess Plateau and many gullies in the mountains constitute the weakest link in local ecology," said Xue Xiangyang, mayor of Puxian, a county among the 14 locales for the Lyuliang Mountain and Water

Project. "A majority of the silt sediments are washed away from the gullies, especially in flooding seasons."

"Engineering measures, such as building level terraces and works for gully head protection, proved to be successful in erosion control. This is especially true in the mountainous areas."

The mayor said he has met with county officials in charge of land resources, water resources, forestry and environmental protection to finalize a budget for soil erosion control, land greening and other ecological restoration projects.

Improvement of the Fenhe River is

another important part of the local ecological protection and restoration program. The Fenhe is the second-largest river in Shanxi and the second-largest tributary of the Yellow River. It witnessed deterioration over the past century as a result of industrial pollution, decrease in water supply and reduction in vegetation coverage, but changes began to take place in the late 1990s.

The city of Taiyuan first launched an environmental improvement project for the river in 1998, with local authorities focusing their efforts on pollution control and increasing water supply to the river. This section of the Fenhe was initially revitalized in 2000 when water from an upper stream was continuously supplied to the main course in Taiyuan.

Other regions along the Fenhe followed Taiyuan's lead in taking action to improve the river, and Shanxi began a comprehensive environmental improvement program in 2017. A monitoring station at the Fenhe's estuary shows steady improvement in the river's water quality year-by-year. A rating below Class 4 has not been recorded at the station since June 2020, and 2022 statistics show the rate of Class 3 water quality reached 52.4 percent.

In China, Class 4 is the standard for water that can be used by industries and Class 3 is for water that can be used for irrigation and aquaculture. As a result of efforts to increase water supply and improve the environment, the Fenhe has once again become a scenic river with a pleasant environment.

In Shanxi, the improving ecological environment has brought visible benefits to residents.

Guanjiabao township in the northwestern Shanxi county of Zuoyun used to be one of the province's most challenging areas because of arid weather, but decades of greening efforts has transformed the township into an amiable place for residents and tourists alike.

Guanjiabao now boasts a vegetation coverage of 45 percent and has become a new check-in point for tourists thanks to its clear waters and green mountains near the Great Wall.

Kang Meixiang and Zhang Liyuan contributed to this story.

## Unique assets help to attract investment

By YUAN SHENGGAO

Officials in Shanxi province have learned that presenting unique selling points and highlighting local advantages are crucial to attracting and keeping long-term investors.

Bian Dan, an official at the investment bureau in the provincial capital of Taiyuan, recalled two unsuccessful cases earlier this year that promoted officials to rethink their pitch.

"We organized two promotion tours in Shanghai and Hangzhou in the first half of this year," Bian said. "We sent our invitations to targeted investors before we started, but only a few replied and even fewer showed up at the meetings. We wanted to draw in all kinds of investors but did not tell them what makes us stand out from other investment destinations."

A shift in strategy helped to attract investors by showing the comparative advantages of Taiyuan. "For example, we began to highlight our six industry clusters, each with an output value of more than 100 billion yuan (\$13.73 billion), in investment promotions," Bian said. "The scale of an industry is testimony to the fertile soil that makes it thrive, and the scale itself means huge opportunities for investors in the upstream and downstream of the chain."

The 100-billion-yuan mega industry clusters in Taiyuan include special metallic materials, new-generation information technology, new chemicals, advanced manufacturing, new energy and synthetic biology.

Bian also pointed out that unique policy incentives and tailored services are attractions for Taiyuan, by



Datong hosts an investment promotion fair in May to draw investors from Beijing, Tianjin and Hebei. MA JUNHUI / FOR CHINA DAILY

citing the case of investment by the Shanghai-based National Silicon Industry Group. In the negotiation stage, officials from Taiyuan told NSIG executives the city offers preferential electricity prices for emerging industry players, and ready-made standard plants to free startups from infrastructure construction allow for rapid operations. As a result, NSIG agreed in March to launch its semiconductor facility in Taiyuan.

In the northern Shanxi city of Datong, investment promotion officials are using its proximity to Beijing, Tianjin and Hebei province to attract investors.

"We are capitalizing on our proximity to draw investors from Beijing, Tianjin and Hebei," said an official in Datong. "The three regions are planning to transfer part of their production capacities to neighboring areas."

Datong statistics show the city has signed agreements for 49 projects with businesses in the three regions in the first half of this year, with a pledged total investment of 32.85 billion yuan.

The city also has a unique offering to small investors in its booming daily industry.

Daylily flowers are a popular food ingredient in China, and Shen Haijun, an official at the Datong investment promotion bureau, said the niche industry is showing strong growth potential as the city is one of the leading daylily production bases in China, with more than 170 enterprises engaged in the farming, pro-

cessing and sales of the produce. Revenue from the industry chain totaled 4.2 billion yuan in 2022.

Meanwhile, the central Shanxi city of Jinzhong is using local enterprises' success stories to attract investors from across the country.

Wang Peng, head of the Jinzhong investment services center, said the city is an important manufacturing base in Shanxi with competitive strengths in eight emerging industries, including advanced manufacturing, automobiles, new energy and new materials.

"When receiving investigation tours by investors, we show them the leading enterprises in the segments," Wang said. "Their interactions with leading local players help them directly identify investment opportunities in their own industry chains."

Geely Jinzhong, a branch company of renowned domestic automaker Geely, is one such enterprise. Its production facility began operations in 2016 and to date it has produced more than 478,000 vehicles — an output worth about 71.2 billion yuan.

A company executive said the success of the facility has led to the formation of an automotive industrial park.

"We have attracted 60 suppliers and 27 downstream enterprises to settle in this industrial park, and the scale of the park will continue to expand along with our growth in the future," the executive stated.

Yan Jie contributed to this story.

## Yangquan on mission to modernize all its industries through innovation

By YUAN SHENGGAO

The eastern Shanxi city of Yangquan is on track for high-quality development through a transformation that features the upgrading of traditional industries and cultivation of emerging industries.

An official at the Yangquan committee of the Communist Party of China said that the city is advancing an innovation-driven strategy to help its manufacturing industries, both traditional and emerging, toward advanced, intelligent and environmentally friendly operations.

One example of such transformation is local aluminum producer Zhaozheng Tiancheng.

The company used to be a major bauxite producer in Yangquan. It began to diversify years ago and has now expanded its operations into such fields as alumina, electrolytic aluminum and aluminum-magnesium alloy.

More recently, the company has begun to tap into the high-value-added sectors of the industry chain, producing deep-processed aluminum products for railway, automobile and household appliance industries.

One of its cutting-edge products

is 0.4-millimeter aluminum alloy foil. The product began volume production in June 2022, as a result of years of research and development.

A company executive said the product is mainly used in air conditioners. It has been sought-after in the market due to its performance in energy conservation.

Huayang Group is another example of traditional industry players' transformation.

The company was one of the leading coal-mining and power-generation companies in Yangquan. It began to diversify into the new energy industry about a decade ago.

Its subsidiary, Huachu Photovoltaic, is now a major supplier of solar power-generation and energy storage components to domestic solar power-generation companies.

"We have secured 68 orders to supply photovoltaic components with a total capacity of 1,637 megawatts since last year," said Wang Wei, general manager of Huachu Photovoltaic. "Nearly 90 percent of the orders are from our long-term partners like Huaneng, Huadian, State Power Investment and CHN Energy."



Solar power-generation and energy storage components are produced at Huachu Photovoltaic. PROVIDED TO CHINA DAILY

Using the latest digital and automation technologies to improve operational efficiency is another major trend for Yangquan's manufacturers.

Huanxin Electricity, for instance, is a Yangquan-based producer of roll-core coiling systems for transformers.

Cui Zhongbao, a technology executive at the company, recalled that wire coiling work was done by hand in the past.

"Now we are using digitally controlled, automatic coiling machines, which allow the making of a roll-core coil to be finished in 35 minutes," Cui said. "This is a huge improvement in efficiency compared to the 180 minutes in the past."

While investing heavily in advanced equipment, the company has channeled a total of 40 million yuan (\$5.5 million) in R&D over the past three years.

The production of refractory materials, which involve the process of firing in kilns, used to be a major source of pollution because of the emissions.

But the Xixiaoping Refractory, a company in Yuxian county in Yangquan, is showing that production can be environmentally friendly with the use of emission-reduction equipment and technologies.

According to Zhang Ruizhong, an executive of the company, Xixiaoping Refractory has invested a total of 80 million yuan in environmental protection over the past few years.

"We have installed denitration systems for all our 13 kilns," Zhang said. "At present, the emission of nitrogen oxide was reduced to 50 milligrams per cubic meter from the previous 200 mg."

He added that its emissions of other pollutants have all reached national standards.

Bai Xuefeng contributed to this story.