



The Shanxi Transformation and Comprehensive Reform Demonstration Zone is an important powerhouse for Shanxi's high-tech development. WANG PEI / FOR CHINA DAILY

# Technology leading products devised at Shanxi reform zone

Range of enterprises encouraged to innovate thanks to support services provided by local government

By YUAN SHENGGAO

When business visitors arrive in the Shanxi Transformation and Comprehensive Reform Demonstration Zone, their first stop is usually an exhibition hall in the zone's administrative committee building.

As the hall is a showcase of the latest products and technologies in the zone, it is the right place for visitors to identify potential partners.

Many of the visitors said they are amazed with the exhibits, because many represent the highest level of Shanxi's manufacturing industries.

The exhibits include the world's thinnest broadsheet stainless steel foil produced by Taiyuan Iron and Steel Group; silica mono-crystal substrate produced by the Shanxi branch of China Electronics Technology Group; and recombined human collagen developed by Jinbo Biology.

With a history shorter than six years, the Shanxi Transformation and Comprehensive Reform Demonstration Zone has rapidly grown into an important powerhouse for the province's high-tech development.

The establishment is sited between the cities of Taiyuan and Jinzhong. Founded in November 2016, it aims to offer a base for Shanxi's industrial transformation, which is about reducing reliance on coal mining and fostering emerging and high-tech industries as new growth engines.

When asked why this young industrial zone can achieve such a development miracle, local officials say it is the enterprising spirit of entrepreneurs that makes this happen. But



entrepreneurs attribute the achievements to the efficient and professional services provided by the officials.

Jinbo Biology, for instance, is often referred to as a role model of enterprising and trailblazing spirits by local officials.

When showing visitors to the exhibition hall, officials would highlight a bottle of recombined human-origin collagen, explaining its significance in the biomedicine industry.

Officials said this exhibit is among the most remarkable because of its globally advanced level.

Yang Xia, founder and board chairwoman of Jinbo Biology, said the company is the only enterprise in the world that mass-produces the medicine. It won sale approval from the National Medical Products Administration in June 2021.

"Unlike other industries, the research and development of new medicines needs more time — at least 10 years," Yang said. "This requires a company to consistently invest in R&D and continuously improve its innovative strength."

However, even with huge amounts of investment, the success rate of new medicine development is only about 10 percent, Yang said.

"In the R&D of our latest recombined human-origin collagen, we made our breakthrough in the lab after numerous failures over more

than 1,000 days," Yang said. "It takes a couple of years to commercialize the lab results and another couple of years to realize mass production."

For the commercialization of new medicines, Jinbo Biology invested about 250 million yuan (\$38.6 million) in building a technology commercialization center.

"With this center, we can develop medicines that can be applied to different scenarios ranging from surgery, gynecology and dermatology to skin care cosmetics," Yang explained.

Despite the huge investment and uncertainty in the long R&D period, Yang said she is still optimistic about the biomedicine industry in Shanxi. This is because the market environment is friendly thanks to strong support from the government.

She said she is especially grateful for the professional, considerate and highly efficient services provided by the zone's administrative committee.

Yang's opinion is shared by Miao Yunzhan, deputy general manager of Huayang Jolywood.

Huayang Jolywood is a company focusing on the development and production of photovoltaic cells and components.

"It took about two months to complete all the procedures to keep our project running, from negotiation and agreement signing to plant construction," Miao said.

Miao also praised the zone's infrastructure for industrial development. He noted there is a 110-kilovolt power substation near the company's production plant.

"Production of photovoltaic cells is an electricity-consuming industry

and the substation can ensure a stable power supply," Miao said.

He added that the company enjoys a preferential power supply price, which is part of the local government's incentives for "strategic emerging industries." "The preferential price can help us save more than 240 million yuan a year," Miao said.

Huayang Jolywood launched its first-phase project for the production of 16-gigawatt, high-performance photovoltaic cells in July 2021. Construction of the project has been completed and production will begin at the end of this month.

"Our second-phase project will also be completed in the second half of this year," Miao said. "Upon full operation, we will have an annual capacity to produce 10 billion yuan worth of high-performance photovoltaic cells."

The executive added that the facility is expected to create more than 2,600 jobs.

Authorities in the demonstration zone are now creating an administrative framework to support project construction and the operations of local businesses. Efforts include shortening the approval time for new projects and offering tailored, whole-process services to support business growth.

The zone's enterprises reported a year-on-year increase of 15.9 percent in combined output value during the first quarter, according to Zhang Xiaopeng, an official at the zone's administrative service bureau.

Guo Yanjie contributed to this story.

# Housing campaign raises provincial quality of life

By YUAN SHENGGAO

Owning a safe and comfortable residence is the dream of many rural residents in Shanxi province, and that dream is becoming a reality thanks to a provincewide rural housing development and renovation campaign which has been implemented in recent years.

Dragging his impaired leg, Cheng Jianchang, a resident in the village of Xinxian in Wenshui county, visits a new construction site in the village at least once a day, becoming increasingly excited when seeing that the houses are nearing completion.

Cheng has lived in a rundown mud house for decades. As he is a member of a low-income family, he said he couldn't afford to build a new house on his own, although he wanted to live in a new one.

And then an affordable housing project was launched in the village. With investment from both the government and himself, he became eligible to own a new house at a very low price.

Zhang Shanbao, a resident in Xindian village in the same county, is similarly as excited as Cheng.

He is the only one supporting his family, which includes his wife who is mentally impaired, a son with a physical disability, and two daughters in school. Because of their low income, the family had to live in a mud adobe house with a floor space of merely 20 square meters.

"Thanks to the housing renovation project launched by the county government, our house was upgraded to a spacious, brick and wood-structured new residence in 2020," Zhang said. "We paid only a very small proportion of the construction costs."

The county government of Wenshui began to implement a rural housing improvement program in 2009. Since then, it has allocated a total of 164.24 million yuan (\$24.46 million) for the program, building or renovating houses, or subsidizing residents when they build houses with their own resources.

According to local officials, the program focuses on improving housing for families with financial and other difficulties. Renovating unsafe houses is another priority.

Over the past 13 years, the program in Wenshui has benefited more than 40,000 rural residents in more than 13,000 households.

In Shanxi as a whole, the province has seen the construction and renovation of residences for about 672,000 rural families during the period from 2013-21, involving a total investment of nearly 8.7 billion yuan from governments at various levels. A total of 2 million rural residents have benefited from the program, according to the Shanxi Department of Housing and Urban-Rural Development.

Han Linfang contributed to this story.



The village of Songshuping in Zuoquan county shows a splash of color after a renovation project. SUN RUISENG / CHINA DAILY

# Environmental projects aim to spur jobs growth

By YUAN SHENGGAO

Liu Feng, a resident of Pianliang village in Shanxi's Yushe county, said it is fortunate to live by a picturesque lake.

The lake he is referring to is Yunzhu, a large reservoir in the southwest of Yushe, which was created in the early 1960s.

Covering 1,416 hectares, and boasting four wetland parks and more than 30 scenic attractions, Yunzhu Lake is one of the top tourist destinations in the county.

Liu operates a bed-and-breakfast business in his village. Thanks to growing numbers of tourists, the business generated an annual net income of more than 100,000 yuan (\$14,890) for his family in recent years.

"Yunzhu was not a tourist destination at the beginning," Liu said. "It became one several years ago after the county government invested nearly 1 billion yuan in local environmental improvements and landscaping."

He said there are hundreds of people involved in the tourism industry after the lake and its vicinity became a tourist destination.

According to an official at the county government of Yushe, the government's investment in Yunzhu Lake targets both improving the environment and creating business and job opportunities for locals.

He said the government is adopting a comprehensive approach for its development, especially in the areas of poverty alleviation and rural vitalization.

Another example of the comprehensive approach is a poverty allevi-

ation relocation program that started several years ago. Nearly 10,000 residents who used to live in landlocked, mountainous areas have been relocated to new settlements with better living conditions and more job and business opportunities.

The family of Li Yanxia, who used to live in the mountainous village of Beizaolin, for instance, was relocated to a new settlement in the county seat in 2019.

After the relocation, Li said what makes her happy is not only her comfortable and spacious new house, but the easy availability of jobs.

An industrial park for the purpose of poverty alleviation has been established in the vicinity of her new settlement. She is now working at a garment factory, with a monthly salary of more than 2,500 yuan.

According to the county's rural revitalization administration, the government has invested a total of 27.75 million yuan in developing industrial facilities for poverty alleviation. With a growing number of businesses, relocated residents can be more easily employed in their neighborhoods.

Modern farming is another major source of employment and revenue for local residents.

In Xima village, for instance, there are more than 170 greenhouses for growing vegetables and fruit.

"The greenhouses have offered jobs to 91 households, constituting the largest source of revenue in Xima," said Zhang Shuai, Party secretary of the village.

Wu Jia contributed to this story.



Yunzhu Lake is a major tourist destination in the county of Yushe. LI SHU / FOR CHINA DAILY



From left: Miaobaobao's seedling-cultivating technologies are used in a tree-planting project in the desert of Ejine Banner in the Inner Mongolia autonomous region. Miaobaobao's chairman Cheng Guang (left) meets with Mongolian Ambassador to China Badral Tuvshin in Beijing earlier this year. PHOTOS BY WU JIA / FOR CHINA DAILY



# Ecological recovery company delivers greener future

By YUAN SHENGGAO

Cheng Guang, board chairman of Shanxi-based Miaobaobao Environmental Technology, received a letter from the governor of South Gobi Province of Mongolia on June 6, asking the company to arrange a tour of the province for collaborations in ecological repair.

South Gobi is a southern Mongolian province that has faced severe desertification in recent years. Local authorities are making efforts to address the challenge by repairing the ecology through growing grasses and trees.

Miaobaobao was recommended to the South Gobi government by diplomats at the Mongolian embassy in Beijing earlier last year, after hearing that the company's greening solution has been widely used in China's arid regions for combating desertification, according to Cheng.

"With the help of the Mongolian

embassy, we have held several talks with officials in South Gobi since the beginning of this year," Cheng said. "We have reached the intention for cooperation after the talks."

If a cooperation agreement can be signed, this will signify a milestone for the company's global operations, Cheng said.

According to the executive, Miaobaobao's solution for ecological recovery is simple and effective. And this simplicity and effectiveness make it possible for the solution to be adopted in many regions in China.

He said the solution involves the production of seedling containers like pots from crop stalks and the use of the containers as cultivation bases for plant seedlings.

"We only need to put the seedling-cultivating pots in the soil," Cheng said. "Seedlings in the pots can grow better than those directly planted in the soil."

He explained that the pots can

help to retain water or moisture, while also helping seedling roots breathe with their good air permeability. He added that the biobased pot is also a kind of nutrition for the plants before it is totally degraded.

Miaobaobao's solution has been used in many ecological repair projects in China.

One example is the greening project in the Xishan area in the Shanxi provincial capital of Taiyuan.

Xishan used to be a coal-mining site, with the ecological environment severely damaged by coal-cutting and randomly abandoned coal refuse.

"It is almost impossible for plant seedlings to grow in an area filled with stones and coal gangues," Cheng said. "But the problem was solved with our seedling pots."

The project was launched in 2013. And nine years later, the pine seedlings have grown into a forest.

Other successful cases have also been reported in the desert in Ejine

Banner in the Inner Mongolia autonomous region, and a number of deserted mining sites in Shanxi and the rest of the country.

"We have developed a range of patented seedling-cultivating containers to suit various natural conditions," Cheng said. "In arid areas like deserts, for instance, we use seedling-cultivating pipes to help the roots reach the depth of the soil."

Cheng said Miaobaobao also brings other environmental benefits.

One of the benefits is the recycling of crop stalks.

"It is a common practice in rural China to burn stalks after harvest," Cheng said. "This can lead to severe air pollution."

Now the company purchases crop stalks for its production, offering another source of income to farmers, Cheng said.

Wu Jia contributed to this story.