

Desertification control in Youyu County, Shanxi Province

1. Title

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2. Case Background

Youyu County covers 1969km² in Shanxi Province with an average altitude of 1400m, where belongs to a cold and arid zone. It lies in the northwest of Shanxi Province with worse natural conditions, the average annual temperature is 4.2°C, and the lowest extreme temperature is -40.14°C.

The climate is dry with little rain in normal year, and the average annual rainfall is less than 400mm. Before the founding of the People's Republic of China, there were only 8,000 mu of remnant forest in the county. Desertification land accounts for 76% of the area. Ecological environment was harsh and frequent natural disasters occurred. After the founding of new China, especially the state key forestry ecological projects (“Three-North Shelterbelt” and “Grain for Green Project”), which have been implemented since then. Under the successive leadership of Youyu County Party Committee and County Government presidents, Youyu people promote the spirit of respecting science, perseverance and hard-struggle. They threw themselves into the afforestation and the improvement of ecological environment by persistence in the last 70 years, who created an amazing ecological construction miracle.

3. Implementation Time

Since our new China founded.

4. Implementation Phase

In the early 1950s, Youyu County began to control desertification and initiate afforestation. Through its efforts over the past 20 years, it laid a

foundation for changing the harsh ecological environment. Since the reform and opening-up, it depends on key ecological projects, such as the “Three-North Shelterbelt System”, “Beijing-Tianjin Sandstorm Control Project”, “natural forest protection” and “Grain for Green Project”. We have combined ecological construction with economic transformation, rural revitalization with the development of green industries, respect the laws of nature, plan the layout of the system, and ecological development for a scientific implementation.

5. Case Implementation of the Relevant Parties

National Forestry and Grassland Administration, P.R.China; Shanxi Forestry and Grassland Department; Youyu County Government and relevant departments, and the broad masses of the people in the County.

6. Beneficiaries

All units and the broad masses of the people in Youyu County.

7. Total Investment and Capital Composition

In Youyu County of Shanxi Province, the investment of ecological civilization construction includes central and local government funds, enterprise investment, and peasants in investing with their labor, etc. The specific data are unknown.

8. Project Hierarchy

State and Local governments.

9. Mitigation and adaptation on the effects of Climate Change

After 70 years, through the persistent efforts to desertification control and afforestation, the ecological situation has been greatly improved in Youyu County. The barren land covered with yellow sand has become an oasis. It has been basically formed a broadleaf-conifer ecological shelterbelt system with the combination of trees, shrubs and grass in the form of reticulation, ribbon and flake. The existing forest area is 1.7 million mu, and the forest greening rate has increased from less than 0.3% at the beginning of

the founding of the People's Republic of China to 54% now. The structure of forest species has been optimized and the quality of forest and grassland has been improved. The area of desertification land was reduced from 2.25 million mu to 935,600 mu. In the 1960s and 1970s, sand and dust weather was reduced from 20.3d to 1.5d per year during 2011-2018, the capacity of mitigation and adaptation to climate change has been significantly enhanced.

10. Social, Economic and Environmental Impacts

Over the years, farmers and herdsman have gained income through afforestation, seedling, management and protection, and resource utilization. In 2017, 19 poverty alleviation afforestation cooperatives assigned reforestation task of 14,000 mu to 323 poor people, who reached 3,100 yuan per capita income. With the continuous increase of forest and grass resources, it has driven the development of ecological industry and promoted the adjustment of local industrial structure. From January to July in 2018, the whole county received 1,253,900 tourists with a year-on-year growth of 31.33%, and the tourism revenue reached 1,178 billion yuan with a year-on-year growth of 28.21%. The leading processing enterprise as the main raw material of sea buckthorn promotes the economic development of the county. The county has 280,000 mu of sea buckthorn shrubs now, including 12 sea buckthorn processing enterprises such as Huiyuan Juice and Shanxi Saishang oasis co., LTD., with an annual output of 30,000 tons of drinks, cans, sea buckthorn oil and other products, and an output value of more than 200 million yuan. At present, effective ways are further explored various aspects of forest health, characteristic planting industry and sports industry, for the transformation from green mountains and clear water to mountains of gold and silver in Youyu County.

11. Photos and Diagrams related to the Case



Fig.1 Past Qiantou River in Youyu County



Fig.2 Youyu County in the past



Fig.3 Youyu County had been suffered the wind and sand, people's lives are very hard in the past.



Fig.4 Youyu County toady



Fig.5 Cangtou River of Youyu County toady



Fig.6 Cangtou River of Youyu County toady



Fig.7 Xiaonanshan Park of Youyu County toady (I)



Fig.8 Xiaonanshan Park of Youyu County today (II)