

同慶 李/徐 2013.3.20

Annual Project Report

[Ningxia Anti-desertification and Livelihood Improvement]
[2013/2/20]

Basic Project Information

Project Title: Ningxia Anti-desertification and Livelihood Improvement	
UNDP Award ID	00060620
UNDP Project ID	00076400
Project Duration	September 2010—December 2015
Reporting Period	2012
Total Approved Project Budget	USD \$ 1,0500,000
Participating UN agencies	
Implementing Partners/	CICETE
National collaborating agencies	
International collaborating agencies	
Cost-sharing third parties	
UNDP Contact officer	Lu Yibin
Project website	

同慶 for CICETE
李/徐 UNDP

Executive Summary

The project aims to assist the efforts of the Ningxia Hui Autonomous Regional Government to better manage the sand control initiatives and improve the livelihood of the selected arid and desert affected regions of Ningxia in the process of combating land degradation and desertification. Specific emphases will be given to initiatives which strike the harmony of human activities and environment sustainability. This will be done through the combination of eco-system regeneration, human capacity building and a green entrepreneurship.

2012 saw concrete progress in sustainable land use in arid areas of Zhongwei. Pilot of alternative land use pattern in the old gravel-mulched water melon land in Zhongwei achieved successful result. Sustainable use of the old water melon land in Zhongwei will benefit thousands of households whose income would negatively impacted by the land degradation. Relevant study on water resource management in the pilot area was also conducted in 2012, which reinforces the land use pattern selected in the pilot area.

Farmer associations, marketing cooperatives and community-based cooperative finance are thriving in the project areas. These organic structures of farmers organization provides marketing service, supply service and equal accession to finance. The farmer associations bring profound social benefits including rectification of unfavorable market conditions, improvement of terms of trade and improve prosperity of the group of small holders.

The pilot results need to be well documented and scaled up in the next stage of the project.

1. Background

Development Context

In the 12th five-year plan period, Ningxia attaches more attention on shelter function of the middle area of Ningxia, where the project areas are located. Ecosystem management and payment for ecological services will be strengthened in the next five years. Ningxia is the first national level demonstration area in combating desertification, and is holding the national level China-Arab States Economic and Trade Forum annually starting from 2010. The province is in a very good position to disseminate Ningxia/China's experiences in desertification treatment and prevention.

Project Objectives and Strategy

34.6% of China's area is prone to desertification. Ningxia Hui Autonomous Region is epitome of it surrounded by deserts namely Tenggeli, Wulanbu and Maowusu in its west, north and east, respectively. Desertification has devoured 55.8%, or 2.89 million hectares of Ningxia's total terrain, with additional 1.21 million hectares grassland and 132,000 hectares farmland are under the threat of desertification. The livelihood of inhabitant in 13 cities, 40 townships and 600 villages has been severely affected and the region's vulnerable natural environment is also at stake. Ningxia is one of the major sources of sandstorms which devastated northern China.

80% of the poverty counties in China are located in the areas with fragile ecosystem, accommodating 81% of the poverty people in China. One of the biggest challenges for poverty reduction in this area is to break the vicious circle of land degradation/poverty downward spiral, in which the poor are both agents and victims in the process.

Facing the challenges of fragile living and ecological condition in proposed project areas, Zhongwei City and Yanchi County, the main objective of the project is to improve the way to ensure livelihood improvement in environmentally friendly manner to balance economic and ecological benefits and build up a knowledge platform in Ningxia to consolidate and share good practices in integrated development in arid and desert areas, and promote south-south cooperation in the area.

The project will consolidate and demonstrate desertification prevention initiatives and strengthen related policy development and implementation capability to the benefit of Ningxia. The immediate project focus will be on protecting the fragile ecosystems of the Tengelli Desert, Maowusu Desert, Central Arid and Sandy Highland of Zhongwei and Liuyaotou Watershed while also improve the livelihood of the inhabitants in these regions. The project's mid-term objectives are to develop a sustainable sand-based industry and diversify economic activities in the project areas from traditional subsistence farming to a mosaic of value-added products, tourism and knowledge based market economy and strike the balance of economic and ecological benefits.

2. Key Results

area. Caragana intermedia, Tops, Scoparium, Hedysanm, Salix, Tamarisk, and other species are selected and relevant plantation skills are introduced to local farmers. Some of the activities are quite successful and could provide good practices for other desertified areas with annual average rainfall below 300mm.

The project strengthens development of farmers' associations in Zhongwei and Yanchi to enhance market accession, technology extension and risk mitigation. Village Mutual Financial Cooperative as a new type financial initiative is also fostered in 8 villages of the project area to promote financial inclusion for the poor

Project Outcomes

Outcome 1: Capacity Development to improve inter-sectoral collaboration in ecological management and poverty reduction

Outcome 2: Local Pilots for Sustainable Sand-based industry Development

Outcome 3: Knowledge Platform and Policy Development

Outputs

Output 1: An efficient and effective consultation and participatory decision-making network of cross government departments, research institutions and industries is established for strategic planning and management of the project. Human resource capacities through training in Sand control, sustainable development and effective extension enhanced.

The project steering committee and project management office have been set up and functioned well in project management and coordination of cross-departmental initiatives.

The project provided trainings on watershed management, low pressure pipe irrigation, drip irrigation, afforestation technology, and treatment of fixed and semi-fixed dunes were given in Yanchi with 1100 participants including 342 females which account for 31%. Training courses in greenhouse production, fruit trees, water conservancy, and shelterbelt were given in Zhongwei with 1630 participants including 719 females which account for 44%.

Two Farmer Service Centers were built up in Zhongwei. Through the service centers, 70 new varieties of vegetables and 31 fruit tree seedlings were introduced. The centers

also opened demonstration garden of 200 mu to facilitate learning and exchange of farmers organizations and market intermediates

The PMO organized site visits to Gansu and Xinjiang for learning and experience sharing participated by project staff and technical task force of the two project sites.

The Water Melon Association of Zhongwei established business relationship with 12 companies and set up 500 sales outlets nationwide. Farmer Association of Salix was set up in Haojitai Village with 230 households as members (accounting for 80% of total households in the village). The association provides organizes members in Salix plantation, by-product processing and sales service. Salix woven products are well sold in the market, which contributes a lot in income generation of the members in the association.

Village Mutual Financial Cooperative develops well in Haojitao village Qingshan Township. The financial cooperative got seed funding from poverty reduction budget and member farmers contribute shares in the cooperative and equal borrow opportunity. The type of financial cooperative is spread out in all 8 villages of Qingshan Township.

Output 2 Local Pilot

Yanchi County mobilized local residence of Liuyaotou watershed to conduct desert treatment activities. In the period of last year, the new desert control area is 14.15km², including grazing control area 480hm², shrubbery 763.5 hm², straw checkerboard 130 hm², fruit tree and grass 29.5 hm². In cooperation with research institutes of national and local level, some new model of sand control have been explored including selection of resilience species, integrated management of desertified land and sustainable agricultural development in desertified area. Caragana intermedia, Tops, Scoparium, Hedysanm, Salix, Tamarisk, and other species are selected and relevant plantation skills are introduced to local farmers. Some of the activities are quite successful and could provide good practices for other desertified areas with annual average rainfall of 300mm.

Yanchi County supports local farmers in Caragana processing. Stump of the shrubbery can be used for feed processing. Alfalfa intercropping supplements fodder supply. These initiatives ensure increasing of livestock, and resolve the conflict between grazing control and husbandry development.

Yanchi also conducted trial planting of cotton and Haloxylon. 5mu cotton was planted in Chentitan Irrigation area, and 400mu (26.7 ha)Haloxylon was planted in arid land of Yangloupu. Owing to short frost-free period and water shortage, cotton is not matured. Drip irrigation system is placed in the field of Haloxylon to ensure survival rate of 92%. It is estimated the Haloxylon will grow up in three years. After grown-up, Cistanche (desert ginseng) grafting will be conducted.

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In Tengli Desert treatment area of Zhongwei, shelterbelt with an area of 3500 mu is built with 3.85 million trees. Straw checkerboards with 80cm*80cm dimension are built to fix move sand dunes and potato is also planted in the straw checkerboard with support of drip irrigation facilities. 100 vegetable greenhouses and 300 honey melon greenhouses are built in Xiangsha village and 120 mu small greenhouse for water melon transplanting is also built in Luoquan village Shapotou. Transplanted water melon in greenhouses matures 20 days earlier than those in the gravel mulched land.

Rotation crops and other experiments are taken in old water melon land in order to find a feasible way of sustainable use of the land. All the experiments are well analyzed and documented in the report of Sustainable Use of the Old Gravel-mulched Water Melon Land. Irrigation is of vital importance to development of water melon in the arid area of Zhongwei. Study on Irrigation of Gravel-mulched Water Melon Land was taken to solve existing irrigation issues and make recommendation for future development.

The UNDP project is also a demonstration site of new species and service center for local farmers and farmer associations. The project site of Zhongwei is one of the 100 modern agriculture demonstration sites in Ningxia Province, with 1200 greenhouses and 1200 mu vegetable and flower land. The municipal technical service extension centers draw on this project area to deliver services to local farmers.

Output 3 Knowledge products

Two studies were finished in 2012, i.e. Sustainable Use of the Old Gravel-mulched Water Melon Land, and Study on Irrigation of Gravel-mulched Water Melon Land. Yanchi County Desert Control Plan, which will replace the Liuyaotou Watershed Management Plan, has also been contracted to the qualified research institute. A GIS System for Zhongwei and Yanchi Desert Control will also be started in 2012. All these research and tools will be a solid foundation for further policy recommendation.

Sustainability

The outputs of the project will strengthen capacity of the local beneficiaries in income generation. The sustainable land use pattern in degraded arid land areas will promote productivity of the land. Emerged farmer associations will be organization skeleton to promote technology extension, marketing service, supply service, and financial service. Evidences show that farmer income in Yanchi increased by 515 Yuan in 2012 with year on year growth rate of 14.1%. Ecological restoration in Yanchi also gained satisfactory results. Total forest coverage of Yanchi reached 30% in 2012, and vegetation coverage rate hit 70% in the same year. Yanchi with its practices achieves the historical transformation in keeping the sand back.

Project activities in Zhongwei combine environmental approaches (shelter belt construction, optimized land use) and engineering structures (greenhouses and water supply in desert area). Sustainable land use pattern in Zhongwei arid areas will demonstrate income generation initiatives in the process of climate change adaptation.

Partnership Effectiveness

The project brings together government agencies, private enterprises, farmer associations and scientific research institutions. The national level China–Arab State Economic and Trade Forum provides a good opportunity to spread out Ningxia’s experience in desertification control.

Cross-cutting Issues

The project is balancing environmental and ecological restoration with livelihood improvement initiatives. Women in the project areas are actively participating in the training and production activities. Ecological condition in the project areas is improving and income level of local household is increasing. Project activities are making positive externalities both environmentally and socially.

3. Project Management and Oversight

The project has brought some benefit to farmers’ livelihood. It is recommended the PMO should survey some good cases and record how farmers’ livelihood is improved in the project. The project also fosters grow-up of farmer associations, which also needs to be well documented in the next year.

Yanchi and Zhongwei are frontline of anti-desertification of Ningxia. It is also recommended some policy suggestions will be made next year to make contribution to sand control of Ningxia in the 12th five-year plan period.

The parties of the project satisfied with the project implementation in 2012. The project activities linked with government’s work and contributed to sand control and livelihood improvement.

The key research outputs of the year 2012 should be further improved in line with the recommendation made in the consultation workshop. It is agreed that a consultant team of the project will refine the key knowledge products of the project and translated into English for dissemination. More ways of advocacy need to be explored including workshops, newspaper columns, website and TV advocacy, etc.

Implementation status

The project is implemented smoothly and yields satisfactory outputs. Project management functions well. The project activities are useful in strengthening capacity of project participants. Training sessions for farmers promote farmers' participation and enhance their awareness of sand control and sustainable livelihood improvement. The sub-contracted research tasks are well proceeded and serve as technical support to farming practices and policy development. Some research results could be very good reference for other arid areas.

Monitoring and Evaluation

Monitoring and evaluation has been made according to annual work plan with earmarked budget in forms of field visit and review meetings. Project review meeting participated by all project partners has been held annually since start of the project. Field visits are made after or before the review meeting to get concrete findings on sites.

Human Resource Management

Project management office recruits qualified project management staff. The project management office gets tremendous support from the government at provincial, city and county level. Top scientific research institutes and experts are contracted to fulfill research and consultancy services.

Risk management

New regulation issued by national authority regarding the oversea study tour may affect study tours organized by the project.

New vegetation yield of Ouli in the arid land may meet some market risk in the initial stage. Some necessary preemptive measures should be made to avoid possible loss suffered by farmers. These measures may include small scale pilot and market promotion to publicize the new products. In the next stage, when the new product is proven in the market, interest sharing mechanism with equity should be set up among the farmers and private sector.

Communication and advocacy

It is agreed that a consultant team of the project will refine the key knowledge products of the project and translated into English for dissemination. More ways of advocacy need to be explored including workshops, newspaper columns, website and TV advocacy, etc.

4. Financial Management

Expenditure Vs. Approved project budget by source of funding	Source of Fund	Approved Budget (US\$)	Expenditure(US\$)
	UNDP	150633	147,253
	Government Cost Sharing	920,000	797,304.54
	Third Party Cost-sharing	N/A	
	Other (please specify)	N/A	
	Total	1,070,633	944,557.07

Output	Source of Funding	Budget Description	Annual Budget (USD)	Annual Expenditure (USD)	Note
Output 1	04000	Management, learning, training, reporting	38,300	38,373	
Output 2	30071 04000	Training, researching	140,000 91,633	9,403 88,831	
Output 3	30071 04000	Agricultural machinery Training, consultations	780,000 20,700	787,800 20,150	
Total			1,070,633	944,557	

5. Management recommendations

5.1 Profit sharing Mechanism in the new pilot

Profit sharing mechanism in the pilot of new land use pattern should be carefully designed. The yield of Ouli is profitable when put into processing stage. The whole value chain development of Ouli may include beverage, preserved fruit, medicine, and high quality cosmetic material, etc. The processing stage will generate high added value if the products are well sold in the market. Farmers engage in production and sell raw fruit to the downstream enterprises. It is important to study how the stakeholders will be organized in the production chain and ensure farmers attainment of reasonable profit from the production cycle. Although the local areas have rich experience in farmer mobilization and organization in water melon production, the Ouli production chain is relative complex. The new pilot is in initial stage and achieved satisfactory result. It is the timing to plan for the future.

5.2 Advocacy and communication

It is recommended to draw on the China-Arab States Economic and Trade Expo to disseminate the sustainable livelihood improvement experience in the project to other countries facing the similar desertification issues.

5.3 Result Documentation

Some of the project outputs are completed and others are contacted to qualified research institutions. Documentation of project results could be started in 2013.

6. Conclusion

The project is exploring approaches of sustainable livelihood improvement in desertification-prone areas from the perspectives of plantation innovation, farmer organization strengthening and policy optimization. Facts show that farmers' income in the

project areas has been improved continuously in the recent years, and new pilots of the project yields sound results. The project ran smoothly in 2012 and achieved its planned results as per the AWP. The project management of the project functions well. The project is also on track of overall planning of the project cycle.