

## JBIC ODA Loan Project Mid-Term Review 2006

Evaluator: Hiroshi Oita (OPMAC Corporation)  
Field Survey: January 2007

Project Name: People's Republic of China, Ningxia Afforestation and Vegetation Cover Project (L/A No. C01-P153)

### **Outline of Loan Agreement**

Loan Amount / Contract Amount / Disbursed Amount	: 7,977 million yen / None / 6,803 million yen (as of the end of January 2007)
Loan Agreement	: March 2002 (5th year since L/A conclusion)
Completion Date (Planned)	: December 2009
Final Disbursement Date	: July 2009
Executing Agency	: Ningxia Hui Autonomous Region Government (Ningxia Agricultural Comprehensive Development Office (NACDO))
Operation & Maintenance Institutions	: The farmers themselves maintain the planted trees.
Mid-term Review Selection Criteria	: NGO/Local government partnership

### **[Project goals]**

The 12 northern cities and counties of Ningxia Hui Autonomous Region (5 cities, 7 counties, and one irrigated district which is in the process of applying for promotion to county status) is an area with one of the lowest annual precipitation levels in China. Through planting of vegetation (approximately 35,000ha), establishing erosion control shelter forest, and commercial forest (totaling approximately 23,000ha) and development of forestation and vegetation planting facilities in 35 locations in above area, the goal is to contribute to measurable increase in the target area's ratio of forest and vegetation coverage, and thereby halting the progressive desertification of the target and surrounding regions, while reducing poverty among local farmers through participation in forestation and vegetation planting activities.

Consultant: None

Contractors: Local businesses, etc.

## Overview of Results

Item	Ex-Ante Evaluation Results (March 2003)	Mid-Term Review Results and Expected Ex-Post Evaluation Results at the Time of the Mid-Term Review
<p><b>Relevance</b> <b>(1)National policy level</b></p>	<p>(1) National policy level</p> <p>The Chinese government established “National Plan for Ecological Construction” in 1998 as a national framework for the next 50 years relating to environmental protection across these four sectors: forest industry, water utilization, agriculture, and environmental protection. The same plan included short term plans until 2010, mid-term plans until 2030, and long term plans reaching to 2050, establishing conservation of soil erosion areas and zones undergoing desertification, increasing forest areas, increased forest coverage and improving the ratio of forest as targets. This project is positioned as a project especially to contribute to the conservation of zones undergoing desertification and improving ratio of forest.</p>	<p>(1) National policy level</p> <p>From 2006, China has entered its 11th Five Year Plan period (lasting until 2010). The “National Plan for Ecological Construction” is currently implementing the “Six Key Forestry Programs” (see note 1) as a concrete forestation plan. This project constitutes one part within the Six Key Forestry Programs’ “Three North Shelter Program” (Northwest, Northeast, Due North). Furthermore, the “Great Western Development” (see note 2) is also to be continually promoted, and ecological projects such as counter desertification measures and grassland restoration are being implemented. Due to increasing income disparity, China is focusing on a response to the Three Rural Issues (agriculture, rural areas, and farmers), as well as aiming for a balanced society (Harmonious Society) with improvements to the environment. In addition, the Ningxia Hui Autonomous Region’s government is also strongly focuses on sustainable development for the length of the 11th Five Year Plan (2006-2010) and aims for balanced development of economy, society, and environment. In this way, environment improvement projects, including this project, have become positioned as even more important to national policy during the 11th Five Year Plan.</p> <p>(Note 1) The Six Key Forestry Programs are: “The Natural Forest Resource Protection Program,” “The Three Northern Regions and the Yangtze River Basin Shelter Forest Programs,” “The Program of Converting Farmland Back to Forest,” “The Program of Wildlife Protection and Nature Reserves,” “The Anti-desertification Program</p>

		<p>around Beijing” and “The Fast-Growing Timber Forest Base Development Program”. The areas targeted by these plans cover over 97 percent of China’s territory, with planned forestation of 1.1 billion <i>mǔ</i> (approximately 73.3 million hectares) and gross investment totaling 700 billion yuan.</p> <p>(Note 2) The Great Western Development is a focused mission over the 10 year period from 2001 to 2010, based on the outline in the “State Council Notification on Several Policy Measures for Great Western Development”, proposed by President Jiang Zemin in June 1999, and announced in December 2000. It aims to correct the disparities that arose as a result of the prioritized development of eastern coastal regions. Infrastructure development, ecological and environmental protection, agricultural improvements, science and technology education, etc. are to be implemented in 10 western provinces, 2 central autonomous regions, and autonomous prefectures in 3 central provinces.</p>
<p><b>(2) Policy level</b></p>	<p>(2) Policy level</p> <p>As a national policy, the “National Plan for Ecological Construction” establishes four areas (upper and central Yellow River basin, upper and central Yangtze River basin, desert regions, and prairies) as priority areas that should be focused in the short-term plan (lasting until 2010). This project’s target, the Ningxia Hui Autonomous Region, corresponds to the “desert regions” classification in that list, and as part of that policy, this project undertakes projects centering on shelter forests and prevention of desertification.</p> <p>Furthermore, environmental protection is one of the priority areas in JBIC’s Overseas Economic Cooperation Operations implementation policy, and emphasis is placed on environmental protection, anti-poverty measures and</p>	<p>(2) Policy level</p> <p>There are no changes from the time of the ex-ante evaluation. Under the 11th Five Year Plan, it is planned that prioritized implementation of ecological projects will continue in the Ningxia Hui Autonomous Region, which includes the target areas. Under the 10th Five Year Plan, forests covering 15.84 million <i>mǔ</i> (approximately 1.06 million hectares ) were forested in Ningxia, raising forest coverage ratio from 8.4 percent to 10.5 percent. Improved desert area increased to 4.47 million <i>mǔ</i> (approximately 300,000ha) and desert was reduced by 381,000 <i>mǔ</i> (approximately 25,000ha) from 1999 through 2004. Improvement of 2.8 million <i>mǔ</i> (approximately 187,000ha) of desert area and increasing the forest coverage ratio to 18</p>

	<p>advancement of interior people's standard of living in the ODA cooperation implementation policy toward China. As such, this project is based on policies that reflect the principles of both Chinese and Japanese sides.</p>	percent is planned under the 11th Five Year Plan.																		
<b>(3) Planning level</b>	<p>(3) Planning level</p> <p>This project undertakes the planting of vegetation, and the establishment of erosion control shelter forests and commercial forests in the northern area of Ningxia Hui Autonomous Region. As the target area has one of the lowest precipitation levels in China, and desertification is progressing due to causes including over-harvesting of forests and overgrazing, an urgent response is required.</p> <p>Furthermore, this area has one of the highest poverty rates in China causing a vicious circle of poverty and environmental damage, and this project is expected to relieve poverty.</p>	<p>(3) Planning level</p> <p>The need for desertification prevention is high, and there is no change from the initial planning stage to give serious consideration within this project to a poverty relief response as well. As of December 2006, there is slight delay in the planting of commercial forest, the remaining initial forestation/vegetation planting goals have already been accomplished.</p> <p>For forestation that aims for prevention of desertification, a certain level of large-scale investment is required, and this project meets that need. Furthermore, by also targeting commercial forest it is also evaluated as poverty relief measure.</p>																		
<b>Effectiveness (1) Operation and effect indicators</b>	<p>(1) Operation and effect indicators</p> <p>(a) Quantitative effects</p> <table border="1"> <thead> <tr> <th></th> <th>2001 Ex-ante evaluation</th> <th>2009 Target year/ target value</th> </tr> </thead> <tbody> <tr> <td>Project site ratio of forest</td> <td>Approx. 7%</td> <td>Approx. 10%</td> </tr> <tr> <td>Preserved land vegetation coverage ratio</td> <td>Approx. 30%</td> <td>Approx 70%</td> </tr> </tbody> </table> <p>(Note) Ratio of forest = total area passing inspection as forested land / area of project site administrative area (inspection is done three years from cultivation of forest)</p>		2001 Ex-ante evaluation	2009 Target year/ target value	Project site ratio of forest	Approx. 7%	Approx. 10%	Preserved land vegetation coverage ratio	Approx. 30%	Approx 70%	<p>(1) Operation and effect indicators</p> <p>(a) Quantitative effects</p> <table border="1"> <thead> <tr> <th></th> <th>2006 Mid-term review</th> <th>2009 Target year/ target value</th> </tr> </thead> <tbody> <tr> <td>Project site ratio of forest</td> <td>Approx 9.3%</td> <td>Approx. 10%</td> </tr> <tr> <td>Preserved land vegetation coverage ratio</td> <td>Approx. 50%</td> <td>Approx. 70%</td> </tr> </tbody> </table> <p>(Note) Target year and values have not changed.</p> <p>As far as the current condition of implementation is concerned, the project has a good probability of meeting</p>		2006 Mid-term review	2009 Target year/ target value	Project site ratio of forest	Approx 9.3%	Approx. 10%	Preserved land vegetation coverage ratio	Approx. 50%	Approx. 70%
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	<p>Preserved land vegetation coverage ratio = area of vegetation cover / area of preserved land. (Source: Ex-ante project evaluation report)</p> <p>(b) Qualitative effects</p> <p>1) Improvement of the natural environment in project area The project will improve the living environment of the target area through measures such as increasing vegetation cover in waste lands and hills, and improving sand dune retention.</p> <p>2) Contribution to yellow sand damage prevention Increased vegetation cover will contribute to the prevention of yellow sand damage, not only improving the standard of living in the target area, but also aiding in the prevention of yellow sand damage in eastern Asia.</p> <p>3) Standard of living improvement for the frontier poor Ensuring pasture resources through grassland preservation/creation, increased land productivity through cultivation of medical herbs and other cash crops, and direct relief of poverty through prioritized participation of poverty-stricken farming households are expected. Furthermore, by undertaking orders in the forestation and vegetation planting businesses, improved income of farming households will contribute to the improvement of their family</p>	<p>2009 output of ratio of forest and vegetation coverage ratio, and as of December 2006, had already met and partially exceeded targets for wind erosion prevention forests (achieved output of 105%), grassland creation (achieved output of 101%), and grassland preservation (achieved output of 100%). (Source: Ningxia Agricultural Comprehensive Development Office)</p> <p>(b) Qualitative effects</p> <p>1) Improvement of the natural environment in project area There have been reports of increased birds and wildlife (rabbits and foxes) due to forestation.</p> <p>2) Contribution to yellow sand damage prevention The above achievements contribute to halting the progression of desertification in the target area and aid the prevention of yellow sand damage.</p> <p>3) Standard of living improvement for the frontier poor From the point of view of poverty reduction, this project takes a role contributing to the harvesting of grazing crops (alfalfa), and increasing opportunities for gaining income from sales of goods produced from the commercial forests (such as grapes, matrimony vine, and jujube), and medicinal herbs such as licorice. Furthermore, poverty-stricken farmers, by providing labor, are involved in this project directly and indirectly, and there seems to be a degree of</p>
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	finances.	<p>effect on poverty relief from these income sources.</p> <p>In the year 2000, the average per capita net income in the rural village areas of Ningxia Hui Autonomous Region was reported to be 1,724 yuan, however, in 2005, it was shown to have grown to 2,320 yuan; an increase of approximately 35 percent in five years (or 6.1 percent annually). Over the same period, compared to the national average of 2,253 yuan in 2000 and the 2005 rate of 2,936 yuan gives an increase of approximately 30 percent (or 5.4 percent taken annually), with growth in Ningxia outpacing the national average. (According to the Ningxia Agricultural Comprehensive Development Office the project implementation area's average net income went from 2,245 yuan in 2001 to 2,800 yuan in 2006 showing an approximate 25 percent increase.)</p> <p>The poverty data for all Ningxia showed a drop in poverty-stricken population figures from 500,000 in 2000, to 5% of the population or 100,000 people in 2005. (The total population of Ningxia Hui Autonomous Region in 2005 was 5.96 million people.)</p> <p>(Source: Home Page of Poverty Alleviation Office of the Ningxia Autonomous Region)</p>
<b>(2)Analysis of factors influencing effectiveness and impact</b>	<p>(2) Analysis of factors influencing effectiveness and impact</p> <p>(a) NGO/local government partnership</p> <p>In China forestation activities by Japanese NGOs and local governments are being actively undertaken, and information exchanges and substantial partnerships are also considered for this project.</p>	<p>(2) Analysis of factors influencing effectiveness and impact</p> <p>(a) NGO/local government partnership</p> <p>In this project NGO/local government partnership was sought, and in terms of actual results, the project commissioned a domestic Chinese NGO, China Association for NGO Cooperation (CANGO), and undertook training for concerned parties and farmers in August 2003 on such topics as techniques and fund management knowledge and procedures necessary for the project.</p>

	<p>(b) Status of farming household participation</p> <p>This is a project planned to be implemented through a system of announcing merits of commercial forests, cultivation of medicinal herbs, and transition to raising grazing herds in indoor pens to the farming households that live at each site, and advertising that they can participate in the project through deferred payment of business costs for saplings, etc., and encouraging the application from farming households. It is estimated to benefit 59,372 households in the target year, as well as 38,000 farmers involved in the provision</p>	<p>With regards to local governments, Shimane Prefecture entered into a friendship district agreement with Ningxia Hui Autonomous Region in October of 1993, and volunteers from Shimane Prefecture have been implementing friendship forestation exchange project in Ningxia Hui, however, that project has no direct partnership with this project. According to Shimane Prefecture, cooperation with forestation activities as a prefectural project will complete in March of 2007 (FY2006), and from FY2007 forestation activities will start with an NPO taking the lead role.</p> <p>Hereafter, this project's continuing partnership with NGOs and local governments will not simply increase the project's effectiveness, but also in Japan and in China domestically, deepen understanding of and cooperation with forestation projects. Therefore, it is considered significant for JBIC to mediate between the Shimane Prefecture, NPO and Ningxia Hui Autonomous Region, after checking whether or not the executing agency has needs, and host events such as exchange events where forestation experience information can be shared with each other.</p> <p>(b) Status of farming household participation</p> <p>The government makes announcements about participation in this project and recruits at peasant conventions, etc. According to the Ningxia Agricultural Comprehensive Development Office, in 2006 59,210 households had benefited from the project. Furthermore, the number of recruited farmers until 2006 was 35,800 people. As well, "farming household notebooks" were distributed (in Chinese "nonghe shouce") for use in this project to record things like basic information and loan details of farming</p>
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	<p>of labor.</p> <p>(c) Status of advance payment burden of farming households and repayment terms</p> <p>Participating farming households' financial burden includes the cost of saplings, fertilizer, pesticide, the employment of supplementary manpower, etc., however, the conditions are; (1) repayment of the principal should start after fruit, feed crops and so on can provide a cash income, (2) the repayment term is approximately 20 years, (3) the obligation of shelter forest area preservation is not excessive, and (4) each household gains usage rights to approximately 0.8ha of wasteland.</p> <p>(d) Environment</p> <p>This project is to be implemented in areas where there are</p>	<p>households. Ningxia Autonomous Region Department of Finance reports initially distributing 5,000 of these notebooks, and printed 200 more. The farming household notebook is not always one per household, but for example one large household that can take loans (a farming household operating a large-scale farm) could be representing 10 households. Ningxia Agricultural Comprehensive Development Office explains that roughly 10% of the farming household notebooks are distributed to large households, and that in Yanchi County 48 out of 200 notebooks are distributed to these large households.</p> <p>(c) Status of advance payment burden of farming households and repayment terms</p> <p>While this project targets prioritization of poverty-stricken farming households, it gives loans to farming households that have financial ability to repay them. As was stated above, there are examples like those of large households becoming representative loan recipients or farming communities' village council chairmen becoming loan recipients. Furthermore, people over 60 cannot receive a loan. There is a 10-year deferment period so at the present time only interest payments are mandatory, and according to the Ningxia Hui Autonomous Region Department of Finance there are no late payments of interest. Some of the repayment terms are based on the terms of Japanese ODA loans, however, they can vary to a wide extent (interest rate of 0.75%-0.9%, repayment period of 15-40 years).</p> <p>(d) Environment</p> <p>At the time of the Mid-term review, the target area shows</p>
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	<p>no concerns over salinization. The Chinese side monitors the salinization situation periodically.</p>	<p>no salinization issues.</p> <p>(e) Cooperation framework with Japan  As was indicated above in item (a), to increase the project's effectiveness establishing a continuing cooperative relationship is important. Forestation projects in China are closely related to the yellow sand issue, and even in Japan hold high interest. It follows that it will be necessary for both the Japanese and Chinese sides to widely share information about forestation project cooperation as a whole and establish a network, involving forestation projects via Japanese ODA loans not only in Ningxia but also in other areas, cooperation with JICA, cooperation via NGOs and so on.</p>
<p><b>(3) Factors affecting sustainability</b></p>	<p>(3) Factors affecting sustainability</p> <p>(a) Cultivation framework by farmers  Each farming household will implement cultivation after the forestation.</p> <p>(b) Operation and maintenance system of terminal irrigation facilities  Each farming household will implement operation and maintenance of terminal irrigation and other facilities. They will also bear the necessary fund expenditure regarding operation and maintenance from income from commercial</p>	<p>(3) Factors affecting sustainability</p> <p>(a) Cultivation framework by farmers  With past results of implementing similar projects, and the technical knowledge being gained from training and so on regarding cultivation, there are no particular problems in the target area. In particular, because the cultivation of commercial forest, medicinal herbs, and feed crops become an incentive as they allow gaining of cash income, cultivation by each farming household is being undertaken without problem.</p> <p>(b) Operation and maintenance system of terminal irrigation facilities  Since operation and maintenance is directly connected to harvesting, terminal irrigation facilities are operated and maintained without problem.</p>

	forest, medicinal herbs, feed crops, etc.	<p>(c) Changes in natural environment</p> <p>In 2004 and 2005 the amount of precipitation was low, equaling one third of a normal year (approximately 300mL), and one of the target areas, Yanchi County, had approximately 30 mL. Since this is an arid zone, water-conserving irrigation is being undertaken as a countermeasure. The target area is relatively blessed with regards to water-intake from sources like underground reserves and the Yellow River so this does not seem to pose a problem for the time being; however, should the drought continue it could have an impact on vegetation planting.</p> <p>Furthermore, the target area is also prone to cold temperatures, so there is also the possibility of cold weather damage. In 2005 cold weather had an effect on the cultivation of some grapes.</p>
<b>Reference information</b>		
<p><b>Efficiency</b></p> <p>(1) Output</p>	<p>(1) Output</p> <ul style="list-style-type: none"> <li>• Target counties (cities): 12 northern Ningxia Hui counties (cities), etc.</li> <li>• Target area: 57,600ha</li> </ul> <p>(Breakdown follows:)</p> <ul style="list-style-type: none"> <li>• Preserved prairie: 26,090ha: established fences to prevent incursion by men and livestock</li> <li>• Erosion prevention shelter forest: 12,550ha: procurement and planting of false acacia, Himalayan red pine, and other saplings (includes 5,860ha of tall trees, 6,690ha of shrubs)</li> <li>• Commercial forest: 10,050ha: procurement and planting of</li> </ul>	<p>(1) Output (no change in target items)</p> <p>Currently, in December of 2006 (according to Ningxia Agricultural Comprehensive Development Office)</p> <ul style="list-style-type: none"> <li>• Preserved prairie: 26,210ha</li> <li>• Erosion prevention shelter forest: 13,119ha</li> <li>• Commercial forest: 6,880ha (Commercial forest is behind schedule compared to other planting due to delay in the start of this project)</li> <li>• Prairie creation: 7,787ha</li> <li>• Medicinal herb cultivation: 1,220ha</li> </ul>

	<p>matrimony vine, jujube, etc. saplings.</p> <ul style="list-style-type: none"> <li>• Prairie creation: 7,690ha: procurement and planting of feed crop seed</li> <li>• Medicinal herb cultivation: 1,220ha: procurement and planting of seeds of licorice, etc.</li> </ul> <p>Other items implemented follow:</p> <ul style="list-style-type: none"> <li>• Seed and sapling center: 1,100ha: development of seeds/sapling production base (eight locations: Yanchi County, Taole County, Lingwu City, Zhongning County, resettlement zone, Yinchuan City, Qingtongxia City, reclaimed land area)</li> <li>• Model district: 1,100ha (4 districts: Yinchuan City commercial forest cultivation model district, Qingtong canyon integration testing model district, the reclaimed land feed crop cultivation model district, Pingluo County medicinal herb cultivation model district)</li> <li>• Road construction: development of terminal roads connecting forestation/vegetation planting sites /main road (40km), auxiliary road (80km), and farming road (200km)</li> <li>• Barn construction: total of 100,000m<sup>2</sup>: development of facilities for sheep to ban grazing and help make transition to indoor raising.</li> <li>• Irrigation facilities: branch conduit (120km), auxiliary conduit (294 km), farming conduit (1,350km), sprinkler (667ha), drip irrigation (667ha)</li> <li>• Environmental monitoring: procurement of monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Seed and sapling center: 1,112ha</li> <li>• Model districts: 1,064ha (the Yinchuan City model district is slightly behind schedule)</li> <li>• Road construction: 320km</li> <li>• Barn facilities: 103,000m<sup>2</sup></li> <li>• Conduits: 1,852km</li> <li>• Sprinkler irrigation: 903ha</li> <li>• Drip irrigation: 1,620ha</li> </ul> <p>Irrigation target area increase was due to adjustment of irrigation area at the time of construction, which was small.</p>
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	<p>equipment, etc.</p> <ul style="list-style-type: none"> <li>• Vehicles, etc.: procurement of vehicles, computers, etc., construction of local offices, etc.</li> </ul> <p>Training: guidance and dissemination of forestation/vegetation planting techniques for participating farming households and target county forestry office staff (training facilities with one location for technicians in Yinchuan City, one location for farmers in Pingluo County, which were ordered and constructed by the Project Office)</p>	<ul style="list-style-type: none"> <li>• A total of 48 lectures were held for training, with total participation of 2,850 people</li> </ul>
(2) Project period	<p>(2) Project period</p> <p>(a) Planting: from May 2002 – December 2006</p> <p>(b) Completion of planting: It will be defined as project completion upon passing the preservation rate inspection to be carried out in three years→completing in December 2009 (after 2006 is the cultivation period)</p> <p>(c) Road construction: May 2002 – December 2005</p> <p>(d) Irrigation facilities construction: May 2002 – December 2005</p>	<p>(2) Project period</p> <p>(a) Planting from May 2002 to June 2007 (the delay from the initial figure is due to the delay in planting commercial forest) (L/A conclusion was March 2002)</p> <p>(b) The project will complete in December of 2009 (no change)</p> <p>No other changes</p>
<b>Lessons learned and recommendations</b>	<p>(Lessons Learned)</p> <ul style="list-style-type: none"> <li>• Regarding partnerships with NGOs and local governments, it is desirable to make contact with possible organizations beforehand at the project formation stage. There are NGOs that deliberately place a distance from official bodies, so it is important to gather information ahead of time. Furthermore, partnerships are based on the assumption that they benefit all parties concerned, and there is a need to make specific targets and expected achievements clear among the parties concerned.</li> </ul> <p>(Recommendations)</p> <ul style="list-style-type: none"> <li>• Regarding the partnership with Shimane Prefecture, from FY 2007 this project will be changed to a project with an NPO taking the lead, and the possibility of partnership with the NPO remains. There are plans for partnership with Shimane Prefectures on other projects in Ningxia Hui Autonomous Region, and JBIC should continue to provide support so the partnership will continue with NPOs, etc., in Shimane Prefectures regarding this case.</li> </ul>	

	<ul style="list-style-type: none"> <li>The farming household notebook (<i>nonghe shouce</i>) is valuable as a reference for ex-post evaluation, so before the arrival of the final disbursement date a request should be made to the Ningxia government to keep the record and the analysis method should be reviewed ahead of time.</li> </ul>	
<p><b>Indicators established for use at the time of ex-post evaluation</b></p>	<p>In the Project Memorandum exchanged between JBIC and Ningxia Hui Autonomous Regional Government (Department of Finance) in May 2002, it was agreed to monitor the following indicators.</p> <p>(1) With regard to forestation/vegetation planting:</p> <p>a) Area with vegetation cover (with and without irrigation) (hectare)</p> <p>b) Forest coverage (%)</p> <p>c) Vegetation coverage (%)</p> <p>d) The number of farming households this project benefited</p> <p>e) Water works fee collection rate (%)</p> <p>f) Amount harvested per unit of three principal products (ton/ha)</p> <p>g) Annual volume produced of three principal products (ton/year)</p> <p>h) Seed and sapling production center's producing capacity (plants, kg)</p> <p>i) Survival rate (survival rate after one year and rate of preservation after three growing periods) (%)</p> <p>(2) With regards to poverty reduction:</p> <p>a) Average per-capita annual income of participating farming households (yuan)</p> <p>b) Average per-capita annual income in the project target area (yuan)</p> <p>c) Value of three principal products (yuan)</p>	<ul style="list-style-type: none"> <li>With regards to the indicators on the left, items are specified in the progress report submitted biannually; however, there are no reports following a format. In this midterm review, reports were received as appended below by answering the questionnaire.</li> <li>Hereafter, requests should be made to continually make a reply in the progress reports.</li> <li>Separate from these indicators, the project has distributed farming household notebooks (<i>nonghe shouce</i>). The farming household notebooks do not only contain farming household organizational information, the area of arable land owned, annual income, academic background and other basic information, but records of anything related to this project including trade between the farming household and their local government (town/village), details of labor offered, plant survival rates, and participation in training. As far as has been confirmed at the time of this midterm review, there were no farming household notebooks containing detailed records. It seems that it was not assumed that the farming household notebooks would be collected at the end of the project. They may however, still be a useful reference at the time of ex-post evaluation.</li> </ul>

Response of Ningxia Agricultural Comprehensive Development Office

Table 1

	Confirmation of irrigation facilities by type of vegetation																
	Total	Non-irrigated zones			Irrigated zones											Medicinal ingredients	Prairie
		Enclosed cultivation			Man-made forest								Erosion prevention forest				
		Total	Enclosed cultivation	Enclosed cultivation and vegetation cover	Total	Ecological commercial forest			Erosion prevention forest			Total	Tall trees	Shrubs			
				Total	Red jujube	matri mony vine	Mulberry	Fruits	Total	Tall trees	Shrubs						
Unit	ha	ha			ha								ha	ha			
2006	55,099	26,090	13,710	12,380	19,999	6,880	2,400	2,010	1,098	1,372	13,119	6,153	6,966	1,223	7,787		
Target year*1	57,600	26,090	13,710	12,380	22,600	10,050	3,530	2,960	1,830	1,730	12,550	5,860	6,690	1,220	7,690		

\*1: Target year: the project's completion period.

Table 2

	(a)Administrative area of project implementation town/village *2	(b) Forest created by project	(c) Forest	(d) Shrub forest	(e) Other kinds of tree *3	Young forest	Ratio of forest *4	Enclosed cultivation area vegetation
Unit	ha	ha	ha	ha	ha	ha	%	%
2006	818,978	19,999	16,441	39,626	334	-	9.3	50
Target year	818,978	22,600	16,441	39,626	334	-	10	70

\*2: The total area, etc., does not include Liuyangbao village which was excluded during the project evaluation stage.

\*3: Area with other kinds of vegetation.

\*4: Ratio of forest = (b+c+d+e)/a. In 2001 young forest was not included, but should the inspection criteria be achieved in the target year, young forest will be included as forest in the target year's (b+c+d+e)

Table 3

	Households benefiting from the project	Irrigated area	Water works fee collection rate	Principal product harvest volume per area				Principal product harvested volume				Value of principal product					
				Matri monkey vine	California burclover	Licorice	Red jujube	Matri monkey vine	California burclover	Licorice	Lumber	Red jujube	Matri monkey vine	California burclover	Licorice	Lumber	
Unit	Households	ha	%	ton/ha /year				Ton /year				m <sup>3</sup> /year	10,000 yuan				
2006	59,210	29,646	100	1	10.5	7.5	10,000	3,000	81,000	9,150	20,000	1,500	3,600	5,000	3,500	800	
Target year	59,372	31,510	100*	1.5	10.5	7.5	26,475	4,440	80,745	9,150	36,000	2,383	4,440	4,845	3,203	1,080	

\* indicates the target value for the water works fee collection rate to be achieved in 2010.

Table 4

Producing capacity of newly established nurseries			
	Saplings		
	Tall trees	Shrubs	Seeds
Unit	Million plants		Kg
2006	50	8	15,000

Target year	70	10-12	16,500
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Table 5

	Enclosed cultivation	Ecological commercial forest	Erosion control shelter forest	Medicinal ingredients	Prairie
Unit	%	%	%	%	%
Target value after one growth period	-	85%	70%	-	-
Target value after three growth periods	Over 50% vegetation coverage, of which 20% being shrubs	85%	65%	Over 80% vegetation	Over 80% vegetation

Table 6

	Average per-capita annual income of participating farming households (yuan)	Average per-capita annual income in the implementation town/village	Number of farmers recruited		
			Total	Male	Female
Unit	Yuan	Yuan	People	People	People
2006	3,200	2,800	35,800	21,000	14,800
Target year	3,834	3,656	38,000	23,000	15,000

\*The target year for per capita annual income is 2011.