



*Asia-Pacific Network for Sustainable Forest
Management and Rehabilitation*

**Demonstration Project of Vegetation Restoration and
Management and Utilization of Forest Resources in Greater
Central Asia
(Chifeng sites)**

PROJECT PROPOSAL

**Sanyijing Forest Farm, Aohan Banner, Chifeng City, China
November, 2016**



Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

Project title	Demonstration Project of Vegetation Restoration and Management and Utilization of Forest Resources in Greater Central Asia (Chifeng sites)	
Supervisory agency	Chifeng Municipal Forestry Bureau	
Executing agency	Sanyijing State-owned Forest Farm, Aohan Banner	
Implementing partners		
Expected project duration:	Jan. 1st 2017 - Dec. 31st 2019, 36 months	
Target area: Aohan Banner, Chifeng City, China		
Total budget (US\$) 744,000	APFNet grant (US\$) 500,000	Counterpart contribution (US\$) 244,000
<p>Project summary:</p> <p>Demonstration Project of Vegetation Restoration and Management and Utilization of Forest Resources in Greater Central Asia situates in Sanyijing Forest Farm of Aohan Banner in Chifeng Municipality, Inner Mongolia. The management area of the forest farm is 3,771hm2, and the implementation area of the project is 109hm2. The total project budget is USD 744,000, out of which, USD 500,000 is financed from APFNet and USD 244,000 is self-raised by Sanyijing Forest Farm.</p> <p>Project General Objectives:</p> <p>The project, taking sand control, vegetation restoration and sand industry as construction contents, by building demonstration zones with a collection of various advanced and mature technologies, commits to promote regional vegetation recovery, enlarge regional forest coverage, increase the quality of sandy land ecological system and the sustainable management, give full paly to the multi-functional effects and comprehensive benefits of forests, ease and combat the global climate changes, effectively control desertification and improve ecological environment, increase the living standard of farmers, and to build typical models to vegetation restoration and management and utilization of forest resources in similar areas in Greater Central Asia.</p> <p>Project Concrete Targets:</p> <ol style="list-style-type: none">1. Compile “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”, give a full-scale summary to the typical models for desertification prevention and control in Chifeng and provide theoretical basis and physical cases for regions in Greater Central Asia.2. Make demonstration on high-standard sandy-land vegetation restoration and afforestation technical models fitting for the local situation, improve forest stand quality and multi-functional benefits of forests.3. Use the existing wild apricot to make demonstration of high-yield management technology		

to low-efficiency forests, and also give consideration to ecological and economic benefits, to provide demonstration and leading role for development of sand industry.

4. Combining with demonstration conducted by the project for vegetation restoration and management and utilization of forest resources and through holding training courses, carry out domestic and international exchange, broaden perspective of managing staff and technical staff in the forest farm, improve management levels of the forest farm.

5. Through publicity of project progress and stagic achievements, expand the influence of the project, increase the popularity of the project, and achieve the expected results.

6. Through establishment of monitoring and evaluation system, perform comprehensive appraisal to project progress and effectiveness, provide scientific basis for the smooth implementation of the project and demonstration and extension of the project.

Project outputs:

1. “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”.

2. Build 70 hm² demonstration forest for vegetation restoration in sandy area.

3. Build 39 hm² demonstration base of economic forest in sandy area.

4. Capacity building: training of 500 persons, domestic and international exchange and training for 20 persons, compile one project technical training manual.

Person in charge of the project: Chen Mingchuan

Position: Head of Sanyijing State-owned Forest Farm of Aohan Banner, Chifeng Municipality

Project Executing Agency: Sanyijing State-owned Forest Farm of Aohan Banner

Administration Department: Chifeng Municipal Forestry Bureau

Tel:

Email:

Fax:

Contact with: Liu Yuejun

Tel:

Email:

Fax:

Submitted by:

Chief expert(signature)

Chen Mingchuan(Head)

Signature:

Date:

Signature:

Date:

Signature/seal of review unit

Chifeng Municipal Forestry Bureau

Signature:

Date:

Contents

1 Background and Basis	1
1.1 Background.....	1
1.2 Major Issues to be Addressed.....	1
1.3 Project Site Selection and Reasons.....	1
2 Significance and Necessity	2
2.1 The Importance of Project Implementation.....	2
2.2 The Necessity of This Project.....	2
3 Goal and Objectives	3
3.1 Goal	3
3.2 Objectives	3
4 Outputs and Strategic Activities	4
5 Budget, Funding Resources and Financial Management	7
5.1 Resources of Funding and Budget	7
5.2 Assets Management.....	7
6 Monitoring and Evaluation.....	7
6.1 Project Report	7
6.2 Project Effect Monitoring	8
6.3 Project Evaluation	8
7 Dissemination and Sustainability	8
7.1 Project Dissemination.....	8
7.2 Project Sustainability	9
8 Guarantee System	9
8.1 Human Resources.....	9
8.2 Material Resources.....	10
8.3 Policy and Regulation.....	10
8.4 Organizational Capacity.....	10
9 Risk Assessment	10
Enclosure	11
Annex A - Attached Tables	11
Annex B - Attached Figures	11
Annex C - land/ forest land ownership certificates	11
Annex D - Implementation of the project main activities	11

1 Background and Basis

1.1 Background

In 2016, the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation(hereafter referred to as APFNet) started with previous preparation for“Demonstration Project of Vegetation Restoration and Management and Utilization of Forest Resources in Greater Central Asia”, and selected Sanyijing Forest Farm in Aohan Banner, Municipality, Inner Mongolia of China as the project site in China. The project aims at building demonstration zones with a collection of various advanced and mature technologies, promoting regional vegetation recovery, giving full paly to the multi-functional effects and comprehensive benefits of forests, easing and combatting the global climate changes, effectively taking desertification under control and improving ecological environment, increasing the living standard of farmers, and finally to build typical models to vegetation restoration and management and utilization of forest resources in similar areas in Greater Central Asia.

1.2 Major Issues to be Addressed

Aohan Banner in Chifeng Municipality of Inner Mongolia is one of the areas with severe wind and sand damage in China. The main problems existing in the project area and key technologies to be taken are as follows: (1) as for the problems of severe land-sandification in the project area and big difficulty to restore vegetation on sandified land, the technology of vegetation restoration on sandified land shall be taken and extended and made demonstration; (2) as for the problem of slow-growth, poor-yield and low efficiency, poor management for the existing economic forests in the sandy area, the series of technology of high-efficiency management and high-yield economic forests shall be taken and extended and made demonstration in the sandy area; (3) as for the problem of poor-standard management and relatively backward sand-control technology of the forest farm and its staff, a comprehensive capacity building shall be strengthened in an all-round way to the forest farm and its staff.

1.3 Project Site Selection and Rationales

The pre-selected project site locates at Sanyijing Forest Farm of Aohan Banner, which is on the south edge of Kerqin Sandy Land and the southeast part of Chifeng Municipality(120°14'~ 120°22'E, 42°30'~ 42°51'N). The management area of the forest farm is 3,771 hm². It is 80 kilometers away from the people's government of Aohan Banner. The selection conforms to the relevant conditions and requirements of the project “Demonstration Project of Vegetation Restoration and Management and Utilization of Forest Resources in Greater Central Asia”(for the Location Map of the Project please see Annex B-1).

The main retionales for the site are: (1) the project area locates in a prominently important geographic position and enjoys easy transportation, good for extension and demonstration of the project achievements in the similar regions of the Greater Central Asia region; (2) the natural features and the ecotypes of the project demonstration area are obviously representative and typical for sand prevention and control in China and for vegetation restoration and management and utilization of forest resources in Greater Central Asia; (3) many successful experiences have been accumulated during the practice of sand prevention and control and vegetation restoration, good preliminary basis of which provides a reliable technical guarantee for the construction of the project; (4) great attentions are given by governments at all levels to the project, which is the warranty to the smooth implementation of the

project.

2 Significance and Necessity

2.1 The Importance of Project Implementation

Land desertification is a major environmental, social and economic problem to confront to the world. The Greater Central Asia is in the backland of the Eurasian Continent with low rainfall, sharp temperature changes, and outstanding desertification problems. It will be greatly significant to ecological environment rehabilitation of the regions in the Greater Central Asia to build typical demonstration zones and to carry out extension and utilization of the advanced achievements by vegetation restoration and management and utilization of forest resources.

The sandified area in Inner Mongolia of China is large and widely-distributed and with severe damage. The preselected project site locates in the south edge of Kerqin Sandy Land. Land sandification causes great difficulty for vegetation restoration, poor quality and low efficiency of forest, which have had a serious impact on production and living of local people and the development of economy. The project takes vegetation restoration, development and utilization of sand industry, and sand prevention and control as its construction contents, through the implementation of the project to build a comprehensive desertification governance demonstration base gathering functions of “sand prevention and control, vegetation restoration and resources utilization”. It will have great promotion to improve the regional ecological environment, increase the quality and efficiency of forests, facilitate regional economic development. It will also make good demonstration toe vegetation restoration and management and utilization of forest resources in the Greater Central Asia.

2.2 The Necessity of This Project

2.2.1 It is the necessity to promote popularization and application of advanced technical achievements, and provide demonstration and models for the vegetation restoration and management and utilization of forest resources in the Greater Central Asia region.

The preselected project area is the typical area for desertification prevention and control in China. The main problems existing in the project area is also common to the regions in the Greater Central Asia. With the implementation of the project, the advanced technical achievements will be promoted and applied in project area and the surrounding areas, representative and typical demonstration bases will be established, demonstration and models will be presented for desertification control in China and vegetation restoration and management and utilization of forest resources in the Greater Central Asia.

2.2.2 It is the necessity to promote vegetation restoration, expand regional forest area, improve quality and function of forest ecosystem.

In recent years, with environmental changes and arid climate, the artificial shelter plantations in Aohan Banner appears various degradation such as aging, die-back, pest and diseases, small-but-old, making the quality of forest stands in sandy area a general decline. Good sand-fixation plants and series of technology for fast-vegetation-restoration will be taken by the project, which will make an effective increase of vegetation coverage in the project area, and of quality and function of forest ecosystem.

2.2.3 It is the necessity to make use of forest resources in sandy area in a reasonable and effective way, to develop sand industry, and to improve the living standard of farmers and herdsmen.

Aohan Banner, a national-level poverty-stricken county, suffers desertification over a long term, causing

its harsh ecological environment, backward local economy and poor living standard of the farmers. The project will take series of high-yield technology to make a transformation of the existing low-efficient and low-effective economic forest in sandy land, to improve the effective regeneration of the economic forest in sandy land, to promote the rational use of sand resources and development of sand industry, to lead economic development of the project area and its surrounding areas, to improve the living conditions of farmers and herdsmen.

2.2.4 It is the necessity to improve the comprehensive ability of forestry staff at the grassroots level and to realize the sustainable development of utilization of forest resources.

For forestry staff in remote and backward working environment and living conditions, it is not easy for them to grasp advanced technology of forest ecosystem management. But the implementation of the project will promote forestry staff at grassroots level and farmers and herdsmen to participate in project afforestation, management and technical trainings, to improve their management level and technological capacity. It will be great significance to fulfill the sustainable development of forest resources.

3 Objectives and Targets

3.1 General Objectives

The project, taking sand control, vegetation restoration and sand industry as construction contents, by building demonstration zones with a collection of various advanced and mature technologies, commits to promote regional vegetation recovery, enlarge regional forest coverage, increase the quality of sandy land ecological system and the sustainable management, give full play to the multi-functional effects and comprehensive benefits of forests, ease and combat the global climate changes, effectively control desertification and improve ecological environment, increase the living standard of farmers, and to build typical models to vegetation restoration and management and utilization of forest resources in similar areas in Greater Central Asia.

3.2 Concrete Objectives

1. Compile “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”, give a full-scale summary to the typical models for desertification prevention and control in Chifeng and provide theoretical basis and physical cases for regions in Greater Central Asia.
2. Make demonstration on high-standard sandy-land vegetation restoration and afforestation technical models fitting for the local situation, improve forest stand quality and multi-functional benefits of forests.
3. Use the existing wild apricot to make demonstration of high-yield management technology to low-efficiency forests, and also give consideration to ecological and economic benefits, to provide demonstration and leading role for development of sand industry.
4. Combining with demonstration conducted by the project for vegetation restoration and management and utilization of forest resources and through holding training courses, carry out domestic and international exchange, broaden perspective of managing staff and technical staff in the forest farm, improve management levels of the forest farm.
5. Through publicity of project progress and stage achievements, expand the influence of the project, increase the popularity of the project, and achieve the expected results.
6. Through establishment of monitoring and evaluation system, perform comprehensive appraisal to

project progress and effectiveness, provide scientific basis for the smooth implementation of the project and demonstration and extension of the project.

4 Estimated Outputs and Main Activities

Target 1: compile “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”, give a thorough summary of typical models for desertification prevention and control and provide theory basis and practical cases for desertification prevention and control in Greater Central Asia.

Output 1: compile “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”

Activity 1.1 make investigates on sandy land governance models. The on-the-spot investigations conduct for 4 sand control models(with physical methods, with chemical methods, with complex methods and with closure methods) for 4 times a year and 10 days per time in Kerqin Sandy land of Chifeng and sandy land in north of Aohan Banner during April and October in 2017 to 2018. After collating of materials, advanced, mature and typical sand control models shall be extracted, and a investigation report shall be compiled in January to May of 2019. 1 to 2 practical cases shall be chosen under each model to be used as project extension and publicity. The total budget for this activity is RMB 120,000, all of which will be financed from APFNet. (for details please see Annex D “Detailed operational plan for main activities of project” 1.1)

Activity 1.2 compilation of reports and extension and application. On the basis of the preliminary investigation, the typical models on comprehensive rehabilitation of sandy land in Chifeng shall be summarized, “Research Report of Typical Models for Desertification Prevention and Control in Chifeng”shall be compiled, 2 to 3 advanced and mature models shall be chosen to be extended and applied in similar areas. The total budget for this activity is RMB 40,000, all of which will be financed from APFNet. (see Annex D “Detailed operational plan for main activities of project” 1.2)

Target 2: make demonstrate of high standard vegetation restoration models on sandy land suitable for the local area and improve the forest quality and the multi-efficiency of forest.

Output 2: build 70 hm² vegetation restoration demonstration forest on sandy area

Activity 2.1 build 30 hm² mixed demonstration forest with Mongolian pine and Xinjiang poplar. In January to December of 2017, 5 compartments and 2 compartments shall be selected in Sanyijing Forest Farm to plant Mongolian pine(4-year-old container at height \geq 1m) and Xinjiang poplar(height \geq 2.5m and DBH \geq 2cm) by block mixture with Xinjiang poplar as shelter belt and planting Mongolian pine within the belt, forming the wind-break and sand-fixation forest in shape of belt, net and sheet. The mixture area is 30 hm² including 26 hm² Mongolian pine and 4 hm² Xinjiang poplar. After planting, regular tending and protection shall be done, 2 km working path in the forest shall be constructed, 3 mechanical wells shall be built and 30 hm² 1st-grade pipe shall be lain. The post management of the project shall be done in 2018 to 2019. The total budget for this activity is RMB 1,559,100, among which, the overall investment in 2017 is RMB 1,185,500, RMB 1,057,000 of which is financed from APFNet, and RMB 128,500 from local counterpart; the overall investment in 2018 is RMB 245,300, RMB 59,200 of which is financed from APFNet, and RMB 186,100 from local counterpart; the overall investment in 2019 is RMB 128,300, RMB 33,800 of which is financed from APFNet, and RMB 94,500 from local counterpart. This activity will take planting area, survival rate, preserving rate and the growth status as

the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project” 2.1)

Activity 2.2 build 40 hm² mixed demonstration forest with Mongolian pine and yellowhorn. In January to December of 2017, 5 compartments and 1 compartmentation shall be selected in Sanyijing Forest Farm to plant Mongolian pine(4-year-old container at height \geq 1m) and yellowhorn (height \geq 1.2m and ground diameter \geq 0.8 cm) by block mixture with Mongolian pine as shelter belt and planting yellowhorn within the belt, forming the wind-break and sand-fixation forest in shape of belt, net and sheet. The mixture area is 40 hm² including 35 hm² yellowhorn and 5 hm² Mongolian pine. After planting, regular tending and protection shall be done, 3 km working path in the forest shall be constructed, 4 mechanical wells shall be built and 40 hm² 1st-grade pipe shall be lain. The post management of the project shall be done in 2018 to 2019. The total budget for this activity is RMB 1,759,000, among which, RMB 1,193,200 is financed from APFNet, and RMB 565,800 from local counterpart the. The investment in 2017 is RMB 1,320,300, RMB 1,089,700 of which is financed from APFNet, and RMB 230,600 from local counterpart; the investment in 2018 is RMB 227,700, RMB 58,500 of which is financed from APFNet, and RMB 169,200 from local counterpart; the investment in 2019 is RMB 211,000, RMB 45,000 of which is financed from APFNet, and RMB 166,000 from local counterpart. This activity will take planting area, survival rate, preserving rate and the growth status as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project” 2.2)

Target 3: make demonstrate of high-yield management technology for low-efficiency forest of the existing wild apricot in the forest farm, giving both consideration to ecological and economic benefits, to provide demonstration and leading role for the development of sand industry.

Output 3: build 39 hm² of economic forest demonstration base in sandy area

Activity 3.1 demonstration forest of *Prunus Armeniaca* grafting technology on wild apricot. In May of 2017, 5 compartments and 3 subcompartments shall be selected in Sanyijing Forest Farm. On the base of 13 hm² wild apricot (spacing 2X4, 1260 plants/hm²), select 16,380 *Prunus Armeniaca* seed-stems (dimeter 0.6 cm, length 8cm, with 2-3 plump buds) for level-cutting and grafting. The post management of the project shall be done in 2018 to 2019. The total budget for this activity is RMB 263,718, among which, the overall investment in 2017 is RMB 160,368, RMB 88,218 of which is financed from APFNet, and RMB 72,150 from local counterpart; the overall investment in 2018 is RMB 62,400, all is from local counterpart; the overall investment in 2019 is RMB 40,950, all from local counterpart. This activity will take fruiting rate and yield as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project” 3.1)

Activity 3.2 demonstration forest of wild apricot high-yield management technology. From January to December of 2017, 5 compartments and 4 subcompartments shall be selected in Sanyijing Forest Farm. On the base of 18 hm² wild apricot (spacing 2X4, 84 plants/mu, 1260 plants/hm²), compile the operational plan and design of demonstration forest of wild apricot high-yield management technology, carry out site-preparation, pruning, fertilizer applying, watering. Regular tending and Protection shall be done later on. The post management of the project shall be done in 2018 to 2019. The total budget for this activity is RMB 329,670, among which, the overall investment in 2017 is RMB 197,370, RMB 86,670 of which is financed from APFNet, and RMB 110,700 from local counterpart; the overall investment in 2018 is RMB 75,600, all is from local counterpart; the overall investment in 2019 is RMB 56,700, all from local counterpart. This activity will take fruiting rate and yield as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project” 3.2)

Activity 3.3 demonstration forest of *Prunus Armeniaca* high-yield management technology. From January to December of 2017, 5 compartments and 4 subcompartments shall be selected in Sanyijing Forest Farm. On the base of 8 hm² *Prunus Armeniaca* (spacing 2X4, 84 plants/mu, 1260 plants/hm²), compile the operational plan and design of demonstration forest of *Prunus Armeniaca* high-yield management technology, carry out site-preparation, pruning, fertilizaer applying, watering. Regular tending and Protection shall be done later on. The post management of the project shall be done in 2018 to 2019. The total budget for this activity is RMB 146,520, among which, the overall investment in 2017 is RMB 87,720, RMB 38,520 of which is financed from APFNet, and RMB 49,200 from local counterpart; the overall investment in 2018 is RMB 33,600, all is from local counterpart; the overall investment in 2019 is RMB 25,200, all from local counterpart. This activity will take fruiting rate and yield as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project”3.3)

Target 4: Combining with demonstration of vegetation restoration and management and utilization of forest resources carried out by the project, through organization of training courses, to conduct domestic and international exchanges, broaden perspectives of forest farm staff, improve management level of the forest farm.

Output 4: Capacity building of the forest farm

Activity 4.1 Technical training to improve the quality of relevant staff. 4 training courses will be held in March 2017, May 2017, March 2018 and March 2019 for 500 persons, including 150 persons of forest farm managing staff and technicians, and 350 persons for the workers. The training contents cover afforestation technology of Mongolian pine and yellowhorn, wild apricot pruning technology, *Prunus Armeniaca* grafting technology, pest and diseases control technology, sand control technology and models. Technical training manual will be compiled covering contents of *Prunus Armeniaca* grafting technology, *Prunus Armeniaca* grafting technology on wild apricot, wild apricot and *Prunus Armeniaca* high-yield management technology, pest and diseases control technology. The total budget for this activity is RMB 80,000 (financed from APFNet). This activity will take report of training summary and technical training manual as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project”4.1)

Activity 4.2 Domestic exchange. During August 2017 to August 2018, 8 persons from Chifeng Municipal Forestry Bureau (2 persons), from Project Management Office (3 persons), from Sanyijing Forest Farm(3 persons) shall be organized to study and exchange to Inner Mongolian Shanmozhihua Ecological Industry Sci-technology Company Ltd, Huangyangwa Yellowhorn Industry Building Base, sand control demonstration base with Mongolian pine in Changsheng Sand Control Forest Farm by once per year and 7 days per time. The total budget for this activity is RMB 84,000 (financed from APFNet). This activity will take investigation report as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project”4.2)

Activity 4.3 International exchange. In September 2018, 8 persons from Project Management Office and Sanyijing Forest Farm shall be organized for an international exchange for once for 7 days. The destination is the member countries of Asia-Pacific Forest Organization, the purpose is to extend and publicize the achievements of project construction, to promote and increase forest management. The total budget for this activity is RMB 280,000 (financed from APFNet). This activity will take investigation report as the monitoring indexes. (for details please see Annex D“Detailed operational plan for main activities of project”4.3)

5 Budget, Funding Resources and Financial Management

5.1 Resources of Funding and Budget

The total budget for the project is RMB 5,133,600 (converted into USD 744,000 at an exchange rate USD 1 = RMB 6.90), out of which, RMB 3,450,000 (USD 500,000) is financed from APFNet, and RMB 1,683,300 (USD 244,000) is from the local finance and the Forest Farm in form of cash counterpart (labor costs). (for details please see Annex A-5-1 “Detailed statement for funds budget”)

5.2 Funds Management

The project funds application and management will be under the basic principles and general requirements of APFNet on the application of project funds, and with consideration of the financial management system established by the implementing agency, to secure the safe and efficient use of project funds. There should be a specific account for project funds for fixed purpose only. Project output activities can be only paid after check and acceptance with reimbursement vouchers on review of financial section and signature of head of the project office. The payment pattern shall be in cheque or in remittance only.

5.2.1 Fixed Assets Management

To simplify processes, improve working efficiency, and ensure smooth implementation of the project, the project formulates “Procurement and Management Methods for Fixed Assets” according to the national and local fixed assets procurement and management methods, and a corresponding supervisory committee is also set up. The project implementing agency will set up archives for fixed asset, for which an fulltime staff with specified obligations shall be appointed. Stocktaking shall be done once a year for fixed assets by project administrating department. Reasons for profits, losses and damage shall be found out and rectification measures shall be put forward accordingly.

5.2.2 Current Assets Management

Current assets include cash, bank deposits and low-value and easily-worn articles. cash and bank deposits are exclusively managed by the financial section, low-value and easily-worn articles shall be procured and managed by the project office together with the financial section, and corresponding management methods shall be also formulated.

5.2.3 Audit Check

According to the national audit law and its administrative measures, and with consideration of the project operational plan, cost budget and implementing schedule, the third party auditing shall be done each year on the project funds income and expenditure, in order to secure the safe and rational use of the project funds by the project implementing agency. And then at the project completion another auditing shall be organized to check the whole situation of project funds balance.

6 Monitoring and Evaluation

6.1 Project Reports

According to requirements of APFNet, the executing agency of the project should submit project annual progress reports, mid-term evaluation report and completion report in scheduled time, and meanwhile submit financial report and fixed assets list under requirements. All reports shall be

submitted to the APFNet through project steering committee.

6.2 Project Effect Monitoring

Project management office and project steering committee should have monitor and supervision to the implementation of the project to ensure the project implements under the approved operational plan. The project management office and project steering committee should give timely assessment on the project implementation, project funds application and management, and actively coordinate and solve the existing problems in the process of project implementation and submit monitoring and evaluation report to APFNet.

6.3 Project Evaluation

According to project operational plan and annual working plan, APFNet will employ independent experts to carry out mid-term evaluation and completion acceptance of the project. The project implementing agency should submit periodic progress reports and completion report according to the requirements of APFNet, and cooperate with experts to conduct the external evaluation.

7 Project Publicity and Sustainability

7.1 Project Publicity

All kinds of materials, pictures and video will be actively collected during every stages of project start-up, complementation and check and acceptance. Publicity manual in Chinese and English will be compiled and edited. Publicizing and reporting of periodic achievements should be done through network, media, publication, visiting the demonstration base and training, to enlarge the demonstration function of the project.

(1) **Online Dissemination:** Publicizing and reporting of project achievements will be done through websites of forestry administration departments at all levels, website of APFNet, and famous domestic and international web-portal sites.

(2) **Media Dissemination:** Advanced technology adopted in demonstration of the project and representative results achieved by the project will be reported in time through the newspapers and magazines like *Chinese Green Times* and *Chinese forestry*.

(3) **Training and Technical Manuals Dissemination:** Mature experience and advanced experiences in management and operation of the project should be extended and scientific knowledge of desertification prevention and control should be scaled up through every form of training and compilation of technical manuals in English and Chinese.

(4) **Publication Dissemination:** The latest achievements of the project should be publicized through the production of project presentations in English and Chinese and feature films.

All of these methods of dissemination mention above target at managing staff of APFNet and other relevant international organizations, the national and local forestry departments and the working staff.

For details please see Annex D “Operational plan of project main activities”, “other contents of the project 1”, “Project Dissemination”.

7.2 Project Sustainability

The project has rich construction contents, the activities of which relates to key technology in great need of sandy area, and the selected materials of which have certain economic value. Referential management models will be provided for development of sand industry. Every achievement of the project will give good benefits in ecology, economy and society. Positive cycle and sustainable development of forest resources will be promoted.

After the completion of the project, the normal operation of the demonstration area will be maintained with funding of local finance and the project implementing agency. The advanced achievements and matured experience of project will be also extended and demonstrated in regions of Greater Central Asia and other similar areas.

8 Guarantee System

8.1 Human Resources

Sanyijing Fores Farm of Aohan Banner is set up in 1985 with complete functional sections and technical sections and 4 forest guarding stations in the forest area. There are 54 working staff, 15 of whom possess professional and technical titles. The Forest Farm is provided with standardized and orderly production and management, which is capable to undertake management and technology of the project.

8.1.1 Project Steering Committee

The project steering committee composes with members from Chifeng Municipal Forestry Bureau, Aohan Banner Government, Aohan Banner Forestry Bureau and the forest farm, responsible for leading, coordinating and supervising of the project, pursuing for relevant policy support, coordinating counterpart funds, auditing the project working plans and the progress, relieving any alteration of the project, securing the smooth implementation of the project. The project steering committee will hold a working meeting every year and write relevant meeting summary report. The APFNet will attend the meeting as an observer.

8.1.2 Project Supervision Agency

Chifeng Municipal Forestry Bureau is the project supervision agency, responsible for supervision work of the project, concretely the supervision covering implementing contents of the project, implementing progress and application of project funds, etc to secure all the project activities can be completed within scheduled budget and period.

8.1.3 Project Technical Support

Chifeng Municipal Forestry Bureau and Sanyijing Forest Farm, according to the actual requirements, will employ local experts for the whole-process technical support for the project implementation, in order to secure the estimated outputs of the project demonstration and training.

8.1.4 Project Management Office

The project management office sets up in the project implementing unit, mainly responsible for organization and coordination of project activities, annually complementation, mid-term evaluation, completion evaluation and financial reports. There is a position for chief of the office, responsible for the operation and management of the project; a position of project secretary, responsible for communication and coordination between supervisor and subordinate, and presentation of relevant

materials and summary reports according to the requirements of APFNet; a position of financial management for financial reimbursement work; a position of project publicity for publicity work of the project.

8.2 Physical Resources

8.2.1 Clear forest-land ownership and forest resources tenure

The forest-land ownership and forest resources tenure in the project area should be clear. There is 3,771hm² management area in Sanyijing Forest Farm, and 109hm² of which is project implementing area with favorable site condition and rich resources, which is in favor of large-scale forestry construction. The forest land ownership and forest resources tenure is clear, belonging to the state-owned forest farm.

8.2.2 Equipped with certain infrastructure and equipment.

There is an office building of the project implementing unit, equipped with complete functional sections and technical sections with relevant office equipment and basic instruments for observing growth of protection forests. All of these facilities and equipments are in the place for carry-out of project activities.

8.3 Policies and Laws

The project focuses on the comprehensive rehabilitation of sandy land, which will have a great practical significance to promote regional vegetation restoration, sustainable utilization of forest resources, and exert multi-functions of forestry, whose construction is in accordance with the national and local laws and policies, such as “Forest Law of the People's Republic of China”, “Sand Prevention Law of the People's Republic of China”, “13th Five-Year Development Plan for Inner Mongolia Forestry”, and in accordance with the aim “forest recovery in regions of Asia-Pacific will be promoted and regional forest sustainable management will be improved through project demonstration, capacity building, information sharing and policy dialogue” of APFNet.

8.4 Organizing Ability

Aohan Banner Forestry Bureau has implemented several international afforestation and sand-control projects, including Sino- German Fin-cooperation afforestation project, Italy-aided afforestation project and project of Japan-Chinese Landscaping Exchange Foundation. The forest farm has accumulated rich experience on vegetation restoration, sand industry development and utilization, and desertification prevention and control over years, which is good working basis and will be dependent technical support and organizational guarantee for the project construction and secure the smooth implementation of the project.

9 Risk Assessment

This project will absorb and draw lessons form national and international advanced concepts and technology for comprehensive rehabilitation of sandy land, vegetation restoration and forest management, and also give comprehensive consideration on technical and social-economic factors which may affect project implementation. The project potential risks and the countermeasures are shown in Table 1.

Table 1 Project risks and countermeasures

Risks	Countermeasures
1. Coordination problem between project participants, affecting uniformly conducting of some activities .	1. Identify responsibility and tasks of the participants. 2. Strengthen exchange and communication between project units. 3. Coordinate and communicate through project leading group.
2. Poor management for forest land affects demonstration effect.	1. Assign various management work to specific section and staff, and identify responsibility and requirement. 2. Strengthen pedagogy and publicity of forest protection consciousness.
3 Master of afforestation technology affects the achievement of desired results.	1. Strengthen management of forest land, and strengthen technical training for staff of the forest farm. 2. Strengthen cooperation with experts from domestic well-known colleges and universities, to ensure the timely overcome of technical difficulties and to achieve desired results.
4 the harsh operating environment affects the construction of the project.	1. Necessary protective devices should be equiped for constructing workers. 2. Safe construction equipment should be used only.

The comprehensive assessment shows that the overall risk of the project is under control. It is necessary and feasible for the construction of the project.

Enclosure

Annex A - Attached Tables

Annex B - Attached Figures

Annex C - land/ forest land ownership certificates

Annex D - Implementation of the project main activities