



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 10-Sep-2019 | Report No: PIDISDSA26289



BASIC INFORMATION

A. Basic Project Data

Country China	Project ID P166853	Project Name Climate Smart Management of Grassland Ecosystems	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 18-Jul-2019	Estimated Board Date 18-Sep-2019	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) People's Republic of China	Implementing Agency Ministry of Agriculture and Rural Affairs	GEF Focal Area Climate change

Proposed Development Objective(s)

To pilot climate smart grassland management practices in Qilian County of Qinghai Province.

Components

Grassland Management Pilots
Policy and Strategy Development
Knowledge Management
Project Management

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	3.77
Total Financing	3.77
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	3.77
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Global Environment Facility (GEF)

3.77

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **China’s impressive economic and social development over the last few decades have come at the price of serious environmental degradation and resource depletion.** Recognizing mounting evidence of these negative development impacts, China has gradually shifted its development policy toward a more efficient, equitable, and environmentally sustainable growth trajectory. In this regard, China has launched various national campaigns and participated actively in international cooperation to combat climate change; conserve natural resources; and control environmental pollution at the local, national, and global levels.

Sectoral and Institutional Context

2. **With one-fourth of the earth’s terrestrial areas, grasslands contain one-third of carbon sequestered by the global terrestrial ecosystems, supply more than 50 percent of the world’s dairy products, and support the livelihood of 600 million people.** In China, grasslands are spread over 400 million ha and account for about 40 percent of the country’s terrestrial area. These grasslands have provided important ecosystem services—locally, nationally, and globally—including supporting the livelihood of millions of herders. As part of the Government’s poverty reduction strategies of settling nomadic pastoralists for better living conditions and better access to social services, China has promoted grassland management contracts since the late 1990s and has been gradually devolving collective grassland management rights into private ones held by individual herder households. According to the 13th Five-Year Plan for Grassland Conservation, Construction, and Utilization, in 2015, about 290 million ha, that is, over 70 percent of China’s grasslands are under management contracts held by individual herders.

3. **Geographically, about 78 percent of China’s grasslands are located in the northern temperate zone, often with fragile environmental conditions.** Mismanagement (such as overgrazing and grassland management contracts) have degraded China’s grasslands; caused low vegetation coverage, soil erosion, and the release of soil carbon; impaired ecological and productive functions of grasslands; and consequently reduced the adaptive capacity of grasslands under a changing climate.¹ For the grassland management contract system, studies have indicated that it has contributed to grassland degradation by limiting herders’ ability to use traditional knowledge to effectively manage grasslands and to cope with the changing climate.² In general, grassland degradation has also led to widespread

¹ Numbers quoted often are that China’s grasslands are degrading at a rate of 1.33 million ha annually and 90 percent of China’s grasslands are at various levels of degradation. However, robust studies will be needed to reconcile these numbers with official results of China’s various grassland conservation programs.

² For example, see Conte, T. 2015. “The Effects of China’s Grassland Contract Policy on Mongolian Herders’ Attitudes Towards Grassland Management in Northeastern Inner Mongolia.” *Journal of Political Ecology* 22: 79–97. Also, see Cao et. al, 2013. “The Role of Overgrazing, Climate Change and Policy as Drivers of Degradation of China’s Grasslands.” *Nomadic Peoples* 17 (2): 82–101.



infestation of pests, unpalatable grasses, and even invasive alien species (IAS). Further exacerbating the problem, many endemic livestock species have been replaced by productive but often non-native ones.

4. **Since 2003, China has implemented various payments for ecosystem services (PES) programs to reverse the trend of rapid degradation and protect invaluable ecosystem services of grassland ecosystems.**³ According to the latest policy—Guidance on the Implementation of the New Round of Subsidy and Award Policies for Grassland Ecological Conservation (2016–2020), the Central Government provides an annual subsidy of CNY 112.5 (about US\$18) per ha for grazing ban at heavily degraded grasslands during a cycle of 5 years, an annual reward of CNY 37.5 (about US\$5.6) per ha for grasslands included under the grass-livestock balance scheme, and a performance award to provinces with good implementation results.⁴ For the grazing ban and grass-livestock balance schemes, local governments are instructed to develop local implementation plans to determine actual levels of subsidies and rewards.

5. **With a top-down design, these PES programs have an intention of using financial payments to incentivize herders to manage their grasslands in a sustainable manner.** However, studies show that herders' income expectations, relatively low payments, rigid implementation arrangements for grazing bans (fixed for 5 years), and uncertainties associated with short-term horizons of these programs, currently renewed every five years, might have limited actual achievements of the conservation objectives of these programs.⁵ In addition, some conservation measures—such as fencing and grazing ban—may have unintended and negative impacts on grassland restoration, if not managed properly.⁶ It is noted that the level and formats of such payments and associated implementation modalities are decided without fully considering herders' actual grassland management practices and their livelihood demands. In practice, the remoteness of vast grassland areas has also limited the Government's ability to perform effective monitoring and evaluation (M&E) tasks with traditional techniques and approaches. Interviews with herders show that they are generally aware of conservation intentions of the Government but could not tell the exact requirements of such programs and viewed program payments as a part of livelihood supports from the Government.

6. **Recognizing the tremendous challenges faced by China in its grassland conservation efforts, the former Ministry of Agriculture (MOA), reorganized as the Ministry of Agriculture and Rural Affairs (MOARA) in March 2018, sought the support of the Global Environment Facility (GEF) through the World Bank.** This request is processed as a child project of a proposed People's Republic of China (PRC)-GEF Partnership Program for Sustainable Agricultural Development, approved by the GEF in its October 2017 Council Meeting.⁷ Led by the United Nations Development Programme (UNDP) with participation of the World Bank and Food and Agriculture Organization (FAO), the Partnership Program will support China to tackle selected priorities of the National Plan for Sustainable Development of Agriculture (2015–2030): (a) conservation and sustainable use of genetic resources for food and agriculture (GRFA); (b) prevention,

³ The PES programs include the Grazing Ban and Return to Grass Program from 2003–2010 and Subsidy Program for Grassland Ecological Conservation from 2011–2015. According to the 13th Five-Year Plan for Grassland Conservation, Construction, and Utilization, by 2015, China has implemented the grazing ban, pasture fallowing, and rotational grazing for a cumulative area of about 160 million ha, and the grass-livestock balance scheme over 170 million ha.

⁴ Issued by the MOA and the Ministry of Finance (MOF) on March 1, 2016.

⁵ See Liu, M. et al. 2018. "The Impact of Ecological Construction Programs on Grassland Conservation in Inner Mongolia, China." *Land Degradation Development* 29: 326–336. See also, Na, R. 2013. "Herders Perspective of Grassland Ecological Protection Subsidy Incentives Effects Analysis – the Xilingol League Area in Inner Mongolia as an Example." Thesis of University of Inner Mongolia.

⁶ See Zhang, W. et al. 2015. *Effect of a Grazing Ban on Restoring the Degraded Alpine Meadows of Northern Tibet, China. The Rangeland J.* 37(1): 89-95. See also, Qiu, Jane, 2016. "Trouble in Tibet: Rapid changes in Tibetan grasslands are threatening Asia's Main Water Supply and the Livelihood of Nomads." *Nature* 529: 141–145.

⁷ Note that the exact GEF grant amount allocated to this project is US\$3,769,083. The Basic Information Section of this document has used the rounded number US\$3.77 million due to system limitations.



control, and management of IAS; (c) sustainable grassland management; and (d) knowledge partnership on climate change and agrobiodiversity conservation. Preparation of this child project has been closely coordinated with other child projects of the Partnership Program by incorporating agrobiodiversity conservation, GRFA, and IAS issues into grassland management practices to be promoted by the project.

7. **Through internal consultations with national and local stakeholders, MOARA selected Qilian County of Qinghai Province to carry out grassland management pilots under this project.**⁸ Located on the south side of the Qilian Mountain and as an integral part of the Qinghai-Tibet Plateau, Qilian has an average elevation of about 3,170 m; a population of 50,000 (of which, about 80 percent are of 14 ethnic minorities); an average annual precipitation of 415 mm; and over 1.17 million ha of natural alpine meadow/steppe grasslands (over 80 percent of its land areas).⁹ Key features of degraded grasslands in Qilian include decreases in grass heights and coverage, lower biodiversity indices, increases in unpalatable grasses, and reduction in grass productivity (at about 50–70 percent degradation when compared to the 1980s).

8. **In Qilian, the proposed pilot activities will be carried out in one of its seven townships: Mole Township.** As a pure pasture town, Mole has over 22 percent of the county's productive grasslands (about 250,000 ha) and over 28 percent of the county's livestock population (94,055 yaks, 214,705 sheep, and 616 horses). Mole has also a breeding center and 30 established core breeding herds of the endemic white-Tibetan sheep, an important GRFA for the Qinghai-Tibetan Plateau. Herders in Mole have followed the same practices as herders in other parts of the Qinghai-Tibetan Plateau Region to manage their animals, that is, having animals grazing winter/spring pastures at lower grounds and summer/fall pastures at higher grounds. All grassland areas are contracted to herder households. Normally, herders have fenced their winter/spring pastures but used their assigned summer/fall pastures without fences.

9. **In 2018, Mole has a population of 7,182, of which about 49 percent, 38 percent, 8 percent, 3 percent, and 2 percent are Mongolian, Tibetan, Hui, Han, and Tu ethnicities, respectively.** It has six administrative villages (AVs) and a total of 27 natural villages (NVs) under these AVs. Within an NV, herder households form informal alliances, which are self-help in nature and formed by herders living in close vicinity. Members of informal alliances often support each other on various aspects of their grassland management and livestock production activities while production decisions are still made at the household level. In total, Mole has 116 herding alliances and 1,630 herding households. On average, the annual per capita income in Mole is about US\$3,300, including various subsidies received from the Government.

10. **Under the 2016–2020 grassland conservation PES schemes, Qilian has included about one-third of its alpine grasslands under grazing ban and the rest under the grass-livestock balance scheme.** Herders obtain an annual subsidy of about CNY 150 per ha (about US\$22) for surrendering their contract grassland areas under the grazing ban and about CNY 37.5 per ha (about US\$5.6) for participating in the grass-livestock balance scheme. At the county level, Qilian has an allocation of about US\$12.5 million annually to support the implementation of both schemes. In Mole, about 100,000 ha are under the grazing ban and about 150,000 ha are under the grass-livestock balance scheme. These translate to a total annual payment of US\$3 million, that is, about US\$2.2 million for the first scheme and about US\$0.8

⁸ With one of China's largest grassland areas, Qinghai was selected due to the ecological significance of Qinghai-Tibetan Plateau for China and the region and the high degree of overstocking and degradation of its grassland areas. Within Qinghai, Qilian is selected due to representativeness of its grasslands for the Qinghai-Tibet Plateau region, its relative easiness to access, and its county government's proactiveness in grassland conservation.

⁹ Alpine steppe and meadow are two major types of grasslands of China. Together, these two types account for about 35 percent of China's temperate grassland areas. The high elevation and extreme weather conditions of these grasslands create additional challenges for grassland conservation and restoration.



million for the second scheme.¹⁰ All payments are directly transferred from the county's Finance Bureau to bank accounts of eligible herder households. The grazing ban is strictly implemented by the township government. The grass-livestock balance scheme is implemented by herders under agreements with their respective AVs. Project preparation noted that there had been limited monitoring and supervision of actual stocking rates and herding practices on the ground. This may be in part due to remoteness and large areas of grasslands. Winter accessibility is also a reported challenge.

11. Project preparation estimates that Mole still has an overstocking rate of over 100 percent.¹¹ It is reported that overstocking/overgrazing is the main reason of grassland degradation in Qilian and Mole. On one hand, the grassland contract management system has led to fragmentation and decreases in the size of assigned grassland areas at the household level. On the other hand, herders reported that subsidies under both schemes were insufficient to help them reduce herd sizes without compromising their herding incomes. Herders admitted openly visible grassland degradation over the years and their challenges of using available grassland areas to maintain their desired levels of livestock production. Insufficient grass production has led to the use of commercial fodder to supplement the needs of livestock production in Mole and Qilian. In this regard, local governments in recent years have also promoted grass production in agricultural areas of Qilian to increase local fodder supply, to restore heavily degraded grassland areas, to establish livestock production cooperatives to concentrate production, improve efficiency and enable a shift from pure grazing to partial pen-based fattening practices to shorten production cycles. Moreover, local governments have been implementing regular pest management interventions in grasslands of Qilian with a focus on plateau zokor (*Eospalax fontanierii*), pika (*Ochotona curzoniae*), and grassland caterpillar (*Gynaephora qinghaiensis*). For livestock production, the Qilian Government has been promoting the certification of its livestock products—yak and sheep—as provincial and national geographically labelled products and the value chain development of such products.

12. In terms of climate change, Qilian has observed an increased temperature and changed precipitation patterns (increased but concentrated in summer).¹² Qilian Mountain has seen a rising snow line, for example, over 4 m between 2000 and 2012 in central parts of the mountain. Extreme weather events such as spring droughts, summer floods, and winter snowstorms are on the rise. All these negatively affect grass and livestock production and contribute to grassland degradation in the project areas. Herders reported that snowstorms in both 2015 and 2016 had affected their livestock production significantly. The numbers and health conditions of their animals were recovered only in 2018.

13. Hardships and limited incomes associated with herding practices have also affected the age structure, education levels, and gender participation of herding activities in both counties. Young generations have showed limited interests in grassland production. In Qilian, herders over 50 years with limited education are common while female herders can account as high as 45 percent in some villages. These, together with the remoteness of vast grassland areas, has also limited effective dissemination and adoption of sustainable grassland management practices and livestock production technologies in the project areas.

14. Under this GEF project, MOARA intends to pilot an evidence-based PES scheme and climate-smart grassland management practices to explore effective ways to link PES incentives with improved grassland management practices. Selected climate-smart grassland management practices are expected to (a) help beneficiary herders to improve their herding incomes by improving grassland productivity as well as the efficiency of their livestock

¹⁰ Such annual payments for the entire Qilian County are over US\$12 million.

¹¹ Data from the Feasibility Study Report of this project. Calculated based on the theoretical carrying capacity of local grasslands 0.931 sheep units per ha and estimated commercial fodder consumption in the project area.

¹² For example, see Zhao, et. al. 2015. "Relationships between Climate Change and the Snowline in Central Parts of Qilian Mountain (2000–2012)." *Mountain Research* 33 (6): 683-9.



production, (b) improve capacity of herders and resilience of grassland ecosystems to better adapt to a changing climate, and (c) restore soil carbon stock and reduce releases of greenhouse gases (GHGs) from grassland management practices.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

15. The project's PDO is to pilot climate smart grassland management practices in Qilian County of Qinghai Province.

Key Results

16. Three PDO-level indicators for this project are (a) natural grassland productivity, (b) grassland carbon storage, and (c) herding incomes.

D. Project Description

17. The project will support four components: (a) Grassland Management Pilots, (b) Policy and Strategy Development, (c) Knowledge Management, and (d) Project Management.

18. **Component 1: Grassland Management Pilots (GEF Financing: US\$2,719,083).** This component will first support selected herders in Mole/Qilian to adopt a suite of climate-smart grassland management practices. Interventions to restore productivity of natural grasslands include (a) no-till grass seeding/fertilization for 530 ha of degraded natural grasslands to restore grassland productivity, (b) no-grazing in spring for about 50 days on 3,200 ha of winter/spring pasture to allow initial grass growth, and (c) enhancement of cultivated grasslands of 333 ha. In addition to the project support, the Government will continue implementing its ongoing grassland conservation programs in different parts of the project town, which include (a) grazing bans, (b) grass-livestock balance, (c) repair of existing fences and livestock pens, (d) control of rodent and insect pests, (e) value chain development, and (f) improvement in nutrition supplies in animal feed/fodder and adjustment of the herd structure. Pilot project interventions will be carried out in areas under grass-livestock balance areas. Participating herders from these areas will continue receiving support from the on-going PES scheme. Project activities will take full account of grassland biodiversity, GRFA and IAS issues to ensure the conservation and sustainable use of endemic grasses and livestock species, and the prevention and control of IAS as appropriate.

19. Selection of project beneficiaries will be done through a randomized and transparent selection process to ensure proper design and implementation of a robust impact evaluation (IE) that can generate concrete evidence of project impacts. To select the treatment and control groups of herder households, sample restrictions will be applied first to exclude herder alliances with high elevation of winter pastures (over 5,000 m) or with less than four herder households from all 27 NVs. For each AV, their NVs will be stratified and then randomly selected as treatment villages and half as control villages. This stratification process will seek a balance on key village-level characteristics that are likely to determine project-level outcomes, such as average elevation of winter pastures, soil types, and remoteness/accessibility. After the selection of treatment and control villages, a randomized process will be adopted to select three alliances from each treatment and control village as treatment and control alliances, respectively. It is expected that a total of 42 treatment alliances and 39 control alliances will be selected. From treatment and control alliances, four herder households will be selected as either treatment or control herder households. All treatment and control herder households will be interviewed for the detailed baseline, including their grassland management and herding practices. Treatment herder households will receive project support to improve their grassland management and herding practices. All herders will receive support from existing government programs. For the randomized



selection of alliances and herder households, public drawing events will be organized to ensure herders' full confidence in the selection process.

20. To receive project support, at the beginning of each year, treatment herder households will sign agreements with Qilian County to participate in project activities. Such agreements will detail clearly the responsibilities of treatment herder households, including a list of agreed grassland management and herding practices and associated technical instructions, technical support provided by the project, key results indicators to be monitored and reported, and the PES payment criteria and levels for verified implementation of agreed practices. Treatment herder households will be requested to invest their own resources first to implement such practices and keep evidence of their performed activities, such as payments to no-till seeding/fertilization services and fodder. As needed, treatment households with financial constraints could apply for partial support (advances) to carry out their agreed activities. Existing and project-supported extension services will provide needed technical support to all treatment households. In this regard, farmer field schools will be organized at the NV level to help treatment group herders better understand project-promoted climate-smart grassland management and herding practices.

21. At the end of each year, project-specific PES payments will be paid to treatment herder households based on their actual implementation results of agreed project activities. To obtain concrete evidence on the implementation and effect of project interventions, this component will recruit independent M&E consultants to verify grassland management and herding results at both treatment and control herding households. Advanced and low-cost monitoring techniques, such as satellite imaging and global positioning system tracking, will be used as appropriate to collect field data. Strict M&E requirements of IE will be followed for data collection. At the mid-term review, the project will examine the possibility of linking PES payments to actual improvements in grassland productivity or soil carbon based on M&E results of the first two years. Such a linkage between PES payments and actual performance could ensure the long-term sustainability of project interventions.

22. **Component 2: Policy and Strategy Development (GEF Financing: US\$450,000).** This component will first support MOARA to distill lessons learned from Component 1 activities into policy recommendations that may influence future grassland conservation policies and programs at the county, provincial, and national levels. In this regard, the first set of policy recommendations will be on measures to scale up climate-smart grassland management and herding practices in future grassland conservation programs. The second set of policy recommendations will be on how to design and implement evidence-based PES schemes to link financial incentives with actual achievements of desired conservation practices and results. Related to these policy recommendations, technical guidelines on climate-smart grassland management and herding practices and evidence-based PES systems will be prepared to support the policy discussions at the county, provincial, and national levels.

23. This component will support a study on the valuation of ecosystem services provided by grasslands under the project. This study is deemed necessary because it will help monetize such ecosystem services and thus help stakeholders understand better benefits from grassland conservation. Its results will also help refine the payment levels to be considered in future grassland PES schemes.

24. The component will also examine actions needed to include carbon credits generated from improved grassland management practices into China's national carbon trading system. Currently, the national system is in the process of including forest carbon credits to provide market incentives for forest conservation initiatives.

25. **Component 3: Knowledge Management (GEF Financing: US\$420,520).** This component will support first the creation of a project website and information dissemination through this web platform. It will also support MOARA to



develop a knowledge management and capacity building strategy through broad consultations. Under the strategy, MOARA expects to organize and participate in knowledge exchange and capacity building events domestically and internationally on sustainable grassland management. Such events will on one hand, help MOARA and its experts to strengthen their capacity on key topics of this project, for example, climate-smart grassland management practices and IE. On the other hand, these events will also help MOARA disseminate project results to wider audiences and thus to provoke necessary technical discussions and policy debates on the significance of project results and the possibility of scaling up such interventions with project counties, provinces, and at the national level.

26. This component will support knowledge management activities organized under the Partnership Program to ensure the project can learn best practices on sustainable GRFA uses and IAS management from—as well as exchange lessons learned from project activities with—other child projects. In addition, this component will support M&E activities of the Partnership Program, including but not limited to (a) sharing of annual project progress reports with the program and (b) participating in annual review meetings of the program.

27. **Component 4: Project Management (GEF Financing: US\$179,480).** This component will support MOARA to properly manage project implementation in closely collaboration with Qinghai Department of Agriculture and Rural Development (QDARA), Qilian Agriculture, Water Resources, Science and Technology Bureau (AWRSTB), and the Mole Township Government.

E. Implementation

Institutional and Implementation Arrangements

28. At the national level, a National Project Steering Committee (NPSC) will be created after project approval. Led by MOARA with participation of MOF, the National Development and Reform Commission (NDRC), MONR, SFGB, the Leading Group of Poverty Alleviation and Development of the State Council, Ministry of Science and Technology (MOST), the Ministry of Ecology and Environment, National Commission on Ethnic Minorities and All-China Women's Federation, the NPSC will guide project implementation, make decisions on major implementation issues, and review and consider policy recommendations developed under the project for national adoption. The NPSC will be supported by a National Project Management Office (NPMO) established under MOARA, which will coordinate project stakeholders at the national and provincial levels and manage overall project implementation.

29. In Qinghai, a Provincial Project Steering Committee (PPSC) will be established. It will be led by QDARA with participation of the Qinghai Finance Department, Qinghai Development and Reform Commission (QDRC), QFGD, Qinghai Commission on Ethnic Minorities, the Qinghai Leading Group of Poverty Alleviation and Development, Qinghai Science and Technology Department, Qinghai Ecology and Environment Department, Qinghai Women's Federation, and Haibei Tibetan Autonomous Prefecture Government. PPSC will oversee project implementation in Qinghai, ensure timely delivery of provincial commitments, and review and consider policy recommendations developed under the project for provincial adoption. PPSC will be supported by a Provincial Project Management Office (PPMO) to be established in QDARA. In terms of project implementation, PPMO will liaison closely with both the NPMO and the Qilian County Project Management Office (CPMO) to ensure timely implementation of proposed project activities in the province.

30. In Qilian, a Qilian Project Leading Group (QPLG) will be established. It will be led by the Vice County Head in charge of agriculture and grassland issues with representatives of Qilian AWRSTB, Forest and Grassland Bureau (FGB), Mole Township Government, and other relevant county agencies. QPLG will oversee project implementation in the



county, ensure timely provision of county commitments, review and consider policy recommendations developed by the project for county adoption. QPLG will be supported by Qilian CPMO to be established under the Qilian AWRSTB. This CPMO will have members from village working groups of the Mole Township Government and manage project implementation in Mole directly. CPMO will sign agreements with project herders at the beginning of a year and verify their implementation results at the end of the year.

31. A GEF Grant Agreement (GA) will be signed between the Bank and the Ministry of Finance (MOF) on behalf of the Government of China. Based on that, the MOF will sign an On-Granting Agreement with MOARA to authorize MOARA to manage the GEF grant and project implementation. MOARA will then formally sign an implementation agreement with the Qinghai Provincial Government. After that, the Qinghai Provincial Government will sign an implementation agreement with Qilian County Government. These agreements will detail roles and responsibilities of project implementation of concerned governments and agencies. A Project Implementation Manual (PIM) will be prepared before project negotiation to provide detailed guidance on all aspects of project implementation.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The project will be implemented in Mole Township of Qilian County of Qinghai Province. Located in northeast Qinghai, Qilian has an average elevation over 3,170 meters and a total area of 14,000 square kilometers, of which 80% are natural and alpine grasslands. Within Qilian, Mole is the township with over 22% of the county's productive grasslands and over 28% of the county's livestock population. In 2018, its total population is 7,182, of which about 49%, 38%, 8%, 3%, 2% are Mongolians, Tibetans, Hui, Han, and Tu ethnicities, respectively. Mole Town has a long and cold winter season and a short and warm summer season. The average annual temperature is 1.4°C. Daily temperature varies significantly. Temperature and precipitation also change vertically along with the increase of elevation. Precipitation concentrates in summer with an annual average precipitation of 415.0mm. The town has no frost-free period. The average annual evaporation is 1162.3mm.

G. Environmental and Social Safeguards Specialists on the Team

Songling Yao, Social Specialist
Yiren Feng, Environmental Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	This policy is triggered as Component 1 activities and existing government programs on grassland management will generate negative environmental impacts.



Performance Standards for Private Sector Activities OP/BP 4.03	No	This policy is not triggered as the participation of the private sector in project activities is not expected.
Natural Habitats OP/BP 4.04	Yes	This policy is triggered as the project will support sustainable management of productive but ecologically fragile natural grasslands.
Forests OP/BP 4.36	No	This policy is not triggered as proposed project activities will not finance any forest related activities.
Pest Management OP 4.09	Yes	This policy is triggered as the government's ongoing programs finance the use of pesticides to control grassland rodent and insect pests.
Physical Cultural Resources OP/BP 4.11	No	The policy is not triggered as the proposed project sites do not have physical and cultural resources as defined by OP4.11.
Indigenous Peoples OP/BP 4.10	Yes	This policy is triggered as the majority of herders in the project towns are ethnic minorities that qualify as Indigenous Peoples as defined by OP 4.10.
Involuntary Resettlement OP/BP 4.12	Yes	This policy is triggered as Component 1 activities and existing government programs, such as temporary grazing ban/control and herd structure adjustments, will restrict herders' access to their grasslands and in turn cause short-term income reduction for project herders.
Safety of Dams OP/BP 4.37	No	This policy is not triggered as (a) the project will not finance any new dams or rehabilitation of any dams as defined under the policy; and (b) project activities will not depend on irrigation from any dams.
Projects on International Waterways OP/BP 7.50	No	The policy is not triggered as the project does not involve transboundary water bodies.
Projects in Disputed Areas OP/BP 7.60	No	The policy is not triggered as the project does not involve any disputed areas.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Environmental Safeguards

The project is classified as a Category B project. Environmental safeguards policies triggered by the project are: Environmental Assessment (OP4.01), Natural Habitats (OP4.04), Pest Management (OP4.09).

Environmental Assessment (OP4.01): Project activities are designed to help increase productivity of both natural and



cultivated grasslands, reduce grazing pressure of natural grasslands, improve livestock production efficiency, and reduce pest damage to grass productivity. Among these activities, the use of pesticides, disturbance of natural grasslands, use of fertilizers, and repair of fencing and livestock pens will generate negative environmental impacts. An Environmental Impact Assessment (EIA) was prepared in accordance with applicable Chinese laws and regulations and the World Bank safeguards policies. It identified that negative environmental impacts from project activities during the entire project cycle - including construction dust, air pollution, noise, water pollution control, solid wastes, soil erosion, public and workers' health and safety - would be temporary, limited and site specific in nature and can be readily managed with available cost-effective mitigations measures. It also confirmed that successful project implementation will generate positive environmental benefits in the long run.

Natural Habitats (OP4.04): EIA has collected detailed information on natural habitats of the project town and analyzed potential impacts of project activities and associated government programs on such natural habitats. It confirmed that project areas were carefully screened and selected to exclude grassland areas located within the critical natural habitats such as the core and buffering zones of the Natural Reserve from project interventions. It concluded that successful implementation of the project will generate positive impacts on natural grassland ecosystems in the long run. Examples of such impacts are increased soil carbon storage, restored grassland productivity, reduced soil erosion, increase in biodiversity and improved water conservation.

Pest Management (OP4.09): A Pest Management Plan (PMP) was prepared. It identified major pest issues, current pesticide management practices, monitoring and evaluation activities, and capacity building needs for project stakeholders to improve their pest management practices.

Social Safeguards

Social safeguards policies triggered by the project are: Indigenous People (OP4.10) and Involuntary Resettlement (OP4.12).

Social Impacts and Social Assessment (SA): A SA was prepared to identify project stakeholders (including ethnic minority herders), to engage such stakeholders to participate in project design process, to assess project impacts on project affected households. Consulted stakeholders confirmed that successful implementation of this project will generate positive social benefits (such as increase in livestock productivity) in the long term. However, temporary restrictions on access to certain grassland areas and adjustments to herd structure may cause short-term decrease in herding income of the affected households. As such, the project's SA focused on potential income loss of the affected households as well as concerns and demands of the ethnic minority herders, women and the poor. The SA collected data from a properly classified and sizable of household samples. The SA also analyzed baseline information of potential beneficiaries and consulted with them on the proposed grassland management practices and related implementation arrangements.

Ethnic Minority: Indigenous People Policy (OP4.10) is triggered as the majority of the population of Mole/Qilian are ethnic minorities. An Ethnic Minority Development Plan (EMDP) was prepared based on findings of the SA. EMDP presented social contexts of the project areas, e.g. social infrastructure and income sources for different ethnic groups, and identified project impacts (both positive and negative) on these groups.

Involuntary Resettlement. Some practices to be supported by the project and being supported by existing government programs at project sites may include actions such as restricting access to natural grasslands and reducing animal stocking rates. These activities may potentially cause income reduction of the affected herders and farmers in short-



terms. Therefore, the policy is triggered. Gender differentiated consultation and analysis were conducted during the process.

Construction activities related to fence and livestock pens will be performed on land areas under the grassland management contracts of project herders. As such, land acquisition is not needed. However, temporary restrictions on access to and uses of certain natural grassland areas may potentially cause income reduction of the affected herders in short-terms. Therefore, the policy OP4.12 is triggered.

Involuntary Resettlement (OP4.12): Construction activities related to fence and livestock pens will be performed on land areas under the grassland management contracts of project herders. As such, land acquisition is not needed. However, temporary restrictions on access to and uses of certain natural grassland areas may potentially reduce herding income of the affected herders in short-terms. Therefore, the policy OP4.12 is triggered. Such income impacts were analyzed under the SA.

Gender: Social assessment during project preparation found that more than 30 percent of consulted herders were women. It notes that female herders have lower participation rates than their male counterparts in public consultations due to their lower educational levels and socio-cultural norms. The analysis also indicates that only less than 20 percent of female herders participated in livestock production cooperatives.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

It is expected that successful implementation of project activities will generate positive environmental and social impacts in the long term. Such impacts for project herders will include improved grass productivity, increased herding income and a more sustainable way of carrying out livestock production. At the national level, project interventions will generate knowledge on climate smart grassland management practices that can be adopted beyond the project town. More importantly, policy recommendations on how to link PES payments with actual results of grassland conservation may influence the design and implementation of China's future grassland conservation PES schemes and thus may have significant and sustainable impacts in the long run. Lastly, the project's direct and long-term impacts on GHG emission reduction from the project site and beyond will contribute to climate mitigation at the global level.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Alternatives were considered for (a) selection of grass varieties based on productivity and resistance to pests; (b) mixing ratios and quantity of seeds used in reseeded; and (c) selection of beneficiary herder households. For (a) and (b), results of available studies were used to decide the proposed project interventions. For (c), extensive consultations were performed during project preparation through the social assessment.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The client has prepared (a) EIA, EMP and PMP to address above-noted environmental safeguard policy issues; and (b) SA, PF, and EMDP to address above-noted social impacts that may arise from project interventions.

Environmental Safeguards

Environmental Assessment (OP4.01): An EMP was prepared based on national norms, proven practices in other Bank financed projects and practices recommended in Environmental Health and Safety Guidelines of World Bank Group. It specified all aspects of environmental management issues during the entire project cycle, including but not limited to,



site selection, construction dust management, air pollution control, noise impact control, water pollution control, solid wastes management, soil erosion control, public and workers' health and safety, as well as public consultations on the environmental issues. It also included the reporting, monitoring and supervision arrangements for the project implementation. With proper implementation of the proposed mitigation measures, the potential adverse impacts are expected to be avoided, eliminated entirely, minimize or mitigated to an acceptable level.

Natural Habitats (OP 4.04): The EMP has included proposed measures to avoid, minimize and mitigate identified negative impacts, for instance, carefully selection of indigenous grass/fodder species to avoid the use of IAS, and design monitoring plans to monitor the pest and biodiversity of the grassland ecosystems etc. Adequate mitigation measures have been incorporated in the EMP to manage the limited ecological impacts that may occur during project implementation.

Pest Management (OP 4.09): The PMP was prepared to help promote sound pest management practices, including integrated pest management (IPM), in these government programs at project sites. It incorporated existing good pest management practices from the project areas, outlined IPM-based pest control and management methods, and provided concrete recommendations to improve pest management practices. Such recommendations include promotion of IPM to reduce the use of toxic pesticides, improvement in pest forecasting, use of physical prevention measures, promotion of biological and botanical pesticides, and capacity building for herders and governmental agencies. Finally, the PMP provided a list of pesticides that may be used under the project in compliance with World Health Organization's recommended categories. Costs of the training and monitoring programs were budgeted in the project cost.

Disclosure of Environmental Safeguard Documents: In accordance with the Bank disclosure policy, prior to project appraisal, environmental safeguards documents, including the EIA/EMP, PMP were made available in print at all six administrative villages of the Mole Township and electronically on the websites of the Rural Environment and Energy Agency of the Ministry of Agriculture and Rural Affairs. The environmental safeguard documents were also disclosed at the World Bank website.

Social Safeguards

Ethnic Minorities (OP4.10): The EMDP confirmed that the pilot evidence-based PES scheme will help mitigate negative social impacts to project affected herders. This pilot will also help herders to participate in project activities in a meaningful way and benefit from project interventions proportionally.

Involuntary Resettlement (OP4.12): A Process Framework (PF) was prepared with specified procedures and measures to ensure the livelihood of the affected population will not only be restored but strengthened. Gender differentiated consultation, analysis and measures was conducted during the process of PF preparation.

Gender: The SA proposed the following measures to mainstream gender issues into project design and implementation: (a) project affected female herders will be treated and compensated equally under project interventions; (b) female herders' participation rates in the community consultation process should reach at least 40 percent; (c) female herders' participation rates in technical trainings should reach at least 40 percent; and (d) two gender-related indicators will be closely monitored during project implementation: ratios of female beneficiaries and female trainees. These recommendations have been incorporated into the project design.

Disclosure of Social Safeguard Documents: The SA, the EDMP and the PF were disclosed in print at all six



administrative villages of the Mole Township in an understandable and accessible manner, and electronically on the websites of the Rural Environment and Energy Agency of the Ministry of Agriculture and Rural Affairs and the World Bank.

Social Monitoring: The PF and the EMDP included monitoring indicators, monitoring frequency and reporting requirements for internal and external monitoring work on the relevant document implementation.

Project-level GRM: Project-level GRM systems specified in the PF and EMDP were developed to ensure timely reporting, recording and resolving of project related grievances. These GRMs will allow the access of project herders from largely remote areas. Complaints will be recorded and resolved, as well as reported to the Bank, in a timely manner.

Client Capacity: MOARA is managing an ongoing GEF China Climate Smart Staple Crop Project (P144531). Through that project, MOARA has gained knowledge of the Bank's safeguard policies and procedures. With the Bank team's support, MOARA has managed safeguard risks and implemented agreed mitigation measures satisfactorily since the beginning of project implementation in 2014. For this project, all safeguard measures, including safeguard monitoring, have been fully incorporated into project activities. As such, MOARA is expected to have sufficient capacity to manage safeguard issues and implement all agreed safeguards actions.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Key stakeholders were identified during preparation through multiple consultations at the national and local levels with government and non-government stakeholders. Government stakeholders include relevant ministries (MOARA, Ministry of Finance, National Development and Reform Commission, Ministry of Nature Resources, Ministry of Science and Technology, State Forest and Grass Bureau, National Leading Group of Poverty Alleviation and Development, National Commission on Ethnic Minorities) and their corresponding agencies at the provincial and county levels. Non-government stakeholders include research institutes and universities (China Academy of Agriculture Sciences, China Agriculture University, Gansu Agriculture University and Qinghai University), civil society organizations (National Women's Federation, The Nature Conservancy), and the project's direct beneficiaries - herder households in Mole township.

During preparation, concerns of the key stakeholders were identified, addressed and incorporated into the project design. Mitigation measures were proposed in safeguard documents and will be carefully carried out during the implementation phase of this project. During project implementation, routine consultations will be performed as part of the project's monitoring and evaluation tasks.

Environmental safeguard documents (EIA and PMP) were physically disclosed at all six administrative villages of Mole Town on May 14, 2019. Final versions of EIA and PMP are made available at the website of the Rural Energy and Environment Agency (REEA) of MOARA on July 2, 2019. Social safeguard documents (SA, EMDP, and PF) were physically disclosed at all six administrative villages of Mole Town on June 26, 2019, on the REEA website on June 27, 2019, by the Bank on July 6, 2019. Final versions of EMDP and PF were physically disclosed at all six administrative villages of Mole Town on September 1, 2019, on the REEA website on August 29, 2019, and by the Bank on September 1, 2019.



B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
02-May-2019	06-Jul-2019	

"In country" Disclosure

China

14-May-2019

Comments

In print at six administrative villages of the Mole Township on May 14, 2019; and electronically on the REEA website on July 2, 2019.

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
02-May-2019	01-Sep-2019

"In country" Disclosure

China

26-Jun-2019

Comments

In print locally at the six administrative villages of the Mole Township on June 26, 2019, and on the REEA website on June 27, 2019. Final version disclosed locally on September 1, 2019 and on the REEA website on August 29, 2019.

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank	Date of submission for disclosure
02-May-2019	01-Sep-2019

"In country" Disclosure

China

26-Jun-2019

Comments

In print locally at the six administrative villages of the Mole Township on June 26, 2019, and on the REEA website on June 27, 2019. Final version disclosed locally on September 1, 2019 and on the REEA website on August 29, 2019.



Pest Management Plan

Was the document disclosed prior to appraisal?

Yes

Date of receipt by the Bank

02-May-2019

Date of submission for disclosure

06-Jul-2019

"In country" Disclosure

China

14-May-2019

Comments

In print at six administrative villages of the Mole Township on May 14, 2019; and electronically on the REEA website on July 2, 2019.

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP 4.09 - Pest Management



Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

Yes

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes



All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

Task Team Leader(s):	Jiang Ru Wendao Cao
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Approved By

Safeguards Advisor:		
Practice Manager/Manager:	Ann Jeannette Glauber	11-Sep-2019
Country Director:	Harold L. Bedoya	11-Sep-2019



GEF Technical Annex

1. Global Environmental Problems. As noted in Paragraphs 2 and 3 of the main text of this document, grasslands provide critical ecosystem services to a large portion of the global and Chinese population. Due to overgrazing associated with rapid population and economic growth, grasslands have been exploited for livestock production benefits over last few decades. Often, productive species are promoted to replace endemic but resilient livestock species. Grassland management with such production centric goals has greatly reduced biodiversity and productivity of grassland ecosystems and switched grasslands from a net carbon sink to a source of GHG emission. Under a changing climate, such management practices also pose significant risks of pest and IAS infestation. Conservation and sustainable use of grassland ecosystems has become a global challenge.
2. Root Causes. For China, the root causes for grassland degradation include: (a) economic development and poverty alleviation policies and strategies that center on productivity; (b) the grassland management contract system that has provided limited incentives for individual herders to adopt sustainable grassland management practices (as noted in Paragraph 3 of the main text of this document); and (c) ineffective herding practices that equate quantity to productivity.
3. Barriers. As noted in Paragraphs 4 and 5 of the main text of this document, the Government of China has recognized the first root cause recently and promoted the conservation and sustainable use of grassland ecosystems, including the implementation of various grassland PES schemes since 2011. However, a number of barriers have prevented these schemes from achieving intended conservation results: (a) a top-down design of the schemes that has yet to address herders' need and concerns; (b) low level subsidies that may compromise herders' livelihoods if they follow strictly requirements of these schemes; (c) weak monitoring and enforcement that has disconnected PES payments from intended conservation results; (d) rigid implementation arrangements for grazing bans; and (e) uncertainties associated with short-term horizons of these programs.
4. Baseline Scenario. Paragraphs 4 and 5 of the main text of this document provides an overview of the baseline scenario at the national level: the government has tried to promote grassland conservation through various programs with limited achievements. Furthermore, Paragraphs 7-13 of the main text of this document provides detailed baseline situations of the project county Qilian and the project township Mole, which clearly shows significant overstocking at the local level even with the ongoing support from the grassland conservation PES schemes.
5. Project/Alternative Scenario. Paragraphs 14 and 18-27 of the main text of this document present the project scenario, which intends to support climate smart grassland management practices and an evidence-based PES scheme at the project county. Implemented in parallel to existing grassland conservation schemes of the government, such pilots will explore effective ways to address root causes (b) and (c) by removing barriers (a), (b) and (c) identified above.
6. Incremental Cost Reasoning. This project will be implemented in parallel with the government's existing grassland conservation programs and PES schemes. The additionality of this project lies in its efforts to test climate smart grassland management practices and the evidence-based policy design and implementation approaches that are new to the baseline scenario. Its proposed activities are intended to



showcase to all stakeholders how an evidence-based PES scheme can be designed and implemented to help herders change their grassland management and herding practices to achieve desired grassland conservation and livelihood development targets. Results of this project will help MOARA to generate concrete policy recommendations that may influence the design and implementation of China’s future PES schemes for conservation and sustainable uses of its grassland ecosystems. As such, this project will provide incremental but catalytic support to help MOARA initiate meaningful policy dialogues among stakeholders for a potential reform to improve the effectiveness and efficiency of China’s future grassland conservation policies and programs.

- 7. Global Environmental Benefits (GEB). The project contributes directly to climate mitigation. Through the pilot of climate smart grassland management and herding practices, the project will help avoid soil carbon releases from degraded grasslands and increased carbon storage from restored and enhanced grasslands at project sites.
- 8. Key Stakeholders. The table below provides detailed discussions on roles and responsibilities of key project-level stakeholders. Stakeholder engagements will be reviewed routinely during project implementation to ensure full participation of all key stakeholders.

Stakeholder	Roles and Responsibilities
MOF and Qinghai Dept. of Finance	Serve as China’s GEF Focal points, MOF will review and sign off project documents. Specifically, MOF will sign a grant agreement with the Bank on behalf of the Government of China and an on-granting agreement with MOARA to enable project implementation. Serve as a NPSC member, MOF will oversee project implementation with other stakeholders. It will review and consider policy recommendations of the project in the design and implementation of future national grassland conservation programs. In Qinghai, as a member of the PPSC the provincial Finance Department will oversee project implementation with other provincial stakeholders. It will also review and consider policy recommendations of the project in the design and implementation of future provincial grassland conservation programs.
NDRC and QDRC	Serve as a NPSC member, NDRC will oversee project implementation with other stakeholders. It will review and consider policy recommendations of the project in the design and implementation of future national grassland conservation programs. In Qinghai, as a member of the PPSC the QDRC will oversee project implementation with other provincial stakeholders. It will also review and consider policy recommendations of the project in the design and implementation of future provincial grassland conservation programs.



Stakeholder	Roles and Responsibilities
MOARA	Serve as the lead national executing agency for the Partnership Program with core responsibilities for agrobiodiversity conservation, IAS Management and productive uses of grassland ecosystems. Led both the Steering Committees of the Partnership and this child project, MOARA will work with other stakeholders to supervise the implementation of the Partnership Program and all child projects. For this child project, the Department of Science, Technology and Education of MOARA will manage the NPMO to implement this project. MOARA will review and consider policy recommendations of the project in the design and implementation of future national grassland conservation programs.
MEE and Qinghai Ecology and Environment Department	Serve as a NPSC member, MEE will closely monitor project implementation with other stakeholders. It will review and consider policy recommendations of the project in the design and implementation of future national natural conservation programs. In Qinghai, as a member of the PPSC the Qinghai Ecology and Environment Department will monitor project implementation with other provincial stakeholders. It will also review and consider policy recommendations of the project in future provincial natural conservation programs.
MONR	As the national ministry oversees the status and use of natural resources (including grasslands), MONR has closely involved in project preparation. As a member of the National Steering Committee, MONR will continue supporting MOARA to implement this project. It will also review and consider policy recommendations of the project in the design and implementation of future national grassland conservation programs.
SFGB and QFGD	In charge of grassland conservation and associated national funding, Grassland Conservation Department of SFGB has actively participated in project preparation. As a member of the National Steering Committee, SFGB will continue supporting MOARA to implement this project. It will also review and consider policy recommendations of the project in the design and implementation of future national grassland conservation programs. Correspondingly, QFGD will oversee project implementation as a member of the PPSC. It will also review and consider policy recommendations of the project in the design and implementation of future provincial grassland conservation programs.



Stakeholder	Roles and Responsibilities
QDARA	As the lead agency for QPSC, QDARA will work closely with MOARA and other national, provincial and county stakeholders for project implementation. Within the province, it will ensure full cooperation of all provincial stakeholders, the Haibei Prefecture Government, and the Qilian county stakeholders. It will also ensure timely delivery of provincial funding to parallel activities to the county. It will also review and consider policy recommendations of the project in the design and implementation of future provincial grassland conservation programs.
National and Qinghai Leading Groups of Poverty Alleviation and Development	As members of the NPSC and PPSC respectively, the National and Provincial Level representatives will oversee project implementation. They will review and consider policy recommendations of the project in the context of rural development and poverty alleviation at the national and provincial level.
National and Qinghai Commissions on Ethnic Minorities	As members of the NPSC and PPSC respectively, the National and Provincial Level representatives will oversee project implementation. They will review and consider policy recommendations of the project in the context of inclusive development for ethnic minorities at the national and provincial level.
National and Qinghai Women’s Federations	As members of the NPSC and PPSC respectively, the National and Provincial Level representatives will oversee project implementation. They will review and consider policy recommendations of the project in the context of woman development at the national and provincial level.
MOST and Qinghai Science and Technology Department	As members of the NPSC and PPSC respectively, the National and Provincial Level representatives will oversee project implementation. They will review and consider policy recommendations of the project in the context of climate smart grassland management and herding practices at the national and provincial level.
Qilian County Government	Through its AWRSTB, the county government will manage pilot activities under Component 1. It will ensure that county level resources and support will be provided to project herders. Its AWRSTB will work with QFGD and MOARA to perform all required project management activities and timely disbursement of project PES payments.
Mole Township Government	Working with county stakeholders, Mole Township Government will directly organize project herders to participate in project implementation through its existing village-level working groups. It will support county, provincial and national stakeholders to supervise project implementation at the site level.



Stakeholder	Roles and Responsibilities
Pastoral Communities	Pastoral communities lie at the heart of the project. Their needs and concerns have been fully considered during project preparation. The selected herders in the treatment group will be supported to understand and carry out project promoted grassland management practices. Results of their activities will be broadly shared with other herders so that all herders will learn from project interventions and eventually improve their own grassland management and herding practices.
Relevant National and Provincial Scientific and Research Institutions	Research institutes participated in project preparation actively. They will continue providing technical advice and inputs to ensure proper implementation of project activities. They will also ensure effectively coordination between project activities with relevant national and provincial research initiatives. They will help summarize and disseminate project results at the national and international levels.
NGOs	MOARA has consulted the Nature Conservancy on their similar PES programs in Inner Mongolia. In addition to learning experience from those programs, MOARA will explore potential cooperation opportunities with this and other NGOs during project implementation.

9. Contributions to the Partnership Program. The table below illustrates how this child project contributes to the Partnership Program.

Partnership Program Components / outcomes / indicators	Project contributions to program level results. Components / outcomes / indicators
Component 1: Strengthened enabling environment	Project Component 2: Policy and Strategy Development
Outcome 1.1: Strengthened policy, regulatory and strategic frameworks and cross-sectoral coordination at national and provincial levels support a) in-situ conservation and sustainable use of GRFA, and b) the control of threats posed by IAS to sustainable agricultural development, and c) evidence-based and climate-smart conservation and management of grassland ecosystems	GEF Outcome 2a: Policy options available for decision-makers and stakeholders to consider: (a) the design and implementation of future grassland conservation programs; (b) climate smart grassland management and herding practices; and (c) the inclusion of grassland carbon credits in the National Carbon Trading System.
Outcome 1.2: Strengthened cross-sectoral coordination results in more effective approaches for the conservation and sustainable use of GRFA and grasslands	GEF Outcome 3c: Effective coordination and implementation of the project to promote the conservation and sustainable use of grassland ecosystems.



<p>Outcome 1.3: Increased government financing for in-situ conservation and sustainable use of GRFA and grassland ecosystem, including for the prevention, control and management of IAS threats</p>	<p>GEF Outcome 2a: Policy options available for decision-makers and stakeholders to consider in the design and implementation of future grassland conservation programs, which will highlight the needs of sufficient PES payments for future grassland conservation programs.</p>
<p>Component 2: Incentive mechanisms</p>	<p>Project Component 1: Grassland Management Pilots</p>
<p>Outcome 2.1: Sustainable conservation and management approaches established which improve the in-situ sustainable use and conservation of GRFA and deliver social, financial and livelihood benefits to farmers in parallel</p>	<p>(GEF-7 Core Indicator 4): Area of landscapes under improved practices (hectares; excluding protected areas): 80,000 ha</p> <p>GEF Outcome 1a: Demonstrated evidence-based PES scheme that link PES payments with herders’ efforts to improve their grassland management and herding practices.</p> <p>GEF Outcome 1b: Demonstrated climate smart grassland management and herding practices that can deliver livelihood benefits to project herders: 160 herder households with 10% increases in herding incomes</p>
<p>Outcome 2.2: Effective participatory approaches for the prevention, control and management of IAS impacts on GRFA developed and tested in target agricultural landscapes</p>	<p>No direct contribution.</p>
<p>Outcome 2.3: Community-based grassland management approach (including sound biodiversity and IAS management practices) and evidence-based payments for ecosystem services (PES) policy scheme with creditable monitoring, reporting and verification (MRV) system tested in selected provinces and ready for national scale up</p>	<p>GEF Outcome 1a: Demonstrated evidence-based PES scheme that link PES payments with herders’ efforts to improve their grassland management and herding practices.</p> <p>GEF Outcome 1b: Demonstrated climate smart grassland management and herding practices that can deliver livelihood benefits to project herders</p>
<p>Component 3: Institutional capacity strengthening</p>	<p>Component 3: Knowledge Management</p>
<p>Outcome 3.1: Increased effectiveness of participatory approaches for the conservation and sustainable use of GRFA and sustainable management of grassland ecosystems</p>	<p>(GEF-7 Core Indicator 11): number of director beneficiaries disaggregated by gender as a co-benefit of GEF investment</p> <p>GEF Outcome 1b: Demonstrated climate smart grassland management and herding practices that will help herders improve their efforts to effective conservation and sustainable uses of GRFA and grassland ecosystems</p>



Outcome 3.2: Strengthened institutional capacity of relevant public sector agencies within target sites, and of lead national institutions, for the in-situ conservation and sustainable use of GRFA, for the management of IAS impacts on agrobiodiversity, and for evidence-based and climate-smart grassland management practices	GEF Outcome 3b: improved technical capacity of officials and researchers on climate smart grassland management and herding practices, as well as the design and implementation of evidence-based PES schemes
Component 4: Program Coordination, Knowledge Management	Component 3: Knowledge Management
Outcome 4.1: Improved understanding among decision makers, the general public and key stakeholder groups on the value of GRFA and importance of in-situ conservation, and evidence-based policy making for climate-smart grassland management, and increased access by all groups to information	GEF Outcome 3a: improved herders' capacity on climate smart grassland management and herding practices GEF Outcome 3b: improved technical capacity of officials and researchers on climate smart grassland management and herding practices, as well as the design and implementation of evidence-based PES schemes
Outcome 4.2: Monitoring and evaluation demonstrates efficient use of program funds, rationalization of national, provincial and local level inputs, and sharing of information, resources and expertise between projects, along with on-going exchange of lessons and best practices	GEF Outcome 3d: Knowledge Management Platform is actively used
Outcome 4.3: Effective coordination of program activities across national and provincial stakeholders and GEF agencies	GEF Outcome 3c: effective coordination and implementation of the project and the Partnership Program