Preface

In accordance with the 28 C/2.4 resolution in the Law Framework of “Plan for Man and Biosphere” passed in the Twenty-eighth Conference of the UNESCO, Article 4 specifies the standards that should be abided by regions, designated as biosphere reserves. Besides, Article 9 stipulates that a ten-year evaluation is conducted every nine years which is based on the report prepared by authorities concerned and the result will be submitted to the Secretariat of countries concerned. Attachment 3 encloses texts related to Law Framework.

This form helps countries prepare the state reports stipulated by Article 9, and updates data so that the Secretariat can obtain data related to biosphere reserves. This report must be helpful for the ICC of MAB to inspect biosphere reserves, and to see whether standards specified in the Article 9, especially the three functions are fulfilled. What must be noted is that how biosphere reserves fulfill all standards is required to be pointed out in the last part (standards and job schedule).

Information from this ten-year evaluation will be used by the UNESCO for the following objectives:

(a) Serves the inspection of biosphere reserves conducted by the ICC and departments related to the ICC of MAB:

(b) Serves global information systems, especially networks and publications of Man and Biosphere by the UNESCO so as to facilitate the exchange between different people with a focus on biosphere reserves and exert a mutual impact.

If any part of this report has a necessity to be confidential, please specify.

This form is composed of the following three parts:

• Part 1 is the abstract, focusing on pointing out that the major changes took place during the period of the report.
• Part 2 gives a detailed narration which is related to properties of humankind, physics and biology, and systems.
• Part 3 consists of two attachments (A), Attachment 1(A.1) being used to update the contents of biosphere reserves in the MAB network and Attachment 2 to provide the fax number and communication materials related to biosphere reserves (A.2.).

Attachment 3 is the law framework of the network of World Biosphere reserve.

Please provide a maximum of materials and supportive documents, especially:

➢ A clear map (refer to 2.3.1);
➢ Law texts in terms of regions

Application forms should be filled in English, French or Spanish. Two pieces of them must be submitted to the Secretariat, and specific provisions are as follows:

1. The original or copy has an original signature, a certificate of approval, a regional map and supportive documents. Documents are submitted to the Secretariat via an official channel of the UNESCO such as the National Council of the UNESCO and its permanent delegates:

2. An evaluation form and an electronic version (a floppy disc and CD) of map. The electronic one can be directly sent to the Secretariat of Man and Biosphere:

UNESCO
Department of Ecology and Geo-science
1, rue Miollis
F-75352 Paris Cedex 15, France (Paris, France)
Telephone Number: + 33 (0) 1 45 68 40 67
Fax Number: + 33 (0) 1 45 68 58 04
E-mail: mab@unesco.org
www.unesco.org/mab
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Part 1 Abstract

(a) Name of the biosphere reserve: Dalai Lake Biosphere reserve
(b) Country: China
(c) Time of passing: December 16, 2002
(d) Time of former evaluations: No
(e) If your answer is yes, please show the viewpoints of the former evaluations from the MAB-ICC:
   None
(f) What follow-ups were adopted; if they are not completed/ launched, please explain it.
   None
(g) Improvements of the measures to fulfill the biosphere reserve’s objectives.
   None
(h) Please brief on the schedule of this ten-year evaluation

Summarize the ten-year work of Dalai Lake Biosphere reserve → fill and submit the “Evaluation Form of World Biosphere Reserve” to the Department of Ecology and Geoscience of the UNESCO → accept an evaluation notice from the Secretariat of China Committee, World Biosphere, the UNESCO → commence preparing the ten-year evaluation conference of the World Biosphere reserve → decide on leaders of the National Council of Man and Biosphere of China and members of its panel to be invited to this evaluation activity

(i) Areas and space configuration:

<table>
<thead>
<tr>
<th>Areas and space configuration</th>
<th>Data of last report (nomination or evaluation form)</th>
<th>Recommended changes (If recommended)</th>
</tr>
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<tbody>
<tr>
<td>Acreage of the core area of land</td>
<td>75791hm²</td>
<td>None</td>
</tr>
<tr>
<td>Acreage of the Buffer Area of land</td>
<td>38534hhm²</td>
<td>None</td>
</tr>
<tr>
<td>Acreage of the transitional area of land</td>
<td>625675hm²</td>
<td>None</td>
</tr>
<tr>
<td>Acreage of the core area of ocean</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Acreage of the buffer area of ocean</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Acreage of the transitional area of ocean</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

1. Population in the biosphere reserve:

<table>
<thead>
<tr>
<th>Population in the biosphere reserve</th>
<th>Data of last report (nomination or evaluation form)</th>
<th>Current data (please explain the date from census or other sources)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core area (permanent and seasonal)</td>
<td>106/0</td>
<td>13 families...28</td>
</tr>
<tr>
<td>Buffer area (permanent and seasonal)</td>
<td>236/57</td>
<td>133 families/…266</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Transitional area (permanent and seasonal)</td>
<td>11020/750</td>
<td>A total of 650 families, 1579/192</td>
</tr>
</tbody>
</table>

2. Ongoing or planned budgets (fund and main sources of the special fund), international, regional or national projects/plans.

<table>
<thead>
<tr>
<th>Budget and data of last report(nomination or evaluation form)</th>
<th>Current budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of fund: a total of 800,000 yuan from the country, the autonomous region and the local government; Their corresponding proportions are 19%, 6%, and 75%.</td>
<td>Source of fund: the central government, The Department of Forestry of Inner Mongolia Autonomous Region and Hulun Buir City.</td>
</tr>
<tr>
<td>Annual budget</td>
<td>A total of Ten years (2003——2012)</td>
</tr>
<tr>
<td>A total investment of 53,750,000 yuan includes the following parts:</td>
<td>A total investment of 53,750,000 yuan includes the following parts:</td>
</tr>
<tr>
<td>Fund for basic construction from the central government is 18,670,000 yuan, accounting for 34.74% of the total amount; Special fund for wetland protection from the central government is 6,000,000 yuan, taking up 11.16% of the total amount; Special subsidy fund from the central government is 1,400,000 yuan, occupying 2.60% of the total amount; Special subsidy fund from the Department of Forestry of Inner Mongolia Autonomous Region is 1,460,000 yuan, 2.71% of the total amount; Supporting fund for basic construction from the Reserve is 1,900,000 yuan, 3.54% of the total amount; Fund from the Hulun Buir City is 24,320,000 yuan, 45.25% of the total amount.</td>
<td>Fund for basic construction from the central government is 18,670,000 yuan, accounting for 34.74% of the total amount; Special fund for wetland protection from the central government is 6,000,000 yuan, taking up 11.16% of the total amount; Special subsidy fund from the central government is 1,400,000 yuan, occupying 2.60% of the total amount; Special subsidy fund from the Department of Forestry of Inner Mongolia Autonomous Region is 1,460,000 yuan, 2.71% of the total amount; Supporting fund for basic construction from the Reserve is 1,900,000 yuan, 3.54% of the total amount; Fund from the Hulun Buir City is 24,320,000 yuan, 45.25% of the total amount.</td>
</tr>
<tr>
<td>Among them, 18,880,000 yuan goes to personnel fund, 3,660,000 to public fund and 1,830,000 yuan to special fund.</td>
<td>Among them, 18,880,000 yuan goes to personnel fund, 3,660,000 to public fund and 1,830,000 yuan to special fund.</td>
</tr>
<tr>
<td>Annual budget of 2012</td>
<td>Annual budget of 2012</td>
</tr>
<tr>
<td>A total investment of 11,090,000 yuan includes the following parts:</td>
<td>A total investment of 11,090,000 yuan includes the following parts:</td>
</tr>
<tr>
<td>Fund for basic construction from the central government is 6,220,000 yuan, 56.09% of the total amount; Fund from the Hulun Buir City is 4,870,000 yuan, 43.91% of the total amount.</td>
<td>Fund for basic construction from the central government is 6,220,000 yuan, 56.09% of the total amount; Fund from the Hulun Buir City is 4,870,000 yuan, 43.91% of the total amount.</td>
</tr>
<tr>
<td>Among them, 4,080,000 yuan goes to personnel fund, 570,000 yuan to public fund and 210,000 yuan to special fund.</td>
<td>Among them, 4,080,000 yuan goes to personnel fund, 570,000 yuan to public fund and 210,000 yuan to special fund.</td>
</tr>
</tbody>
</table>
3. International, regional, bilateral or multilateral cooperation framework. If applicable, please explain the contributions the biosphere reserve made to attaining objectives, and putting the development mechanisms of documents into use such as international and regional bilateral or multilateral treaties and conventions.

a. On March 29, 1994, a treaty related to the establishment of a common nature reserve among China, Mongolia and Russia was signed among the Bureau of Environmental Protection of PRC, the Ministry of Nature and Environmental Protection and the Ministry of Nature Conservation and Natural Resources of Russian Federation;

b. On December 26, 2005, a treaty aimed to establish sister reserve ties was signed between Dalai Lake World Biosphere reserve of Inner Mongolia and Xishuangbanna World Biosphere reserve of Yunnan;

c. On April 5, 2006, a cooperation agreement aimed to make concerted efforts to establish a meteorological wetland monitoring station was signed between Hulun Buir Bureau of Meteorology and Dalai Lake State Nature Reserve Administration Bureau of Inner Mongolia;


e. On May 28, 2008, an cooperation memo of the management of the park and the nature reserve of the department of entertainment was signed between the Department of Forestry of Inner Mongolia of PRC and Alberta Tourism of Canada;

f. On September 25, 2010, a treaty was signed between Dalai Lake Nature Reserve of Inner Mongolia and Shengjin Lake of Anhui, aimed to establish sister reserve ties;

g. On October 31, 2011, an agreement concerning the establishment of a teaching and scientific research base was signed between the School of Life and Environmental science of Minzu University of China and Beijing Forestry University;

h. On December 23, 2011, a cooperation agreement was signed between Atai Lake Nature Reserve of Inner Mongolia and Beijing Forestry University;

Part 2 Ten-year Evaluation Report

1. BIOSPHERE RESERVE

1.1 When was it designated as a biosphere reserve: on December 16, 2002

1.2 Time of former evaluations (if applicable): No

1.3 Suggestions for former ten-year evaluations and adopted measures (if applicable); If they are not completed/launched, please explain it.

1.4 Other observations and comments

No

1.5 Brief on the job schedule of the current ten-year evaluation:

Summarize the ten-year work of the Dalai Lake Biosphere reserve → fill and submit the “Evaluation Form of World Biosphere reserve” to the Department of Ecology and Geo-science of the UNESCO → accept an evaluation notice from the Secretariat of China Committee, World
Biosphere, the UNESCO → commence preparing the ten-year evaluation conference of the World Biosphere reserve → decide on leaders of the National Council of Man and Biosphere of China and members of its panel to be invited to this evaluation activity

1.5.1 What stockholders are involved in it?

Herdsmen around the World Biosphere reserve and tourism enterprises

1.5.2 What ways (for example, seminars, meetings and expert consulting conferences) were adopted to involve stockholders in it?

Seminars and expert consulting conferences were held.

1.5.3 In this evaluation process, how many meetings, seminars or other similar meetings were held?

Meeting was held once; seminar on community participative management in the reserve was held once.

1.5.4 Attendance condition, Is it overall and balanced? (describe participants and stockholders)

Yes. Participants of this activity include the Panel of the National council of Man and Biosphere, the Administration Bureau of Biosphere, leaders of the People’s Government of Xin Barag Left Banner, Su Muda of Baogede Wulasumu People’s Government of Xin Barag Right Banner…more than forty herdsmen.

2. CHANGES IN THE BIOSPHERE RESERVE OVER THE PAST TEN YEARS:

2.1 A brief summarization: elaborated on the changes in the local economy, landscape and habitat utilization and other issues. Take notice of the major changes in the administrative system arrangement of the biosphere reserve and variations (if occurred) (include the biosphere reserve organization/coordinates/administrators) in the coordinative arrangement provided for the biosphere reserve. Specify the roles that the biosphere reserve organization/coordinates/administrators play in launching or responding to these changes.

Implemented the “Restoring Dalai Lake Wetland’s Ecosystem (divert water from a river to a lake) project:

Hailar River: Historical records and inspections of the existing vestige show that Hailar River stretched as far as to the south of Lofty Gang Pasture, then to the southwest and finally met Hulun Lake (Dalai Lake) many years ago, and that the direct upper reaches of Erguna River is not Hailar River, but Dalanerluome River (Xinkai Lake). The “Diverting Water from a River” to a lake Project designed to divert water from Hailar River to Hulun Lake (Dalai Lake) was authorized in 2005, launched on July 12, 2007 and put into operation on August 22, 2008. This project is a ecological water conservancy one, invested by the Ministry of Water Resources of PRC, with a targeted flow capacity of 0.83 to 1.05 billion cubic meters. This project is designed with the following two objectives: One is to restore the ecosystem of Hulun Lake (Dalai Lake); the other to adjust the allocation of the production water supply of the agriculture and industry, and domestic water supply in the Xin Barag Right Banner, Xin Barag Left Banner and Manzhouli City.

2.2 Update coordinates (if applicable). If any changes take place in the geographical coordinates of the biosphere reserve, please list them (coordinate system WGS 84):

<table>
<thead>
<tr>
<th>Basic locations:</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central point:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northernmost point:</td>
<td>N49°20′20″</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Coordinates</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Southernmost point</td>
<td>N47°45'50&quot;</td>
<td></td>
</tr>
<tr>
<td>Westernmost point</td>
<td>E116°50'10&quot;</td>
<td></td>
</tr>
<tr>
<td>Easternmost point</td>
<td>E118°10'10&quot;</td>
<td></td>
</tr>
</tbody>
</table>

2.2.2 If necessary, provide a topographic map which covers the exact locations of the three sections of the biosphere reserve and meanwhile afford both its paper and electronic block maps. The shape files used to generate maps must enclose an electronic copy.

If possible, provide links to access this map in the Internet (for example, Google maps, websites …).

Zonation Map of Inner Mongolia Dalai Lake National Nature Reserve

2.2.3 Biosphere reserve demographic changes.

The latest census data:

Zonation Map of Inner Mongolia Dalai Lake National Nature Reserve
The total number of families within Reserve is 650, with 1771 residents, the permanent resident population of 1579 and floating population of 192.

2.2.4 Updating protection functions including the main arising changes since the last report.
(Which is mentioned simply here and is referred at the following section 4 specifically).
No updating.

2.2.5 Updating development features, including the main arising changes since the last report.
(Which is mentioned simply here and is referred at the following section 5 specifically).
No updating.

2.2.6 Updating logistical support functions, including the main arising changes since the last report.
(Which is mentioned simply here and is referred at the following section 6 specifically)

Infrastructures situation

From 1994 the establishment of Dalai Lake National Nature Reserve Administration to the end of 2010, through more than ten years' construction, there were 9 vehicles for working and patrolling, one set of 350MHz communication system, 197 sets of various types of equipments, and fencing length with fence of 109.4 km.

Mobile telecommunication signals can also be connected to Reserve's field maintenance station, which provides necessary communications security for Reserve's future remote video monitoring system construction.

There is one Reserve construction visitor center, one research and monitoring center, nine maintenance stations and offices, three checkpoints, and two mobile maintenance posts.

2.2.7 Governance and coordination updates, including arising changes from the Management Department and the coordination structure since the last report (if there were).
(Which is mentioned simply here and will be specifically referred at following section 7).

According to [2001] No.51 Document of Hulunbeir Union Administrative Office Hulunbeier "respecting approval of Dalai Lake National Nature, Reserve being put under the management and construction of the forestry sector," ,Reserve has been administrated by from the past environmental protection department to the forestry sector.

2.3 Responsible for coordinating/administrating Biosphere, Reserve Agency / Department:
(Please comment according to the following related topics).
State Forestry Administration, Bureau of Forestry of Inner Mongolia Autonomous Region, Hulunbeier Municipal Government.

2.3.1 Updating cooperation / administration policies / plans, including current or future 5-10 years vision statement or goals.
In accordance with state relevant spirit of striving to achieve "One District One Law" for the national nature Reserve, in the next five years, Reserve administration regulations for Dalai Lake World Biosphere, Reserve would be promulgated with great efforts.

2.3.2 The budget and staff support, including roughly the average annual amount ( or the annual change rate) ; main funding sources ( including the establishment of a financial partner ( personal / public ), innovative financial plan ) ; special funds ( if applicable ); full-time / part-time employees number; employees' in-kind donations; volunteer contribution time, or other support.

Local financial investment statistics calendar
2.3.3 Ways of communication for biosphere reserve, including different ways against the society or outside world.

One part of CMR Daurian international nature, holding activities such as regular meetings and joint-detection.

The way to communicate with brother reserves at home and abroad is staff exchange for visiting mutually.

The ways to communicate socially or with external world is door-to-door visiting to contact with community residents for routine patrol administration, holding joint-meeting to communicate with the community enterprises and administrative units and through the internet and Reserve web to communicate with the outside world.

2.3.4 Ways to cooperate within biosphere reserves, playing a role of tie at community's different sectores and groups (such as devoting to agricultural issues, local economic development, tourism, ecosystem protection, and scientific research and monitoring groups)

1. The reserve's transition zone is neighbouring community herdsman pasture, under the premise of no damaging and heavy grazing, the Reserve supports their legitimate activities of livestock production, on the other hand, recruits some herdsman as voluntary guards to participate in Reserve's daily maintenance work to exert their enthusiasm.

2. Hulunbeier College, Qufu Normal University, Central University for Nationalities and Beijing Forestry University came to Dalai Lake Reserve successively and established teaching and scientific research internship base, each year send undergraduate and postgraduates students and doctoral candidates for teaching and scientific research practice and at the same time Protection District carry out joint scientific research monitoring topics with Reserve; Inner Mongolia Agricultural University and Northeast Forestry University also carry out scientific research projects and monitoring work at Reserve all the year round.

2.3.5 As for the social and cultural background as well as the role of Biosphere reserve (such as rich local heritage resources, cultural and cross-cultural learning opportunities, collaborating with local residents, contacting with the current immigrant groups and native residents), adopt specific field of vision or ways.
Strengthen cooperation between the masses of local herders, and improve natural conservation performance. Main part of Reserve's neighboring community is engaged in traditional nomadic Baltic Tiger Mongolian herders. They are the main carriers and inheritors of nomadic culture and heritage, they have traditional excellent concept of nature protection theory that man is an integral part of nature, respecting nature, taking good care of home\textquoteright. Reserve's staff exert their enthusiasm for nature protection, in the daily publicity and education work, try to let the masses of herders to understand that the aim to construct Biosphere reserve is to protect their home ecological environment more effectively and to achieve common prosperity and development or not to contend for territory and resources with them.

2.3.6 When administrating biosphere reserves, adopt traditional and local knowledge.

Combine with local herders’ traditional animal husbandry operations features, and take administration measures. Communicate with them regularly to discuss how to make good use of limited pasture and to achieve sustainable utilization of those resources.

2.3.7 Community cultural development programs. Enrich the community language as well as tangible and intangible cultural heritage programs and initiatives.

Spiritual and cultural values and practices can be promoted and delivered or not:

- Help to build local ethnic museum, collect, exhibit and propagate Mongolian, Daur and ethnic traditional culture. Preserve and inherit traditional culture.

2.3.8 Describe the Biosphere reserve the number of spoken and written languages (including the national language, ethnic minority and endangered languages). The number of oral and literal language has changed or not. Is there any revitalization program for endangered languages?

Within Biosphere reserves the total number of oral and literal language is two:

- Mongolian language;
- Han language

The number of oral and literal language has not changed.

There are no endangered languages within Biosphere reserve, so there is no revitalization program.

2.3.9 Administration efficiency. Difficulties encountered in Biosphere reserve administration/coordination, or the challenges faced during operation.

Currently, eco-tourism planning for Reserve has been completed and submitted to the Forestry Bureau of Inner Mongolia Autonomous Region is in the approval stage level by level. Before, the local government departments, enterprises, and self-employed enclosure themselves for tourism development, and disorder operation has brought enormous challenges to Reserve's effective administration.

Local herders: grazing and gathering wicker; traditional production, living way and protection contradiction.

2.4 Please describe the following events: (in appropriate cases, refer to other parts as below).

2.4.1 At the local, regional or national development plans, whether there is addressed issues of Biosphere reserves specifically? If there were, what is the plan? Please provide a brief description relevant plans which have been completed or revised in the past decade.

Phase I "General Plan" (2001-2010) implementation and completion situation.

After approval of Inner Mongolia Dalai Lake National Nature Reserve General Plan in 2003 by the State Forestry Administration, Reserve applied for the implementation of the three infrastructure projects with a total investment of 25.41 million RMB. Accounting for 27% of the...
overall planned budget, including Phase I construction project of 8.26 million RMB, accounting for 9% of the total budget; phase II construction projects 9.5 million RMB, accounting for 10% of the total budget; Phase III construction projects 7.65 million RMB, accounting for 8% of the total budget. The approved contents of Phase III project design have been basically implemented.

2.4.2 Results brought from administration / coordination planning established by Biosphere reserve Administration or other agencies.

On 23rd, December 2005 "Inner Mongolia Dalai Lake National Nature Reserve Administration Plan" was drawn up.

2.4.3 As to Biosphere reserve work, what is the continuing involvement and degree of local residents? How do they participate?

Under Dalai Lake World Biosphere reserve social organizations was set -- "Association of Friends of Hulunbeier wetlands." whose members are voluntaries, which is a nonprofit organization to carry out eco-tourism, to promote environmental protection, to protect rare animals, especially birds protection, and to carry out wetland scientific research and science popularization activities. Recruit neighboring communities Gacha and herders as members of the association, or recruit community residents who have strong environmental consciousness, strong sense of responsibility and a certain cultural qualities as Reserve's voluntary guards, let they continue to participate in the protection and administration work of Biosphere reserves.

2.4.4 The women’s role. Are women involved in community organizations and decision-making process? Are their interests and needs in Biosphere reserves are treated equally? Are there any appropriate incentives or programs to encourage everyone to participate to strive for being representative? (For example, whether "gender impact assessment" has been made or not) For 1) whether men and women have different ways and control of income sources; 2) what kind of income source has been controled by women? Are there studies? Please provide relevant references or copies of documents in the annex.

In Biosphere reserves the interests and needs of women are treated as equals. If there were project funds to function as appropriate incentives or programs to encourage everyone to participate actively in Reserve administration.

In Reserve baseline survey "gender impact assessment" was made, women of community in family members, basically is in a subordinate position.

2.4.5 Core area and buffer zone protection systems have no major changes?

No change.

2.4.6 Did local universities, government agencies, stakeholders hold biosphere reserve research or monitoring activities or were national or international relevant programs made for biosphere reserve research or monitoring activities?

None

2.4.7 How to improve collective action capacity of the biosphere reserve integrated administration (such as cooperative organizations)?

Nature Reserve administration department, local governments, community residents from different level have different concepts. Conflicts between global interests and local interests, conflicts between immediate and long-term interests, conflicts between natural resources, natural environment protection administration and exploitation of the Dalai Lake Reserve exist currently, and will exist for a long time. To solve these problems and improve the Reserve integrated administration level should follow the following principles:

1. Principled which should be followed for Reserve resource protection and administration
Dalai Lake National Nature Reserve Administration is organization responsible for Reserve unified planning, construction, administration and protection, which is set at Dalai Lake National Nature Reserve by the People's Government of Hulunbeier and is also administrative law enforcement organs authorized by state laws and regulations. Its "Five Definitions" clearly states: "will cooperate with the relevant departments to administrate reserve natural resources and environment, and charge resource and resource administration fee." Of course, the reserve natural resource includes Hulun Lake fishery resources; natural environment includes Hulun Lake water environment.

First, continue to adhere to unified planning and administration of natural reserve for nature reserve planning and administration, supervise pattern of Lake Fishery Group unified production and administration for Hulun Lake fisheries resources Dalai, establish administration and conservation agency coordination mechanisms and systems between Reserve adjacent New Left Banner, New Right Banner, Manzhouli City and Reserve, and form administration and conservation joint force.

Second, start with administration and conservation of wetlands and fisheries resources, while strengthening administration and protection forces for other wildlife and mineral resources, and strive for managing, protecting, and exploiting Reserve various resources well, curb uptrend resources destruction acts.

2. Legal principles

Carry out and practice administration according to law, establish a legitimate law enforcement host organization and prevent illegal administration and impunity of punishing law breakers from occurring.

First, the Dalai Lake National Nature Reserve was set as one particular reserve area with approval of the State Council in accordance with the "China Natural reserve Regulations", Article 22 of "China Natural reserve Regulations" provides that Dalai Lake National Nature Reserve Administration is the main law enforcement body for Dalai Lake National Nature Reserve with functions of implementation of laws and regulations on nature protection regulations and policies and unified administration of natural reserve, all enforcement activities in this region should be carried out for conserve the main protected objects, ecological environment and natural resources, in the region the other resource administration acts belong to special law, in case of conflicts which should be subject to the general law, namely, "China Nature Reserve Regulations" because of the special nature of reserve administration, which is active administration, prior administration, and in-situ administration, and focus on prevention, this is the only way to achieve species and ecosystem integrity protection. Therefore, Dalai Lake National Nature Reserve Authority within Reserve as a law enforcement body and applicable conditions of the other applicable "Resource Law" in this region must be cleared and defined.

Secondly, according to provisions of "Article VII of The People's Republic of China Fisheries Law": "the rivers, lakes and other waters of the fishery, in accordance with the administrative divisions, are under supervision and administration of the fishery administrative departments of people's governments above the county level; For cross-administrative regions, the relevant local people's governments above county level stipulate administration measures or fishery administrative department of people's government at the next higher level and their fishery supervision and administration institution are responsible for supervision and management." Dalai Lake National Nature Reserve is not only an important fishery resource area and national nature reserve, but it is also located at the junction of Three Flags City, Fishery and Fishing Harbor Supervision Authority of Dalai Lake National Nature Reserve should be established, whose main responsibility is to undertake supervision and administration of fishery resources appreciation protection, fishery biodiversity conservation, fisheries and fishing industry of Dalai Lake National Nature Reserve.
3. Establish new mechanism and systems integrating with the principles of law enforcement forces

Establish a clear division, strong leadership, government decrees, management and protection of new powerful mechanism and system, and give full play and to mobilize initiative and enthusiasm of reserve internal affair resources management and protection organization. Dalai Lake National Nature Reserve Management Committee has been established, which is responsible for Reserve important resource utilization and management; grassland fire prevention. For a long time, the Council's work for Reserve play a certain amount of leadership and coordination role, so it is necessary to adhere to this practice for a long term.

4. Principles of highlighting the functional role of protection resources

The function core of every legal main law enforcement agency should be transformed to a reserve resource management and conservation. Therefore it is necessary to clear dual leadership system of the Dalai Lake National Nature Reserve Administration predominantly to Public Security Subbureau, rationalize administrative subordinateness relationship between Dalai Lake National Nature Reserve Authority and the Public Security Bureau. While strengthening conservation and management function of the police security force to various natural resource, reduce its policing functions, so law enforcement conflicts of public security case in the same area can be avoided, avoid waste of human resources, concentrate forces on protecting the region natural resources and biodiversity.

In summary, in order to achieve the goal of protecting the Dalai Lake natural reserve resources and ecological environment effectively, establish long-term effective protection and management mechanism and system, unified, coordinated enforcement activities within the Nature Reserve, the Dalai Lake Reserve Authority as the main body, avoid law enforcement from many parts which cause dispersion and inadequacy of law enforcement and unnecessary disputes and frictions, establishing a law enforcement team with comprehensive functions is an inevitable trend, it benefits generations of strong mutual monitoring mechanism.

Dalai Lake National Nature Reserve Management Committee sets a regular meeting system, at freeze period, open lake stage and fire prevention period of Dalai Lake, holds meeting to study the deployment of targeted work.

2.4.8 Please provide other informations on the interactions between these three areas.

None

2.4.9 Young people's participation. What’s the degree of involvement of Youth decision-making process for the organization or community? What are their interests and demands for Biosphere reserve? Are there any appropriate incentives or programs to encourage their participation in striving for being representative?

Young people are active to protect their home and ecological environment, They are not only actively involved in reserve neighboring organization or community decision-making process, but also has a great desire to participate in protection and management work. If there were project funds as appropriate incentives or programs, it could encourage everyone to participate actively in reserve conservation and management work.

3. ECOSYSTEM SERVICES:

3.1 If possible, provide ecological services of each Biosphere reserve ecosystem and provide updated information of beneficiaries of those services.

(The same as the previous reports, please refer to the "Millennium Ecosystem Assessment Framework" and "Economics Framework of Ecosystems and Biodiversity" ( URL : (http://millenniumassessment.org/en/Framework.html and http://www.teebweb.org/publications/teeb-study-reports/foundations/)).
3.2 Describe whether there is any change of ecosystem service indicators three functions for evaluating Biosphere reserve (conservation, development and logistics). If yes, what are the indicators please provide details and update them.

No change.

3.3 Update description of biodiversity respecting Biosphere reserves and ecosystem services provided (for example, related species or species groups).

Not updates.

3.4 specify since the nomination/ the last report, whether assessment of ecosystem services have been updated recently or not? If yes, please specify and indicate how it is applied in the management planning.

Ecosystem services assessment have not been done.

4. PROTECTION FUNCTIONS:

[It refers to devoting to biodiversity programs of conserved scenic spots, and / or provides ecological functions of ecosystem goods and services at the Biosphere reserve. when the measures for completing this function should be focused on core zones and buffer zones, in the entire Biosphere reserves and the periphery ecosystem dynamics have a certain time and spatial scales.]

4.1 Important changes caused from main habitat types, ecosystems and traditional or economically significant species or varieties (if any); including natural processes or time, the main impact of human and / or related management practices (since the last report).

No.

4.2 Please describe main protection planning about Biosphere reserve carried out in the past decade and at present. Please notice that the main objectives and scope of activities, such as bio-storage, endangered species, landscape analysis and conservation management initiatives. If appropriate, you can get cross-reference in following other chapters.

Safeguards

1. Establish and improve Reserve Authority Institutions. Establish three levels protection management system, namely, the Authority - Administration Station - Guard post. Under Authority there are 6 stations and 13 guard posts.

2. Establish law enforcement agencies. Set Forestry Public Security Subburea under Reserve Authority, set up police station under administration station.

3. In the main intersections into Reserve, set three checkpoints for checking vehicles and pedestrians entering the Reserve, prohibiting carrying firearms, flammable and other dangerous goods into the reserve and to safeguarding the security of the Reserve wildlife resources.

4. Play a positive role of the masses'obligatory protection. While establish and improve the professional conservation and management team, at Reserve and surrounding areas establish the masses's obligatory conservation organizations and defense organizations, in the form of rural people regulation and conservation convention, organize the masses care and prevention.

5. Implement the management goal responsibility system for the professional protection and management staff. According to different protection and management areas, resources situation, difficulty degree of management and protection, given task, given divide bonuses, distribute various tasks of protection and management, decomposing responsibilities to a certain people.
6. Strengthen and improve the infrastructure construction of Nature Reserve Administration, management station, guard posts, and checkpoints, improve and perfect communications with the masses's conservation organizations of surrounding areas.

7. Develop and improve Nature Reserve management rules. According to different functional areas, set different specific measures for conservation management, scientific research and development and utilization, implement the every management system as the center of the responsibility system.

8. Introduce professional and technical personnel of wildlife conservation and management as soon as possible, strengthen reserve management work. Further development of Reserve work, and continuously improve Reserve management level.

9. Actively seek policy support, secure favorable terms of funding and projects, attract more experts and scholars to get involved in Reserve investigation and research, and promote nature conservation work effectively.

Biodiversity Conservation Planning

1. Conservation and Management Planning

In order to fully manage local biodiversity and the natural environment, coordinate with conservation work between Reserve and towns, in Reserve set up small estuary station, hitching post station, Gala Da Bai Xin management station, Ulan Noel management station, Beier Lake management station and shuang shan zi management station, in the whole Reserve establish 13 guard posts. They are respectively 51 conservation and management post, Hong Ge Li Ao Bao guard post, the East Temple guard post, Ma Ni Ao Bao guard post, Yi He Ao Bao guard post, A Sa Er guard post, Hu er wen du er management and protection post, Wuerxun bridge guard post, Ba Yan Ao Lao Mu guard post, Wu er xun guard post, Gan Zhu Er Hua guard post, E Guo Mu guard post and Uli Gu Tu management and protection post.

### Dalai Lake Nature Reserve guard post list

<table>
<thead>
<tr>
<th>Name of guard post</th>
<th>location</th>
<th>facilities</th>
<th>regional characteristics under jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 guard post</td>
<td>Northwest experimental zone</td>
<td>Guard house</td>
<td>large area of wetland and grassland, rare birds habitats, few human activity in reserve</td>
</tr>
<tr>
<td>Hong Ge Li Ao Bao guard post</td>
<td>West experimental zone</td>
<td>guard house</td>
<td>Large grassland, rare birds habitats, few human activity in reserve</td>
</tr>
<tr>
<td>East Temple guard post</td>
<td>Northeast experimental zone</td>
<td>guard house, observatory</td>
<td>Large area of grassland and wetland, rare birds habitats, few human activity</td>
</tr>
<tr>
<td>Ma Ni Ao Bao guard post</td>
<td>West experimental zone</td>
<td>guard house, observatory</td>
<td>Grassland, wetland, protected rare birds, few human activity in reserve</td>
</tr>
<tr>
<td>Yi He Ao Bao guard post</td>
<td>Southwest experimental zone</td>
<td>guard house</td>
<td>Grassland, wetland and rare birds, few human activity in reserve</td>
</tr>
<tr>
<td>Wuerxun bridge guard post</td>
<td>Southeast experimental zone</td>
<td>guard house, observatory</td>
<td>Grassland, wetland, rare bird habitats and breeding place, few human activity</td>
</tr>
<tr>
<td>Ba Yan Ao Lao Mu guard post</td>
<td>Center experimental zone</td>
<td>guard house</td>
<td>Grassland, wetland, protected rare birds, water fowl breeding place, few human activity in</td>
</tr>
</tbody>
</table>
2. checkpoints planning

set checkpoints of main crossing in Reserce access to the outside world, which are mainly to check passing vehicles, poachers stealing digging herbs and other prohibited acts. set a total of three checkpoints, they are respectively Lan Qi Temple checkpoint (Alatane town - Baoligedewula), Wuerxun bridge checkpoint (Alatanemole town - Amugulang town), GanZhuerhua checkpoint (Baoligedewula - Ganzhuerhua).

3. Biodiversity conservation planning

(1) Re-vegetation

Positive publicity and strict law enforcement is necessary. In view of the surrounding masses are lack of knowledge of natural plant protection, reserve management agencies should do publicity work in this regard. Strengthen protection of reserve natural vegetation, for severely damaged area and season, take measures of particular staff to manage and protect the Reserve, protect wild plant resources well.

Grassland ecological environment restoration and construction is as an important work of conservation and administration since the construction of Reserve, reduce artificial construction, natural protection and restoration, as main work, in the area of easy human disturbance, plan and set up chain link fence, such as setting kinds of reserve tourist areas, residential part area and Lake Dalai shuangshanzi to UrduLu implement enclosed regional project, at the same time, at each crossing and residents concentrated areas set propaganda billboards or warning signs.

(2) Wildlife Conservation

a) create and protect wildlife habitat, strengthen the patrol and inspection, clamp down on illegal hunting, trapping, poisoning wildlife and the emergence of other impeding wildlife habitat and breeding behavior.

b) create rare birds breeding base, expand populations

42 species of national class one or class two protected birds in Reserve are distributed, of which about 18 species are included in the world seriously threatened species. The construction of the core area provide the conditions of in situ conservation of these rare birds, for some rare species artificial and semi-artificial breeding and domestication are needed, in order to strengthen their populations. Therefore, rare birds breeding bases are set in reserve, making it a base to carry out
rare birds reproductive biology research. More importantly, it will become the base to let the cranes, storks and Great Bustard and other rare birds breeding return to nature.

c) luring construction projects, attracting rare birds,

In order to make the rare bird populations restored and developed solely depending on protecting the core area and the rare birds breeding base is not enough. So set up three food supplement places where exist regular activities of rare birds (both set on the grassland).

d) Dalai Lake Nature Reserve in addition to abundant bird resources, also is rich in wild fish resources. There are currently 30 kinds of identified fish in the reserve; therefore, the protection of fish resources at Dalai Lake is also an important protection work, find out the resources to develop the relevant protection measures.

e) introduce wildlife conservation and management professionals as soon as possible, strengthen the management work of reserve.

f) establish wildlife rescue and breeding center. During the migration process, treat and rescue injured or infirm birds, set up ambulance stations in birds breeding base. Meanwhile establish wild fish rescue centers, according to dynamic situation of the Dalai Lake fish population, rescue fish for their breeding timely, fish aid breeding should be set in two artificial fish farms of small estuaries and hitching post.

Fire Planning

1. establish and improve command structure for grass prairie fire, with full-time staff responsible for fire protection work, with full-time or part-time fire personnel, and with local governments establish regional fire defense organizations, exchange information and mutual support, and work together to defense work.

2. do fire safety publicity and education work

(1) seriously promote national directive on the protection of the ecological environment, promote the PRC "Nature Protection Law ", " Forest Law ", " Forest Fire Prevention Regulations " and other laws and regulations, promote typical experience, good deeds and good people of grassland fire prevention, and introduce grassland fire prevention, fire extinction basic knowledge and regulations.

(2) Set permanent propaganda facilities. At reserve main entrances and residential areas shall set fire warning signs, warning flags and fire slogans. Use various forms to do publicity, to let it known and well known everywhere.

3. establishment of a variety of effective fire prevention system

Establishing fire prevention responsibility system is a guarantee to protect the natural resources from being hazardous, reserve can cooperate with local governments, jointly formulate fire prevention responsibility system, defense systems, patrol lookout system, fire reporting system, rewards and penalties.

4. Strict control of ignition sources

Wild fire is prohibited in period of fire prevention prohibited, individuals wild cooking, heating, smoking and making fires are prohibited. During fire prevention period all vehicles in reserve must be installed with fire-fighting equipment to prevent fire-breathing and leakage fire.

At non-fire prevention period, if encounter long drought and long sunning period, temperatures continuously rising, and blustery day, strict control of ignition sources should be taken, strengthen the patrol inspection, implement fire prevention and other strict measures.
5. At the Public Security Bureau, the police station and administration station, guard posts and inspection station staff must get regular fire prevention and fire fighting training to improve fire prevention technology.

6. The Authority and each station post should be equipped with the necessary transportation, communications equipment and firefighting equipment, in order to timely remedy to minimize fire damage.

7. Establish 4 fire lookout station with a high-powered telescope, solar battery and other position dial equipment.

8. Establish grassland fire forecasting system, through Reserve flammable, combustible objects database and calendar information databases, combined with live weather forecast for fire.

Fire equipment list

<table>
<thead>
<tr>
<th>Device Name</th>
<th>Unit</th>
<th>Quantity</th>
<th>remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Command Vehicle</td>
<td>Un.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Jeep</td>
<td>Un.</td>
<td>6</td>
<td>One for each station</td>
</tr>
<tr>
<td>caterpillar tractor</td>
<td>Un.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Extinguisher</td>
<td>Un.</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>Un.</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Wind fire extinguisher</td>
<td>set</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Firefighting combination tool</td>
<td>set</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>wild life tool</td>
<td>set</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lookout equipment</td>
<td>set</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

4.3 In what way protection initiatives connect and combine with sustainable development issues (such as protect and manage private land)?

Through establishment and improvement of rewards and penalties system, make the masses actively participate in conservation work and form natural conservation network of active participation of neighboring masses with core of reserve management staff. In the past few years, the biosphere reserve administration in accordance with the unified arrangements of Hulunbeier People's Government help poverty to find work in Xinba'erhuzuo Qi Kangyur Arz wood Bayan Bourges Dega of the Wuexun River. On one hand, provide food like rice directly and other daily necessities to incapacitated individual family; on the other hand, coordinate with Hulunbeier relevant government departments to promote project funding over two million yuan in the whole village, set up facilities for dairy production stall base to Gacha, purchase nearly one hundred of basic cows.

4.4 How to evaluate the effectiveness of exploited initiatives or strategies?

(Please describe the method as well as the used indicators).

Assessing strategies by frequency of herders’ illegal activities in Reserve and herders ‘quality of life are effective or not.

Now those young herdsman living in poverty began to move into stage of poverty reduction and end the situation of herdsman who had nothing to do all day in the past but fishing shrimp, digging herbs disorderly to exchange for money to maintain their livelihood, which reduce reserve natural resources from being disorderly destructed and effectively protects the ecological environment and natural resources.

4.5 In the entire biosphere reserves, main factors affecting its protection and management (positive or negative) What is it? Please list lessons of experience taken in the past decade; as for
protection aspects of sustainable development, what new strategies or means are more effective?

; How to control alien species

There is a lack of a unified, proper local reserve ecological environment and traditional cultural, scientific, operational impact ecotourism is a major negative factor for conservation and management. And there is also confusion situation that disorder development tourism of local government departments, business units and individual operators can’t be controlled;

Cooperating actively with relevant department of higher level government to seek project funding and with the authorities to support the sustainable development of local communities for poverty reduction are the most effective strategies and methods for the protection of sustainable development conservation.

4.6 Other relevant Biosphere reserve comments / observations.

Over years, Hulunbeier City Forest Meteorology, environmental protection, hydrology, grasslands and Hulun Fisheries Research Institute and other departments carried out long-term monitoring and research for the lake, rivers, wetlands, grasslands, and sandland, collected and accumulated a lot of valuable scientific data. In addition, in recent years the Central University for Nationalities, Beijing Forestry University, Inner Mongolia Agricultural University, Ministry of Environmental Protection, Nanjing Institute of Environmental Sciences and other domestic universities and research institute in reserve continuously established teaching and research base for various professional monitoring and research work, got a lot of scientific data. These data will provide scientific basis of effective protection and management for future natural resources and biodiversity. What are evaluations from other persons or entities, communities, tourists, department or others for the reserve?

5. DEVELOPMENT FUNCTION:

[Here it refers to planning to resolve sustainable development in personal life level as well as at the community level; including innovative and adaption to the needs between different departments, adaptation of major applicable strategies in Biosphere Reserves as well as in the past decade compensation for losses of other markets, employment or community welfare to take specific area development measures such as tourism.]

5.1 Briefly describe in the past decade major economic basical trends in Biosphere Reserve (such as, agricultural and forestry activities, renewable resources, non-renewable resources, manufacturing and construction industries, tourism and other service industries).

At Dalai Lakes region major economic bases are animal husbandry and fisheries, of which fishery production decrease every year, development of eco-tourism increases every year.

5.2 Please describe the biosphere reserve’s tourism industry. Since the nomination or the last ten years from the date of assessment, the development of tourism has increased or decreased? Have new projects or initiatives been taken? What type of tourism activities is it? What kind of influence these activities bring to biosphere reserves economy, ecology and society? Is there relevant study which can show an area designated as a biosphere reserve, its visitors number will be impacted? Please provide any relevant research, bibliographic information and / or documents in annex.

Since the date of the nomination, in biosphere reserves the development of tourism increased.

Trip type essentially is ecotourism. These activities don’t impact economy, ecology and society of biosphere reserves a lot, but have a positive economic and social positive impact to the surrounding communities of reserve. Main performance is to solve the employment problem of unemployed residents of surrounding communities; local community herders’ traditional handicraft
products and milk and meat products turn into tourism market for money thus family economic income improves.

After being designated as a biosphere reserves, its number of visitors isn’t affected in any way.

5.3 If applicable, please describe other key departments and functions, such as agriculture, fisheries or forestry. Since the nomination or from the last date of ten years’ assessment, their development increased or decreased? What kind of new projects or initiatives has been taken? What’s the influence on biosphere reserves and the economic and ecological biodiversity, whether it has any effect? Is there a relevant studies show an area is designated as a biosphere reserves, the frequency of its activities will be some impact? If yes, please provide such studies bibliographic information or copies of documents provided in an annex.

Dalai Lake Sanctuary is located in Hulunbeier, Dalai Lake Reserve and its surrounding areas have no agricultural and forestry production or business activities. With the premise of strict overgrazing control, encourage development of animal husbandry production and business activities, thus promote the sustainable economic development of local communities to achieve the purpose to reduce herdsmen poverty. Due to strict restrictions of fishing activities in reserve core area and buffer area, fishing industry declined.

5.4 What kind of benefits that biosphere reserves economic activity brings to the local community?

In biosphere reserves traditional livestock economic activities of local communities bring economic income for local residents;

In biosphere reserves eco-tourism activities promote economic and social development of local communities and create employment opportunities.

5.5 How to evaluate the effectiveness of using initiatives or strategies?

(Please describe the methods and indicators).

By the way of pasture utilization and health status evaluation strategies it’s effective or not.

The reserve took supporting measures for local communities achieved good results. The main method is to let local communities strive for getting project funding to get rid of overall poverty, by way of establishing high-yielding dairy base change the past private operation with few sheep, without use of grassland resources, promote grassland degradation situation, reserve grasslands restored its health.

5.6 Community economic development initiatives. In biosphere reserves, which existing comprehensive program helps to raise the of economic change and adaptation? To what extent it can be implemented?

Traditional animal husbandry

5.7 Local enterprises or other economic development initiatives. In order to figure out sustainable development issues, whether to take some specific "green" alternatives? What is the connection between these initiatives (if any)?

None.

5.8 Describe cultural values importance in biosphere reserves (religious, historical, political, social, ethnic), if possible, describe the tangible and intangible heritage respectively.


Hulun Lake is located at Hulunbeier center, there are more than 20 kinds of up to several tons of fishery resources, is one of the best natural pastures for Hulunbeier grassland.
Since Hun era, grazing history began at Hulun Lake region, totally has two to three thousand years already, Xianbei, Khitan, Jurchen, Mongols used to be the master here. Until today, herders still live nomadic life of animal husbandry at sunrise, go home at sunset. In summer season, the women had to get up at three or four o'clock in the morning for milking and milk delivery, the men put the herd to graze near the lake, at six or seven o'clock they went back to Mongolian yurt for taking milk tea and breakfast. In the evening after Herding they continued to milk, circle sheep and eat dinner. Seemingly nomadic life in history is no different from actual nomadic life, however, when you enter into this piece of grass, you will find that a huge change has occurred here. The most obvious change is now only in the summer it is nomadic, and in the long winter, livestock herders build a huge permanent stalls for lambing and feeding, which is also to reduce the pressure on pastures. Other changes are Mongolian youth ’s wedding which has a modern life flavor, however, maintenance Hulun core culture - Mongolian culture still exists.

5.9 Biosphere reserves community security and service measures, which programs can resolve issues such as employment, skills training, health and social services, and social justice issues? What’s the relationship between these programs? what kind of relationship is between them and community economic development.

In 2009 grant a sum of money out of the project of compensation for wetland to hire a group of community residents as reserve short-term protection officers, let them work for protection and management. After training, improve their nature conservation knowledge and acquire natural resources and ecological environment patrol management skills. What training and community service are for community? Or policy preferences?

5.10 What indicators enable to make effective assessment for promoting sustainable development activities measures? what do these indicators illustrate? How to judge the measures is effective? Really have no idea what to write.

5.11 What is the main factors ( positive or negative ) of affecting the biosphere reserves development management? Please list lessons learned in the past decade, and explain which new strategies or means are more effective?

See "4.5." See views 4.5

6. LOGISTIC FUNCTION:

[ here it refers to those program that can improve individual and organizational capacity in the biosphere reserves, which enable them to deal with sustainable development issues related to the protection and development, and specific research, monitoring, demonstration and education issues are needed.]

6.1 Please describe the main institutions and their programs of research or monitoring within biosphere reserves. Over the past decade, are there within agencies and work-related organization changes ( if any ).

Hulunbeier Environmental Monitoring Station in reserve, arrange several water quality monitoring state controlled sections, each year there are wet period and dry season for water quality monitoring;

Hulunbeier Hydrological Bureau since 2009 began to conduct annual monitoring Hulun Lake hydrology;

Inner Mongolia Agricultural University and Department of Resources and Environment of Institute of Water Conservancy and Civil Engineering, since 2009 began to monitor Hulun hydrology, water quality, groundwater and lake surrounding areas annually.
6.2 Please provide a brief overview of research or monitoring topics and implementation region conducted over the past decade, to facilitate a good solution and Biosphere reserves management-related issues, but also facilitate the concrete implementation of the management plan (see Annex I of the variable quantity).

(For each specific topic, providing citations of reference are required. at the end of Section 6 or in a separate annex, list all of the reference citations in accordance with the first letter of author’s name in alphabetical order.)

Bird monitoring in reserve has been carried out for 16 years, the range has been expanded to the west Hulunbeier grassland areas, plants monitored for 10 years, mainly within reserve.

1 Current ongoing routine monitoring

Reserve relys on year-round monitoring by every guard post to 50 important sensitive areas within reserve, at each monitoring site monitoring tasks are distributed twice a month. Monitoring task are about bird species composition, population size, habitat, natural environment and so on.

Since 2007, conducted a research project of GEF International Crane, grey crane of the State Forestry Administration and the hooded crane habitat survey have been conducted, which helps collecting a large amount of scientific data.

Every year since 2002, 2 plant specific quad and 3 line transects are made. 300 plant specimens and nearly 500 plant ecology pictures were collected.

Since 2002, each year a number of birds injured have been saved, respectively red-crowned crane, large buzzard, eagle owl, common tern, white-naped crane, kestrel, whooper swans and so on. After birds get cured, they fly away.

2 Research projects carried out

Since 2003, collaborated with Northeast Forestry University, for wildlife research work, with the main research on composition situation of reserve wildlife, relationship of a variety of mammals with the environment and so on. In 2006 completed the 2 field monitoring, sampling, a number of animal manure, 130 vegetable quads have been got.

Dalai Lake Nature Reserve is Shandong Qufu Normal University graduate teaching practice base. Since 2003, cooperated with Shandong Qufu Normal for wildlife research work. In 2003-2006, carried out in reserve cooperative research projects of "Wolf nesting areas and habitat selection". In 2008-2010, conducted cooperative research projects of "Dalai Lake region canids habitat selection and evaluation ".

Since August of 2008 to 2010 led by the College of Life Sciences of Peking University, "Heilongjiang River Water Management Research Project" composed of Chinese Academy of Sciences' Institute of Botany, Institute of Hydrobiology, Chengdu Institute of Biology, and other units cooperated as research groups, begin to proceed reserve research, this year continue research work biodiversity multidisciplinary at the surrounding areas and reserves make surveys on aquatic life, wildlife, and vegetation. Make surveys twice a year on aquatic organisms and zooplankton at surrounding area and reserves. investigation. Completed surveys on six quadrats of small rodents, eight quadrats of two kinds climbing class and quadrats 60 of vegetation.

Since 2009, funded by the WWF office in Changchun, cooperated with Changchun Institute of Geography of Academy of Sciences of China implement project subject of "Hulun Lake regional climate change and its impact on the ecological environment". study report has been published.

In 2008-2010, cooperated with Hulunbeier City Meteorological Bureau and implemented research projects with "Hulun wetland ecosystems and climate change mechanism of mutual interaction" of the National Natural Science Foundation of China.
Since 2004, the United Nations Environment Programme and the World Bank GEF worked together for organizing GEF international projects of "monitoring distribution and migratory waterfowl of crane and other international significant water bird", through scientific research monitoring of 3 years, this project got good stage results.

- "Application of Remote Sensing and GIS in the prairie land resources survey" BAI Chunhua 2002.5
- "Hulunbeier prairie winter wolf’s home range and habitat use" Jun Yang, Zhang Honghai, Dou Huashan 2006
- "Hulunbeier grassland at Sino-Mongolian border zone spring corsac cave habitat selection" Jin Kun, Liao Zhidong, Gao Zhongxin 2006
- "Dalai Lake Nature Reserve in Inner Mongolia wolf feeding seasonal change," Yan Wenbo, Zhang Honghai, Jun Yang, Dou Huashan, Chen Xiuying 2006
- "Organization distribution and gene loci analysis of Dalaihu four kinds of fish, three kinds of isozyme" Chen Qi 2006
- "Three kinds of canids spring cave selection of Dalai Lake Reserve" "Ecology" Dou Huashan 2006
- "Eastern Inner Mongolia prairie wolf (Canis lupus) wintering habitat selection" Wang Yongqiang 2007.4
- "Xinbaerhu Inner Mongolian gazelle flag Habitat Suitability Assessment and Monitoring" Cui Lei 2007
- "Distribution characteristics and conservation research of rare waterfowl of Dalai Lake Reserve" "Arid Land Resources and Environment" Zhao Geriletu 2008.9
- "Distribution characteristics and conservation research of rare and endangered waterfowl of Dalai Lake Nature Reserve" Zhao Geriletu, Gui Manquan, Wu Muren, Tian Weidong, Li Ming, Cui Guofa 2008.9
- "Argun River structure and characteristics of fall Planktonic animal community in Watershed ", "Peking University Academic Journal" Jiang Ying, Lu Zhi 2010.11

6.3 Please describe how to collect, integrate and disseminate local traditional knowledge and related management knowledge. How was such knowledge applied to new management practices; how to carry out a comprehensive training and education programs.

On one hand, actively cooperate with local forestry, environmental protection, meteorology, hydrology, and prairie departments, share their scientific monitoring data, improve their research and monitoring capacity in reserve, while the decision-making for natural resources and biodiversity conservation become more scientific, collected these good conservation knowledge to those who have jointly established from teaching practice and scientific research base in domestic colleges and universities students, graduate students. On the their hand, through annual international
reserve student painting contest of China, Mongolia and Russia, attract students from three countries to participate in nature conservation-themed painting activities, let them transmit nature conservation knowledge their parents and their school teachers.

6.4 Environment / Sustainable Development Education.

What major educational institutions are active in the Biosphere Reserve (“official” - schools, colleges, universities, and facing general public "informal" service)? Describe its program for contributions of biosphere reserve functions, including specific schools or adult education programs. Comment institutional changes appearing at these agencies or programs in the past decade (if there were, such as closure, re-design, new and initiatives). If applicable, please refer to the UNESCO affiliated School Network, UNESCO Chairs and centered programs and initiatives.

Reserves signed a perennial cooperation agreement with Hulunbeier Museum, this museum become education base of Dalaihu Lake Reserve environmental to outside world; Reserve is internship base of Central University for Nationalities, Beijing Forestry University and some other universities.

6.5 How to evaluate the effectiveness of initiatives or strategies?

(Please describe the methods and indicators).

These methods are valid, how to see it effective or not? Through the above measures, the Dalai Lake Reserve widely influenced in Hulunbeier tourists from abroad and as well as domestic tourists pupils and students, nature conservation start small business, students affect their families, affect school teachers, not only improve the reach Dalai Lake reserve status in the public eyes and attract nationwide attention Dalai Lake Reserve career.

6.5.1 Description of the major internal and external communication mechanisms / systems of biosphere reserves

Dalai Lake National Nature Reserve has been unified managed, and Hulunbeier Public Security Bureau of Dalai Lake National Nature Reserve Public Security Bureau is responsible for processing, security, traffic management, and fisheries resource management of the criminal case of protecting the natural environment. Dalai Lake Biosphere Reserve management agencies regularly or irregularly exchange information and communicate with local governments and relevant environmental, forestry, land, public security departments for information, and solve problem in time.

Coordination work between the community and reserve will be carried out in three levels.

Firstly, related to the regional socio-economic development planning, nature conservation planning, nature conservation management plan, eco-tourism development, related to the regional restoration projects, related to large resource development and utilization projects, related to the large pastoral life and production and ecological migrants, other flag PUC -level research to solve the problem by the Authority and other level of research problem to solve will be coordinated through the cooperation of reserve administration agency and Qi City relevant departments or indicate coordination system that will be proceeded or decided by Nature Reserve Management Committee;

Secondly, at the primary jurisdiction of the management and protection station occurs problems, such as: social security, resource disputes, over-grazing, digging herbs and etc which will be solved by Nature Reserve Authority, the relevant functional departments and the management and protection station and the local police station or Sumu town local government;

Thirdly, at the primary management and protection station and region management and protection of the region, herders’ improper natural resource utilization and inconsistent behavior of natural resource direction, and general damage case will be solved by the coordination between primary management station and Gacha committee.
And also realize coordination and management of Dalai Lake Biosphere Reserve through community condominium.

6.5.2 Is (will be) there a Biosphere Reserve website? If yes, please provide the link.

  www.dalailake.com

6.5.3 Is there any electronic communication? How often it releases once? (If applicable, please provide a link.)

  None.

6.5.4 Are there social networks (FaceBook, Twitter and etc.)? Provide contacts.

  None.

6.5.5 Are there other internal communication system? If yes, please explain.

  Yes, there are 350 megabyte wireless communication systems.

6.6 Please describe what kind of contribution the Biosphere Reserve make to World Network of Biosphere. And what kind of contribution will be made in the future?

  Dalai Lake established CMR Spermophilus international reserve with Mongolia Spermophilus of Mongolia and Russian Federation Spermophilus international protected area. CMR Spermophilus international reserve is located at ecological zone center. Spermophilus grassland reserve belongs to the eastern Eurasian steppe zone. Its area is about 300 square kilometers. In miles of Eurasian steppe belt, this piece of grassland relatively maintained his original natural state. She is located at the junction of Mongolia and Russia’s vast regions, in the vast Central Asian steppe, steppe Spermophilus grassland has its unique climatic conditions, habitat conditions, vegetation and wildlife occupy a dominant position. It is 600-800 meters above sea level, and belongs to mountainous grasslands. Spermophilus grasslands is dotted with thousands of small lakes for many species of migratory birds and resident birds providing a good natural habitat. This area is the birthplace of Lake Baikal, Amur River and other major river systems, Onon River, Selenga River, Hailar River, Argun River, Kerulen River and many other rivers also co-nurtured this piece of grassland. Spermophilus grasslands has most ancient animal groups on the planet, where the vegetation taxa is unique and rich in native species, so Spermophilus prairie still remains her old face. A large number of small lagoon are distributed as migratory routes from the Far East, Australia, Central Asia and India, which provide abundant food and habitat for birds to rest, play, nest, and breed offspring here. This piece of grassland has numerous nomadic upbringings, and a splendid civilization was created here, which played an indelible contribution on grassland ecosystem conservation and sustainable utilization.

  In the 1990s, tripartite seek ways to cooperate in the area of development economic trade and protection ecological environment actively. International Reserve of Mongolia and Russia Spermophilus has been established (referred DIPA). Russia's "Tolleth Lake Basin," Mongolia’s "Wu Lazha River Valley, " and China 's " Dalai Lake," these three regions play an important role for protection of the world’s remaining natural structure and endangered plant and animal species.

  Since its inception in 1994 DIPA, international protected area of cooperation between the constituents are very positive and sincere, understanding of each other through cooperative nature reserve off the country ‘s regulations and policies, management practices and scientific monitoring tools, learn from each other and continuously improve their own management and monitoring of the level of scientific research on protecting this piece of the great cause of grassland ecosystem plays an important role.

  CMR Spermophilus international nature reserve made precedent contribution for world mankind's common cause of natural resources conservation, which is milestone of the nature reserve region and international cooperation actions.
6.6.1 Please describe cooperation of the biosphere reserve at the national, regional or international level and scope, or in the regional and bilateral agreements.

Sino-Russian Biodiversity Transboundary Conservation Agreement

Cooperate with Yunnan Xishuangbanna World Biosphere Reserve, a World Biosphere Reserve of Guxilinguole of Inner Mongolia, Spermophilus Russian Spermophilus World Biosphere Reserve of Mongolia, and Alberta Black of Canada – Zanma Province-level parks actively.

6.6.2 What kind of present and expected benefits international cooperation bring to Biosphere Reserve?

1. regular exchange of work experience, learn from each other;
2. Continuously improve professional quality of scientific monitoring;
3. Improve reserve’s popularity on the world.

6.6.3 How do you prepare to contribute for the future Biosphere World Network and thematic networks?

Through this platform of World Biosphere Reserve, expand DIPA cooperation areas unceasingly, and actively explore cooperation with international NGO, improve reserve research and monitoring, protection and management capabilities, let World Biosphere Reserve play a great role in the community’s economic and social development.

6.7 Which factors (positive or negative) affect the effectiveness of logistical support activities?

Please list lessons learned in the past decade, and explain which new strategies or means are more effective.

See "4.5."

6.8 Other relevant Biosphere Reserve comments/observations.

None.

7. BIOSPHERE RESERVE MANAGEMENT AND COORDINATION:

[Biosphere reserve coordination / management coordinator / manager must work within coverage from government agencies, businesses, community organizations and non-governmental organizations and community groups. These all together constitute the biosphere reserve management framework. The key to successful implementation is cooperation and arrangement of these organizations and all sides of activities arrangement. Key personnel responsible for the biosphere reserve coordination / management shall learn about the content management system to find ways to improve the collective capacity to better execute biosphere reserve functions. ]

7.1 What are the coordinated technical and logistical resources of the biosphere reserve?

Community coordination methods: mainly use methods like visits, signing condominium agreements and regular joint meetings, etc.

Executive departments: Resource Management Department, management and protection station.

7.2 What is the overall framework of biosphere reserve management? Identify the main part as well as their contribution to the biosphere reserve.

Guided by Hulunbeier Municipal People's Government, the Nature Reserve Administration is in charge of unified planning and unified management of the biosphere reserve including resource protection and management, publicity and education, research and monitoring, external cooperation, community co-management and so on.
7.3 Please illustrate similar methods and criteria for social impact in evaluation or support of local rights and cultural projects (e.g., CBD Akwé: Kon Guidelines, freedom, priority and the informed consent projects/policies, visits, institutional arrangements for benefit sharing, etc.).

The overall goal of Dalai Lake Biosphere Reserve is to effectively protect and manage the local biodiversity and cultural diversity so that local production development activities could coexist harmoniously with natural and cultural systems in the Dalai Lake region to promote sustainable development of local economic, cultural and social environment and to ensure that the Dalai Lake ecological integrity is maintained.

7.4 What are the major conflicts with the biosphere reserve? What are the Solutions?

The conflict is mainly reflected in the contradiction between resources usage and protection. Solutions include: help local production enterprise transform so as to gradually abandon the resource-dependent mode in production; coordination with local governments to protect the ecological fragile areas through implementing ecological migration to reduce human intervention.

7.4.1 Please describe the major conflicts in the region and related timetable. If biosphere plays a role in preventing or resolving some of these conflicts, what conflicts are resolved and how does it.

Livestock production: spring, summer, autumn. Being addressed. Methods: the local government takes measures to restrict livestock in certain area of grassland, implemente rotational grazing, and prohibited grazing so that pasture will be fenced to gradually restore the degraded grasslands.

Fishery production: there is private fishing in chaos throughout the year. Solution: strengthen the patrol management, strictly prohibit except units and individuals other than fishery production enterprise to fish, in particular to strengthen the management of the fishing ban period.

Tourism: 6-9 months. Solution: implement eco-tourism planning with unified management to strengthen existing supervision and management of tourism enterprises.

Other production and business activities:

Cutting reeds: in winter. Solution: contractual management can be used appropriately for lambing conservation of the herdsman.

Cut wicker: in winter. Solution: Contractual management can be appropriately utilized for herdsman care and worship lambing.

Gravel resource usage: all year around. Solution: unified planning and management, appropriate use and instant recovery.

7.4.2 In biosphere reserve management, is there conflicts between different authority functions, please explain.

Biosphere reserve spreads across three administrative regions with overlap of relevant functional departments including water conservancy, forestry, environmental protection, livestock, land and others.

7.4.3 Illustrate ways to resolve the conflict, and the effectiveness of these methods. Please describe its composition, functioning and solution. Are there local mediators? If so, whether they are approved by the biosphere or other authority institutes?

There is need for legislation of the nature reserve to endow management agencies with integrated management functions in the biosphere reserve highlighting the right and position of management agencies in the nature reserve; establish management committee composed of the government and relevant departments to coordinate important events related with the natural reserve;
set up an expert advisory committee to study and formulate development policies for the natural reserve.

7.5 Update information in participation of local community representatives, consultation mechanisms in biosphere reserve.

None

7.5.1 Teach local people (including women and local residents) how to participate in and/or elect representatives for biosphere reserve planning and management (for example representative meeting, consultative conferences, women's team).

Employ volunteers in daily management and protection of the natural reserve in the local community.

Set up a "Association of Friends of Wetlands in Hulunbeier, absorbing community-related personnel and encouraging them to participate in conservation actions.

7.5.2 The representative takes what kind of form: enterprises, associations, environmental associations, trade unions (citing different groups)?

Set up a "Association of Friends of Wetlands in Hulunbeier"

7.5.3 Is there procedures for integrating local community representative agencies (such as in financial, representative elections and traditional authority)?

None

7.5.4 How about the viability of consultative mechanism (permanent assembly, specific projects in consultation)?

Biosphere reserve will determine the details for establishment of coordination mechanisms with the relevant government departments of Xinbaerhu left and right Qi, Sumu government, Gacha and herdsmen as well as representatives of private enterprises. It will set up an office for coordination with periodical communication and coordination according to the actual needs of events; develop and improve coordination mechanisms management charter, and acquire recognition from all parties in the form of official document; determine what events need to be negotiated with others and the time, place, and personnel; raise funds: the party which proposes negotiation is responsible for the expenses incurred, but requirements from the herdsmen will be raised by the government and biosphere reserve, and biosphere reserve assume that part of expense from herdsmen;

7.5.5 What are the influence on the decision-making process (decisive role, advisory role or informing role)?

Play an advisory role and an informing role.

7.5.6 What activities are locals involved at different phases in the biosphere reserve: biosphere reserves design, management/co-planning, program implementation, daily management of biosphere reserves? Please give some details and examples.

Volunteer guards are involved in the daily management of protection station in the biosphere reserve. Examples include: report the illegal destruction of natural resources in the biosphere reserve, help protection station solve problems, and provide wildlife habitat in their own pastures.

7.6 Update management and coordination of structural information:

7.6.1 Describe any changes of the competent administrative authorities in each area of the biosphere reserves (core zone, buffer zone, transition zone)? Are there any changes since the nomination form/ten years evaluation are submitted? Please submit the original endorsements for each zone material.
7.6.2 Update information in biosphere reserve management / coordination, including the formulation of procedures.

Action 1, establish practical coordination mechanisms between all key stakeholders;

Action 1.1: Biosphere reserve will determine the details for establishment of coordination mechanisms with the relevant government departments of Xinbaerhu left and right Qi, Sumu government, Gacha and herdsman as well as representatives of private enterprises. It will set up an office for coordination with periodical communication and coordination according to the actual needs of events;

Action 1.2: develop and improve coordination mechanisms management charter, and acquire recognition from all parties in the form of official document: determine what events need to be negotiated with others and the time, place, and personnel; raise funds: the party which proposes negotiation is responsible for the expenses incurred, but requirements from the herdsmen will be raised by the government and biosphere reserve, and biosphere reserve assume that part of expense from herdsmen;

Action 1.3: gradually give play to coordinating mechanism for coordination work: use Internet to build a management information network with Qi, Sumu and the biosphere reserve, could directly use web pages of the biosphere reserve to publish relevant information; also could establish communications network in Gacha, biosphere reserve, the police station and local armies using radio and telephone for communication;

Action 2: Start effective coordination of fishery production;

Action 2.1: assist in fishing prohibition and monitor the process.

Action 2.2: dredge fishery migratory passage. Clean Wuexun river bar net and dredge fishery migratory passage with fishery administrative departments (Two Qi Fishery Management Department, Public Security Bureau in the biosphere reserve) on the river.

Action 2.3: protect fish breeding grounds.

Action 2.4: assist in fisheries monitoring of the state of fish stocks. Help Water Division carry out fishing resources monitoring.

Action 3: reed production and management;

Action 3.1: formulate reed production plan for protecting bird habitat. Determine the scope and strength of reed production, in order to ensure bird habitat and herdsmen production needs in formulating production plan.

Action 3.2: Encourage herdsmen (land users) to involve in reed protection and production with benefit from it. As herdsmen are reed owners (except for in biosphere reserve, the vast majority of reeds grow in herdsmen pastures). Allow herdsmen (land users) to participate in reed protection and production and let them derive benefits from it is a matter of course. But these reeds also exist in the biosphere reserve (most in the core area), the reed harvesting must comply with regulations from the biosphere reserve. Therefore, herdsmen should be involved in reed protection and production, and benefit from it.
Action 4: tourism development / planning / and implementation management

Action 4.1: jointly develop (eco) tourism planning: currently, tourism planning/plans in Dalai Lake of the biosphere reserve have not obtained communication with the biosphere reserve, which is not conducive to tourism development in Dalai Lake District, and may have an impact on biodiversity in the biosphere conservation. Based on tourism planning in various districts, based on the management of biosphere reserve and the tourism sector, biosphere reserve should jointly develop (eco) tourism planning with tourist management departments, herdsman (owners of land use rights) and regulate activities in tourism development of the biosphere reserve.

Action 4.2: provide training for local tourism development agencies and personnel in tourist management, marketing, product development and others;

Action 4.3: herders should be involved in tourism development / management to use it as an important way of economic income:

Action 4.3.1: investigate interests/needs of herdsman (tourist land users/other herdsman) in participating in tourism development / management;

Action 4.3.2: convene conference with participation from the relevant institutions and personnel, establish tourism development / management mechanism for herdsman to participate in the activities and make gains, formulate tourism development / management plans for herdsman to participation in the activities and make gains;

Action 4.3.3: monitor and evaluate plan implementation and make proposals for adjustments.

Action 5: regulate other development projects

Action 5.1: establish a communication mechanism with environmental monitoring department and environmental evaluation department to guarantee the functioning of the Biosphere Reserve Authority in environment assessment, and the smooth implementation of laws and regulations in the reserve.

Action 5.2: establish a communication mechanism with the project approval authorities according to the relevant project so that the Biosphere Reserve Management Authority knows well about the project requiring approval in the biosphere reserve.

Action 6: initially establish community-based grassland and wicker monitoring and management mechanisms:

Action 6.1: Based on coordination mechanisms, encourage herdsman to participate in grass and wicker conservation management, and let them benefit from it [in fact, herdsman have right for using grass and wicker (within the scope of pasture use rights)]; mechanisms operation: find problems – solve problems and make it institutionalized.

Action 6.2: determine demonstration sites for grassland using and monitoring;

Action 7: further strengthen patrol management and eliminate poaching behavior of birds and picking up of bird eggs;

Action 7.1: perfect patrol management system,

Action 8: standardize existing monitoring work, collect all the information and apply them in effective management of biosphere reserve:

Action 8.1: revision/improvement of the existing monitoring system and increase data collection form in water quality, meteorological and hydrological monitoring content.
Action 8.2: establish MIS / GIS framework, database systems, systems management to analyze monitoring data of the biosphere reserve;

Action 9: complete monitoring / collaborative research projects:

Action 9.1: complete project of “Relationship between large wild animals and grassland ecosystems" cooperated with Northeast Forestry;

Action 9.2: complete "Wolf ecology behavior research" project cooperated with Qufu Normal University.

Action 9.3: continue joint inspection with CMR- Dawuer international biosphere reserve.

Action 10: further improve herdsman and student publicity system, especially develop characteristics publicizing materials for the biosphere reserve:

Action 10.1: printe brochures for introduction of biosphere reserve, let Sumu and herdsman clearly know the specific boundaries of the various functional areas in the biosphere reserve, particularly in herdsman meadow boundaries.

Action 10.2: annually organize the students to participate in outdoor activities twice (in local schools);

Action 10.3: provide field practice for students in the School of Biological and Chemical Branch Hulunbeier;

Action 10.4: develop / publish five kinds of biosphere reserve brochures (introducing biosphere reserve, ecosystem function, protected wildlife, local culture and customs);

Action 11: initially establish community-based grassland monitoring and management mechanisms;

Action 12.1: establish monitoring mechanisms based on biosphere reserve, Qi (city) Prairie Grassland Monitoring Station content, targeting at different grazing methods with participation from Sumu (pasture), Gacha and herders. Provide technical data for pasture management.

Action 12.2: initially establish community-based grassland management mechanism based on regulation in Action 12.1;

Other actions: Continue monitoring and carrying out related research activities, such as in wolf behavior, etc. Do not forget some relatively independent activities in biosphere reserve, such as participating in international and domestic conferences, study tours, training, talent introduction, and cooperative or independent project application (eg. WWF, etc.).

7.6.3 Is there any changes in biosphere coordination structures adjustment (If yes, describe in details its functions, composition and proportions of the various groups, and their functions and responsibilities. Does such coordination bodies have autonomy, or is governed under the jurisdiction of the local government or the central government, or is responsibility of the biosphere reserve management personnel?)

No changes.

7.6.4 How to manage/coordinate according to the local situation?

Coordination between the biosphere reserve and the community could be divided into three levels. First, the Biosphere Reserve Management Authority is responsible for coordination with Qi, cities and municipal departments in terms of related to restoration projects in regional social and economic development planning, nature conservation planning, nature conservation management plan, eco-tourism development, large resource development and utilization projects, large herdsman live production and ecological migrating projects; second, jurisdiction problems in the
primary stations including problems in social security, resource disputes, over-grazing, digging herbs and other issues should be solved by functional departments of the Biosphere Reserve Management Authority, the management and protection station, Sumu government or local police station; Third, Gacha Commission is responsible for solving problems in inappropriate resource utilization between management and protection station and herdsman and in inconsistency between activities and the principle of natural reservation.

At least two coordination activities should be conducted with Sumu in coordination, and at least coordination with Gacha should be conducted once in peak period. These should be performed during the large patrol within the core area collecting information on resource utilization.

7.6.5 Is there evaluation of management/coordination effectiveness? If yes, whether this evaluation is carried out according to the procedures?

None

7.7 Management/operation programs and policies:

7.7.1 Is there any changes on the management/coordination of planning/policy, and interest holders? If yes, please provide details in the interest holder to engage in the planning, adopting regulations and the amendment.

No changes

7.7.2 Please indicate the content of management/coordination planning (provide some examples of initiatives or guidelines). Whether the plan is effective in binding? Has it acquired unanimous consent?

None

7.7.3 Please describe the function of organizational planning institutes. Please indicate institutional changes since the nomination form/ten years evaluation report is submitted. Please provide evidence for the agency's role.

None

7.7.4 Description how the biosphere reserve management planning is implemented.

None

7.7.5 Is there any progresses for management/coordination of planning/policy guidelines?

None

7.7.6 Is there any factors that can help or hinder the management/coordination of planning/policy implementation? (eg. Local people are reluctant, different levels of decision-making conflicts.)

None

7.7.7 If applicable, how the biosphere and regional/national strategy integrate with each other? On the contrary, is the local/city plan is consistent with the planning of biosphere reserves?

(If there is any change since the nomination form/ten years evaluation report is submitted, please provide details.)

None

8. STANDARDS AND JOB SCHEDULE:

[Make a summarization through focusing on pointing out major changes, achievements and progress in the nomination form/last ten-year evaluation report. How does your biosphere reserve fulfill standards? Reasons for declaring the biosphere reserve and its principles for area division;]
What is in short supply? How to improve? What experience does your biosphere reserve have to share with others on how to put sustainable development into practice?

Make a brief explanation to how to fulfill all standards specified by Article 4 of the Law Framework in the world network of the biosphere reserve.

1. “Contain the chimera, representing ecosystems of major biographical geographical areas, including interferences at a level different from humankind”. (“Major biographical geographical area” lacks a strict definition, and reference to Udvardy Classification System will be helpful for you (http://www.unep-wcmc.org/udvardys-biogeographical-provinces-1975_745.html)).

The Prairie wetland ecosystem of Dalai Lake suffers a low interference from humankind.

2. Significance of biodiversity protection

Located in the central part of Hulunbuir Prairie, the wetland in the Dalai Lake Reserve covers an area of 325300 hectares, accounting for 8% of the total wetland in the Inner Mongolia. It is chiefly composed of permanent fresh water wetland, seasonal lake and river and herbaceous swamp.

In this reserve, biodiversity is reflected in the following aspects: 1. Diversity of biological species; there are over 486 kinds of plants (advanced) altogether, 33 fishes, 4 amphibious reptiles, 331 birds, 38 mammals among which 61 kinds of birds and 3 kinds of mammals are under the high protection of the state; 2. Diversity of ecosystems: in the ecological landscape of the reserve, there exist not only ecosystems characterized by prairies and wetlands with a dominant role, but also ecological landscapes such as sand vegetation and shrub turf; 3. Diversity of inheritance (gene): in this reserve, there abound in species and a complicated category. Besides rare and endangered species, it is also rich in other species population such as goose and duck, gull, heron, passeriformes birds and fish.

In the Dalai Lake Nature Reserve, its wetlands and prairies afford not only an ideal place for wild animals to inhabit and reproduce, but also a major channel and transfer station for waterfowls migrating from the Northeast Asia to Australia. Here the vast wetlands and prairies play a key role in adjusting climate, conserving water and guarding against desertification while providing material foundation for the development of the local society and economy.

With the development of society, the biodiversity suffers threat, the ecosystem is destroyed and polluted, the diversity of species is on the decline, the typical ecosystem suffers severe damage and its function is in recession. Their adverse impacts on the development of society and economy and human health are becoming increasingly prominent. It has been a hard and glorious mission for the biosphere reserve to protect the biodiversity and make use of benefits from the biodiversity of prairie wetlands in a scientific and rational manner so as to promote a sustainable development of society and economy.

We are deeply aware that the biodiversity is of great importance for the development of society and economy. Without the biodiversity, everything would be devoid of energy and vitality and there would not be sustainable materials and services.

3. “Providing an opportunity for exploring and verifying the methods of regional sustainable development”. (Include examples and experience and implications on how to put sustainable development into practice.)

1. Making improvements of the administrative system of patrol, founding an environmental protection and inspection team and taking a combination of management and protection stations, management and protection points and public security sub-bureaus to carry out management of patrol in the reserve, conduct community investigation and deal with illegal cases;
2. Making improvements of the prevention and protection system in boundary landmarks beyond the reserve and the seamless perimeter in the core and buffer areas and strengthening monitoring and management of sensitive areas of the reserve;

3. Establishing a 3S administrative system based on the GIS, and managing the reserve, and natural resources, ecosystems, number of wild plant and animal population, the community, means of land utilization and intensity of land utilization around its surrounding areas in a dynamic manner;

4. Developing the capability of fire prevention. Fire prevention equipment is updated and purchased for administrative stations and protection points in the reserve so as to enhance their capability of extinguishing fire.

Measures for ecosystem restoration

1. Harnessing desert and restoring vegetations in the prairie: take advantage of enclosure, fixing the sand through grids and “biological mats” to harness the travelling dunes in the northeast and the southeast of Dalai Lake, the trial area of this reserve, and restore the vegetations in the prairie. 30 square kilometers will be involved in this harnessing activity.

2. Clearing the silts in the watercourses of Kelulen River and Ur River, improving the hydrological status of the two rivers and increasing or maintaining volume and runoff so as to maintain the ground water supplies to Dalai Lake, improve ecosystem water cycle of Dalai Lake’s wetlands and stabilize the evolution and replacement process of the ecosystem in the Dalai Lake. Owing to the fact that this project lies in the core area of this reserve, only the silts in the watercourses stretching as far as 240 kilometers were cleared without changing their original courses and building no artificial utilities.

3. Wetland Restoration Project: make use of artificial measures to restore degenerated reeds and swamps in the Galadabaixin Core Area, southwest of Dalai Lake and in the Hulun Ditch Core Area, southeast of Dalai Lake, and the inhabits of waterfowls and fishes. Constructions are carried out in the trial area (hydrological control) and no construction projects are carried out in the core area.

4. Measures for administration exercised by communities

1. Establishing a common administrative institution: organize a common administrative committee participated by stockholders, and establish its regulations and standing institution. Carry out negotiations about resource management, its rational utilization, poverty alleviation, the development of communities and the planning and implementation major projects related to this reserve.

2. Assisting the communities in establishing non-governmental nature-protection organizations and involve local communities in the decision and implementation of major events in this reserve.

Fire prevention in the swamps and prairies

1. Tapping into the function of the common administrative committee, and working with local fire prevention departments to establish a joint fire prevention mechanism to improve the mechanism for the prevention, pre-warning, extinguishing and fire control.

2. Supplementing fire equipment in the reserve and strengthening its extinguishing capability in the early period of fire.

Prevention and control of diseases of wildlife and its source
1. Intensifying patrol and protection. Organize a nature-protection environmental inspection team in this reserve and combine management and protection stations and points to carry out patrol and protection work of wildlife disease and its source in the prevention and control area, and report conditions of disease and its source to the superior departments.

2. Updating monitoring utilities and equipment, and improving monitoring methods. Make full use of seamless perimeter protection systems in the core and buffer areas of this reserve, take a combination of patrol and protection monitoring and seasonal investigations and unite with wildlife protection monitoring institutions surrounding this reserve so as to tap into the common administration function of the communities and eliminate monitoring blind spots.

3. “Applicable for performing the three functions of the biosphere reserve”

   Core Area: The core area collects the essence of this reserve and is an area under the absolute protection. Only regular investigations and positioning observation researches can be conducted, and no interferences are permitted here, minimizing the impacts from humankind. Priority is given to protecting rare and endangered birds and biodiversity. Closed management is carried out in this reserve. The core area covers an area of 75951.5 hectares, taking up 10.3% of the total area.

   Buffer Area: The buffer area is established to provide an effective protection to the core area. Scientific research and education can be carried out in this area which is the buffer area of the core area.

   A buffer area of 38650.27 hectares is set up in the periphery of every buffer area of this reserve, occupying 5.2% of the total area of this reserve.

   Trial area: The trial area exists in every part of this reserve except the core and buffer areas. In this reserve, dwellers and enterprises chiefly engage in husbandry, fishery and tourism. The trial area covers an area of 625398.23 hectares, 84.5% of the total area.

5. To meet the three functions, proper function areas are established.

   The same to “4”.

6. “While designing the biosphere reserve and performing its functions, to a proper extent, you should organize and arrange public institutions, local communities and private groups to attend”.

   Carry out joint law enforcement and coordinative protection with power departments of mass

   Carry out joint management with communities

7. Enforcement mechanisms:

   (a) Administrative mechanism for human utilization and activities

      Yes.

   (b) Administrative policies and plans

      Yes.

   (c) Competent departments or mechanisms for this policies or plan

      Yes.

   (d) Plans for research, monitoring, education and train

      Yes.
Is there any cooperation activity among this biosphere reserve and others (exchanges of information and personnel, and cooperation projects)?

At a state level:

Ur World Biosphere Reserve of Russian Federation

At a regional level:

Xishuangbanna World Biosphere Reserve of Yunnan

Pair and/or cross-border biosphere reserve:

Ur World Biosphere Reserve of Russian Federation and Xishuangbanna World Biosphere Reserve of Yunnan

Within the world network:

Established sister reserve ties with Zanma Lake Provincial Wildland Park, Alberta, Canada and carried out cooperation and exchange.

Confronted difficulties and taken measures. If applicable, the Secretariat provides assistance:

1. Due to the fact that heavy pressure is met in the utilization of resources around the reserve, assistances are needed from the Secretariat in alleviating poverty and hunting for alternative activities.

2. Without strong technological strength and adequate scientific research talents, the reserve needs assistances and supports from the Secretariat in technologies.

3. The reserve lacks enough management and protection tools, its capability in this aspect needs to be enhanced, its fund fails to satisfy the needs of work, expecting that the Secretariat provides assistances and guidance in enterprise financing globally.

Major functions of this reserve:

Combining the three functions and the sustainable objective, please describe the major objectives of this reserve in the upcoming years.

Make further improvements of the distribution of priority zone of this reserve so as to distribute the two-tier of every priority zone in a rational and scientific manner; promote the protection of the biodiversity of Dalai Lake State Nature Reserve and comprehensiveness and diverse natural landscapes of prairie wetlands; bring into full play the multi-function of major international wetlands and biosphere nature reserves. Restore the ecosystems of prairie wetlands through protection, management and project construction; Make use of protection, domestication and breeding to increase the number of biotic population and exploit and utilize nature resources in a rational manner; Intensify the construction and development of international nature reserves. Finally, make Dalai Lake Reserve a world famous demonstration nature reserve which enjoys functions such as protection, scientific research, publicity and education, ecotourism and international cooperation, boasts a perfect law system, organization and facilities, advanced equipment, science and technology, exerts efficient management, benefits dwellers around it, and its functions are brought into full play.

Near-term objectives
1. Improving the infrastructure of this reserve, apply information technology into handling official business, patrol, scientific research, publicity and education and management, intensifying the development of management and protection stations and making them comprehensive stations which enjoys functions such as management of law enforcement, scientific research, education, foreign cooperation, community participation and fire prevention of prairies.


3. Introducing a large number of professional talents, enhancing their business capability through intensifying business trainings for the staff in the reserve, so as to make the reserve enter the top list in terms of the management of work in a scientific manner.

4. Establishing an ecological positioning station, strengthening cooperation with research-oriented colleges and universities and conducting scientific researches related to ecological resource protection and biodiversity.

5. Improving the development of resource and environment information system of this reserve, establishing a biological resources database of this reserve, making use of GIS System to manage the resource and environment in a dynamic manner and at the same time, developing an open information system of this reserve so that the public and scientific researchers carry out data inquiry and data sharing of information of this reserve.

6. Preparing Ecotourism Plan for this reserve, and carrying out ecotourism and multiple operations with characteristics of this reserve.

7. Carrying out wetland restoration projects and restoring the ecosystem of wetlands so as to provide wider habitats for rare birds and wild animals.

8. Establishing rescue stations and domestication fields of wild animals to make wild animal rescue and rare bird breeding more professional and extensive.

9. Accelerating the cooperation, exchange and development of CMR – Dauria International Protected Area of Inner Mongolia.

Near-term objectives

1. Building the reserve into a first class nature reserve by strengthening international cooperation of biodiversity protection.

2. Opening up a demonstration way in which economic development of the community is boosted through protecting biodiversity and vice versa.

3. Establishing a mechanism of reserve development and common administration of communities to make common administration of communities come true and through implementing the plan for resource protection and utilization, promoting a sustainable development of economy in the communities around the reserve.

4. To a greatest extent, protecting biological resources, preventing ecosystems from being destroyed, remaining the nature evolution process of ecosystems and respecting and complying with nature to make the construction and development of its ecological civilization.
9. SUPPORTIVE DOCUMENTS

[The attachment list is submitted with the ten-year evaluation report.]

1. Updated locations and block maps with coordinates

[Provide the standard geographic coordinates of this biosphere reserve (All are marked with WGS 84 coordinate system.). Provide a topographic map which includes the exact locations of three sections in this biosphere reserve and meanwhile afford a paper and electronic version of the three sections of this reserve (map). The Shapefiles file (also provide WGS 84 coordinate system) that are used to generate maps must enclose electronic copies. If possible, links to access the map must also be provided (for example, Google map, website…).]

(2) Update vegetation map or land cover map

[A vegetation map or land cover map should be provided which displays major habitats, land cover type of the biosphere reserve.]

If applicable, reserves must be provided.

Update list of law texts (If possible, its content should be expressed in English, French or Spanish and its regulations with largest relevance should be translated.)

[If appropriate, update main law documents and provide copies of these documents since the date of the nomination of this biosphere reserve.]

(4) Update list for land utilization and management/cooperation plan

[List the current plan for land utilization and management/cooperation of the administrative areas in the biosphere reserve (include date and reference number). Provide relevant document copies. You are recommended to fill its content in English, French or Spanish and its regulations with largest relevance should be translated.]
(5) Update list of species (attached to the following parts)
[Provide a list of drafted major species in the biosphere reserve and if possible, common name of species must be included in it.]
No

(6) Update list of major bibliography (attached to the following parts)
[Provide and draft major publications and articles related to the biosphere reserve.]

(7) Other supportive documents
No.

10. ADDRESS

10.1 Address of biosphere reserve:
[government institutes, organizations or other entities function as the primary contact for world network of biosphere reserves.]
Name: - Administration Bureau of Inner Mongolia Dalai Lake National Nature Reserve
Street or PO Box: No. 16 Manzhouli Street, Hailar District, Hulunbeier city, Inner Mongolia
City and Zip Code: 021008
Country: People’s Republic of China
Tel: 0470-3998787
Mail: jsjs11@163.com
Website: http://www.mangrove.org.cn

20.2 Management institute of core areas:
Name: Jiang Zhiguo
Street or zip code: No. 16 Manzhouli Street, Hailar District, Hulunbeier city, Inner Mongolia
City and Zip Code: 021008
Country: People’s Republic of China
Tel: 0470-3998787
Mail: jsjs11@163.com
Website: 

20.3 Management institute of buffer areas:
Name: Jiang Zhiguo
Street or zip code: No. 16 Manzhouli Street, Hailar District, Hulunbeier city, Inner Mongolia
City and Zip Code: 021008
20.4 Management institute of transitional areas:

Name: Jiang Zhiguo
Street or zip code: No. 16 Manzhouli Street, Hailar District, Hulunbeier city, Inner Mongolia
City and zip code: 021008
Country: People’s Republic of China
Tel: 0470-3998787
Mail: jsjs11@163.com
Website:
Annex 1 of biosphere reserve ten year evaluation annex, January 2013

MABnet contents of biosphere reserve

Management details
Country: China
Name: Dalai (Hulun) Lake Biosphere Reserve
Time of becoming a world biosphere reserve: 2002
Administration officer: (7.6) Administration Bureau of Inner Mongolia Dalai Lake National Nature Reserve
Contact: (10.1)
Address: (including telephone number, zip code and mail) (10.1) No. 16 Manzhouli Street, Hailar District, Hulunbeier city, Inner Mongolia, 021008
Related Links: (website) http://www.mangrove.org.cn
Social networking: (6.5.4)

Explanation
Overview:
About 25 lines
Dalai lake BR have great experience in the past ten years.
They established a system of personal responsibility and other effective internal management regulations; the main objects for protection in the biosphere reserve remain at a relatively stable state; cooperating with research institutes and several universities or research institutes established teaching or experimental bases in Dalai Lake Biosphere Reserve, and conducts international cooperation in various forms; takes various measures to strengthen science knowledge publication establishing long-term cooperative relationship with local schools.

Major ecosystem types: Eurasian steppe
Major habitats and land covering types: A typical grassland vegetation ShaSheng saline meadow vegetation swamp vegetation meadow vegetation
Bio-climatic zones: Temperate semi arid areas
Position (latitude and longitude): N47°45′50″ ~ N49°20′20″; E116°50′10″ ~ E118°10′10″
Total area (hectare): 740000 hm²
Core area: 75791hm²
Buffer Size: 38534hm²
Transition area: 625675hm²
Different divisions:
Altitude (distance above sea level): 550-600 m
Functional zoning map (see Section 2.2.2): 2.2.2
**Main goal for biosphere reserve**

A brief description

| Through years of arduous work, the main objects for protection in the biosphere reserve remain at a relatively stable state. The number of birds increased from 26,017 in 2003 to 30,729 in 2012 and bird species increase from 298 to 333. |

**Research:**

A brief introduction:

| Dalai lake collaborated with Northeast Forestry University, for wildlife research work, with the main research on composition situation of reserve wildlife, relationship of a variety of mammals with the environment and so on. Dalai Lake Nature Reserve is teaching practice base of several University graduate. |

**Monitor:**

A brief introduction:

| Bird monitoring in reserve has been carried out for 16 years, the range has been expanded to the west Hulunbeier grassland areas, plants monitored for 10 years. Reserve relys on year-round monitoring by every guard post to 50 important sensitive areas within reserve, at each monitoring site monitoring tasks are distributed twice a month. Monitoring task are about bird species composition, population size, habitat, natural environment and so on. |
Specific variables (fill in the form below, and mark on the relevant parameters)

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<th>Biodiversity</th>
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Annex II of biosphere reserve ten year evaluation, January 2013

Proposed biosphere reserve and promotional materials

At the scene related publicity materials will be provided for the biosphere reserve, especially high-quality photos and (or) short video, to facilitate the secretariat in preparing documents for the press conference. To do this, select the high-resolution (300 dpi) photos, including crew lists, letters, and video clips (master tape), without any professional reviews or subtitles - only DV CAM or BETA.

In addition, the copy of the authorized agreement to use the following photographs and video need to be submitted.
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Bureau of Public Information

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Date:  
Signature: Jiang Zhiguo

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Direct Fax: 00331 – 45685655; e-mail: photobank@unesco.org; m.ravassard@unesco.org
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Date: 

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日期: 2013年9月30日

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           m.ravassard@unesco.org

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