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1．要請書

PROJECT PROPOSAL FOR JAPAN'S DEVELOPMENT STUDIES

DATE OF ENTRY: Month 03 year 2002

APPLICANT: The government of Mongolia

1 PROJECT DIGEST

(1) PROJECT TITLE: IMPROVEMENT OF WATER SUPPLY SOURCE IN RURAL AREAS

(2) LOCATION: DUNDGOBI, DORNOGOBI, OMNOGOBI, SUKHBAATAR, GOBI-ALTAI, BAYANKHONGOR, OVORKHANGAI /Attachment -1/

(3) IMPLEMENTING AGENCY

a. NAME: THE MINISTRY OF FOOD AND AGRICULTURE
b. NUMBER OF STAFF: 80 OFFICERS AND 100 SUPPORTING STAFFS
c. BUDGET: APPROXIMATELY USD 4.0 MILLION FOR THE YEAR 2000 INCLUDING CAPITAL AND RECURRENT EXPENDITURES
d. ORGANIZATION CHART: /Attachment –2/

(4) JUSTIFICATION OF THE PROJECT:

PRESENT CONDITIONS OF THE SECTOR

As of 2000, 48.5 percent of labour force works in Agricultural sector, one of the basic sector of the country's economy, 35.1 Percent of GDP is produced by this sector and the sector takes 2nd place in e countries export.

Other sectors of the economy depend on development of animal husbandry, increase of its production, which covers 80 percent of agricultural production. Thus, development of the economy depends on solvent of water supply of livestock directly.

One of the main contributing factors to scale and severity of the last years disaster was the intense drought ("gan") that preceded the 1999/2000 "dzud" . However, studies also suggest that increasing regional grazing pressures and consequent regional environmental degradation may have also contributed to this disaster. Increased pressures brought about changes in native grasses in the regions. These point to drastic reduction of disappearance in the types of grasses previously abundant in the area. As a result, only the less palatable grass shows a significant increase. Although, as

5/29/2001

expressed by the herders, the regional degradation of pasture was not only a result have over grazing but also seems to be a natural phenomena.

The worst consequences of last year's drought was that the livestock in the affected areas were unable to build up the necessary strength that would normally have enabled them to cope with the harsh winter and spring weather conditions. Secondly, herders were unable to prepare hay and other types of animal feed with locally available resources that could have helped mitigating the consequence of the "dzud" .

The drought affected entire soums, thus all pasture reserves were intensively grazed. Owing to increased migration to less affected areas the livestock numbers and herding households also resulted in congestion on seasonal pastures. Increased movement of people and livestock outside their traditional grazing areas also created high grazing pressure around existing water resources, especially the mechanical wells that are still operational. Consequently access to grazing has become a serious constraint for many herding households not only in the "dzud" affected but also in that receiving areas. This may also explain why the number of affected aimags and soums seem to increase by the week even though the weather is already warming up.

Therefore, one of the main difficulties facing bath humans and animals is lack of drinking water. Animals have to spend more time accessing scarce water sources, which shortens grazing and uses up greater levels of energy. Herder communities have resorted to using water from open ponds and streams -often the same water used by the area's livestock population. In addition, the quality of drinking water in the Gobi and steppe regions is also a major concern, as there is high mineral/ chemical content.

The Ministry of Agriculture and Industry and JICA Mongolia Office conducted the fact finding survey in the Gobi area in 2000. The result of the survey shows that there is correlation between intensity of overgrazing and existence of functional wells

Any rehabilitation and construction of new water well effort will have to seek to stabilise and restore the environmentally degraded section of the affected areas for sustainable development. The local communities and government have expressed concern over water as a top priority. During the collective system much emphasis was placed on construction of wells, especially bored and mined wells to expand accessibility to grazing areas. Between 1965 and 1990 approximately 25000 mechanical (engineered) wells were established in Mongolia. However, the number of mechanical wells still operational in the country has dropped by 45% since transition begun in 1990. At the same time the number of traditional shallow/ dug wells have increased only by 23%, while the number of livestock increased by 40 % on an average.

After dismantling the collective system, the mechanical wells experienced a rapid decline until about

1997, owing to lack of clear O&M, management /ownership and financial arrangements. This has been clearly associated with the failures of privatisation of livestock and collective assets (failure to designate responsibility for repair and maintenance of the water points, which have, were the perceived role of the government).

This trend has been more recently reserved by the Government providing approximately 400 million Tugricks annually for the rehabilitation of mechanical wells through the Ministry of Agriculture and Industry (Now, The Ministry of Food & Agriculture). This assistance is mainly targeted towards the Gobi and steppe regions where surface water is not readily available. The above budget only provides an average 10 -50 million Tugricks per aimag per year, that allows the rehabilitation of approximately 6-25 mechanical wells per province annually since 1998 year. However, there are approximately 6000 engineered wells to be rehabilitated nation-wide.

In 1996 compare to 1989 a number of water wells was decreased by 8543 and at the same time number of livestock was increased by 3.4 million. As Statistics of 2000 number of water wells also reduced up to 30900.

According to the statistics in 2000 there were 191 .5 thousand herdsmen households. Solution of water supply for herdsmen and livestock is urgent problem of the country.

Though there are several economic and social factors which have caused the Dzud except water supply problem like decreasing hay and fodder production, increasing herders who don't have proper knowledge etc., the water supply problem is the most important to address with a foreign assistance. Because the hay and fodder production or the education for the herders can be coped with mainly Mongolian side, but tackling with water problem is very difficult without foreign techniques and fund. And setting up organizations to maintain wells among herders make it possible to use wells continually.

ƆVERVIEW OF AVAILABLE WATER RESOURCES

Main water resources of the country comprises surface water sources e.g. main river basins and lakes particularly, extensive in north and central regions of the country and underground water which is widely distributed. Surface water volume of the country is assessed to be as 32.73 km3 and its distribution by aimag greatly varies depending on availability of large lakes and rivers.

Total groundwater reserve of the country is 6.07 km3 and its 'distribution follows same pattern as the surface water; however, less deviation can be observed in the distribution. Although, as it was earlier noticed "the groundwater is not always plentiful due to the limited permeability of the widely occurring fractured metamorphic and plutonic rocks. Groundwater has a great importance in supplying water to population and agriculture sector of the economy since the long and cold winter

time makes difficult to use surface water as a primary source of water. However, south eastern region's groundwater supply (or its rehabilitation) is contingent on rainfall since this region does not have established surface water network. In addition to the south eastern region is located in high mineralized area which makes difficulty to use groundwater extensively. In addition, 60% of territory of the country lack surface water. Reliance on the groundwater and lack of water supply from this source has a great impact on economy of this region as well. Livestock, main source of the income generation, is depends on the availability of water in pasture which is in turn, affects the pasture capacity as well.

SECTORIAL DEVELOPMENT POLICY OF THE NATIONAL LOCAL GOVERNMENT

The main task of the water sector is to support social and economical sustainable development by means of reliable providing consumers with pure and sufficient water, reclamation of water resource and protection it from a shortage and pollution. To achieve this task the following should be solved.

- To make exploration and research work on identification of water Resource, its quality, especially, at Gobi and steppe zones step by step.
- To set up convenient conditions of legislation, economy on efficient Arrangement of measures for proper usage and protection of water Resource.
- For the purpose of reliable operation of water supply facilities to solve and improve ownership.

PROBLEMS TO BE SOLVED IN THE SECTOR (the Overall Project including the Proposal Project to Japan)

- For the improvement of water supply for herdsmen, watering of a pasture and utilisation of new pasture the implementation of following 4 job is required.

Table 1

No	Works to be done under first phase	Duration
1.	Survey for geological and hydrological water resources and relation between grazing capacity and water wells for livestock	1 year
2.	Completion of survey on site identification of water wells in Gobi aimags	2 years
3.	Completion of repair and renovation of water wells	2004
4.	Completion construction of new water wells in Gobi area	2007

1 SURVEY OF PASTURING CAPACITY AND WATER WELLS FOR LIVESTOCK

In spite of sharp increase of a number of livestock, a water supply level is decreasing year by year and there is a sign of regional overgrazing. Fact finding Survey in Omnogobi, Dundgobi, Dornogobi, Gobisumber aimags was conducted by Mongolian consultant companies under the financing of JICA Ulaanbaatar office. Analysis of the survey shows that it is essential to pay attention to the overgrazing problems around operating wells, water supply, pasturing capacity and increase of number of livestock of Gobi zone. Thus, there was conclusion of necessity to make detailed survey for preparation of the policy.

It should be noticed that such kind of survey is required for all aimags, especially in Gobi and steppe regions.

2 IDENTIFICATION OF SITE FOR WATER WELLS WITH LOW DEPTH

.t is important to change an attitude of previous system, which aimed to get more water from more deepness. At that time by geophysical measurement soil with deepness up to 20m considered without water. Therefore there is necessity to identify a quantity, deepness of water bearing strip by surface exploration method instead of drilling method. According to the survey 81 .9 percent of water wells for livestock are wells with short deepness or shallow wells with deepness of up to 20m.

Up to 1990 because of a shortage of water well near to winter "quarters, spring quarters water is being transported to such area at high cost and since transition to the market economy a water transportation was stopped and it had negative influence for increase of number of livestock as they suffered from a water.

For last years the identification work of area for water wells was stopped and since 1990 no water well was constructed newly, as the Government allocated no budget.

3 REPAIR AND RENOVATION OF WATER WELLS

As of today about 12 billion tugriks is required for a repair and renovation of water wells. It is planned to implement this kind of work under the Mongolian Government budget and the finance source of foreign countries /except Japan/.

4 CONSTRUCTION OF NEW WATER WELLS AND UTILIZATION OF NEW PASTURE

Since 1990 no water wells was constructed under the governmental budget and shallow wells /up to 7m/ were digger by herders at the area of winter and spring quarters only. But such kind of work is unsatisfactory and identification work of site for water wells is started from 2000. At present refer to

guessing, herdsmen digging water wells at their own source or paying certain amount to a company or persons they asking to identify water well site. Unfortunately, because of the shortage of scientific knowledge and experience of them such work finishes without result.

Under the overall project construction of 10000 water wells is required and it means 500 water wells are required for 1 aimag.

PURPOSE OF THE OVERALL PROJECT

The purpose of the Project can be determined by 3 phases.

1st PHASE: Water supply improvement of drinking water for livestock and herdes in Gobi and steppe zone aimags to mitigate overgrazing situation around operating wells and to prevent livestock from Dzud.

2nd AND 3rd PHASES: Water supply improvement of drinking water for livestock and herders in khangai zone and permafrost zone to mitigate overgrazing situation around operation wells and to prevent livestock from Dzud.

GOAL OF THE OVERALL PROJECT

During the implementation of the Project it is planned to construct 10000 water wells totally.

5 YEARS GOAL: 3500 water wells in 7 aimags of Gobi and Steppe zone will be constructed.

10 YEARS GOAL: On the basis of exploration and survey 3250 water wells will be constructed in aimags of steppe and khangai zone.

15 YEARS GOAL: On the basis of exploration and survey 3250 water wells will be constructed in khangai and permafrost zone.

BENEFIT OF THE PROJECT

Improvement of water supply for herder's households./190 thousand/, livestock and watering of 80 percent of pasture enables to mitigate regional overgrazing situation, to prevent livestock from Dzud and to make sustainable development for Mongolian economy.

THE OVERALL PROJECT'S PRIORITY IN THE NATIONAL DEVELOPMENT PLAN

A measurements on realisation of "Repair and renovation of water wells with engineering design" of Action Program of social and economic development for 1998, 1999, 2000, is under implementation. In the frame of this program allocating 972 million tugriks over 500 water wells of 16 aimags were repaired and renovated and 2.4 million hectare area pasture was watered in 1998, 1999. In 2001 the budget of 469 million tugrics was approved and at present approximately 200 water wells in 19 aimags.

As a sign of quarantine of the State protection of herders and livestock, from 2000 exploration soil water and identification work of water source site for herders is done under the Governmental budget.

At present for the improvement of water supply for the population and livestock approximately 25000 new water wells are required and out of which 1 5000 water wells with short deepness or with deepness of up to 30 m and 10000 water wells with deepness of more than 30 m are required for a pasture. Construction of new water wells at pasture enables introduction of new technique, technology and solves problems of water supply for herdsmen.

In frame of this overall project it is planned to construct a certain number of water wells with hand pumps. Economically wise, cost of water well with handpump is low and easy to operate.

Today, The HTN- Network for Cost -effective Technologies in Water Supply and Sanitation is well known by the developing countries. The overall target of this concept is to archive better sustainability though community involvement in the operation and maintenance of their water points. HTN addresses community- based water supply in its entire institutional and environmental context. To allow the communities to take the full responsibility requires effectual institutional structures are technically sound, cost effective solutions.

Now, in many countries hand pumps are the principal technology used to supply water to rural people. They represent often the most cost- effective option for low-income small communities.

In Mongolia, Sanitation and Hygiene Education Program for the 21st Century (WASH-21 Project) started in 1997 from The UNDP -World Bank. This project has being implemented for 4 years. This project is designed to demonstrate viable approaches to implementing a decentralised, equitable national drinking water supply for people and sanitation and hygiene education program. At the policy level, the project facilitates development of a policy framework and implementation strategy for drinking water supply and sanitation that is compatible with broader Government Policies.

The policy of the Government is to improve water supply for livestock and human populations and watering of a pasture by constructing new wells in an ecologically responsible manner that will contribute to improved pastureland management and prevention of desertification.

THE PROJECT TO REQUEST TO JAPAN

The 1st Phase of the Overall Project will be requested to Japan. The requested cooperation scheme is the Development Study. And the Study suppose that wells' construction will be supported by Japan's Grant Aid.

The area in the 1st Phase of the Overall Project are mainly Gobi zone. This area depend on underground water resources since there is rarely surface water. And this area has been the most severely affected in 1999/2000 Dzud. It is considered that main causes of the Dzud are shortage of drinking water and overgrazing problem around working wells.

Estimation of the Project cost

(Development Study)
1. Survey for geological and hydrological water resources and relation between pasturing capacity and water wells for livestock for 1 aimag requires approximately 10 800 000 tugrics or USD 10000.

2. Exploration and identification of site of water well with low depth and deep depth: Per km2 /winter, spring camps and new pasture/ 120 000 tugriks or USD 110. Unit area 3.14 km2 area.

- Dundgobi - 750 /winter, spring camps and new pasture/
- Dornogobi - 500 /winter, spring camps and new pasture/
- Omnogobi - 550 /winter, spring camps and new pasture/
- Sukhbaatar - 600 /winter, spring camps and new pasture/
- Gobi-Altai - 550 /winter, spring camps and new pasture/
- Bayankhongor - 800 /winter, spring camps and new pasture/
- Ovorkhangai - 750 /winter, spring camps and new pasture/

Total - 4500

(Supposed Grant Aid scale)
3. Construction of new water well: Approximately 10.000.000 tugriks or USD 9200 is required for the construction of the water well with depth of 70m. But depending on depth of drilling cost of water well is about 5-15 million tugriks. In the estimation cost of deep water considered as 10 million Tigris and water well with short depth as 6 million tugriks. /Table 2/

Cost estimation for 7 aimags

No	Scope of work	Unit cost /thousand tugriks/	Total cost /million tugrics/
(Development Study)			
1.	Survey for geological and hydrological water resources and relation between pasturing capacity and water well for livestock	10.800,000 * 7 aimags	75.6
2.	Exploration and identification of site for water well with short depth and deep depth	1 20 000* 4500 pasture	540
	Total		616 million
(Supposed Grant Aid scale)			
3.	Construction of new water well		
	a. deep water well	10 000 000 * 1400	1 4000, 0
	b. water wells with low depth	6 000 000 * 2100	1 2600. 0
	Total		26.6 billion (US$ 24 million)

Required amount for the implementation of 1, 2 of table 2 is 616 million tugriks /560 Thousand US $/ and it can be completed within 2 years.

As supposed Grant Aid, for the construction of 3500 water wells out of which 2100 wells with short depth, 1400 is deep wells, in 7 aimags of Gobi and steppe zone 26 billion 600 million /24 Million US $/ tugriks is required.

(5) DESIRABLE OR SCHEDULED TIME OF THE COMMENCEMENT OF THE PROJECT

There is necessity to start the implementation of the Project as early as possible.

(6) FUNDING SOURCE

It is planned to implement under the technical assistance of Japan. Japan is a leading country among the donors to Mongolia. As result of survey and study conducted by JICA since 1995 the project "Improvement of water supply herdsmen" is considered the project of high priority and should be implemented urgently. The Government of Japan understands the importance of the project at different level and several discussions with officials of the Government of Mongolia, Ministry of

Food and Agriculture was taken a place.
The Government of Japan is making following survey.

1. Improvement of Co-operation in Agriculture
2. Establishment and development of Complex Settlements in the Central area.
3. Improvement of water supply source of Ulaanbaatar
4. Improvement of water supplies in Altai City.

(7) Other relevant Project, if any

2 TERMS OF REFERENCE OF THE PROPOSED STUDY

(1) NECESSITY OF THE STUDY

Necessity of the Study is as follows.

1. As of 1990 about 30 thousand of ETSB, VL-3M, NB-3M types water intake pumps of Russia, T-62, DSH-12 type diesel engines and 17 thousand buckets were under utilisation. Apart from that a logistic networking supply of spare parts, workshop of service, maintenance of those equipment were established.

2. However, as of 2001 there was no more logistic network, more than 50 percent of water well equipment was damaged or out of order and because of shortage of spare parts or deduction from the production some of water wells is out of an operation.

3. A technical policy on water well is not being solved yet Mongolian Government in last 3 years is doing even though repair, maintenance and renovation of water wells.

4. Because of a suspension of construction of water wells since 1990, especially, at a pasture the water supply for livestock is being decreased sharply and degradation, overgrazing of a pasture and nature of many aimags were increased around working wells.

5. After the privatisation of a livestock, number of shallow wells was increased and there is real necessity to identify site of new water well on the basis of survey and exploration.

(2) NECESSITY /JUSTIFICATION OF THE TECHNICAL COOPERATION

Japan is so familiar with the present situation of the sector not only through surveys but also by despatching JICA experts.

(3) OBJECTIVES OF THE STUDY

To make well construction plan to mitigate overgrazing problem around operating wells and to prevent livestock from Dzud in 7 aimags in Gobi and Steppe zone which have serious water supply problem in Mongolia.

(4) AREA TO BE COVERED BY THE STUDY

The survey and study will be conducted in

Aimags of Gobi and Steppe zone /Dundgobi, Dornogobi, Omnogobi, Sukhbaatar, Gobi-Altai, Bayankhongor, Ovorkhangai/

(5) SCOPE OF THE STUDY

5.1 Study of geological and hydrological water resources using working wells or exhausted well's distribution etc. to decide well construction area

5.2 Following work will be done in scope of the Study of relation between pasturing capacity and water wells for livestock.

1 Study of the grazing

1 .1 Study of pasture area
1 .2 Study of number of livestock
1 .3 Average vegetation of a pasture
1 .4 Pasturing capacity

2 Water supply of livestock

2.1 Comparison of water wells with engineering design (including distribution, operational situation, possibility of rehabilitation)
2.2 Technique and technology of water intake equipment of water wells
2.3 Proposal of further measurement on improvement of pasturing capacity and livestock water supply.
2.4 Preparation of maps of pasturing capacity, grazing and location of water wells for livestock /1 :200000 scale/
2.5 To analyze correlation between pasture capacity and well situation

5.3 Grasping rehabilitation situation and plan of Mongolian side and other donors
5.4 Study of site identification of water wells

- Nature and meteorological condition of site
- Geological and hydrogeological survey of exploration site
- Present situation of watering
- To grasp result of Mongolian sides' exploration
- To make exploration plan
- To implement exploration and decide type of well and estimate construction cost

5.5 To decide priority for well construction considering regional overgrazing situation

5.6 To make the plan of organization, management and maintenance for wells

(6) STUDY SCHEDULE

The study is considered to be started from 2002. Required time for the Project implementation is about 2 years.

(7) EXPECTED MAJOR OUTPUTS OF THE STUDY

Depending on depth, exploration works will identify / locate potable water supply points for herders in 7 aimags such as Dundgobi, Dornogobi, Omnogobi, Sukhbaatar, Gobi-Altai, Bayankhongor, Ovorhangai. For instance:

- Manually operating water point - Depth is 7m
- Those with lower depth up to 30m, and
- Over 30 m
- Water points with depth of 7m could be built by their own funds, but those with depth of over 7m will be built using modern techniques and technologies.

(8) POSSIBILITY TO BE IMPLEMENTED

As of 2001 exploration works to set up water points with lower depth has been done by the Government of Mongolia in Omnogobi, Dundgobi, Dornogobi. Sukhbaatar and Bayankhongor aimags. This year, less than 20% of the unit area that should be covered by exploration totally in the above aimags will be studied.

(9) REQUEST OF THE STUDY TO OTHER DONOR AGENCIES

The Mongolian Government requested UNDP to finance water point rehabilitation project in 2000. UNDP has decided to contribute 129 thousand dollars into this work. As well as the Ministry of Food and Agriculture submitted, once again its request to UNDP and ADB to financial assistance to rehabilitate and repair wells, located in remote pasture and those areas, affected by natural disaster Dzud.

3 FACILITIES AND INFORMATION FOR THE STUDY

(1) Assignment of counterpart personnel of the implementing agency for the Study

Officers, responsible for livestock production and water supply of Policy Implementation Coordination Department of the Ministry of Food and Agriculture and researchers of Geo-ecological institute of the Academy of science will be involved in the project implementation as the counterpart team.

2) Available data, information, documents, maps, etc., related to the Study: (Please attach the list)

- Under low depth water point exploration, conducted in 2000 in areas around winter and spring camps and new pasture in Omnogobi and Dundgobi aimags around 300 water points were set up.

- The Ministry of Food and Agriculture and JICA Mongolia Office conducted a Fact Finding survey in Dundgobi, Dornogobi, Omnogobi, Gobi-Sumber Aimags in 2000. The Study Team can use the result of the survey, Map of well distribution etc., as the Study's preparation.

- Several pasture capacity survey has been conducted by Mongolian side. The latest one was made in 1999/2000. The Study Team can use the data.

3) Information on the security conditions in the Study Area

Generally security conditions are very good in the Study Area.

4 GLOBAL ISSUES /Environment, Women in Development, Poverty. etc. /

(1) Environmental component (such as pollution control, water supply, sewage, environmental management, foresty, biodiversity) of the Project, if any

Changes in nature of aimags that will be covered by exploration is comparatively less and there is no water pollution. In the past due to decrease in number of wells pasture has been degraded and overgrazed. If the project could improve pastoral management by building and identifying water

points there will be good impact on environment.

(2) Anticipated environmental impacts (both natural and social) by the Project, if any

It is anticipated that the overgrazing situation around working wells will be mitigated.

(3) Women as man beneficiaries or not

Results of many projects have shown that women and children have taken more benefit from building wells. Because the work bringing water for livestock and people is conducted by women and children. There are a lot of children who can't go to school for the work.

(4) Project components with require special considerations for women (such as gender difference, woman specific role, woman's participation)

Gender and technology related issues were not specified in documents of projects that were implemented in Mongolia in the past. We note that there is no need to consider gender issues at inception and exploration phase of this project, but we should give importance to how improve involvement of women in maintaining and ensuring sustainable operation of wells after we built them.

(5) Anticipated impacts on woman caused by the Project, if any

It has been anticipated that upon completion of this project, the current situation of women will be improved significantly. For example:

- Working burden of women will be reduced.
- Household income will increase and hygienic condition of households will be improved.
- Living standard of poor households will go up.

(6) Poverty alleviation components of the Project, if any

The project will have sufficient impact on poverty alleviation. Some study shows that because of shortage of water supply there emerges poverty in rural and urban areas. One of the main objectives of this project is to reduce poverty.

(7) Any constraints against the low -income people caused by the Project, if any

During the implementation of the project those households, which earn less income will benefit more from the project. For example: Water supply to the above households will be improved by the

project.

5 UNDERTAKINGS OF THE MONGOLIAN GOVERNMENT

In order to facilitate a smooth and efficient conduct of the Study Following measures shall be taken.

1) to secure the safety of the Study Team
2) to permit the members of the Study Team to enter, leave and sojourn in connection with the their assignment therein, and exempt them from foreign registration requirements and consular fees,
3) to provide all necessary information and to assign counterpart personnel
4) To exempt he the Study Team and the members from any tax and duties in connection with the implementation of the study
5) to provide the working facilities
6) To provide medical services in necessary

For the right and efficient administration of water wells to be constructed under the Project, utilisation of the following method shall be adopted.

1) To fix pastoral area and herdsmen household for water wells and herdsmen are obliged to bear whole cost of service and maintenance of water well by themselves.
2) To establish a co-operative which will consist of owner and herdsmen household. The co-operative shall conclude contract on initial investment, bearing of fuel, service, maintenance and depreciation cost and service fee with the Head of local government or administration.
3) The co-operative is obliged to establish Fund from the income of its activity for making of service, maintenance and overhaul of water wells.

Amendment on owner shipment, utilisation, service and maintenance of water wells to Water Law of Mongolia is under preparation. Soon the Ministry of Food and Agriculture is going to issue Regulation on this subject.

The Ministry of Food and Agriculture will co-operate with the Study Team and will co-ordinate co-operation of the Study Team, Governmental and Public Organisations.

6 The government of Mongolia shall bear claims, if any arise against member's of the Japanese Study Team resulting from, occurring in the course of or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or wilful misconduct on the part of the member of the Study Team.

7 The Policy Implementation Coordination Department of The Ministry of Food and Agriculture

shall act as counterpart department to the Japanese Study Team and also as co-ordinating body in relation with other governmental and non-governmental organisations concerned for the smooth implementation of the Study.

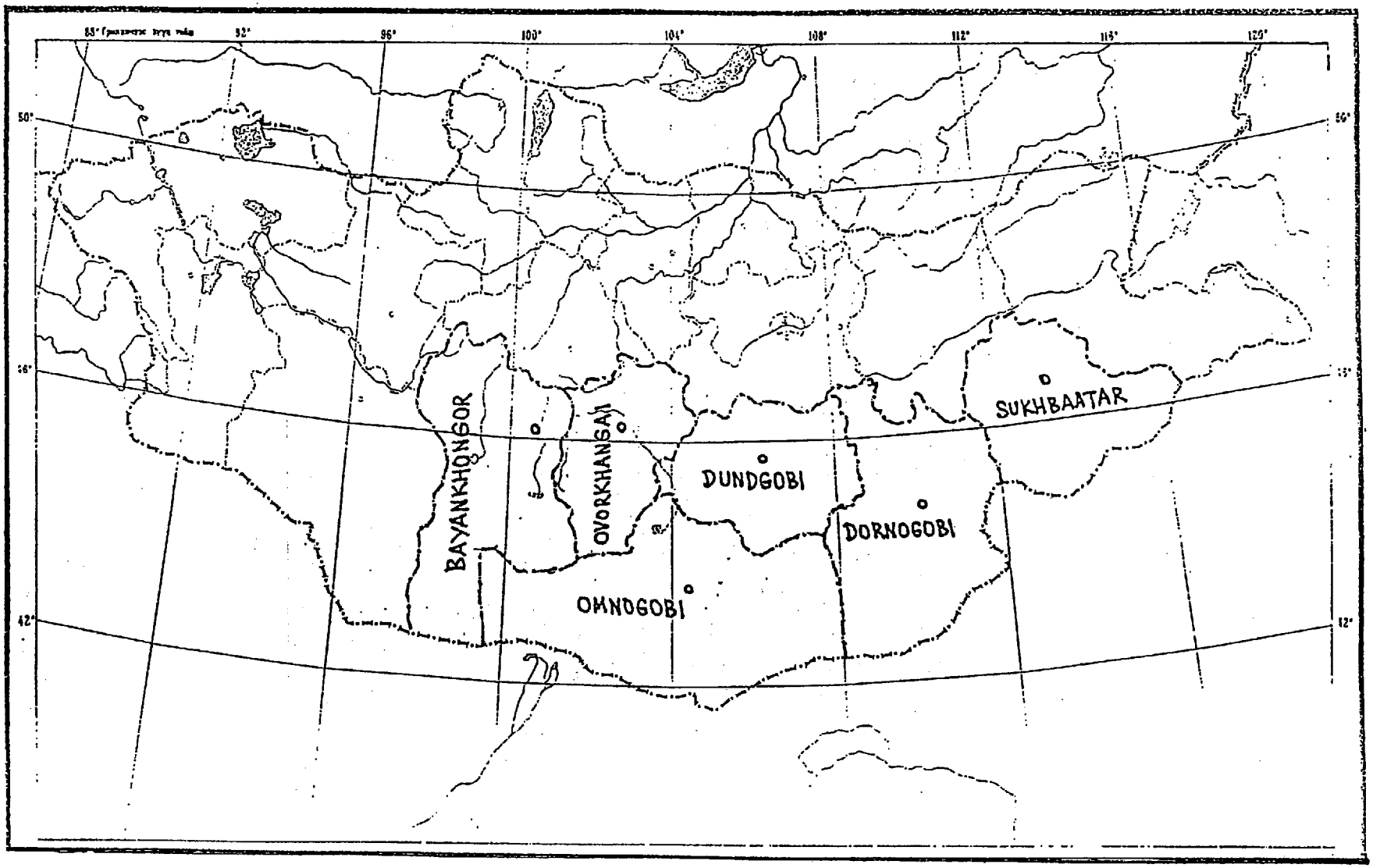
8 The Policy Implementation Coordination Department of The Ministry of Food and Agriculture will, as the executing department of the project, take responsibilities that may arise from the products of the Study.

The government of Mongolia assures that the matters referred to in this form will be ensured for the smooth conduct of the Development Study by the Japanese Study Team.

Signed:
Title:
On behalf of the Government of
Date:

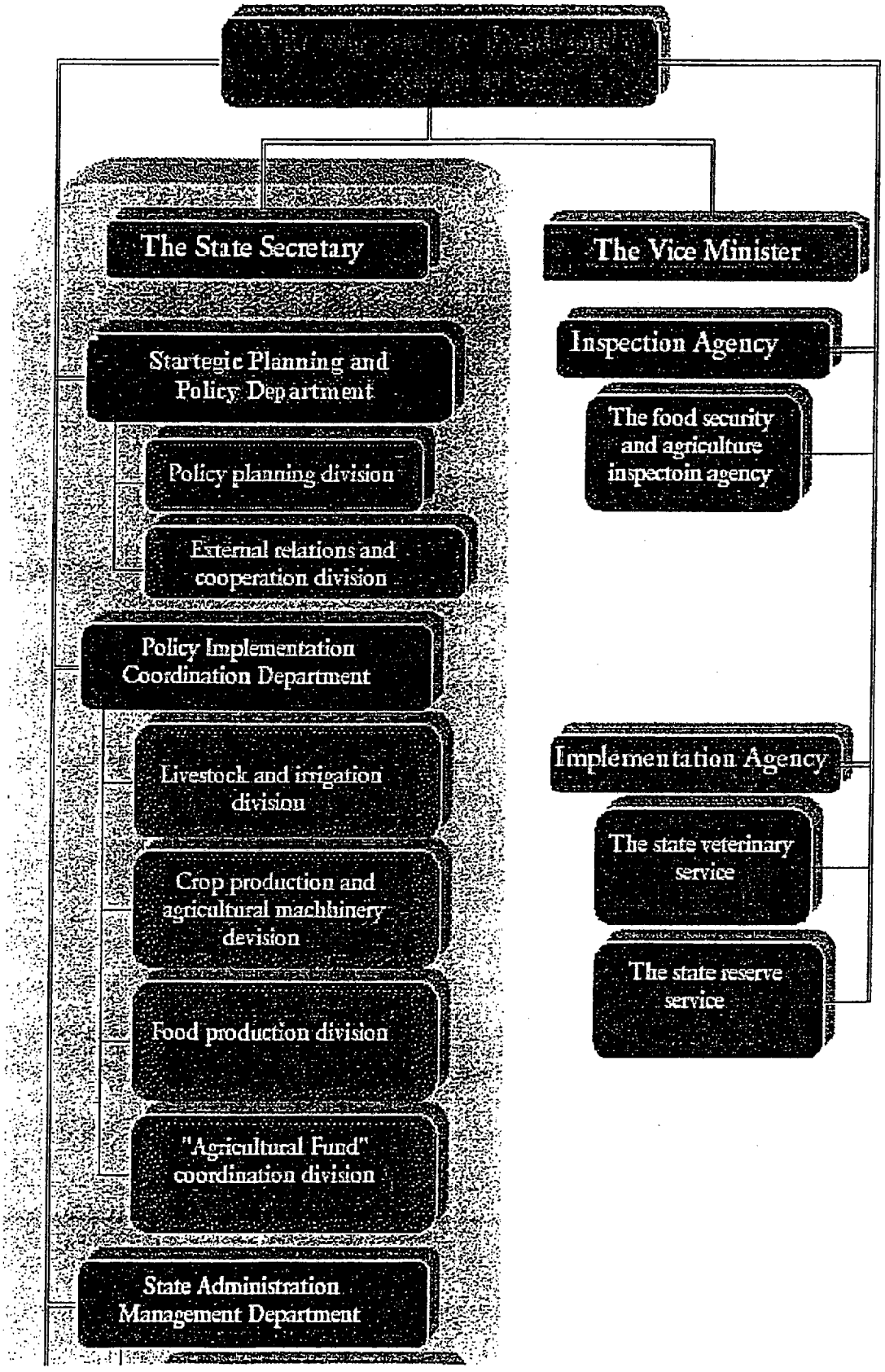
MAP OF MONGOLIA
(1: 10 000 000)

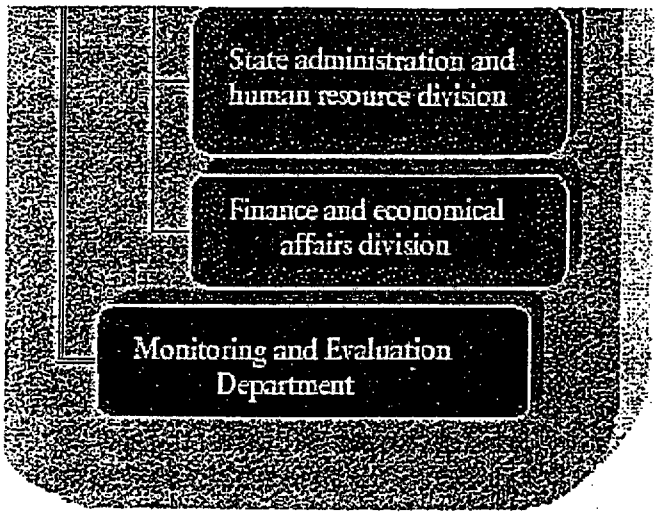
Attachment-1



Attachment-2

Ministry of Food and Agriculture





Operational Strategy

Operational strategy

The operational strategy of the Ministry of Food and Agriculture is to provide highly-professional, decisive and timely advice or support to the activities of the Minister for of Food and Agriculture aimed at the implementing priority courses and action programs of the Government as well as objectives and targets set within the concerned issues dealt by the Minister for of Food and Agriculture.

Priority courses

The Ministry of Food and Agriculture is to operate with the following priority courses:

1. To facilitate the overwhelming development of private sector, introduce an advanced management skills and experience, develop a national technology, adapt outstanding world techniques and technologies, and intensify structural reforms;
2. To recover national production, develop small- and medium-sized enterprises, expand job opportunities, improve production and supply of food or consumer goods, and ensure consumer protection;
3. To upgrade the competitiveness of products and services towards to the world market, increase export potential, set up a wholesale channel of imported or domestic products and raw materials in accordance with the regional development concepts, establish such channels in the remote areas to meet local consumers' demand, and improve trading and servicing morality;
4. To create a proper structure of livestock herds along with a growth of number of

livestock, improve health condition of livestock, expand productivity, recover intensified husbandry, curb agricultural production regress, and facilitate the recovering basis for further development.

Responsibilities for the Ministry of Food and Agriculture

The Ministry of Food and Agriculture is entitled to have the following responsibilities :

- to provide a comprehensive advice and support to the Minister for Food and Agriculture as well as to the Cabinet of Ministries upon the implementing operational strategy of the Government of Mongolia.
- to focus on proper management in the sectoral development policy, strategic planning, budget equilibrium and inter-linkages, through an extended approach to be facilitated by the Cabinet of Ministries and a concerned Ministry.
- to act as an advisor on the agricultural issues to the Government.