RURAL DEVELOPMENT STRATEGY
For
MONGOLIA

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OCTOBER 2002

ULAANBAATAR CITY

Strategy preparation supported by: WORLD BANK FAO DFID UNDP
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Appendix 2: Summary of RDS development objectives and outputs

RDS Logical Frameworks

Logical framework for building risk management capabilities of herders

1. Outputs for building risk management capabilities of herders
   1.1 Cooperation among herders promoted
   1.2 Pastureland management
   1.3 Supply of supplementary fodder improved
   1.4 Supply of water improved
   1.5 Veterinary services improved
   1.6 Capacities for pastoral risk forecasting and response improved

Logical framework for intensifying livestock production at optimal level

2. Outputs for intensifying livestock production at optimal level
   2.1 Intensive and semi-intensive livestock production promoted
   2.2 Mixed livestock and crop farming promoted
   2.3 Capacity for the quality certification of livestock products enhanced
   2.4 Research capabilities to improve livestock quality enhanced
   2.5 Extension capacities to improve livestock production systems and technologies strengthened

Logical framework for ensuring strategic food-flour security

3. Outputs for ensuring strategic food-flour security
   3.1 Risks of losing harvests minimized
   3.2 Markets for grains improved
   3.3 Risks associated with wheat and flour imports minimized

Logical framework for supporting production and processing of potatoes, vegetables and fruits

4. Outputs for supporting production and processing of potatoes, vegetables and fruits
   4.1 Access to financial capital to launch production and processing of potatoes, vegetables and fruits provided
   4.2 Capacities of extension services to advise and train on production and processing of potatoes, vegetables and fruits enhanced
   4.3 Support seeds and small-scale irrigation equipment purchasing activities

Logical framework for revitalizing the rural marketing system

5. Outputs for revitalizing the rural marketing system
   5.1 Viable institutional structures supported for collection, sorting, primary processing, packaging and the delivery of market information and supplying rural producers with necessary production inputs and consumer goods
   5.2 Research capability to improve quality and processing level of agricultural goods for marketing improved
   5.3 Delivery of market information improved

Logical framework for promoting competitive agro-processing industries

6. Outputs for promoting competitive agro-processing industries
   6.1 Environment conducive to the development of competitive agro-processing SME in rural areas created
   6.2 Domestic processing industries supported to enhance their capacities to enter the
international market
6.3 Rural banking and financial services improved

Logical framework for the development of the non-farm sector

7. Outputs for developing the non-farm sector
7.1 Promoting non-farm SME development based on the utilization of local natural resources, local materials and skilled rural labour and targeted to meet the local demand

Logical framework for ensuring the delivery of quality social services to rural people

8. Outputs for ensuring the delivery of quality social services to rural people
8.1 Participation of rural communities in planning and implementing investment in social infrastructure increased
8.2 Quality of health services for rural people improved
8.3 Quality of education services for rural people improved
8.4 Quality of social welfare services for rural people improved
8.5 Rural employment support system improved
8.6 Gender equity improved

Logical framework for improving environmental protection sustainable natural resource use

9. Outputs for improving environmental protection, wildlife hunting and fishery
9.1 Capacity of central and local governments to evaluate and monitor the implementation of environment laws improved
9.2 Participation of rural communities in developing and implementing environment laws and regulations increased
9.3 Community-based natural resource management is introduced
9.4 Sustainable use of hunting and fishery resources promoted

Logical framework for improving the forestry sector

10. Outputs for improving recovering capability of forestry resources, conservation and effective use of forestry resources
10.1 Forestry legislative environment and organizational reform enhanced
10.2 Building capability to prevent and fight forest fire, insect pests, and diseases
10.3 Upgrade entomology laboratories
10.4 Effective use of forestry resources and domestic wood production revitalized
10.4.1 Developing forestry resource management plan
10.5 Social Forestry capability in seeds, seedling multiplication, and replanting

Logical Framework for supplying with reliable, sufficient and quality water; protecting and rehabilitating water resources from scarcity and pollution

11. Outputs for supplying reliable, sufficient quality water; protecting and rehabilitating water resources from scarcity and pollution
11.1 Depending on the region, water resources protected and rehabilitated
11.2 Public education campaign on protecting and saving water resources and health, targeted at the different ages and social status of citizens
11.3 Water saving technologies in agriculture introduced
11.4 Water quality improved
11.5 Capability of hydrology improved

Logical framework for rural infrastructure development

12. Outputs for improving rural infrastructure
12.1 Participation of local people in decision making on investment planning and implementation in rural infrastructure increased
12.2 Rural power supply improved
12.3 Rural communication improved through introducing advanced information and communication technology
12.4 Smooth roads that are crucial for rural development ensured by improving the repair and maintenance
12.5 Rural mass media development supported
Foreword

Over the past few years Mongolia has seen adverse changes in the climate. There has been an increased frequency of drought and dzud. Streams are drying up and even major rivers are suffering from lower water levels. All of this has had a devastating impact on agriculture production and the incomes of rural people. It seems highly likely that this weather trend will continue.

Given this new adverse weather pattern it would be very difficult to achieve any development in the rural areas without changes being made in the traditional technologies used in both livestock herding and crop farming.

Although global warming may be blamed for a portion of the climate changes in Mongolia it must be duly acknowledged that human factors have also had a serious impact on the climate. The livelihoods of rural people are declining and rural poverty is increasing because rural people continue to use outdated practices and technology in the changing environment.

There is a much broader context to rural development than simply the food and agriculture, or the farming and herding, issues. Any plan for the rural areas needs to consider well the full range of environmental issues as well as the living and working conditions of all rural residents. Therefore it is essential that the new rural development strategy provide comprehensive guidance to solve all of these accumulated problems.

The Parliament Standing Committee for Environment and Rural Development believes that the preparation and phased implementation of a farsighted, relatively long-term and sustainable rural development strategy is fundamental to resolving many of the problems rural people are facing currently.

Mongolia’s rural development strategy should aim to ensure sustainable growth of the rural economy. Most importantly, however, it should provide an environment in which the well being of every rural person can be assured. This can only be attained by addressing all of the pressing environmental, economic and social issues through a harmonized approach.

The rural development strategy presented here is valuable in that it is comprehensive, based on a holistic approach and includes detailed implementation plans.

This Rural Development Strategy needs to be implemented by incorporating it into the national policy and assuring that government development programs and projects fit within the strategy.

Sh. Gungaadorj
Member of the Parliament
Chairman of the Standing Committee
for Environment and Rural Development
Donor Support for the Development of a Country-Owned Rural Development Strategy

The support has built on work initiated by UNDP, which co-hosted (with the Government of Mongolia) a Government-donor conference on rural development, held in Ulaanbaatar, May 27-28, 2002. Building on this conference, a session of the July 2002 CG meeting focused on rural development. Donors called for further work on the preparation of a long-term strategic plan based on a set of principles that emphasize promotion of local initiative and with the government playing a facilitating role as well as providing important social and other services.

Discussions between the Government of Mongolia, civil society institutions and a donor agency group made up of World Bank, UNDP, FAO and DFID began to identify some of the most needed forms of donor support to assist Mongolia in developing its RDS. Among the conclusions were:

- A sustainable livelihoods approach, building on important previous work, such as the PLSA and inputs to the preparation of the World Bank supported Sustainable Livelihoods Project, offers a powerful analytic framework for synthesizing the elements of the RDS.
- The task of beginning to prioritise possible policy options and operational actions should be done in a series of facilitated, multi-stakeholder forums, involving Government, private sector and civil society institutions.
- The logical framework approach offers a useful tool for facilitating stakeholder discussions.

A one-day planning workshop, involving the full range of stakeholders involved in rural development was held on July 18th 2002. This reached general agreement on the above conclusions on the process to be adopted in preparing the RDS and took major steps in formulating its goals. On this basis, the following donor support was provided:

- A rural strategy support unit that, in addition to providing general facilitation and logistical support, would assemble a resource library of key documents pertaining to rural development in Mongolia.
- Support for a team of local consultants to prepare a synthesis of background papers and to prepare a draft rural development strategy.
- Inputs from an international consultant with extensive relevant experience
- A skilled and experienced facilitator to lead the multi-stakeholder workshop planned for October 2002, following a logical framework approach.
- World Bank staff inputs.

Under the guidance of a Steering Committee formed by the Government, the support team undertook a survey of a representative cross section of stakeholders in four aimags in order to identify the priorities of the rural population. The results were used by the team in discussions with key stakeholders including the PRSP working group, the inter-ministerial committee on rural development, ministries, research institutes, civil society groups and the private sector in order to prepare a first draft RDS for consideration by the October workshop.

During this work and discussions, a number of key themes were developed to provide a holistic context for the proposals and comments of the various stakeholders. A number of significant developments were also highlighted. These are outlined below.
1. Promoting Local Initiatives
Sustainable rural development will only take place if the people directly involved recognise that changes in their thinking and in their activities will bring benefits. Without improvements in the ability of the rural population to express their priorities and of local government to implement changes, the pace of rural development will be slow. This does imply some decentralization of government activities.

One of the main reasons for migration from rural to urban areas is the desire for improved access to a better standard of social services, particularly education and health. Investment is required in order to improve facilities but innovative approaches to service provision are also required to address specific problems such as the relatively high school drop out rate of sons of herding families with limited labour. If the rural people are involved in setting the priorities, they are more likely to provide direct support for service provision.

2. Improvement of Risk Management
Recent experience of disaster in both the livestock and crop sectors has created a recognition that changes in operations and management are urgently needed to mitigate the effects of adverse weather conditions, such as drought and dzud. Projects have provided good evidence that better preparedness through, for example, greater investment in supplementary feed and veterinary care can significantly reduce losses. Such actions are primarily the responsibility of herders, as individuals of groups, but Government has an important role to play in forecasting, in strengthening the disaster response systems and in promoting and testing appropriate insurance schemes.

3. Group Development and Support
Many of the poorest rural households have a relatively small number of animals as their primary source of income. With little to trade, their access to the market is limited, their terms of trade are usually much worse than those of the richer herders and their ability to obtain inputs such as supplementary hay or fodder is very limited. In order to assist such poor households to overcome these problems, the strategy emphasises support for co-operative action.

Co-operative action is also an essential element in achieving a sustainable usage of natural resources. There is clear evidence of environmental degradation, of which a major element is the degradation of pastures near urban areas as a result of uncontrolled over grazing. The promotion of increased community involvement in the management of natural resources is a key part of the strategy.

4. Creation of an Enabling Environment for Rural Economic and Social Development
Even with the emphasis on livelihood improvement for the poorer herding families, there is still expected to be a significant number of families for whom herding is unable to provide an adequate income basis. The strategy therefore emphasises the creation of conditions favourable for the development of other economic opportunities in the rural areas as alternatives to herding and large scale crop production. This requires both an easing of the administrative barriers to enterprise formation and operation, and improved access to finance, particularly micro-credit, which is likely to benefit the poorer sections of the community. Small scale vegetable production, such as is being supported by the “Green Revolution” program is expected to play an important role in improving nutritional standards and in providing income generating opportunities.

The most rapidly growing employment in certain rural areas is unregistered activity in the mining sector. If current trends continue, without regulation, there is the prospect of
increasing lawlessness and conflict, environmental damage and of the sub-sector making little or no contribution to Government revenues.

5. Promotion of Agriculture Development and Food Security
Achievement of the PRSP objectives requires economic growth. Part of this is expected to come from an improvement in crop and livestock productivity. Many trials of more intensive cropping and livestock production systems have been undertaken supported by international agencies, but the evaluation has been limited and there are as yet no clearly financially viable models ready for replication and adoption on a significant scale. The strategy therefore emphasises the need for better co-ordination and evaluation of project trials and agency support, a strengthening of the monitoring and evaluation capability of MOFA and a preparedness to invest in strengthening the extension service, to provide technical and financial information when successful demonstrations have been developed.

There has been a significant change in MOFA policy, in abandoning wide scale subsidies for wheat farming, and this increases the urgency to support MOFA in developing alternative approaches to facilitating the sustainable development of crop production, within a market economic system.

These foci for the RDS are considered to be fully consistent with the policy of the Government of Mongolia, expressed in the letter to the World Bank of the 25th March 2002 referring to the Sustainable Livelihoods Project. There it is stated that “since July 2000 poverty reduction has been the cornerstone of its Action Plan”: that “policies to promote economic growth should not be separated from those designed to reduce poverty” and that “poverty is not only a matter of insufficient income or levels of consumption; it is also characterized by vulnerability to external shocks such as international commodity prices or natural hazards.”

For the convenience of the various ministries involved in providing inputs to the PRSP, and following suggestions of the Steering Committee, a logical framework system was developed which generally grouped activities related to the responsibilities of particular ministries. Links with other activities and ministries are stressed within the frameworks but these note shows more clearly the holistic approach, which was adopted in preparing the strategy.

In October, (9-11) a three-day workshop was held to review the first draft of the RDS. Participants included over one hundred representatives of all groups of stakeholders including herders and other members of the rural population, local government, ministries and parliamentarians. For two of the days, the logical frameworks were reviewed in detail through a process of facilitated group discussions. During this workshop, general agreement was reached on the broad strategy. A number important clarifications and additions were also made and these have been incorporated in this second draft of the RDS.
Executive Summary

This second draft of the Mongolian Rural Development Strategy (RDS) has been prepared by the Centre for Policy Research. The work was undertaken by a team of Mongolian consultants supported by international staff and under the guidance of a steering committee, chaired by Mr. Gungaadorj. All working documents were written in Mongolian and then translated. This document is designed to provide key inputs for the group preparing the PRSP, which is a cornerstone of Government policy. The initial impetus for this work came from the Government-donor conference on rural development, held in Ulaanbaatar, May 27-28, 2002.

Based on the participative processes outlined in the section on donor support a first draft of the RDS was prepared and discussed in a three day workshop, held on October 9-11, 2002 and attended by over one hundred stakeholder representatives. This second draft incorporates the recommendations of that workshop.

The document uses a logical framework format. The agreed longer-term mission statement for the RDS is to:

**Ensure the well being of rural people and their all round development**

The agreed Rural Development Goals are:

1. **Ensuring sustained growth of income for rural people, especially the poor**
2. **Ensuring the delivery of quality social services to rural people**
3. **Ensuring sustainable use of natural resources and the environment**

The strategy recognizes that in order to achieve a sustained growth of income the promotion of economic growth is a precondition. However, the policy clearly stated in the PRSP, and adopted in the RDS, is to ensure that all members of the rural population equitably share the benefits of economic growth, principally by providing favorable conditions that would enable people to use their abilities, talents and opportunities to reduce poverty. The pro-poor focus includes measures to enhance the opportunities for people in remote areas to reach markets and to have improved access to health, education and information services. The problems, proposed activities and outputs, most closely related to this pro poor rural development focus, are summarized in Appendix 1.

Key elements of the RDS may be summarised as follows:

**Maximum Participation of Local Bodies and Citizens**

Successful implementation of the strategy depends upon the overall capacity of governance. According to the Participatory Living Standards Assessment (PLSA), the performance of public administration received poor ratings from the participants because of a lack of administration accountability and effectiveness. The recently approved Public Sector Management and Finance Act and the ongoing Good Governance and Human Security program have a key role to play in addressing the governance issues. The requirement is to overcome the mentality, inherited from the command economy period, of solving problems through top-down directed investment.

The RDS preparation process has confirmed the recommendations of the PLSA, for rural as well as urban Mongolia:

- Give citizens greater voice and influence of patterns of public spending
- Improve the quality and effectiveness of social services and infrastructure
- Invest in public and private actions to reduce risk in pastoral livestock production
In the last recommendation, a key point is that the change in thinking must apply both to the public and private sectors, working in partnership. Effective local participation in setting priorities for the utilisation of Government funds requires increased decentralisation.

**Improvement of Risk Management**

Discussions during the development of the RDS have shown clearly that the disasters, particularly during the past two years in both the livestock and crop sectors, have focused attention in both the public and private sectors on the urgent need for improved risk management measures. The RDS reflects a widely held belief that climate change will increase the risks for Mongolian agriculture and this has stimulated important changes in MOFA policy, such as the abandoning of previous wide scale subsidies for the crop sector.

Pilot programs have demonstrated that greater investment by herders in livestock production, including greater supplementary feeding and veterinary care, can significantly reduce mortality during dzud. There is also an increased recognition that current systems of open access to pastures are leading to over grazing and risks of ecological unsustainability and a lowered ability to cope with adverse weather conditions, such as dzud. For environmental resource management, the strategy therefore proposes as a goal to **increase the interest, role and responsibility of local communities in managing natural resources by transferring ownership, custodianship and user rights to local communities.**

With the Mongolian climate, such measures cannot eliminate the possibility of catastrophic loss. Restocking programs, supported by international agencies are not a long-term solution and the RDS therefore proposes the development and testing of innovative insurance arrangements to provide a commercially viable safety net. This endorses the approach being pursued under the Sustainable Livelihoods Project. The above measures are largely the responsibility of individuals and groups. Government, however, has a key role to play in disaster mitigation, both through improved forecasting and information provision on disaster conditions and through more effective distribution of emergency relief.

In summary, the objective of building pastoral risk management capability shall be realized through achieving the following outputs:

- **Promoting cooperatives and herders’ groups**
- **Sustainable pasture management**
- **Increasing the use of supplementary fodder**
- **Improving the supply of water**
- **Improving the veterinary services**
- **Improving risk forecasting, response capabilities and disaster management**

The PLSA concluded that vulnerability to risk was regarded as the most important dimension of poverty to be addressed. Loss of employment, natural hazards (dzud) and the costs of health and education were found to be the most common reasons for families falling into poverty. The RDS proposals in the agriculture log frames address natural hazards. Proposals to stimulate employment generation, with particular emphasis on micro-credit initiatives in the rural areas, are given in the sections relating to agricultural marketing, agribusiness and non-farm sector development.

**Group Development and Support**

The PLSA found that in rural areas, the poor and very poor made up around half of all households. The primary source of livelihood of many of these families is a relatively small number of animals. With little to trade, such people have limited access to competitive
markets, poor terms of trade and limited access to inputs, such as hay and supplementary fodder. The co-operative development, proposed in the RDS, is designed to strengthen the relative position of the poorer herders. Co-operative action is also proposed to promote the sustainable use of natural resources, such as pastures and forest areas. Groups also have a role to play in presenting initiatives to local government and in innovative approaches to social services provision, such as mobile kindergartens.

With donor support, groups have been able to access credit facilities and have started to establish local enterprises to provide non-agricultural employment for group members.

**Creation of an Enabling Environment for Rural Economic and Social Development**

Surveys have shown that one of the main reasons for the recent relatively high level of rural-urban migration is the desire to obtain access to better social services, particularly health and education. With low population densities, the provision of social services is inevitably relatively expensive on a per capita basis. Finance is limited and it is difficult to attract qualified personnel to remote areas. As a result, rural services are often in disrepair, inadequately staffed and unable to provide more than basic services.

Against this background, there appear to be significant differences between sums, which are related more to the effectiveness of the local administration than to the financial provision. For this reason, the RDS lays stress on increased participation of the service users in establishing service priorities and operational support. Any specific proposals for investment or changes in the operational budgets are considered to be beyond the scope of the RDS, at least at this stage.

The agreed rural social development objectives are:

- **Increased participation of rural communities in planning and implementing investment to social infrastructure**
- **Improved quality of health services for rural people**
- **Improved quality of education services for rural people**
- **Improved quality of social welfare services for rural people**
- **Improved rural employment support system**
- **Improved gender equity**

Under the command economic system, large investments were made in the development of the rural infrastructure. Almost all sum centres have electricity, water, heating and telecommunications facilities but there are often severe maintenance and operational problems. Electricity supplies, for example, are often unreliable, even in aimag centres, due largely to high fuel costs and difficulties in obtaining payment from consumers. A recent trend is for individual herders to invest in renewable energy sources, such as solar and wind power generators but they lack information on the relative advantages of different types of equipment. The lack of a reliable infrastructure inhibits the development of rural enterprises, such as processing agricultural products. Long transport distances from remote areas to Ulaanbaatar, using a very limited road and rail network, inevitably reduce the prices obtained by producers of agricultural products and increase the prices charged for consumer goods.

Even with improvements in the provision of social services, it is likely that there will be a continuing rural-urban migration. With improved agricultural productivity, it is also likely that there will be a decline in the number of people in rural areas relying primarily on crop and livestock production for their livelihoods. An important element of the RDS is therefore the stimulation of non-agricultural activities in the rural areas. In parallel, the development of
more competitive markets will improve the terms of trade, and hence the incomes of rural people.

The agreed economic development objectives are:

- Revitalizing the rural marketing system
- Promoting competitive agro-processing industries
- Utilizing fully the potential of non-farm SME development

During the past ten years, there has been a major programme of legislation and support for the creation of a market oriented economy. The policies on banking, finance, international trade and investment, however, have not yet created a favorable environment for national entrepreneurs. The high real rates of interest, for example, discourage domestic borrowing for investment in fixed and working capital. The RDS proposals for improving the business environment include providing the rural population with improved access to market information, and finance services and support for group formation and operation. Also proposed is a reduction in the significant legal and regulatory barriers to forming and running businesses in rural areas. A recent and rapidly growing source of rural employment is unregistered small-scale mining, particularly of gold. Illegal mining needs to be regularized and regulated to minimize environmental degradation, health risks and conflict.

The RDS team did not have the resources to consider a regional development strategy but concentrated on the process of achieving a consensus among stakeholders concerning the problems and the priorities.

Promotion of Agricultural Development and Food Security
Achievement of the PRSP objectives requires economic growth, in which agriculture and the rural economy are expected to play a significant role.

The RDS proposals for the extensive livestock sector and support for developing small scale vegetable and fruit production are based on the extension of proven actions which will both increase production and benefit directly the poorer sections of the community.

Another thrust of the RDS is the intensification of agriculture production through the development of farming systems, which integrate more closely crop and livestock production. An important element of the intensification plans is an increase in the use of irrigation, both of vegetables and field crops, in order to reduce the risk of total crop failure. Currently, a working group appointed by MOFA is working closely with research institutions in order to develop a new state policy for the crop sector, which moves away from the previously used system of wide scale subsidies on inputs. Preparation of the new policy is expected to include a review of food security considerations. The RDS recommendation is that the food and flour safety objective should be maximum utilization of the cropping industry’s domestic production ability and minimizing the associated import risks.

The current position is that, although many trials of developments such as minimum tillage systems have been undertaken, evaluation has been very limited. Because of the uncertainties, the RDS recommends better co-ordination and evaluation of project trials and agency support, a strengthening of the monitoring and evaluation capability of MOFA and preparedness to invest in strengthening the extension service.

For intensification of the livestock sector, the RDS proposals are measures to:

- Improve the Mongolian livestock by using local superior breeds that have adapted to the Mongolian climate and
• Develop sustainable, market competitive intensive and semi-intensive livestock enterprises in areas close to feed/fodder supply and markets.

The RDS Development process
The process of developing the RDS to this stage has proven effective in bringing together many of the ideas present among the various stakeholders and placing them in a clear context of development objectives, using the logical framework approach.

The October workshop, and particularly the working groups, stimulated discussion that led to the creation of a consensus among the stakeholders, with a number of modifications and additions made to the first draft. The participation of stakeholder delegates from different aimags permitted the workshop to highlight the importance of local factors and initiatives in rural development. The introduction of unregistered mining as a topic was particularly informative in highlighting the potential importance of non-agriculture related employment in rural areas.

The RDS is being incorporated into the PRSP but it must be stressed that the RDS development process is not complete. In particular, the output of the working group appointed by MOFA to develop a new state policy for the crop sector will be important both for the RDS and the PRSP since it should provide a basis for planning specific activities and investments as part of the economic development process.

For all concerned ministries, this draft now provides a framework for the review and preparation of investment and operational plans. It should also facilitate the prioritization of proposals, both for ministry programmes and for donor assisted projects.
RURAL DEVELOPMENT STRATEGY FOR MONGOLIA

1. Introduction

Sustainable rural development is fundamental to accelerating the economic growth of Mongolia, reducing poverty and improving citizens’ livelihoods.

Since the transition to a market economy development strategies have been determined as 4-year action plans by elected governments and development programs and projects along mostly sectoral lines. Although programs and projects supported by international and bilateral donors reflect goals of a strategic nature, they focus mostly on particular issues, and lack coordination and linkages to national development priorities.

Lack of sustainable and long-term development strategies contribute to the unsustainability and discontinuity of government policy priorities, erode the trust of the public and the international donor community in government policies and decreases the effectiveness of resources used. Problem solving is dominated by “extinguishing fires afterwards” and the government efforts often deal with symptoms rather than root causes.

The relevance of “The State Primary Rural Policy Directions” issued by the Parliament in 1996 as an effort to determine long-term development strategies has been weakened because both the socio-economic and natural-climatic conditions have changed significantly in recent years. Although more than 20 nation-wide agricultural development programs and projects have been developed, their implementation has been unsatisfactory because of lack of funds, weak specifications for implementation, too much focus on the investments and lack of incentives for ensuring the participation of beneficiaries and building their capacities.

The Rural Development Strategy (RDS) proposes to ensure sustainable rural development by formulating a comparatively long-term and sustainable development strategy and implementing it through mobilising national and international aid resources and through empowering local organizations and individuals to take local initiatives in solving rural problems at the local level.

The Government of Mongolia and the UNDP organised a National Conference on Rural Development in May 2002, the result of which was a call for the development of a national rural development strategy through the participation of all stakeholders including ministries working in rural areas as well as the rural residents themselves. With support form the World Bank, the preparatory stage began immediately following that conference and involved public polling and surveys carried out in the summer and early autumn of 2002. A Strategic Planning Workshop for Rural Development involving representatives of most stakeholder groups was held in July 2002. This workshop gave direction to the Rural Development Strategy Support Unit operated from the Ministry of Food and Agriculture. The RDS Support Unit comprised of Ms. Jeanne Bartholomew and Ms. B. Nandinchimeg, has played an important role in this process. Based on the mandate of the July workshop and utilizing the information gained from the preparatory work, which included compiling a Rural Development Resource Library the Centre for Policy Research developed a draft RDS in co-operation with the Ministry of Food and Agriculture and other ministries and civil society organisations. The development of the draft RDS was supervised by Mr. Robin Mearns (World Bank) and supported by Mr. Peter McNeill (DFID consultant) and Ms. A. Munkhtuya (World Bank consultant), who compiled, researched interviewed and evaluated information, which served as input for the writing team. The RDS support unit provided translation, editing and input to the writing team. Many
national experts outside the government came forward to offer suggestions and provide technical information. In addition, Mr. Derek Poate (DFID consultant) and Ms. Alice Carlioni (FAO) contributed comments and recommendations to improve the draft. Mr. Poate facilitated a national Rural Development Strategy Workshop held in Ulaanbaatar on October 9-11 2002, which discussed the draft RDS and provided many suggestions to strengthen the strategy. The current version of the RDS incorporates the recommendations from the workshop.

Other people, especially Mr. Sh. Gungaadorj, Member of Parliament, Head of the Environment and Rural Development Standing Committee, made valuable contributions to developing the draft RDS. A steering committee composed of Mr. Gungaadorj, MP, (Head of the Steering Committee), Mr. Davaatsedev, MP, Mr. Nergui and Mr. Myahdadag from the Ministry of Food and Agriculture, Mr. Tsedenbal from the Ministry of Finance and Economy, Ms. Erdenechimeg from the Ministry of Social Welfare and Labour, Ms. Erdenechimeg from the Ministry of Health, Mr. Batjargal from the Ministry of Education, Culture and Science, Mr. Yhanbai from the Ministry of Nature and Environment, Mr. Enkh-Amgalan from the Center for Policy Research (NGO), Ms. Zanaa from the CEDAW Watch National Centre (NGO), Mr. Bat-Ulzii, a herder from the Bayangol sum of Selenge aimag and Mr. Batchuluun, a herder from the Uyanga sum of Uvurhangai aimag provided general guidelines to the Strategy development process after the July workshop. World Bank, FAO, DFID and UNDP provided funding for consultants, consultation meetings, surveys and library development expenses.

The main elements of the draft RDS are being incorporated into the Government's Poverty Reduction Strategy Paper (PRSP). Operational and policy aspects of the RDS are also being implemented through the World Bank supported Sustainable Livelihoods Program and other relevant national and internationally supported development efforts.

2. Principles that Guided the Development of the Rural Development Strategy (RDS)

The RDS started with the development of its mission statement. Further a logical framework format was used to specify development goal, objectives, outputs and activities, which are linked to each other through a means-end relationship. The development goal is a general goal that will be achieved when the development objectives are met. In other words, it will be the end result of the work to meet the objectives. Objectives are lower level goals compared to the development goal. They are the positive effects and consequences of the outputs. Output is achieved through implementing a complex set of activities. Activities are very detailed implementation measures to be taken to achieve the outputs. Performance criteria, measurement tools and assumptions are other elements of the log frames. These elements were often missing from traditional ways of developing strategies.

2.1 National ownership

The Government of Mongolia will play a key role in the implementation of RDS together with the private sector, civil society organisations and citizens. Therefore, the RDS was developed by a team of national policy makers, independent researchers and representatives of the civil society. As such the RDS reflects the desires and aspirations of the Government, the civil society and the broader public of Mongolia and is based on their perceptions about the pressing problems encountered in rural development and the solutions to make it sustainable in the long-term.
2.2 Pro-poor focus

A pro-poor focus i.e. increasing income for the rural poor and vulnerable people, enhancing social services for them and improving their capacities were incorporated wherever possible in the strategy. Enhancing opportunities for people in remote areas to reach markets and accessing health, education and information services was a part of the pro-poor focus. Details of the pro-poor focus are in Appendix 1.

Mongolia’s Poverty Profile and Changes in Livelihoods

The findings of the 1995 and 1998 Living Standard Measurement Surveys (LSMS) suggested that the overall poverty headcount in Mongolia remained more or less unchanged over this period at around 36%, having risen sharply from a virtual absence of officially recorded poverty until 1990 or so. Changes in the depth and severity of poverty were relatively more significant, suggesting a widening of income differentials between the poor and the poorest. Participatory Living Standard Assessment (PLSA), conducted by the National Statistical Office of Mongolia (NSO), with the support of the World Bank and other international agencies, over the period March-September, 2000, aimed to complement and update LSMS. Using participatory wealth ranking, a method in which differences between well-being categories are based on the participants’ own criteria, changes in perceived levels of well-being were analyzed for the period 1992-2000. New categories of both rich and poor emerged in the early 1990s as a consequence of unequal access to the opportunities offered during the initial process of privatizing many state-owned assets including livestock and urban housing. The gap between rich and poor was perceived to have widened even more markedly over 1995-2000. While some groups were able to take advantage of new economic opportunities, including those with access to information and having ‘connections’ with local officials, many were not. The share of poor and very poor households was judged to have increased over this period at the expense of medium households, as more people fell into poverty than escaped from it.

Rural (and urban) livelihoods in Mongolia have become much more diverse than they were at the start of the 1990s. A wide range of strategies for coping with and adapting to insecurity emerged in the 1990s. The liberalization of fuel prices coupled with the vast distances and low population density of rural Mongolia led to marked differentials in the prices of consumer goods and the prices paid for producer goods such as livestock products. As a result, geographical location became an important driver of economic opportunity, and migration (both seasonal and permanent) the livelihood strategy of choice for those in a position to take advantage of opportunities in more central regions or larger urban centers. The few rural communities to observe that economic opportunities had improved in the late 1990s were those with access to border trading points with China during a period of high cashmere prices. Family-splitting to take advantage of livelihood opportunities across the rural/urban divide became common. Reliance on inter-household transfers and social networks was vital for the poor, but many (often children) were also forced into degrading or illegal activities such as begging and theft. Illiquidity and crisis in the banking sector meant those salaries, pensions and allowances were often paid late, forcing people to dispose of assets and into a cycle of indebtedness. While support from relatives was crucial for many poorer families, the character of kin-based and other social networks began to shift towards semi-commercial forms and often excluded the most vulnerable. Table Mongolia’s Rural Livelihoods: Summary from Mongolia Participatory Living Standards Assessment 2000 provides with the summary of livelihood profiles in rural areas, main causes of insecurity and vulnerability, and coping and adaptive livelihood strategies in rural areas, sum and aimag centers respectively.

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Several conclusions emerged from the priorities voiced by participants in the PLSA that suggest a number of priorities for public policy and action to help create an enabling environment within which people may achieve more secure and sustainable livelihoods. These include:

- A focus on ways of reducing vulnerability, including facilitating access to assets for the poor, and investment in public and private actions to reduce risk in pastoral livestock production
- Improvements in the provision of social services and infrastructure, particularly in rural areas and smaller urban centers, to enhance their effectiveness and increase community involvement
- Promoting access to information and giving greater voice to communities in establishing priorities in patterns of public spending.

**Mongolia’s Rural Livelihoods: Summary from Mongolia Participatory Living Standards Assessment 2000**

<table>
<thead>
<tr>
<th>Livelihood Profiles by Well-Being Category (by percentage of household needs met from a particular source)</th>
<th>Insecurity and Vulnerability: Shocks Adversely Affecting Livelihood (in descending rank order by location)</th>
<th>Coping and Adaptive Livelihood Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rural Communities</strong> (based on a sample of 62 households)</td>
<td><strong>Rural Communities</strong> (based on a sample of 86 households)</td>
<td><strong>Rural Communities</strong></td>
</tr>
</tbody>
</table>
| **Wealthy:** Cashmere-56% Wool-11% Agriculture-10% | 1. Cost of children’s education 2. Natural hazards/loss of employment 3. Illness/cost of medical treatment 4. Loss of employment 5. Theft of livestock and other assets | **Coping Strategies:** Inter-household transfers: vertical linkages between wealthier and poorer households, such as labor in return for food/clothing; collective action, including help from relatives  
Rural-Urban linkages: sending children to urban areas, exchange of goods and services/informal economy, seasonal migration between rural bag and sum centers  
Livelihood diversification: gathering wild fruits, hunting, growing vegetables  
Access to credit: formal (banks, micro-credit institutions) and informal (traders, money lenders) access to credit.  
Formal access to credit is still very rare, and informal lending has very high interest rates (up to 18% a month)  
**Adaptive Strategies:**  
Migration: seasonal (herders move closer to markets, i.e. Ulaanbaatar or other cities) or permanent (rural households move to provincial centers, or to Ulaanbaatar and other large cities)  
Livelihood Switching: trade, livestock husbandry (“new” herders), wage labor, patron-client relationship  
Livelihood diversification: otor (long distance movement to good pasture); shift in herd composition in favor of goats for cashmere  
Inter-household transfers: horizontal linkages between those of similar status, reciprocity between neighbors/friends | |
| **With Means:** Cashmere-47% Pension and Allowance-11% Meat and Agriculture-11% | | |
| **Poor:** Pension and Allowance-49%; Cashmere-20% Salary-14% | | |

Livelihood Profiles by Well-Being Category (by percentage of household needs met from a particular source): Wealthy: Cashmere-56% Wool-11% Agriculture-10%  
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<table>
<thead>
<tr>
<th><strong>Sum Centers</strong></th>
<th><strong>Sum Centers</strong></th>
<th><strong>Sum and Aimag Centers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(based on a sample of 28 households)</td>
<td>(based on a sample of 36 households)</td>
<td><strong>Coping Strategies:</strong></td>
</tr>
<tr>
<td><strong>Wealthy:</strong></td>
<td>1. Loss of employment</td>
<td><strong>Reduction of food consumption</strong></td>
</tr>
<tr>
<td>Trade-39%; Microenterprise-39%; Pension and Allowance-14%</td>
<td>2. Cost of children’s education</td>
<td><strong>Inter-household transfers:</strong> poor sell goods for the better-off in return for a small fee, wage labor</td>
</tr>
<tr>
<td><strong>With Means:</strong></td>
<td>3. Illness/cost of medical treatment</td>
<td><strong>Rural-Urban linkages:</strong> family splitting, sending children to Ulaanbaatar or other cities</td>
</tr>
<tr>
<td>Salary-21%; Agriculture-18%; Trade-17%</td>
<td>4. Shortage of cash</td>
<td><strong>Livelihood diversification:</strong> vegetable growing, begging, theft and prostitution</td>
</tr>
<tr>
<td><strong>Poor:</strong></td>
<td>5. Fuel price increase</td>
<td><strong>Access to credit:</strong> more commonplace in sum and aimag centers</td>
</tr>
<tr>
<td>Pension and Allowance-50%; Micro-Enterprise-21%; Salary-12%</td>
<td></td>
<td><strong>Adaptive Strategies:</strong></td>
</tr>
<tr>
<td><strong>Aimag Centers</strong></td>
<td><strong>Aimag Centers</strong></td>
<td><strong>Migration:</strong> households with means migrate to cities; vulnerable groups (elderly, single-headed families, poor) remain in sum and aimag centers with few livelihood opportunities</td>
</tr>
<tr>
<td>(based on a sample of 28 households)</td>
<td>(based on a sample of 33 households)</td>
<td><strong>Livelihood Switching:</strong> establishment of SMEs, trading of goods</td>
</tr>
<tr>
<td><strong>Wealthy:</strong></td>
<td>1. Loss of employment</td>
<td><strong>Mining:</strong> households and individuals move to mining sites for seasonal work</td>
</tr>
<tr>
<td>Trade-60%; Microenterprise-18%; Salary/Pension-8%</td>
<td>2. Illness/cost of medical treatment</td>
<td><strong>Inter-household transfers:</strong> horizontal linkages between those of similar status is weaker in sum and aimag centers and cities</td>
</tr>
<tr>
<td><strong>With Means:</strong></td>
<td>3. Cost of children’s education</td>
<td></td>
</tr>
<tr>
<td>Microenterprise-26%; Pension and Allowance-24%; Salary-22%</td>
<td>4. Cost of <strong>Tsagaan Sar</strong> and other festivities</td>
<td></td>
</tr>
<tr>
<td><strong>Poor:</strong></td>
<td>5. Theft of livestock or other assets</td>
<td></td>
</tr>
<tr>
<td>Pension and Allowance-46%; Microenterprise-32%; Salary -16%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Sustainability

Priority was given to ensuring the sustainability of proposed objectives and activities by building the capacities of beneficiaries.

### 2.4 Participation of local bodies and citizens

The basic principle followed while developing the strategy was to ensure the maximum participation of local government, non-government and private institutions, citizens, herders and farmers in designing and implementing the RDS. This is a way to ensure that implementable targets are selected and implemented through increased interest and contribution of beneficiaries to the implementation process. Only in this way can this strategy overcome the weak implementation of programs and projects of the past, which focused heavily on investments but ignored the desires, and participation of the rural people themselves.

After a series of unfavourable years that caused mass losses of animals and crops both herders and farmers began to recognize that the overwhelming risks can not be overcome in old ways and became more active in searching for new ways to overcome risks and sustain their livelihood. This provides a good basis for enhancing the participatory development processes.

### 2.5 Implementability

Designing implementable objectives given Mongolia’s natural, climatic, technological and human resources was a key principle in developing the strategy. New and costly production technologies are to be carefully tested, piloted and evaluated for viability in market economy conditions before being introduced.
During the old centralised economic system the process of determining objectives used to focus more on direct implementation methods and did not consider external factors that might influence the implementation. This mentality has not been fully overcome. Rural development is a complex process involving natural, legal, economic, social and political factors. The external factors that directly or indirectly influence the implementation of the RDS were considered under the assumptions in the log-frames.

2.6 Holistic approach

Because of the complex nature of the rural development processes and the failure to achieve desired results to date through non-coordinated sectoral approaches, a holistic approach was proposed to deal with the multitude of challenges faced by rural people. A holistic approach was used as a way in which to address all of the factors that influence the livelihoods of rural people. Holistic does not mean simply “wholly covered” but it means all issues will be brought together on one point, the rural community.

2.7 Timing

The strategy was designed to be implemented over a maximum of 20 years. It is obvious that the implementation period will differ for various outputs and activities. Particularly, the timing will vary based on the implementation priorities, availability of resources and complexity of the objectives.

2.8 Inter-sectoral linkage and co-ordination

In developing the RDS, key sectors such as livestock, crop, agri-business, natural resources and the non-farm sector that have strong interrelationships have been discussed in the most detail. Rural infrastructure and rural social development, which play an important role in rural development but have been developed quite fully and integrated into the National Poverty Reduction Strategy Paper by separate efforts are discussed in the RDS focusing on issues that are seen as crucial to rural development. As such the RDS sections on infrastructure and social services cannot claim to be a complete strategy for those sectors.

The above principles that guided the development the RDS have close interrelationships and mutually reinforce each other. For instance, the principle to ensure local participation facilitates the sustainability and implementability principles. Similarly, the principle of sustainability creates an environment conducive to implementing the pro-poor principle by ensuring the long-term sustainability of outcomes for the poor.

3. RDS Mission, Development Goal and Objectives

3.1 RDS Mission

RDS mission is to ensure the well being of rural people and their all-round development.

The mission stems from the essential needs of rural people to work and live in an environment, which is:
- Provided with equitable opportunities for each to realize his or her talents
- Sustainable
- Protected against any risks and vulnerabilities of a natural, economic or social nature, and
• Capable of keeping a pace with economic and social transformations, globally and nationally

3.2 RDS Development Goals

By developing the Rural Development Strategy the people of Mongolia are seeking to achieve the following goals:

1. Ensuring sustained growth of income for rural people, especially the poor
2. Ensuring the delivery of quality social services to rural people
3. Ensuring sustainable use of natural resources and the environment

Substantial increases in incomes are essential for people to realize their talents and aspirations. For this reason, promotion of economic growth plays a central role in the RDS.

However, growth alone is not a sufficient objective, particularly if it does not involve all segments of the population. For that reason the objective of poverty alleviation has equal standing. Special emphasis will be placed on raising the incomes of the poor more rapidly than for the population as a whole. In other words economic growth will be achieved in a highly equitable manner. Creating an economic environment that will enable the poor to escape poverty through their own exertions and abilities shall be the major principle in alleviating poverty. Dependency mentality, expecting investments from outside the local community such as aid and grants, which causes indolence and feelings of incapability, poses a major stumbling block for the implementation of development policies and programs to alleviate poverty.

The satisfaction of basic social needs is an essential component of the strategy because higher incomes alone do not guarantee sufficient access to health services, education, pure water and other forms of social infrastructure, including opportunities for cultural development.

The environment not only is critical to our health and wellbeing but more than in most countries, it is an essential source of livelihood for rural people. Shortsighted approaches to managing the environment undercut the basis for the prosperity of future generations and also will damage the health and earning capacity of the present one. Therefore, the strategy gives highest priority to ensuring sustainable use of natural resources.

Maintaining national contribution to food security for the population at a maximum level is a special role of the agriculture sector. In the past 10 years of transition, cropping as well as food processing has substantially decreased. Between 1996 and 2000, Mongolia, a former exporter of food products, became an importer of 17.3 to 46.5 thousand tons of grain, 80.9 to 450 tons of butter and 70% of the total flour consumption, annually. RDS objectives for agricultural production and agro-processing will substantially contribute to improving food security for the population. However, achieving a target of self-sufficiency in all food products is impossible at present. It is recommended that food security be achieved through maximising the domestic potential for agricultural production while taking advantage of international trade.

3.3 RDS Objectives

RDS goals shall be achieved through realizing the following objectives:
1. Improving management capability for rural development
2. Livestock sector development
3. Crop sector development
4. Rural marketing, agribusiness and non-farm sector development
5. Rural social development
6. Environmental protection and sustainable use of natural resources
7. Rural infrastructure development
Figure 1: RDS Mission, Development Goals and Objectives

Ensure wellbeing of rural people and their all-round development

Ensuring sustained growth of income for rural people, especially the poor

Ensuring the delivery of quality social services to rural people

Ensuring sustainable use of natural resources and environment

Improving management capability for rural development

Livestock sector development

Crop sector development

Rural marketing, agribusiness and non-farm sector development

Rural social development

Environmental protection and sustainable use of natural resources

Rural infrastructure development
4. RDS Structure, Linkage of Components and Priorities

Vertical linkage between the RDS mission, goals and objectives is shown in Figure 1. Given the complexity of rural development processes the development goals and objectives are also interrelated horizontally.

At the development goal level, it would be impossible to increase incomes for local people without improving the quality and availability of social services. This is because having good health and education is fundamental to improving the people's livelihood. Likewise, it would be possible to protect human health and ensure the welfare of future generations only if natural resources are used in a sustainable way.

Similarly, the RDS proposes objectives that have strong inter-linkages and are mutually reinforcing. Particularly, livestock and crop sector development objectives are strongly linked through supplying key production inputs to each other - livestock sector with organic fertilisers and the crop sector with feed. Key strategies to diversify the livelihood base thus are linked to reducing vulnerability to future risks. Likewise, the development of rural infrastructure such as energy, roads, telecommunications and information networks is crucial to the development of the livestock, crop and agribusiness industries and the delivery of social services.

Goals and objectives, as mentioned in section 2 of the RDS, are linked vertically through strong cause-effect relationships. For instance, realising livestock sector development objectives such as building risk management capability and intensification; realizing crop sector development objectives such as maximising domestic potentials in wheat production and minimising risks associated with wheat and flour imports; and realizing rural agribusiness and non-farm sector development objectives will substantially contribute to ensuring sustained growth of incomes as one of the development goals.

The development goal of ensuring the delivery of quality social services to rural people shall be achieved through meeting improved rural education, health, social welfare, employment generation and gender improvement objectives.

Given the high concerns about climatic changes, especially, among the top policy makers, the goals of protecting water resources and providing access to water are addressed in a separate logical framework.

Improving rural energy, telecommunications, roads and other transportation networks and information delivery services plays an important role in ensuring the sustained growth of income and ensuring the delivery of social services.

It is impossible to address environmental protection and the sustainable use of natural resources separately from the users or farmers. Unsustainable use of agricultural land causes a major threat to the livelihood of farmers, both in the present and the future. Therefore, the sustainable use of agricultural land is dealt with within the crop and livestock development logical framework. In addition, issues related to forestry, wildlife and fish that are facing fierce attacks by illegal users endangering rare species to the point of extinction are addressed separately despite their relatively small role in GDP and employment.

RDS objectives shall be achieved through realising related outputs. For instance, the livestock development objective of building risk management capability will be achieved through the accomplishment of the six outputs: promoting herders groups and co-operatives; improving
pastureland management; fodder supply; water supply; veterinary services; and risk forecasting and disaster management.

A summary of proposed objectives and related outputs is in Appendix 2.

Prioritisation of development objectives and outputs in terms of their contributions to achieving the development goals and impacts on rural poverty and vulnerability has important implications for sequencing the implementation objectives and short and medium term investment planning. However, detailed prioritisation is a difficult task given the complexity of interrelationships and the different resource endowments of regions. For example, in the Gobi and steppe regions water related objectives rank first while in the more productive forest-steppe regions with a relatively good supply of natural water sources this task will certainly not rank with the same degree.

When ranking comes to particular regions, aimags and sums it should take account of the diversity of conditions.

In Appendix 2 ranking of development objectives is in bold and ranking of related outputs is in normal (non-bold) type. The right hand column ranks priorities. The highest priority is given to number 1.

5. RDS Objectives: Challenges and Ways to Overcome Them

5.1 Improving Management Capability for Rural Development

Whether RDS will be implemented successfully or not depends significantly on the overall capacity of governance, the Government's capability to develop and implement policies.

Especially, overcoming the inherited mentality to solve problems through top-down investment approaches, separating clearly and enforcing adequately the role of state, private sector and others in managing economic development, reducing the role of state, increasing participation of beneficiaries, and making the system of decision-making and implementation more transparent are strongly required. Radical civil service reform is needed to address uncertain prospects for career development and insufficient linkage of merit to promotion. This reform is necessary to prevent pervasive morale decline and corruption among government officials. The recently approved Public Sector Management and Finance Act and the ongoing Good Governance and Human Security program have to play a key role in addressing the governance problems. According to the Participatory Living Standards Assessment (PLSA), performance of public administrations received poor ratings from participants, owing to lack of accountability and effectiveness. Rural citizens had very little contact with aimag and sum governors, and they had very little information on local government activities. Bag governors were rated as being accessible to their communities, but had few decision-making powers. The following recommendations were made from the PLSA on good governance and public policies and actions for rural, as well as urban Mongolia:

- Giving citizens greater voice and influence over patterns of public spending
- Improving the quality and effectiveness of social services and infrastructure
- Investing in public and private actions to reduce risk in pastoral livestock production, in particular, including ways to promote pastoral mobility and community-based pasture land management, in combination with livelihood diversification
The currently low level of fiscal decentralisation inhibits the voice and influence of local communities over public spending programs, while inadequate community participation makes fiscal decentralisation less feasible because local capacity remains under-developed.

Pressing governance issues are not addressed in a separate logical but framework format, however, they have as much as possible been incorporated into proposed ways and processes of implementing the RDS.

In implementing the RDS a high priority is given to ensuring the sustainability of proposed objectives, outputs and activities by building capacities of stakeholders. Institution building is sought to be at the core of capacity building activities along with ensuring access to all types of resources. Providing sustainable use of land and other natural resources through transferring the possession and use rights of the land and other natural resource to the local citizens' formal and informal institutions, co-operatives and herder groups is key to building sustainable use of natural resources and environmental protection. In order to implement this objective complex legal and management measures need to be taken aiming to decentralise the relevant powers and increase local participation.

Ensuring proper coordination of activities across the involved central and local government agencies, private sector, civil society and donors is seen as an important condition for the successful implementation of the RDS. In realizing this condition the Government clearly sees its leadership role and the responsibility for increased participation of other stakeholders and enhanced transparency of the decision-making processes. At the same time the Government understands that the coordination of activities cannot be fully realized without strong initiatives and support from the international and bilateral donors.

The Government's strong willingness to enhance the coordination of activities is based on the strong need to address increasingly common cases in which inadequate coordination results in inefficient use of invaluable efforts and resources.

5.2 Livestock Sector

The extensive livestock industry plays a crucial role in the Mongolian economy. As of 2000 the livestock sector makes up one third of the GDP, employment and export earnings.

The major characteristics of the Mongolian extensive livestock industry in the context of the current study are its absolute dependence on an extremely harsh and highly variable natural environment and the resulting basically constant low yield per animal. Mongolian livestock get over 95 percent of their annual fodder from natural pastures, utilising them all year round. Pasture resources are highly dependent on erratic rainfall and their availability is subject to snow cover during cold seasons.

5.2.1 Current challenges

From the late 1950's up until 1990, when Mongolia began the process of economic liberalisation, all members of the rural population were negdel (state co-operative) or state farm employees. During the negdel system the extensive livestock industry moved towards the intensification of production by providing shelter structures and veterinary and breeding services for livestock, making available supplementary fodder and concentrates and irrigating natural pasture.
The intensification process was implemented by a series of large campaigns at tremendous cost. The number of wells and livestock shelters increased from 14.7 and 37.7 thousand in 1965 to 40.3 and 67.5 thousand respectively, in 1985, while the livestock number was held generally constant at around 22.4 m.

Likewise, for the same period, the total harvest of natural hay, the main fodder supplement in Mongolia, increased from 522.2 thousand tons in 1970 to 1275.6 thousand tons in 1985, i.e. 26.7 kg per sheep equivalent. Fodder was mostly produced in the more productive northern regions and a significant portion went to the centrally administered State Emergency Fodder Fund (SEFF). The role of the SEFF was to have stocks of hay on hand to be trucked or flown into emergency affected areas to provide short-term relief.

The intensification process undertaken between 1960 and 1990 did not lead to any substantive increase in productivity per animal, i.e. biological productivity. However, it could increase the total output per 100 animals at the beginning of the year, i.e. economic productivity of the industry, through reducing mortality, miscarriages and infertility and increasing the number of animals that produce outputs in any given year. Consequently it can be concluded that reducing mortality, miscarriage and infertility of animals is a more cost-efficient way of increasing productivity for the extensive livestock industry compared with efforts to increase biological productivity per animal. However, this does not mean that any efforts to increase biological productivity are ineffective. There is room for increasing productivity through (i) improving the local Mongolian breeds of animals by using superior local sires with higher yields of cashmere, meat and wool and better resistance to natural hardships; (ii) supporting market-led small-scale intensive and semi-intensive meat and dairy farming in areas closer to big markets or in areas with better conditions for producing feed.

With the beginning of the transition to a market economy in 1990-1993, the livestock population was privatized, and the negdel system, which had been developed over the previous 30 years, collapsed. As a result, the livestock sector shifted to mainly subsistence-level production based on small household economic units. At that point, it was thought that the privatization of livestock and liberalization of prices for livestock products would promote a smooth shift of the agriculture sector to the market system.

Privatization of the livestock took place before the appropriate livestock support services, capable of functioning under market conditions, and the rural marketing system were established to replace the former negdel service system and the state procurement system.

This passed all of the risks related to weather and prices as well as the responsibilities for production and marketing to herding families who had no experience of running businesses in a market economy. Herders responded rationally to these risks by increasing the herd size to the detriment of free state-owned pasturelands and by decreasing the utilisation of purchased inputs. The number of livestock increased from 25.8 m in 1990 to 32.9 m in 1998. However, because proper breeding methods, veterinary care and selection criterion for slaughter were abandoned the quality of animals deceased and the number animals with weaker resistance to Mongolia’s harsh climate increased.

There was less utilization of supplementary fodder and veterinary services and an apparent unwillingness of herders to use superior stock for breeding purposes, producing the danger of a long-term decline in animal productivity and the quality of output. Hay production declined to 330.3 thousand tons in 1998, i.e. 4.8 kg per sheep equivalent. Most of the pasture wells constructed during the socialist period no longer function. This is because of lack of the ownership or custody rights for the use of the wells. This negatively affects the pasture
carrying capacity and reduces the number and range of potential pasture areas. Many livestock shelters were also destroyed due to ‘non-ownership and maintenance’. The fact that the number of experienced herders decreased and the system for replicating the best herding practices through training and retraining of herders was abandoned has greatly contributed to severe losses during natural disasters and eroded the herders' capacity to generate and save incomes in order to overcome the subsistence nature of their businesses.

As a result of constraints that emerged as side effects of the transition period, the main infrastructure and industries collapsed. Due to the lack of available job opportunities many urban residents adopted herding as a main source of income for their livelihoods. This livelihood strategy increased the herding population and the absolute number of livestock drastically. As of the late 1990s, numbers of herding households doubled and reached 190,000. However, 85 per cent of all herding households currently have less than 200 animals and 63 per cent have less than 100 animals. The capacity of these small households to overcome difficulties related to seasonal movement, haymaking, access to veterinary services, marketing of products, price fluctuations and other man-made and natural risks have substantially weakened. Herders became more vulnerable to poverty. It is estimated that herders need 300 to 400 animals to sustain their livelihood at a satisfactory level. It needs to be stressed that the extensive livestock sector cannot continue to directly support the current number of herding households and that many of the 'newcomers' to herding in the 1990s would rather pursue alternative livelihoods if they had the opportunity to do so.

Under the pressure of increased livestock numbers and the absence of adequate regulations the traditional best-practice grazing patterns have been violated. The subsequent overstocking began to destroy the ecological balance, the keystone of nomadic pastoralism. The overgrazing and degradation of pastures became more serious in areas close to water points and rural settlements. The reserve pastures, which were used in emergencies such as dzud and drought, have been occupied permanently contributing to mass losses of animals during emergencies.

The gap between rich and poor herders has increased and the incidence of poverty among herding communities is becoming more acute. Because of economic constraints for transportation and labor required to make seasonal movements and to market their products, poor herders must stay close to urban centers where pasture quality has declined. This means they are experiencing ever increasing vulnerability to insecurity and risks. There are many young herders and newcomers among the rural poor, and availability of spring and winter camps is extremely limited for them compared to older, established and more financially secure herding households.

Delivery of the appropriate social services is one of the still unsolved problems for herders. Particularly, there is limited access to the achievements of modern civilization. As of 2000, only 10.6 per cent of herding households had electricity sources and 12.8 per cent had television sets. Herders are scattered across vast territories, which causes significant logistical problems for the delivery of social services. In addition, because of the constraints caused by the transition to a market economy, budget resources allocated for rural education and health have been reduced, which negatively affects the rural communities.

Three consecutive years of severe dzud from 1999 to 2002 resulted in the loss of 11 million head of livestock leaving 12000 households with no animals. The recent dzud and drought has proven that the national pastoral risk management system was weak and could not protect the

* Livestock herding has played a role as an economy-wide safety-net throughout the period of economic transition.
whole extensive livestock sector. Appropriate lessons were learned from this unfortunate experience. It is impossible to measure in financial terms the psychological suffering of herders loosing their livestock during the *dzud*.

Thus, although transitional reforms centred on privatisation and price liberalisation laid out a framework in line with overall movement towards a market economy, this is far from being completed. However, it is not likely that the root problems mentioned above can be solved by the State directly: State-managed *negdels* will not be re-established and Government subsidies to the livestock sector will not be reinstated. On the contrary, many administrative responsibilities within the Government have been decentralised and the economy as a whole has moved toward a greater reliance on market mechanisms during the past ten years.

5.2.2 Main policy measures undertaken by the government for development of the sector

The government of Mongolia has been revising the “The Primary Rural Development Policy Directions” approved by the Parliament in 1996, aiming at improving living conditions of the rural community through intensifying the extensive livestock sector, developing intensive livestock near urban centers and increasing exports.

In 2001 amendments were made to the “Law on the livestock gene pool” and “Livestock health protection”. Some programs and projects including the “National Program to Improve Livestock Services” and the “Animal Health Program” have been developed and are being implemented under the Law. According to the programs, the genetic and health improvement measures will be implemented in phases.

“The National Program on Protecting the Livestock Sector from *Dzud* and Drought “ approved in 2001 highlights necessary measures to be taken during *dzud* and drought. It deals with improving the existing disaster relief system and determines the division of stakeholder responsibilities.

“The National Water Development Program” was adopted in 1999. The objectives of this program include improvement of a safe and reliable water supply for rural people, rehabilitating water resources and protection from water pollution.

Additional subprograms such as the “White Revolution”, “Cashmere” and “Wool” were developed and their implementation has started.

The government allocates annually MNT 3 -5 million from the state budget for livestock health protection, fodder production, combating pasture insects and pests, controlling infectious diseases, improving water supply, restocking and *dzud* relief activities.

Given the lack of domestic financial resources, the government must rely on donor assistance in order to fully implement the above-mentioned laws and programs with the aim to ensure sustainable livestock development in Mongolia.

5.2.3 Main direction of donor activities in combating herder poverty

Until recently, the main approach of the rural poverty reduction strategy was restocking programs. These programs have been implemented in Mongolia since 1995. Although restocking efforts created important safety nets for a short period or time during the 1990s for rural Mongolia, the current government and donors have begun to recognize that this
approach is not sustainable to ensure long-term sector development. The main reasons for this are related to insecure risk mitigation management, negative influences on rural financial development and creating a welfare dependant mentality in herders during the restocking activities. The most crucial flaw in the activity is that positive outcomes could not be protected from future risks. Based on these reasons, most donors are aiming to use holistic approaches and implement projects to address problems related to sustainable pastoral livestock development in Mongolia. Measures such as livestock productivity improvement, non-livestock income earnings and developing a sustainable pastoral risk reduction system are considered in the holistic approaches.

Based on its earlier support to the national poverty alleviation programme, the World Bank is supporting a Sustainable Livelihoods Project (SLP). The first phase of the proposed 12-year programme of World Bank support to the Mongolian government’s poverty reduction action plan has begun. The SLP has three components: pastoral risk management, micro-finance outreach, and a community investment fund.

5.2.4 Livestock sector development objective

The livestock sector is vital to the rural development strategy in Mongolia.

In a world livestock market increasingly dominated by health and safety issues related to feed additives and over use of hormones and antibiotics Mongolia needs to **fully realise its comparative advantage in the development of high quality, organically raised, minimally medicated, environmentally clean livestock production**.

The livestock sector development strategy aims to **build risk management capabilities to ensure reliable protection for herders’ wealth and incomes and intensify production at optimal levels taking into consideration regional advantages to increase productivity**.

While building sustainable livelihoods is the ultimate aim of livestock development efforts, fully utilizing potentials for non-herding income generation activities is also given a high priority. Increasing possibilities for non-herding income generation can be accomplished by promoting collective actions among herders, providing necessary support in capacity building and improving access to financial services. This will allow some unemployed or under employed herders or rural residents to engage in vegetable production, processing of agricultural raw products and other SME activities. It is believed this will contribute significantly to reducing the vulnerability of herders to risks as well as reducing the herders’ incentives to maximize livestock numbers beyond what is sustainable.

In order to carry out the livestock development strategy it is essential to **utilize and support initiatives and the capabilities of herders by promoting collective actions**. This is consistent with the principle of overcoming the outdated “herder as simply a follower of government mandate” mentality. It will create a bottom-up approach, which encourages initiatives from the herding communities. A herder collective action support policy should cover a widespread legal and institutional framework, which supports bottom-up informal collective action initiatives and formal and informal herder group organizations.

Social, economic and environmental problems faced by herders are closely interrelated so any problem should not be addressed as a separate matter. That can never achieve complete results. Any stand-alone sub-sector program or measure can have no realistic impact on the livelihoods of herders or the reduction of poverty. Therefore a holistic approach to the rural
development strategy is being promoted as an important tool to reach the development objectives.

The objective of building pastoral risk management capability shall be realized through achieving the following outputs:

- Promoting cooperatives and herders' groups
- Sustainable pasture management
- Increasing the use of supplementary fodder
- Improving the supply of water
- Improving the veterinary services
- Improving risk forecasting, response capabilities and disaster management

In order to intensify the extensive livestock sector, two directions should be pursued:

- To improve the quality of local livestock utilizing superior local strains which are well adapted to severe local conditions
- To develop the market-led intensive and semi-intensive livestock sectors where fodder and markets are available

All activities shall be implemented in mutually reinforcing ways. For instance, improvement activities for veterinary services, fodder production and water supply are inseparable parts of the risk management strategy. On the other hand, these measures will directly contribute to livestock intensification and productivity improvements. Likewise, livestock genetic improvement activities using the best local strains would increase the resistance of animals to weather hardships and thus contribute to building risk management capabilities.

Experiences of the last 10 years of the transition clearly show that the existing small households badly lack resources to undertake such important functions as managing land resources, preparing supplementary fodder, organising timely otor migrations and accessing useful information. They thus, become vulnerable to overwhelming natural risks of dzud and drought. Therefore, it is not surprising to see that the last 3 consecutive years of dzud led to such a sharp increase in awareness among herders about the importance of co-operation.

The UNDP funded 18-month pilot project 'Strengthening Customary Herding Communities' implemented by the Center for Policy Research in 2000-2002 shows that both efficiency and effectiveness of the above mentioned functions are increased if they are organized in a collaborative way. The project piloted community-based models for managing pastures and wells, preparing and delivering supplementary fodder, accessing veterinary services and organizing marketing and alternative income generation activities. As a result, the project communities managed to achieve better survival rates of animals during the 2000-2001 winter-spring season: non project families lost 6.69% of their animals while member families lost only 4.96%. The project herding families reared 88.22% of their young animals, which is 7.85% higher than their neighbors rearing rate. Furthermore, collaboration benefited the poor members of the community by providing an access to markets and key production inputs and services, which they would not have had if they acted alone.

The currently dominant approach by the Government to regulating pasture use relies heavily on sum and bag governors. If this largely top-down approach worked, Mongolian pastures would not have the problems they do today.
Normally sum and bag governor involvement in grassland management is quite limited. At best, bag governors make herders agree orally on the scheduling of seasonal migrations at a meeting of bag members once a year, but the decision is not implemented by herders and not monitored by the governors. The reason is simple. The bag is an administrative unit but not a natural resource management unit, and there are no formal bag boundaries. Bag membership is based on the location of bag members’ winter camps, and this provides an informal delineation of the bag territory. However, it is quite uncommon that a bag has all four seasonal pastures in its 'own territory'. More usually members of different bags inter-migrate to each other’s territories. This makes decisions at bag level very difficult to enforce and monitor. Furthermore, a bag is too small to be an effective natural resource management unit. According to the land law the bag governor is the lowest level in the administrative hierarchy, and is therefore the closest person to herders with authority to regulate pasture use. However, because bag territories are too small, bag governors cannot fulfil this function effectively. Building good management of pastoral resources is not possible without active participation from the herders.

These limitations of bags, and low participation of herders in bag activities, make it necessary to look for alternatives. The most promising is traditional area-based informal herder groups who already co-operate in the use of pasture, water, saltlicks, and other livestock-based activities including preparation of fodder, collecting livestock products and marketing. Such groups are often based on customary natural resource managing groups such as well or valley communities, and could become a prime focus for pastoral risk management activities.

The experience of the 'Strengthening Customary Herding Communities Project' shows that informal herder communities need to be substantially strengthened for the successful management of natural resources and pastoral risks. In the case of pasture use, they need to be formally recognised as a basic natural resource management unit, and there needs to be a tool to facilitate the sustainable use of pastures. The most promising tool is a contract between the recognised herder group and the sum governor. The contract formally recognises the rights and responsibilities of both parties. Recognising a community's rights to access certain resources provides an important tool for managing the commons. Herders have the assurance that they will be rewarded for protecting pastures against increasing anarchy of use. Without such assurances it will be difficult for herders to implement key pastoral risk management measures such as adjusting the size of their herds to over-winter carrying capacity or respecting seasonal pasture rotations.

The livestock sector development logical framework is attached.

5.3 Crop Sector

5.3.1 Current challenges

Prior to 1990 the crop sector policy aimed at self-sufficiency and export capability in grain, potatoes, vegetables and fodder crops. 700-880 thousand tons of grain, 100-120 thousand tons of potatoes, 45-60 thousand tons of vegetables and 500-700 thousand tons of livestock fodder were harvested at that time.

In 1990-1996, all state owned crop farms were converted to shareholding companies with the aim to increase production through promoting private ownership. However irrigation schemes on 500 hectares or more of cropland and wells remained as state property.
Newly emerged economic entities in crop production have decreased their production volume drastically as a result of losses caused by lack of proper management under the new market conditions and an unfavorable transition environment which include high and increasing cost of imported inputs, a banking crisis, inflation, high interest rates for both capital and production loans, and termination of direct and indirect subsidies provided by the state. Tractors, combines and all agricultural machinery on most crop farms depreciated and neither repair not replacement were possible to keep the farms’ equipment in good working order. Fertilizers and pesticides were not used and the national seed production system broke down. All these problems are responsible for the decrease in crop sector production.

Directed loans were provided to the crop sector by the state through large flourmills because commercial banks were lacking the credit resources to provide agriculture loans. This measure however has created a burden of debt for many crop farms and is one of the main reasons for the increased bad debts of commercial banks and state budget.

Until 1995, the government largely controlled prices of the staple agricultural products such as wheat, flour and bread in order to avoid sharp increases in consumer prices. This negatively affected the crop sector, leading to its decline.

The government elected in 1996 pursued the policy to complete the privatization of crop farms and support the sector by soft loans through commercial banks and oil supply companies. In 1998, the government approved the “National Program on Crop Sector Rehabilitation” which required an investment of $160 million USD. The program however has not been implemented yet due to lack of financial resources.

Although the Japanese government has been providing under the KR-1 'Improving the Food Supply' and the KR-2 'Increasing Food Production' projects 40-50 tractors and other agricultural machinery annually since 1992, this has not met even 5 per cent of the total requirements.

The fact that large flourmills became incapable of purchasing grain from crop farms and commercial banks ceased to provide agriculture loans, had a serious negative impact on the finance of crop farms. The reason behind this was a surge of cheap imported flour from the neighboring countries to the domestic market.

In order to protect the domestic flour market, the government introduced a seasonal import tax on flour of 15 % for 5-6 months after the harvest season. Unfortunately this measure did not protect the domestic market as the neighboring countries harvested comparatively high-yield wheat and produced cheap wheat and flour. These producers exported cheap flour to Mongolia on a seasonal basis to supplement this small market.

The Government approved a national program called the “Green Revolution” in 1996 in order to reduce the rural unemployment rate, alleviate poverty, increase household incomes and encourage people and households to plant and consume potatoes, vegetables and fruits. Although the program implementation is still continuing in all aimags and sums to encourage planting various vegetables, and providing vegetable production and utilization training, Mongolia can meet only 43 to 45% of the total domestic demand for vegetables and less than 6% of the total domestic demand for fruit.

The government elected in 2000 adopted the following goal for crop sector development: “To meet 60-70 percent of the national flour requirements by reducing the crop sector decline”.

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It is believed that goal will be achieved through encouraging domestic seed production, by external and internal financial and technical assistance and by streamlining the fallow program. Application of chemical fallow and minimum tillage technologies are planned to reduce soil tillage costs and improve soil moisture by reducing or eliminating traditional mechanical soil tillage.

In 2001 the seed production subprogram was approved with the aim to meet domestic requirements for seed by the year 2005. In order to promote seed production, MNT 1.8 billion was loaned to 27 crop farmers from the KR-2 revolving fund. However, many farmers are not able to pay back the loans because they have lost harvests due to the 4-years of drought.

Under the government “Fallow Project-2001”, MNT 2.5 million was provided to crop farmers last year for the purchase of fuel to ensure good fallow preparation for the next season. This resulted in 275,000 ha of good quality fallow out of which, 6.6 thousand ha was chemical fallow. In 2002, the government provided 15,000 ton of seed to crop farmers on a loan basis, 30 percent was paid in advance and 70 per cent was a loan. This wheat seed was planted on 266 thousand hectares of land. Unfortunately, the summer was extremely dry and all farms had extremely low yields. Thus most farms are not able to pay back the loan. Farms that prepared chemical fallow had higher yields, but still could not completely achieve their goals, because of failures to follow the full minimum tillage technology requirements.

Another factor that puts the crop sector at risk is inadequate supply of imported inputs such as machinery, repair parts and fertilizer. Today most farmers cannot afford to buy these inputs, even if they were available.

Since Mongolia became a market economy every elected government pursued various measures and activities to rehabilitate crop sector production. However unfavorable weather, especially the last few years of repeated droughts, brought only bad results. Therefore the working group appointed by the Ministry of Food and Agriculture, which consists of agronomy experts, scientists and scholars is working closely with research institutions in order to develop a new state policy for the crop sector. This working group intends to submit its proposal to the Minister’s Council of Food and Agriculture and to Parliament.

5.3.2 Does Mongolia need to have domestic grain production?

Annual precipitation is only 270-300 mm in the central cropping region of Mongolia. This limits cropping without the irrigation. Because of the obvious dry climate during the last few years, crop-growing conditions have deteriorated greatly. There is a scenario, which proposes to import the required flour and grains, rather than engaging in costly and inefficient crop production without irrigation. However chances that the government will support this scenario are very limited. Reasons for that include:

- According to the law on food supply adopted in 1995 meat and flour are considered strategic products. 73-78% of the daily food consumed by rural people and 40-45% of the daily food consumed by urban people consists of flour-based products.

- Import price of wheat is high due to transportation costs. For instance, the price of wheat imported from the USA is $270 USD per ton before customs tax and VAT. This is much higher than the domestic wheat price. This same wheat price in the USA is only $85 to $115 USD per ton. If we buy 312 to 328 thousand tons, it will cost $84 to $88 million USD. The current wheat price is from100,000 to 125,000 MNT per ton.
• As for neighbors, China and Russia are importing wheat of 17 – 0.3 and 21.3-0.4 million tons, respectively per year. So it is risky to rely on wheat importing countries, which may introduce export bans or impose high taxes on wheat and flour. Kazakhstan could provide wheat to Mongolia but Russians would control the transportation, which makes the import from this country also risky.

• As of today, 60,000 people are engaged in the crop sector as the main source of their livelihoods. Reduction of crop sector production would add to the unemployment problem.

• There is a need to maintain wheat production in order to provide emergency fodder for livestock in case of weather disasters or other national crises caused by humans.

In addition, it is extremely difficult to say whether suitable crop production technology or strong enough economic supports from the state for the crop sector exist today. Currently, the following options are considered for the future of the crop sector:

• Promote irrigated wheat production
• Increase fodder production through introducing legumes, rapes, Lucerne and other legumes and perennials into rotation
• Introduce zero tillage and mulching technologies in order to maintain soil moisture and composition as much as possible

5.3.3 Crop sector development objective

Crop sector development strategy should ensure food security for the Mongolian population with special attention paid to meeting the nutritional needs of the poor. The main crop sector strategy is to ensure a sufficient flour supply for the population through minimisation of import risks and maximisation of domestic grain production capabilities. The maximisation of domestic grain production capabilities is based on the local producers’ interest to ensure the improvement of their livelihoods and to produce reliable livestock fodder resources.

According to research done by health research institutions the annual requirement per person for vegetables is 73 kg and for fruits is 44 kg. There is a need to double or quadruple the current consumption of vegetables and increase fruit consumption by 10 times.

Nowadays consumption of vegetables has been increasing. Raising vegetables is becoming an important income sources for many poor families in Mongolia. Today, vegetable production is becoming more commercialised. The objective for this sub sector is to reduce poverty and improve the living standard of the population through supporting the production and processing of vegetables and fruits.

The crop sector development logical framework is attached.

5.4 Agricultural Marketing, Agribusiness and Non-Farm Sector Development
5.4.1 Current challenges and opportunities

Even though Mongolia has transformed into a market economy and more than 10 years of the transition period has passed, a marketing system that facilitates the smooth flow of agricultural products and consumer goods has not yet been created.

Livestock products procured far from the centralized market receive the lowest prices conversely daily consumer goods sold far from the centralized markets demand the highest prices. This is a special problem for herders who have no access to the central markets. Thus they do barter trading and sell their raw livestock products for lower prices. Chinese traders compete against domestic traders and often dominate the Mongolian raw materials market. This is viewed as a major problem by both the large and small Mongolian livestock processing industries who feel they cannot compete with the Chinese buyers in the present livestock marketing system in Mongolia. Mongolia’s small and medium processing industries are still weak with poor competitiveness in the domestic market. This limits their opportunity to access the export market. At the same time, Mongolia has comparatively few large agricultural processing industries. Mostly what large processors there are operate as oligopolies.

Herders' terms of trade continued to worsen. In 2001 compared to 1995, the price index of products herders sold increased by 33.2 points over the price index of consumer goods herders bought.

Sustainable development in agriculture and meeting the priorities of rural social and economic development will be very limited if the national processing industries cannot increase their competitiveness in the world market. In particular, the development of small and medium size agricultural raw material processing enterprises in rural areas will become a major and important source of increased income for agricultural producers. These SMEs will provide additional employment possibilities for rural labor thus decreasing the highly seasonal demand for rural labor. The over all result of this will be increased earnings in both rural herder and laborer households thus susceptibility to natural risks will be somewhat alleviated and poverty levels will be reduced

During the socialist period agricultural products and raw material processing were done by the state owned large enterprises. However, since entering the market economy, most of the large enterprises have closed because of old outdated equipment and technology, weak competitiveness in the market, and lack of independent financial capabilities.

Outside of the cashmere industries, updating and retooling of the bigger processing industries has been very slow. Nevertheless, many small and medium enterprises have been established recently in the food-processing sector. This has lead to increased competitiveness among these industries. According to the 2002 survey conducted by the National Statistics Office there are 407 agricultural raw material and product processing industries operating currently in Mongolia. However 75.8% of those industries are situated in urban areas like Ulaanbaatar and Erdenet cities and in Selenge and Tuv aimags where infrastructure is more developed and the market situation is well structured. Of these 407 companies, 29.7% process meat, meat products and casings, 27.3% process milk and milk products, 7.4% process skins and hides, 1.0% process animal and plant oils, 31.4% process flour and flour products, 1.7% process fruit and vegetables, 1.5% process livestock feed and starches. Most of these industries have less than 50 full time workers. 58.1% of all surveyed food supply processing industries use only 50% of their total operation capacity.
In the past 10 years, major laws and legal acts dealing with market economic principles have been revised and new laws passed. These laws and acts are the basic foundation of the business facilitation legal environment. However, the government policies on banking, finance, international trade and investment have not yet created a favorable environment for national entrepreneurs. For instance the income tax rate for economic units or businesses is very high. The inflation rate is still in double digits and the loan interest rate is 40-60%. These things do not encourage or promote investments.

Efforts to promote competitive agribusiness and nonfarm sector development, increase incomes for rural producers and solve their pressing social problems are limited unless viable and competitive financial services are in place in rural areas and access by rural people to these services is ensured. Key to the successful development of rural financial services is the introduction an adequate system of livestock and crop insurance capable of meeting the interests of both rural producers and insurance companies. Support is needed to increase the number of competitive providers of rural financial services and the development of bottom-up savings and credit organizations among rural people.

In the early years of the transition period, agriculture product prices were controlled but in recent years the controls were removed and the market price mechanism began to function for agricultural products. Prices began to respond to product demand and supply. Nevertheless, Chinese competition is still strongly felt and influences the domestic market price for raw agricultural products. In addition, small traders and brokers that function in the informal economy play a vital role in the agricultural raw material trading scheme.

In the future, livestock raw materials should to be processed before exporting. However protecting the interests of inefficient enterprises still operating with old technology by prohibiting the export of raw livestock products is not the proper way to solve this issue. Therefore the strategy aims to develop small and medium enterprises that will increase exports by utilizing modern technology and improve their capability to enter the market.

In addition to processing agricultural raw materials, there exists local potential for launching other alternative income generation production and services. Although markets for such production and service activities are small they have good potential to better use local material and labor resources thus contributing to generating off-farm jobs and income. These include, growing potatoes, vegetables and fruits for herders and residents of rural settlements; consumer goods and services such as ger felt, wood, iron, leather and sewing products, jewellery and bakery products; production inputs such as fodder, cattle and horse carts, simple equipment and tools; construction; products and services based on the use of natural resources such as feed, salt, wildlife, fish, onions, berries, medicinal plants, medicinal and hot springs and tourism attractions; services such as showers, hairdressing and shoe repair. The basic ways of developing these activities are by promoting cooperation among herders, providing an access to market information and micro-finance services and removing legal and regulatory barriers to running businesses in local areas. A recently emerged and fast growing economic activity is the illegal hand mining of gold, fluorspar and other minerals by local people who mostly re-work the slag left by big registered mining companies. Illegal mining needs to be regularized and regulated to minimize environmental degradation and conflicts.

Furthermore, the existing potential for involving local people in the implementation of public works such as building and maintenance of local roads, education and health facilities needs to be investigated and utilized in order to provide opportunities for jobs and additional incomes in rural areas.
5.4.2 Development objectives

The development objectives for the rural marketing, agribusiness and non-farm sectors are:

1. Revitalizing the rural marketing system
2. Promoting competitive agro-processing industries
3. Fully utilize the potential of non-farm SME development

The rural marketing, agribusiness and non-farm sectors development logical framework is attached.

5.5 Rural Social Development

5.5.1 Current challenges

Improving rural education, health and social protection services and solving the high priority social problems are the most important objectives to improve rural citizens wellbeing and provide them with a happy life. Specific programs and objectives in those sectors have been developed and currently are being carried out, thus it is not required to duplicate those programs in the rural development strategy. Some sensible social aspects that relate to rural development will be highlighted in the strategy. For instance, direct the investments to be made in social services to the rural areas and increase participation of local organizations and private citizens in the implementation of both national programs and locally initiated programs.

In the socialist period the social sector was a highly developed sector and the health, education and social welfare service systems served the public in all places and at all levels.

Since the market economic system has spread across Mongolia, the distribution and quality of social services has declined due to serious budget deficiencies. The rural population has suffered the worst under this new reality.

The rural population is very sparse and infrastructure is not well developed, thus herders do not have access to quality health, education and social protection services. Their living standard is thus lower than the urban population.

The unemployment rate in aimags is said to be below 10%. There is a special calculation that says if a herder has 100 head of livestock, he or she will be considered as a full time worker. Based on this calculation, out of 190 thousand herder households, 84% have less than 200 head of livestock. Thus 169 thousand households consisting of 338 thousand people should be classified as underemployed. It should also be noted here that a herder with only 100 animals is not economically viable. According to a 2001 survey on employment, 0.6% (2.5 thousand people) of the total agricultural workers left the agriculture sector to find work in another sector. The survey found that those, who have changed their employment to other sectors, have lower educational levels, lower competitiveness in the labor market and have lower earning capabilities. The point is that these former agriculture workers (rural residents) can only find low paid work.

Weak and bad social service distribution in the rural areas and a risky situation for raising livestock and other economic factors negatively affects the rural people. They become less and less willing to live and work in rural areas. This results in a high rate of migration from rural areas to settled urban areas.
In the past 10 years, the annual migration rate increased from 0.8% to 4.4%. The migration rate is high from Uvs and Zavkhan aimags. In the years between 1995 and 2000, 8 of every 10 migrators came to Ulaanbaatar or Tuv aimag. This mass migration has left behind uninhabited bag and sum centres, has decreased the importance of small settlement towns and is leading to increased inconveniences for the local population that remain. The migration has caused increased population density in the urban areas and is making the delivery of health, education, social protection, and economic and cultural services more and more difficult in rural areas. According to one survey, 42% of Ulaanbaatar migrators, 25% of Darkhan uul and Tuv aimags migrators responded that their employment possibilities increased, 52-58% responded there was no change and 10% responded that their situation after moving to the urban area had worsened.

5.5.2 Rural health

National statistics show that the doctor/patient ratio and the number of hospital beds per 1000 persons are comparatively high. Most of these doctors and beds are located in the large urban areas or in aimag centres. Therefore, sum and other smaller administrative units lack these resources to provide quality medical services in remote areas.

Limited funding appropriated for rural health services often has to be spent for hospital maintenance or heating expenses. After these expenses are paid what remains is insufficient to provide the hospital with necessary medicine or up to date medical equipment. This means that the quality of medical services, which can be delivered by local hospitals, is very low. One survey revealed that 44 sums of 15 aimags have no doctors and an additional 77 sums of 19 aimags have an inadequate number of doctors. In 2001, 35% of all sum ambulances and 39% of all aimag ambulances did not meet national standards and are no longer serviceable.

Privatising the medical system and promoting paid medical services is likely to increase inequality in services and lead to further in poverty in remote areas. Getting medicines to remote areas is difficult. Once those medications are transported to remote areas the price has to be doubled to cover the transport costs. Thus what medication is available in rural areas is twice the price of the same medication in Ulaanbaatar. Rural patients who travel to Ulaanbaatar for treatments must pay high travel expenses in order to get good medical service. The rural poor often can not afford the travel expenses, thus their access to quality health service is extremely limited.

“When there is a need for medical attention, first you have to call and get a check-up by the bag nurse. To bring the nurse you need to travel at least 1-2 hours by horse. The bag nurse has no vehicle, so has to ride back with you. Based on her diagnosis, if you need emergency services from the sum centre you have to travel another 4 hours on horseback. By this time the patient’s condition may have worsened. If the bag nurse doesn’t give a referral, the sum emergency services won’t come. If the patient’s family insists they have to pay the cost of transport both ways.” National Statistics Office and World Bank, Participatory Living Standard Assessment /PLSA/, 2000

Herders, who make up one third of the total population of Mongolia, have no access to safe and clean drinking water. They must use water from rivers, streams, melted snow and ice livestock watering wells and springs. Those water resources are not protected from any kind of pollution, which includes livestock and human wastes. Salmonella, jaundice, viral hepatitis and other diseases can be spread through seepages from open trash disposals and animal and human wastes entering the water source.
The infant mortality rate in rural areas is 46% higher than in cities. The rural mortality rate for children under five years of age is 39% higher than in urban areas. The rural maternal mortality rate is twice as high as urban areas.

Food safety became a big issue during the transition. Requirements of the Veterinary and Plant Control Office are not followed with uncertified home processed meat, milk, potatoes and vegetables being available for sale in markets. Diseases associated with nutritional deficiency among vulnerable groups, mothers and children are common. Disorders associated with deficiency of iron, protein and vitamins are prevalent especially among small children.

5.5.3 Rural education

Since the transition to a market economy the education system has experienced difficulties due to the economic crises, which resulted in a shortage of state funds devoted to the provision of social services. The result has been a serious decline in the quality of educational services in the rural area. It is a fact that the more distant the schools are from the centre, the lower the quality of education offered in those schools. Common problems mentioned by remote schools are lack of professional teachers, lack of financial support to buy textbooks, lack of training materials and lack of resources to repair school buildings.

In rural areas a high percentage of boys have dropped out of school. Those children who dropped out of school mainly come from poor, vulnerable and women headed families. According to one survey, 9.3% of all dropout children left school because of poverty, 45.3% left to help the family with herding livestock. The high percentage of dropouts that occurred in the early 1990s is creating a young adult generation in rural areas that are almost illiterate, with no basic education. Also, the children who dropped out of primary schools early have a tendency to experience learning difficulties and dropout again, even when they go back to school.

Overall, bag level primary education, the first and therefore, the most important mechanism to provide rural children with education, needs to be rehabilitated on a national level, if education of rural children is deemed important.

Kindergartens are non-existent at the bag level. Mobile kindergartens were started in 1994 within the framework of Non-Formal Education of School Dropout Children with the aid of UNICEF, UNDP and Save the Children Fund UK. This mobile kindergarten and pre-school training centres aimed at involving young children under the age of 7 from remote/herder families. The training centres are located in a ger or a railroad car, herder families often become involved in training of their pre-school children, for example by participating in plays, and providing the teachers and children with meals. The service fees are paid by herder families (and sometimes, by the local government), and teachers are paid from the national budget. Remote sums, bags and aimag teachers still experience difficulties with receiving their salaries on time.

The gender imbalance among school pupils, especially in higher educational institutions shows that men are not keeping pace with Mongolian women when it comes to education. This decrease in the education level of Mongolian men is something that should cause all Mongolians to worry.

Because of lack of school dormitories children of remote herders live with relatives in sum centres or a group of children live together in a separate ger. These kinds of living
arrangements can negatively affect their study and cause them to drop out of school. As of 2000, the national average is 1 computer for 358 pupils however, in Arhangai, Bulgan, Tuv, Uvs and Khovd aimags the average is 614 to 788 pupils per computer.

5.5.4 Rural social development objective

The rural social development objective is to ensure the delivery of quality social services to rural people, which will be achieved through realizing the following outputs:

1. Increased participation of rural communities in planning and implementing investment in social infrastructure
2. Improved quality of health services for rural people
3. Improved quality of education services for rural people
4. Improved quality of social welfare services for rural people
5. Improved rural employment support system
6. Improved gender equity

The rural social development logical framework is attached.

5.6. Environmental Protection

5.6.1 Current challenges

In the last decade Mongolia’s environment has faced many adverse factors and changes. In the past 40 years occurrence of strong windstorms has increased by four times. Increased desertification is a real threat, with borders of the Gobi desert zone pushing northwards more and more with each coming year.

Due to the recent climatic change, global warming and increasing droughts, many lakes, rivers and springs are drying up, levels of vegetation in pastures are decreasing, desertification is spreading, salt lakes and salt flats are increasing, and soil fertility is declining.

Due to the expansion of mining, both licensed and informal, there is a widespread practice of unregulated digging, and destruction of fragile ecosystems, many of them former pasturelands.

Since 41.3% of Mongolian territory is comprised of desert and semi-desert zones, there is a high tendency towards natural disasters such as dzud and drought. Since almost half of the Mongolian population engages in pastoral livestock production and low-input farming, the productivity of this kind of agriculture is highly vulnerable to environmental disasters and climate change. Mongolia is faced with a real challenge to promote sustainable agricultural development under these conditions. The desertification negatively impacts the land quality with water sources drying up, declining pasture plant yields, increased salinity of both soil and water, loss of fertility and increased sand dune movement. Overgrazing only contributes to the problem and allows new areas to be susceptible to desertification. According to statistics, a total of 9 million hectares of pastureland is currently overgrazed.

Arable land, according to official statistics, is 1.2 million hectares. However, according to the 2001 statistics, only 497 thousand ha is being utilized of which 217.6 thousand ha is planted to crops and 275 thousand ha is fallowed leaving 707 thousand ha of arable land abandoned. According to the research that involved 90% of cropping land in the Orkhon-Selenge basin,
47% of all fields have been degraded to some degree, 13% subject to severe land degradation, and 28% could be classified as suffering medium level degradation.

Today Mongolia’s ecosystem imbalance has regional characteristics. For example, in Tuv aimag regions there is a severe ecological imbalance due to the heavy concentrations of people and the livestock. In Omnigovi, Dornogovi and Bayankhongor aimags some types of vegetation that inhibits sand dune movement and desertification processes are being gathered in large quantities and exported.

Due to a lack of knowledge about the fragile balance, composition and co-dependency of various parts of the eco-system, there is widespread misuse of Mongolia’s natural resources causing environmental damage.

An effective and sustainable environmental resources management system has yet to be established in Mongolia since the transition to a market economy.

The following factors continue to negatively influence the development and implementation of effective environmental management:

1. Lack of knowledge among citizens on sustainable use of natural resources, protective and restorative measures.

2. No one is responsible for enforcing penalties and fees to cover environmental damages associated with the common use of natural resources. Those who cause desertification, pastureland degradation, water or soil pollution, pay no fines or fees. This is contributing to the depletion of our natural resources.

3. Legal, policy or regulatory framework to promote adequate natural resource management is weak at local levels.

4. Lack of financial resources is inhibiting community mobilisation and local government activities to promote new technologies and techniques to protect or restore the local environment.

5.6.2 GOM policies and regulations on environmental protection

Since the transition to a market economy in the 1990s, the following positive measures have taken place:

- Mechanisms to implement and enforce environmental laws are becoming more effective, and monitoring and evaluation methods are improving

- Economic and other incentives are being promoted in order to increase effectiveness of implementation of the environmental laws

- Specialised environmental agencies are emerging, environmental education, ecological training and other information dissemination measures have become more active at local levels and implementation of nature conservation programs is improving.

- Establishment of a national level environmental monitoring and evaluation, and ecological information/data collection system is at the inception stage.
Based on donor and international organisation grant programs and projects, natural resource and environment protection and management activities are being carried out in some rural areas with the involvement of NGOs and local communities.

Community based natural resource management training and pilot tests have shown positive results in practice.

Sustainable financial sources are emerging for environmental protection and rehabilitation in local areas.

Due to the transition to a market economy, Mongolia’s environmental laws have been amended, and to date, there are 26 new environmental laws in effect. Even though substantial efforts have taken place at the legislative level to improve the legal framework for environmental protection, implementation and enforcement of those laws is still weak.

Extension of protected zones (for fragile eco-systems), and improvement of environmental protection measures are examples of government activities to protect our beautiful nature. As a result of such measures 13.1% of Mongolian territory is under national protection.

As a result of the 2002 “Land Law” and the “Law on Land Privatisation to Citizens of Mongolia” Mongolian citizens now have the right to own land for the first time in history. In order to implement adopted laws and regulations, programs on “Forestry” and “Protecting Rare Natural Plants and Their Proper Utilisation” and many programs for endangered biological species have been developed and are being carried out. Even though a number of these programs and projects were developed and implemented their proposed output to alleviate rural poverty and improve rural people’s living standards have not shown sufficient results. In addition sufficient funding for real activities under these programs is lacking and monitoring and evaluation has not been done as required. The point is that most of the programs are more like a declaration instead of a real program. In the future the implementation process needs to be intensified.

5.6.3 Development objective

The objective in this sector is to ensure environmental protection and sustainable use of natural resources by improving the enforcement of relevant legislation and introducing advanced methods of natural resource management.

To achieve this objective interest in nature conservation and the responsibility of formal and informal groups of local people need to be enhanced. This can be accomplished by transferring natural resource possession and use rights to communities of local people. Implementation of the objective has to be supported with complex legal and organisational measures to decentralise relevant powers to local levels.

The logical framework for environmental protection and sustainable NRM is attached.

It is impossible to address environmental protection and the sustainable use of natural resources separately from the users or farmers. Therefore, the sustainable use of agricultural land is dealt with within the crop and livestock development logical frameworks.

5.6.4 Forestry

According to 2001 official statistics the value of forestry production is MNT 1685.5 m, which does not include the informal sector.
Transition to the market economy brought new challenges to the forestry sector. New problems in logging and wood processing, hunting, and management of the protected areas have yet to be solved.

Illegal logging, forest fires, insects and various types of diseases have affected one fourth of Mongolia’s forested areas. There is serious mismanagement of forest resources due to excessive logging activities. Reforestation efforts are well below the replacement rate. Reforestation activities have been financed from the state budget. To date 6,000 to 8,000 hectares have been replanted. However, this cannot be said to have had a positive impact, with only a 40% survival rate for the newly planted trees, due to bad quality seeds and the environmental challenges of Mongolia. In some areas of Mongolia it takes more than 200 years for reforestation to be successful. Forests cover only about 6% of Mongolia, in the north, with semi-desert and desert zones prevailing in the south of the country. As mentioned earlier, the forest regenerative process takes a very long time, and use of such scarce resources should be very limited. However, illegal logging with passive acknowledgement and sometimes even active participation of state officials is a widespread phenomenon.

The “Law on Forests” and the “Law on User Fees for Logging and Fire Wood Preparation Activities” were enacted in 1995. The law on Forest Fire Management was passed in 1996. The “National Program on Forestry” was developed in 1998. These laws and programs were not fully implemented due to financial difficulties, poor organisational management, and lack of human resources.

In 2001, the amended “National Program on Forestry” was approved. This program is to be implemented in 3 stages with completion by the year 2015.

The forestry sector is faced with the following key problems of institutional and technological nature:

- National level policies and strategies for the forestry sector are not well defined
- Organizational structure is ill-defined, division of roles is not clear, and management is not effective
- Law implementation is weak due to lack of proper instructions and poor implementation mechanisms
- Statistical information on the forestry sector is not well developed
- Community participation is weak in forest management, protection and reforestation activities
- Ineffective research activities, and poor promotion of innovative methods and techniques
- Human resources are weak and community participation is poor, especially at local levels, which leads to widespread illegal logging activities and other misuses of forest resources
- Public knowledge about forest resources is weak
- No proper system to co-ordinate between forest resource management and utilisation
- The implementation of the management of the forest resources and forest industry is weak
- The technologies in the forestry sector are outdated and inefficient

The above problems result in the following negative socio-economic consequences:

- Production of logs and wooden planks decreased between 3 and 5 times
- Widespread fires and insect invasions in the forest areas of Mongolia are causing depletion of the forest resources and are negatively affecting people and wildlife (that rely the forests for their livelihoods)
- Revenue of the forestry sector plummeted
• Wood products decreased
• Market for wood products became destabilised
• Infrastructure of the forestry sector is underdeveloped
• In settlements and villages that relied on forest resources for income, unemployment rose and poverty deepened.

The main reason behind inadequate management of the forestry sector and lack of implementation of the proposed programs and laws is the absence of a specialised forestry organisation with a specific action plan and clear division of labour at local levels.

The forestry sector objective is to improve the regenerative and restorative capabilities and promote protection and sustainable use of the forest resources. The forestry sector development logical framework is attached.

5.6.5 Wildlife hunting and fishery

According to official 2001 statistics, income from wildlife hunting was MNT 4864.7 thousand and that of fishery was MNT 66.9 m. These figures do not include proceeds from illegal hunting and fishing.

5.6.5.1 Wildlife hunting

There are more than 10 thousand species of animals in Mongolia, out of which only 200 species can be hunted. The rest are considered to be non-game wildlife.

The “Wildlife Protection” law of 2000 regulates hunting and protection of wildlife. According to this law, species of wildlife that are not classified as rare or endangered can be hunted and/or raised, bred or farmed following specified regulations. Also, certain types of endangered or rare species can be raised on animal farms in order to produce animal by-products, such as honey, deer horn, deer musk or similar products.

Therefore, even though a proper regulative environment has been established to protect and promote sustainable use of wildlife, the wildlife resources of Mongolia are declining. Specifically, the number of Mongolian bear (Mazaalai), antelope, wild camel, wild wolf, reindeer, and deer is rapidly decreasing. The main reason for this is illegal hunting, and the illegal trade in fur and other animal products. Penal measures for offenders who are found guilty are not being enforced properly.

Certain species are facing danger of extinction in some areas of Mongolia.

Lately, marmot hunting has been drawing a lot of public attention. In the Regional Consultative Conference of Bag Governors held in June and July of 2002, it was suggested that the marmot might become extinct due to illegal off-season hunting.

The Government of Mongolia has taken measures to protect and promote biological diversity by reintroducing the Przhevalski Horse (Takhi), protecting and repopulating species such as the Mazaalai Bear and Wild Camel, and declaring as “National Protection Zones” the home ranges of endangered species such as the antelope and snow leopard. Also, certain rare plants have been grown on farms and replanted in their natural environments. The Government of Mongolia is promoting a legal and policy environment to protect endangered species and their natural environment, to sustainably utilize wildlife resources, encouraging traditional
knowledge and practices that protect the environment, and to increase people’s knowledge about ecology and the environmental.

**5.6.5.2 Fishery**

In Mongolia, commercial fishing has been active since the mid-1950s in areas rich in fish such as the Tsagaan Nuur region of Khovsgol aimag, Bur Nuur of Dornod aimag and Ogii Nuur of Arkhangai aimag. Commercial fishing in Mongolia takes the forms of small-to-medium enterprises, companies and fish farms.

During the planned economy, before 1990, the central government regulated fishing. The most fish caught in one year was a record 600 tons of fish. After being caught the fish were sorted according to species and type for marketing. Regular evaluations of the remaining fish population used to be done.

However today, fishing activities are not regulated by specific fishing regulations, and fishing enterprises are only concerned with using the fishing resources, with no thought to preserving any for later, with no protective measures in sight. For example, fishing enterprises tend to over-fish during the spawning period, and regulation of fishing especially during the spawning period has not been strictly enforced. As a result of such mismanagement, fishing resources have declined by 4 to 5 times, and prohibition of fishing in certain areas has not been properly implemented.

Since the transition to a market economy, private fishing enterprises are now acting only as users, and not as protectors of the resources on which their livelihoods depend. Recently, the Ministry of Nature and the Environment has been imposing local limits for fishing, but due to the weak monitoring and evaluation, and poor organisational structure and management, there is a large discrepancy between the numbers of fish exported and the actual number of fish reported as caught. Due to the relaxed regulations for obtaining fishing licenses, fishing has been done in a highly disorganised manner. To date, no accurate data and information collection mechanism exists, and the number, value and type of fish caught and exported is not readily known. Ever-increasing numbers of fishing enterprise activities are not properly regulated and there is overcrowding of fishing enterprises and individual fishermen along the banks of large rivers and lakes. This overcrowding is beginning to cause an imbalance in the eco-systems of lakes and rivers. Due to the disorganised fishing activities, environmental pollution is increasing. There is also no proper regulation of sport fishing. Thus, Mongolia’s fishing resources, especially the number of rare and endangered fish species is declining.

The fishing sector lacks well-trained professionals and human resources. Since the 1960s an average of 10 people each year received specialised fishing and resource management training from vocational and technical schools, institutes and universities in the former Soviet Union. Most of these specialists are now retired or no longer able to pass their knowledge to the current fishing enterprises. Due to the poor training of new fishermen, and the emergence of many private fishing enterprises with poor technology, many foreign (mostly Chinese) fishermen are now indiscriminately fishing with nets.

There is a need to promote a sustainable fishing industry in Mongolia through researching the actual fish resources left in the rivers and lakes of Mongolia. Then quotas based on the facts need to be implemented and enforced. Fishing enterprises need to be regulated. New and modern fishing technology needs to be promoted. Accurate information collection and monitoring and evaluation mechanisms need to be instituted on both the national and the local levels.
Therefore, it is crucial to use modern scientific methods to establish the quotas for fishing enterprises and individuals on lakes of Tsagaan Nuur of Khovsgol, Buir Nuur of Dornod, and Ogii Nuur of Arkhangai, and regulate all fishing activities according to clearly defined national policies. Mongolia needs to promote training programs/seminars on sustainable fishing, and establish accurate data collection and monitoring and evaluation mechanisms.

The logical framework for wildlife and fishery is incorporated into the logical framework ‘Improving Environmental Protection, Wildlife Hunting and Fishery’

5.7. Rural Infrastructure Development

Improving rural energy, information distribution systems, communication systems and road building and maintenance are a key to accelerating rural economic growth and improving the livelihoods of rural people. Specific programs and objectives in those sectors have already been developed and are being carried out, thus it does not require duplicating these in the rural development strategy. Some sensible aspects that relate to rural infrastructure however will be highlighted in the strategy. For instance, the proposal to direct more of the investments made in the infrastructure sector into the rural areas and to increase the participation of local organizations and citizens in both the planning and implementation of improvements.

5.7.1 Rural energy

Energy supply is unevenly developed and distributed throughout Mongolia. Therefore, with many small independent power stations operation costs and the prices they charge their customers vary widely. Diesel power stations in sum centers operate mainly in the evenings and mornings. Many herders have no energy supply in their homes. This is a major obstacle blocking rural business development. If more rural businesses could operate employment would increase, and poverty alleviation would follow. The rural energy shortage is one of the factors contributing to migration from rural areas to urban areas.

The key problems in the energy sector are the inefficient use of the installed energy facilities, the high costs of imported electricity and the high costs of diesel and generators in rural settlements. There is a current demand in Mongolia for a national energy supply network that can provide domestic electricity at low costs to all consumers in all locations.

Agricultural production development is poor due to lack of rural energy resources. More technological studies and research needs to be carried out on how to increase rural production and enhance agriculture productivity through utilizing new and innovative renewable energy sources. There is a great need to improve the herders and farmers knowledge about good low cost renewable energy resources currently available to them and to improve their access to competitive suppliers of these systems.

5.7.2 Rural communication

The national telecommunication network covers all aimags, towns and sums. In recent years, short-wave communication systems have been installed in bag centers. However, it is still difficult and very expensive for herders, farmers or rural citizens living at a distance from a population center to have telephone or two-way communication systems in their homes.
The national post office services have suffered from national budget shortages over the last decade. Thus the post office communication equipment and services have become very old, outdated and slow compared to other telecommunication providers.

It is important to improve the rural telecommunication system by installing modern systems that can provide rapid two-way transmission of urgent emergency information to and from the rural population. This system should provide an immediate information distribution scheme in order to reduce emergency weather related agricultural production risks and enhance the delivery of quality social services such as rapid transport to hospital of critically ill people living in remote areas.

5.7.3 Rural roads

Return on investments in road and bridge construction is comparatively low and the duration of investment return is very long because Mongolia is a vast territory with a sparsely distributed population and the daily utilization rate of each rural road is low.

There is a need to improve and increase the number of roads in order to improve the transportation network, which would improve the investment environment, accelerate economic growth and increase economic relationships with other countries. However because of the previously mentioned problems, road building and improvement activities have been very limited.

Auto roads play a vital role in the national transportation network. Mongolia has a total of 200 thousand kilometers of auto roads, but only 2000 kilometers of those roads are paved and only 3000 kilometers of roadway have received any improvement such as grading, leveling, surfacing or bridgework. The remaining 195 thousand kilometers of roadways are simple cross-country dirt tracks.

Half of the total 700 bridges in Mongolia are wooden bridges. These bridges are often over utilized meaning the bridges sometimes carry loads heavier than they were designed for and are being used long past their repair or replacement times. In 1998 the Government passed the “Law on Auto Roads” and legally mandated funding for national and local roads. However those approved funds cannot come even close to providing the quality of roads that this country needs and is beginning to demand.

To date, both domestic and international loans have been made to the government of Mongolia to improve and build national and international roads. But funding to invest in local road building such as inter sum roads is very limited.

5.7.4 Rural infrastructure development objective

The rural infrastructure development objective is to improve the rural infrastructure through realizing the following outputs:

1. Increased participation of local people in decision making on investment planning and implementation in rural infrastructure
2. Improved rural energy supply
3. Improved communication services through introducing advanced information and communication technology
4. Smooth operation of roads that are crucial for rural development by improving the repair and maintenance
5. Improved rural mass media

Rural infrastructure development logical framework is attached.
6. Conclusions and Next Steps

The process of developing the RDS to this stage has proven effective in bringing together many of the ideas present among the various stakeholders and placing them in a clear context of development objectives, using the logical framework approach.

The October workshop, and particularly the working groups, stimulated discussion, which led to the creation of a consensus among the stakeholders, with a number of modifications and additions to the first draft. The participation of stakeholder delegates from different aimags permitted the workshop to highlight the importance of local factors and initiatives in rural development. The introduction of unregistered mining as a topic was particularly informative in highlighting the potential importance of non-agriculture related employment in rural areas. The stakeholders have endorsed the sustainable livelihoods approach and its emphasis on ensuring that the benefits of economic development are equitably shared among the rural population. Surveys, including the PLSA and those commissioned for the RDS, have shown that a major reason for the current high level of rural-urban migration is the desire of rural people to obtain improved access to higher quality social services: increased local participation in establishing service provision priorities is therefore a key element of the RDS.

The stakeholders have also endorsed the view, expressed clearly by Sh. Gungaadorj, chairman of the parliamentary standing committee for environment and rural development and chairman of the RDS steering committee, that, in an environment with high natural risks, changes from traditional approaches and attitudes are essential to achieve sustainable livelihoods and economic development.

The RDS is being incorporated into the PRSP but it must be stressed that the RDS development process is not complete. In particular, the output of the working group appointed by MOFA to develop a new state policy for the crop sector will be important both for the RDS and the PRSP since it should provide a basis for planning specific activities and investments as part of the economic development process. One of the major themes for agricultural development is risk mitigation. An important element of this is a closer integration of crop and livestock activities. A crop policy cannot therefore be developed in isolation and will be one element of the agriculture development policy. The underlying principle, maintained in the RDS, is that production will be primarily a private sector activity and that a main role of Government is to create and maintain an enabling environment. This development will be a continuing process requiring, internal MOFA investment in strengthening its capacity to monitor and evaluate projects and programmes and in facilitating dissemination of information to the stakeholders. To achieve the objectives of the PRSP, economic growth is a pre-condition and agriculture has a key role to play.

For all concerned ministries, this draft now provides a framework for the review and preparation of investment and operational plans. It should also facilitate the prioritization of proposals, both for ministry programmes and for donor assisted projects.