

Improving Public Expenditures in Agriculture:

Empirical Evidence of the Effectiveness and Efficiency of Agricultural Public Expenditures in Mongolia

Kofi Amponsah and Charles Annor-Frempong

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Foreword

We are pleased to share with you this review of public expenditures on the Mongolian agriculture sector. The purpose of the review is to analyze the allocation of government resources within the country's agriculture sector in order to inform spending priorities and to provide the Ministry of Industry and Agriculture and other agencies with empirical information that will enable them to advocate for more and better targeted public funding for agricultural purposes.

This review was carried out under the guidance of the Ministry of Industry and Agriculture, and entailed an extensive analysis of available data and consultations with a variety of stakeholders. It provides insights into the relative size of the agriculture budget, and the levels, composition, effectiveness and efficiency of government agriculture expenditures.

The findings point to a number of serious issues inhibiting the effective and efficient management of sector expenditures. These include limited capacity for planning and budgeting on the part of the staff of the Ministry, as well as limited capability to monitor and evaluate budgetary performance or outcomes. Agricultural research and extension is underfunded, and donor coordination is weak. Local officials are insufficiently engaged in the planning and budgeting of sector programs. Based in part on these findings, the report presents a number of recommendations for the government to consider in resolving these issues.

The review is enriched by contributions from seasoned experts in the field of agriculture and public expenditure management, including experts from major development partners operating in the sector. It is comprehensive in its scope and content and can serve as a living document to guide resource allocation and expenditure management decisions in the Mongolia's agriculture sector.

The main message of the report is that as Mongolia continues to work towards achieving its agricultural objectives, there is a need for policies aimed at increasing agricultural production and productivity to be driven by sustained allocation of public sector resources to the sector. The World Bank is committed to working closely with the Government of Mongolia to improve public expenditures in agriculture. With continued attention to improving public spending in agriculture, sustained progress in agricultural growth and poverty reduction can be achieved for the people of Mongolia.

Bert Hofman
Country Director
Mongolia, China and Korea
East Asia and Pacific Region
World Bank

Juergen Voegelé
Senior Director
Agriculture
World Bank

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AgPER	Agricultural Public Expenditure Review
AgGDP	Agricultural Gross Domestic Product
ASDSP	Agricultural Sector Development Strategy Paper
AHRI	Animal Husbandry Research Institute
ASTI	Agricultural Science and Technology Indicators
APSM	Agricultural Products Stock Market
BIA	Benefit Incidence Analysis
CPF	Crop Protection Fund
CPSF	Crop Protection Support Fund
DG	Director General
DVAB	Department of Veterinary and Animal Breeding
DSPP	Department of Strategic Policy and Planning
EU	European Union
FAO	Food and Agriculture Organization
FID	Finance and Investment Division
FMD	Foot and Mouth Disease
FY	Fiscal year
GDP	Gross Domestic Product
GoM	Government of Mongolia
IBL	Integrated Budget Law
IFAD	International Fund for Agriculture and Development
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IPPMA	Interprovincial Pastureland Management Authority
JICA	Japan International Cooperation Agency
KOICA	Korean International Cooperation Agency
LCF	Livestock Conservation Fund
LDF	Local Development Fund
MCC	Millennium Challenge Corporation
MCNDS	MDG-based Comprehensive National Development Strategy
MEIAD	Monitoring, Evaluation and Internal Audit Department
MIA	Ministry of Industry and Agriculture
MLP	Mongolia Livestock Program
MNT	Mongolia Tugrik
MOES	Ministry of Education and Science
MoF	Ministry of Finance
MTFF	Medium Term Fiscal Framework
NAEC	National Agricultural Extension Center
NAGB	National Animal Gene Bank
NSO	National Statistics Office
O&M	Operation and maintenance
PAD	Provincial Agricultural Department
PCN	Project Concept Note

PETS	Public Expenditure Tracking Survey
PFM	Public Financial Management
PPP	Public-Private Partnership
RFP	Request for Proposal
R&D	Research and Development
SCLVS	State Central Laboratory for Veterinary and Sanitary
SDC	Swiss Development Cooperation
SMEA	Small and Medium Enterprises Agency
SPC	State Property Commission
STF	Science and Technology Fund
SLCVDV	State Laboratory for Certification and Veterinary Drugs and Vaccines
UB	Ulaanbaatar
UN	United Nations
WB	World Bank
WBG	World Bank Group

EXECUTIVE SUMMARY

BACKGROUND

The objective of the agricultural sector public expenditure review (AgPER) was to examine the efficiency and effectiveness of agricultural sector expenditures in Mongolia. It was carried out at the request of the Department of Strategic Policy and Planning (DSPP), Ministry of Industry and Agriculture (MIA). The World Bank Group (WBG) collaborated with the Food and Agriculture Organization (FAO) of the United Nations and the DSPP under the overall direction and oversight of the Director General (DG) of DSPP.

The AgPER provides policy makers with a better understanding of: (a) trends in the level and composition of public expenditures in agriculture over the past five to ten years; (b) the economic and functional composition of agriculture expenditures; (c) the budget processes and performance in the agriculture sector; (d) issues inhibiting the effectiveness and efficiency of public expenditures in agriculture.

To achieve this objective a two dimensional (spending allocations and technical efficiency) analysis of the efficiency of government expenditure on agriculture was conducted. The efficiency of spending allocations was considered through an analysis of the economic and functional composition of sector expenditures. Public spending on agriculture in Mongolia was also compared with that in other countries in the region and elsewhere in the world, particularly countries with similar climatic conditions.

KEY FINDINGS

Relative size of the agriculture expenditures

Agriculture has performed remarkably well over the past decade although a very small proportion of the national budget is allocated to the sector. At the national level, agriculture's contribution to gross domestic product (GDP) measured in nominal MNT has averaged around 17.4 percent compared with other important sectors in the Mongolian economy such as mining and quarrying (19.6 percent), manufacturing (6.2 percent), wholesale and retail (8.2 percent), and construction (2.2 percent). At the sector level, agricultural GDP (AgGDP) measured in nominal MNT increased by 80 percent from 2002 to 2012, spurred by a sustained increase in crop and livestock outputs. Despite this remarkable performance, the share of the national budget allocated to agriculture (excluding forestry and fisheries) averaged just 2.4 percent over the period 2003-2012. Over the same period, agriculture expenditure as a share of GDP averaged only 1.1 percent.

Spending on agricultural research and development (R&D) is low. Public spending on R&D, (MIA and STF combined) amounted to MNT2.86 billion in 2008, which represented 7 percent of total agriculture spending, excluding fisheries and forestry. This figure decreased to MNT2.17 billion in 2009 and

increased steadily to a peak of MNT5.04 billion in 2012. It then declined to MNT3.67 billion, representing only 2.5 percent of total agriculture sector spending. As a share of agricultural GDP, expenditure on agricultural R&D represented 0.4 percent in 2008 and 0.5 percent in 2012.

Level of agriculture expenditures

The basis for budgetary allocations to MIA departments are often unclear. Because the Ministry's expenditure statement does not break down budgets by department, it is difficult to determine on what basis budgetary allocations to various departments within MIA are made. A bulk allocation is made to the entire Ministry. For effective and efficient accounting and reporting of sector expenditures, this allocation should be broken down to capture all departments and divisions within MIA. Also, despite the increased fiscal responsibility following the recently approved Integrated Budget Law (IBL), there are disproportionately small allocations to the decentralized agricultural units in the 21 *aimags*. The majority of the expenditures go to paying salaries and wages. In 2013, budgetary allocations to the 21 *aimags* amounted to only MNT4.6 billion (1.6 percent) of the total sector budget.

Annual growth in the agricultural budget in nominal terms has been volatile over the past decade. In 2004 the agriculture budget grew by 11.7 percent. It grew by 0.9 percent in 2005, 36.4 percent in 2006, 112.6 percent in 2007, and 127.1 percent in 2008. It then declined by 24.6 percent in 2009, increased by 71 percent in 2010, and by 120.6 percent in 2011. It declined again by 24.6 percent in 2012, and increased by 56.6 percent in 2013. Recent increases in subsidies and transfers expenditures accounted for part of the volatility in the agricultural budget. Subsidies constitute the bulk of the recurrent budget relative to other items such as goods and services.¹

Limited information about donor off-budget expenditures (commitments) in the agriculture sector. Although a number of donors support MIA agricultural operations, information about how these resources are spent is difficult to obtain in the Ministry. Four donors in particular account for about 76 percent of total donor expenditures in the agriculture sector; FAO, IFAD, the Swiss Development Corporation, and the World Bank. Together, the four have commitments amounting to US\$57 million out of total donor commitments of US\$75 million between 2012 and 2016. This US\$75 million in donor off-budget commitments amounts to about 26 percent of the total sector budget.

Mongolia spends a smaller percentage of its GDP on agriculture than comparable middle income countries in Asia and elsewhere. Despite its relatively higher agricultural value added of 17 percent of GDP, Mongolia spends proportionately less on agriculture than China, Philippines, Sri Lanka, Namibia, Cape Verde, and Paraguay. Mongolia spends a lower percentage of its national budget on agriculture than India, China, Philippines, Sri Lanka, and Thailand.

¹ See Gunjal, K and Charles Annor-Frempong. "Mongolia Agriculture Sector Review: Review, Estimation and Analysis of Agricultural Subsidies in Mongolia, December 2013" for a detailed study of agriculture sector subsidies.

Economic and Functional Composition of Agriculture Expenditures

Economic composition of agriculture expenditures shows the dominance of capital expenditures against current expenditures. Capital expenditures have more than doubled compared with current expenditures over the period 2003-2013. The increase in capital expenditures is driven largely by the GoM's investment in new construction (wells, water systems, veterinary and sanitary laboratories, disinfection facilities, etc.), acquisition of equipment, feasibility studies, design, and capital repairs (operation and maintenance). MIA earmarked MNT 157.8 billion for capital investments between 2012 and 2017. About 49.9 percent of its budget was allocated for capital expenditures in 2013. Yet the 1.9 percent of the capital budget that was allocated to operation and maintenance in 2013 is insufficient to sustain these investments.

Allocations to current expenditures are skewed towards subsidies and transfers. Disaggregation of current expenditures shows an imbalance between allocations to subsidies and transfers compared to current expenditures such as salaries and wages, and goods and services. Expenditures on subsidies and transfers grew from a modest 0.5 percent of total current expenditures in 2003 to 57.6 percent in 2013. This growth was driven by the government policy of supporting crop and livestock production, including agro-based enterprises and wheat farmers.

Expenditures by functional categories show underfunding of core public goods in the sector. MIA allocated 16 percent of its 2013 budget to livestock disease control and 11 percent to planning and policy. Core public goods such as research and development (R&D) and advisory services are comparatively underfunded, together receiving 4 percent of the national budget. In Kazakhstan by comparison, 5 percent of the national budget went to research and extension services in the same year. Sector budgets are not aligned with development priorities, and there is a significant divergence between the activities funded by the MIA and those described in the Agriculture Sector Development Strategy Paper (ASDSP). The ASDSP has not been fully referred to in the preparation of the annual budget.

Agricultural research institutes and extension services are underfunded. The research institutes receive most of their funding from the Ministry of Education and Science-managed Science and Technology Fund (STF) rather than from the MIA. More than 59.2 percent of this funding is used to pay salaries and wages, and proportionately very little is used as direct support to research. The disbursement of funds to the research institutes is moreover sporadic owing in large part to the intermittent meetings of the Inter-Ministerial Committee that is the approving body of the STF. This situation has hampered the research institutes' ability to undertake effective research for agricultural development.

Budget processes and performance

The basis for allocating budget to capital investment programs is hard to determine. It is difficult to ascertain the basis on which the allocations to capital investment programs are made in the investment budget, although most of the activities are sector priorities. Budgetary allocations are made on a historical basis rather than on realistic costing of all investment activities in the sector. Moreover, it is unclear whether the previous year's investment activities are reviewed before the budget is prepared. MIA needs to adopt a Medium Term Expenditure Framework (MTEF) approach to help improve its planning and budgeting.

Need to develop financial management capacity in MIA. The staff of the Ministry's Finance and Investment Division (FID) lack financial management and analytical skills and this has translated into substandard documentation, recording, and accounting for sector expenditures. Available expenditure data at FID show gaps with respect to planned and actual expenditures. Some years have virtually no figures. This situation makes tracking sector expenditures extremely difficult. For example, expenditure data on the important vaccination and animal care program are difficult to obtain despite increased level of allocations to the program.

Underspending of the annual budget despite overall high budget execution rates. MIA's budget execution performance is quite good with an average of over 90 percent of the budget executed during the 2003-2011 period. However, a detailed analysis of budget outturns revealed widespread underspending in individual expenditure categories, which suggests the existence of financial management and analytical capacity constraints. FID does not carry out analysis of budget execution. The division lacks staff with the analytical skills to properly examine budget execution performance, including disaggregating the various components (obligations, commitments, and payments) of budget execution. There is a need to strengthen the financial management and analytical capacity of FID staff to enable them to effectively carry out activities related to documentation, reporting, and accounting for agricultural spending.

Budget outcomes monitoring

Limited capacity for monitoring and evaluation in MIA. Sector programs and projects are not effectively monitored and evaluated due to lack of human resource capacity in the Monitoring and Evaluation and Internal Audit Department (MEIAD). The department has enormous responsibilities covering the whole country, but it does not have the required number of staff with the requisite skills. There are currently only 10 staff members, including the Director General. The situation does not allow for proper evaluation of projects based on internationally accepted evaluation criteria: *relevance, effectiveness, efficiency, and sustainability*. The department can only perform spot checks with little or no detailed performance assessment.

Lack of linkages between MELAD and FID has had a significant impact on expenditure documentation, reporting, and analysis. The limited exchange of information between the FID and the MEIAD has resulted in poor documentation and accounting of sector expenditures. Improved interaction between the two departments is required to ensure effective information flow for budget execution performance analysis and impact evaluation. This will improve transparency, accountability, and budget outcomes.

Effectiveness and efficiency of public expenditures

Inadequate mechanisms for monitoring the vaccination program. A review of the vaccination program implementation showed that the program has helped increase livestock production through a significant reduction in livestock mortality in recent years. However, there is little evidence of a sound monitoring and supervision mechanism in place to track progress, and vaccination expenditures have not been properly accounted for. This makes it difficult to assess impacts of public expenditures on the disease control program.

Lack of coordination of various programs in MLA. Poor coordination, lack of local ownership of central government programs, and weak communication and coordination between the central ministry and its offices in the *aimags and soums* have contributed to poor implementation of programs at the local level. Budget formulation and payment are made by the central government, which has little or no information about the needs at the local level. This situation is due to top-down and vertical reporting structure of the intergovernmental fiscal systems. It is expected that the new Integrated Budget Law (IBL) will address most of these issues as the local governments are now given more fiscal responsibilities.

Technical efficiency of public expenditures is constrained. The slow procurement process has led to delays in the execution of infrastructural projects. In addition, technical staff at *aimag* and *soum* levels are unable to undertake effective supervision of projects owing to a lack of resources. Despite these challenges, significant progress has been made in the provision of infrastructure such as irrigation and wells, which have helped increase crop production. To sustain development outcomes resulting from increased investment in infrastructure, the MIA will need to improve management, supervision, and coordination, and establish simplified procurement procedures to reduce delays. It will also need to increase number of staff who is capable of performing quality appraisals.

CONCLUSIONS AND POLICY RECOMMENDATIONS

The outcome of the review reveals several constraints to effectiveness and efficiency of public expenditures in the Mongolia's agriculture sector, despite improved performance in recent years. These issues include: (a) limited levels of funding for agriculture despite its significant contribution to the economy; (b) limited O&M expenditures which are not commensurate with the overall increase in investment and capital expenditures; (c) imbalance between allocations to subsidies and transfers relative to goods and services; (d) lack of funding for research and development and extensions services; (e) limited financial management and analytical capacity of staff of FID (f)

inadequate staff with skills in program evaluation in the MEIAD, which inhibits the department's ability to carry out effective monitoring and evaluation of sector programs; and (g) limited involvement of the local authorities in the planning and budgeting of sector programs. The following summarizes recommendations for policy consideration.

- ***Increase the share of the national budget used to support agriculture.*** Increasing agriculture's share of the national budget relative to other key economic sectors will enable it to contribute more to national output and to better fulfill its catalytic role as a driver of economic development.
- ***Increase the operation and maintenance budget.*** Increasing budgetary allocations to operation and maintenance (O&M) budget relative to the overall capital budget will ensure the sustainability of capital investments in the sector. The current underfunding of the O&M budget threatens to undermine the sustainability of these investments.
- ***Strike a balance between budgetary allocations to subsidies and transfers and goods and services,*** and develop a clear framework for subsidies, including an exit strategy and ongoing review of how efficient those subsidies are in correcting market failures and in achieving other goals.
- ***Increase support to institutions responsible for agricultural research and extension.*** Increasing investment in these public goods will not only encourage the generation of new technologies and the adoption of new and existing technologies by producers, but can also help to create an enabling environment that encourages private sector investment in agriculture. This will require the GOM to address the bottlenecks that limit the flow of funds to the research institutes, by among other things, reforming the Science and Technology Fund (STF) committee, which is responsible for approving research funds in the country.
- ***Strengthen financial management capabilities and analytical skills of the staff of FID and budget managers*** in order to address current weaknesses in recording, analyzing, and accounting for sector expenditures in the MIA.
- ***Adequately resource the Department of Monitoring and Evaluation and Internal Audit*** with staff that possess skills and expertise in program monitoring and evaluation to improve monitoring of budget outcomes and performance. The staff will need the capacity to apply the widely-accepted standard monitoring and evaluation criteria of *relevance, effectiveness, efficiency, and sustainability*. This will entail sponsoring regular training and capacity building interventions to upgrade the skills of MEIAD staff in budget monitoring and evaluation.
- ***Carry out a value-for-money analysis to extensively document program impacts and outcomes*** through Public Expenditure Tracking Surveys (PETS) or Benefit Incidence Analyses (BIA) to document detailed information on the movement of funds

and program impacts on beneficiaries at all levels of the agricultural services delivery system.

- ***Improve planning and budgeting by developing and implementing a sector MTEF to detail the cost of programs at all levels and determine funding requirements,*** which will provide the basis for allocating sector resources to investment programs.
- ***Establish an effective mechanism for monitoring disease control and vaccination programs in soums*** to address the weaknesses in the current system of monitoring the vaccination program.

1 INTRODUCTION

1.1 Background, objective and rationale

1. This agricultural sector public expenditure review (AgPER) was carried out as part of the overall agricultural sector review under the auspices of the Department of Strategic Policy and Planning (DSPP) of the Ministry of Industry and Agriculture (MIA) and the World Bank (WB) in Mongolia. During the latter part of 2011, the Government of Mongolia (GoM) requested the World Bank to assist it in carrying out a study of the various agricultural subsidy programs to enable it to understand the impacts of the programs on agricultural development in the country. An initial literature review revealed other issues and knowledge gaps throughout the entire sector. For this purpose, the MIA and WB agreed to look beyond the subsidy issue and expand the scope of the review to other related areas which may also constrain the development of the agriculture sector in the country.

2. The AgPER was, therefore, conceived as one of the studies of the overall agriculture sector review. The WB collaborated with the Food and Agriculture Organization (FAO) of the United Nations in carrying out this AgPER study. The study was, therefore, a collaborative effort of DSPP of MIA, the WB, and FAO. It was undertaken under the overall direction and oversight of the Director General (DG) of the DSPP.

3. The AgPER² study aims to provide policy makers with a better understanding of: (i) trends in the level and composition of public expenditures in agriculture over the past five to ten years; (ii) the economic and functional composition of agriculture expenditures; (iii) an overview of budget processes and performance in the agriculture sector; and (v) issues inhibiting the effectiveness and efficiency of public expenditures in Mongolian agriculture in order to make recommendations for addressing them.

1.2 Approach, methodology and data limitations

4. A two-pronged approach, involving stakeholder consultations and desk review, was used in conducting the review. The study team engaged in consultations with public institutions within and outside MIA, macro level public institutions and Development Partners (DPs) active in the sector.

² The AgPER was conducted in an exceptionally inflationary environment. Inflation pressures continue to build and have averaged around 12.5 percent reflecting expansionary fiscal policy. Consumer price increases remained in double digits during the early part of 2014. The national consumer price index in January 2014 increased by 1.7 percent compared to December 2013, and by 12.3 percent compared to the same period in the previous year the increases in CPI were mainly due to the price increase of food and non-alcoholic beverages by 3.4 percent, transport by 2.5 percent. (Source: National Statistics Office (NSO). Expenditures used throughout the report are in nominal values.

Within MIA, the team interviewed departmental heads as well as two subnational (*aimag*) agricultural institutions. At the macro level, key frontline officials of the Ministry of Finance (MoF), National Statistics Office (NSO), Ministry of Economy and Development (MED), and National Procurement Agency (NPA) were extensively consulted. The team also engaged in discussions with stakeholders in the Ministry of Education and Science (MOES), particularly its Science and Technology Fund (STF)³ department. The aim was to capture *agricultural research expenditures* managed outside MIA. In Mongolia, all the agricultural research institutes are under the MOES, and therefore, receive a substantial proportion of their funds from the MOES budget managed through the Science and Technology Fund. They, however, work under MIA at the operational level.

5. The methodology used in the analysis hinges on identifying evidence of the relative size of the agriculture budget, levels of agricultural expenditures, the composition of agriculture expenditures, and the execution of sector expenditures in order to determine their effectiveness and efficiency. To this end, various key expenditure indicators were computed from different data sources, mainly from the MoF and MIA. The expenditure indicators that were estimated include agriculture expenditure as a share of Gross Domestic Product (GDP), agriculture expenditure as a share of agricultural GDP, spending on agriculture research and development (R&D) as a share of GDP and of agricultural GDP, share of current and capital expenditures in total sector budget, share of wages and nonwage recurrent expenditures to total sector budget, share of allocated funds to approved budget etc.

6. Against the backdrop of the above indicators, the analysis considered the efficiency of expenditures by taking into account spending allocations across sectors through an examination of expenditures on agriculture relative to the major key sectors of the economy. Efficiency of government expenditure on agriculture was undertaken from two perspectives: (i) spending allocations and (ii) technical efficiency. The efficiency of spending allocations was considered through an analysis of the economic and functional composition of sector expenditures.

7. With regard to the economic classification of expenditures, a disaggregation of expenditure data was carried out to ascertain the important components of current and capital expenditures and their respective shares of the sector budget. A functional decomposition of expenditures was also undertaken to ascertain the extent of budgetary allocations to functions such as public goods and other matters. Functional allocations were also aligned with sector objectives and priorities. The approach to the analysis of technical efficiency was mainly based on discussions with the staff of the monitoring and evaluation department of MIA, a review of existing literature, and observations of the mechanism for the implementation of the disease control (livestock vaccination) program in two *aimags* (provinces) of the country. This entailed a discussion with the *aimag* agricultural officials, and the review of available documents on program impacts. Off-budget public expenditure on R&D and

³ The STF is a *ring-fenced fund* financing mainly from the national budget for the purposes of scientific research in several sectors, including agriculture.

expenditures for major donors in the sector was also reviewed. MIA's budget preparation process was reviewed in line with the GoM's budget preparation guidelines and timelines. Finally, international comparison of public expenditures was undertaken to allow for a comparison of Mongolia's public spending on agriculture with countries in the region and elsewhere in the world, particularly countries with similar climatic conditions as Mongolia such as Kazakhstan and the Kyrgyz Republic in order to draw practical lessons for Mongolia.

8. The review was limited by a paucity of expenditure data and related information, particularly at MIA level. At the Ministry level, available expenditure data was not only limited by period (2008-2013), but also by several gaps in the figures provided. In view of this situation, the review relied largely on expenditure figures obtained from the MoF and data from NSO official records, which cover a period of ten years, and blended them with those of MIA. It must be noted that the period of the analysis varies depending on whether data was obtained from MoF or MIA. Where data was obtained from MoF, a ten-year period was considered, and a three-year period or a five-year period was used for data obtained from MIA. Data limitations, coupled with the short duration of the field work, also inhibited the team's ability to undertake a thorough downstream analysis of budget execution performance and outcomes as well as of the technical efficiency of expenditures.

1.3 Structure of the report

9. The report is structured as follows. The Introduction followed by Section 2 provides an overview of government policies and priorities. Section 3 reviews agriculture sector performance by analyzing output by subsector, and the sector's contribution to the national economy in terms of Gross Domestic Product (GDP), including a comparison of agriculture's share of the national budget with those of other sectors of the Mongolian economy. Section 4 analyzes the level and composition of agriculture sector expenditures by looking at trends in budgetary allocations to the agricultural sector in terms of the national budget and GDP. The section also compares Mongolia's spending on agriculture with countries of similar per capita income both in Asia and other regions of the world. Section 5 analyzes the economic composition of Mongolia's agriculture sector expenditures by disaggregating spending into current and capital expenditures and also by comparing these two categories of expenditures to their share of the sector budget. Section 6 introduces the reader to an analysis of the functional composition of sector expenditures from two dimensions (a) the level of budgetary allocations by functional areas such R&D, extension services, and physical infrastructure; subsidies and (b) the alignment of budgetary allocations with sector development priorities. Section 7 provides an overview of the levels of spending on R&D and extension services. Section 8 describes MIA's budget process and performance, which include budget preparation, budget execution, and budget outcomes monitoring. Section 9 provides an overview of the effectiveness and efficiency of public expenditures in agriculture. Section 10 outlines conclusions and policy recommendations drawn from the findings of the review. The annexes provide data sources for both program impacts and core expenditures use for the analysis.

2 OVERVIEW OF GOVERNMENT POLICIES AND PRIORITIES

10. The GoM has positioned agriculture as one of the key pillars of its poverty reduction strategy, as spelt out in the National Development Strategy (*Millennium Development Goals (MDGs)-based Comprehensive National Development, Strategy (MCNDS)* of Mongolia.⁴

11. The MCNDS aims to develop agriculture and the food industry into a modern agricultural and industrial complex by making the two sectors more competitive and productive, increasing overall production and ensuring a sufficient supply of food to meet the needs of the population. It also aims to improve their ability to manage and mitigate risks. Phase1 (2007-2015) of the Strategy outlines the following objectives for agriculture:

- **Strategic objective 1:** Develop both nomadic and intensive animal husbandries taking into account regional peculiarities, outbreak and spread of contagious animal diseases; increase production, processing and export of animal products.
- **Strategic objective 2.** Increase crop-farming production by improving land use, developing irrigation and introducing biotechnology.
- **Strategic objective 3.** Introduce advanced technology in food processing and products' competitiveness.
- **Strategic objective 4.** Improve water supply for crop-farming and pastures; increase water reserves to meet the needs of the rural population:
- **Strategic objective 5.** Revive and develop fodder production by improving fodder quality, nourishment, and increasing its supply and sufficiency:
- **Strategic objective 6.** Introduce advanced technology to protect soil erosion, preserve soil fertility, and reduce the loss of humidity in crop-farming.

12. Phase 2 (2016-2021) builds upon the objectives of phase 1 with two main strategic objectives:

- **Strategic objective 1.** Introduce biotechnology, improve livestock breeds, and increase the volume of crop yield; and
- **Strategic objective 2.** Set proper sanitary and hygienic standards for food production and services at all levels of food consumption; and increase the population's access to safe and sufficient amount of foodstuffs.

⁴ State Great Khural (Parliament) of Mongolia Resolution, RE: Endorsement of the Millennium Development Goals (MDGs)-based Comprehensive National Development Strategy of Mongolia, February 2008, Ulaanbaatar (Phase One; 2007-2015).

13. Based on these MCNDS objectives, the Agricultural Sector Development Strategy Paper (ASDSP) 2006-2016 was developed. The objective of the ASDSP is to (i) achieve competitiveness in changing markets, (ii) reduce vulnerability to risk, and (iii) ensure the sustainability of sector resources. It also outlines key strategic programs and activities to promote growth, increase productivity, and reduce vulnerability. The ASDSP classifies the programs and activities into three main initiatives: (i) livestock subsector initiatives; (ii) crop subsector initiatives; and (iii) sector-wide initiatives.

14. In addition to the MCNDS and ASDSP, the National Program for Food Safety (NPFS) was developed in 2011. The overall objective of this Program is to enable healthy livelihoods by ensuring a sustainable supply of nutritious, hygienically assured, and accessible food to the population by creating locally and internationally competitive food, and building new economic capacity through the creation of a national organic brand of food. The Program consists of four components: (i) create an enabling legal, economic, and organizational environment for ensuring food safety; (ii) ensure a stable supply of nutritious, hygienically assured, and accessible food to the population, and increase the proportion of processed food; (iii) improve the monitoring and information network to ensure the quality of food products and drinking water; and (iv) improve quality of nutritious food by supporting adequate healthy diets to reduce nutrition deficiency, and prevent non-communicable chronic diseases.

15. Finally, a Mongolia Livestock Program (MLP) was prepared recognizing the importance of the subsector to the livelihoods of the herder population and to the overall economy. The objectives of the NLP are to: (i) develop a livestock sector that is adaptable to changing climatic and social conditions and create an environment where the subsector is economically viable and competitive in the market economy; (ii) provide a safe and healthy food supply to the population; (iii) deliver quality raw materials to processing industries; and (iv) increase exports.

16. The above policies and priorities provide the basis for government spending in the agriculture sector, which is the focus of this review.

3 REVIEW OF AGRICULTURAL SECTOR PERFORMANCE

3.1 Agriculture in the context of the national economy

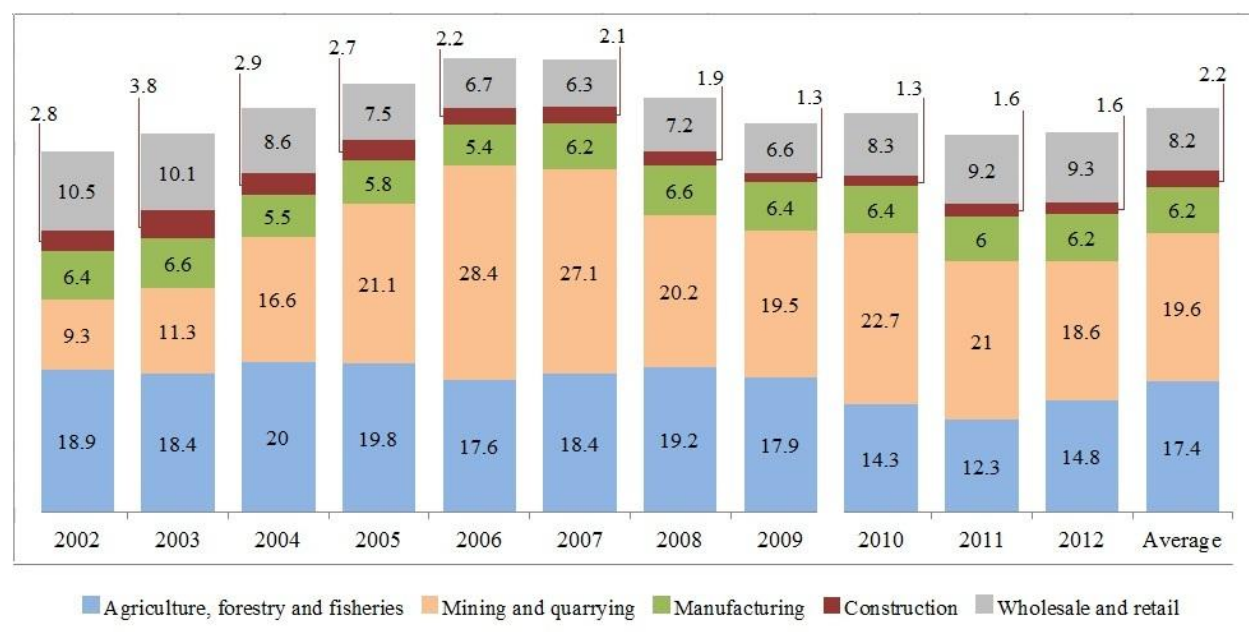
17. **The agriculture sector's contribution to the economy compares favorably with other sectors of the Mongolian economy.** Agriculture, including forestry and fisheries, has contributed an average 17.1 percent of GDP, compared to sectors such as mining and quarrying (19.6 percent), wholesale and retail (8.2 percent), manufacturing (6.2 percent), and construction (2.2 percent) over the past decade. In 2002, agriculture's contribution to GDP (18.9 percent) was higher than wholesale and retail by 8.4 percentage points; mining and quarrying by 9.6 percent; manufacturing by 12.5 percent; and construction by 16.1 percent. Although fluctuating slightly between 2002 and 2005, the sector's contribution increased steadily from 17.6 percent in 2006 and peaked at 19.2 percent in 2008 but fell consistently to 12.3 percent in 2011, driven by the effects



Agriculture has contributed an average 17.1 percent of Mongolia's GDP.

of the *dzud* weather on livestock production (*see annex 3 for details*). Figure 1 reflects the contributions of the respective economic sectors to GDP over the decade from 2002 to 2012.

Figure 1. Trends in sectoral contribution to GDP (%), 2002-2012



Source: Compiled by the authors from National Statistics Office (NSO) official figures, 2013.

18. In absolute terms, agriculture, including forestry and fisheries, contributes an average MNT 674.8 billion to GDP compared with mining and quarrying (MNT678.8 billion) and manufacturing (MNT237.6 billion). Between 2007 and 2009, agriculture overtook these two sectors, but its contribution dropped significantly in 2010 as a result of the effects of the *dzud*, which severely hit the sector. In recent years, agriculture has picked up markedly contributing MNT 801.3 billion to GDP in 2012, compared with mining and quarrying (MNT861.5 billion) and manufacturing (MNT295.2 billion) in the same year. Table 1 shows trends in absolute value contributions, in nominal terms, to GDP by the five major economic sectors over the 2002-2012 period.

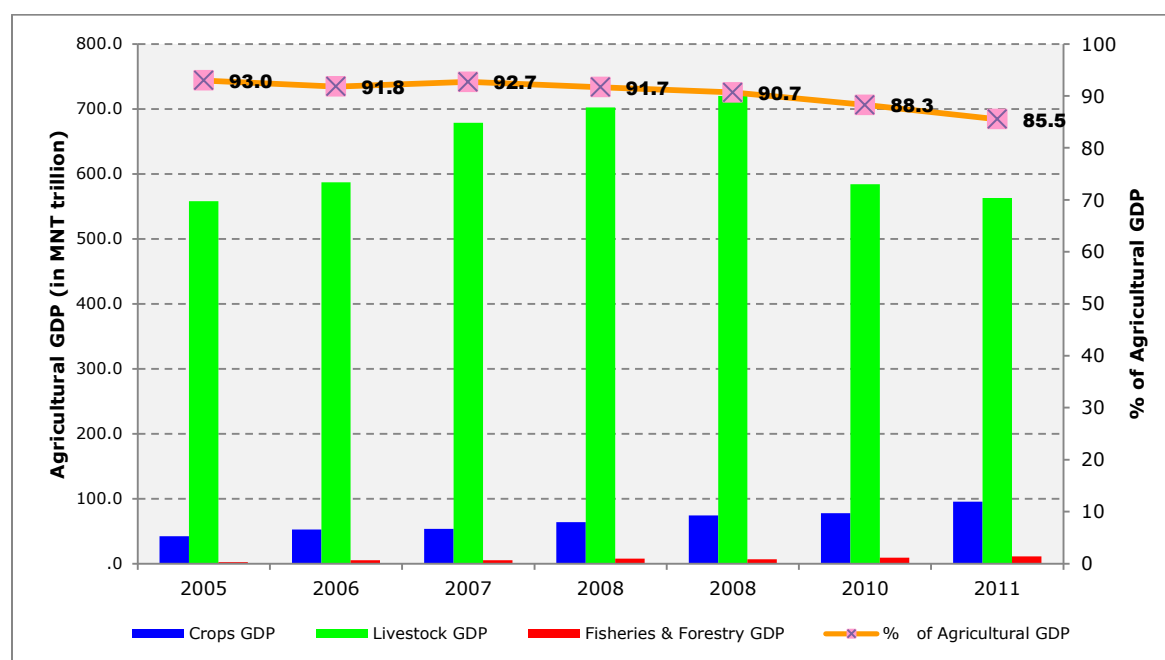
Table 1. Sectoral contribution to GDP, in billions of MNT, 2002-2012

Sector	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average
Agriculture, forestry and fishing	444.3	65.6	41.1	602.1	41.5	34.1	68.4	96.3	64.2	60.7	01.3	74.8
Mining and quarrying	443.1	39	73	42.1	76.2	83.9	72.7	11.5	36.9	91	61.5	78.8
Manufacturing	95.5	24	16.5	75.2	196.7	250.8	257.5	34.3	48.6	69.2	95.2	37.6
Construction	48.9	4.8	0.1	1.4	4.7	0.9	8.4	1.7	0.2	1.7	02.6	7.7
Wholesale and retail	12.2	31.3	20.8	27.5	59.9	74.3	15.5	78.2	87.5	35.8	91.1	32.2
Total GDP	,395.6	,563.4	,835.7	,041.4	,301.6	,640.0	,964.0	,913.7	,162.8	,891.9	,492.7	,395.6

Source: Compiled by authors from NSO official figures, 2013. Note: GDP figures are in nominal values. Total GDP includes other sectors, which are not shown here for ease of comparison. See annex 6 for detailed data from National Statistics Office (NSO).

19. Agriculture's remarkable contribution to the national output has been spurred by performance within the sector – and by livestock in particular. An analysis of the composition of agricultural GDP reveals the dominance of the livestock subsector, which accounted for about 85.5 percent of total agricultural GDP (AgGDP) in 2011 as indicated in the trend line in figure 2 below. Livestock contributed 93.0 percent in 2005, but its contribution fell slightly to 91.8 in 2006 and then increased to 92.7 in 2007. Thereafter, livestock's contribution has been declining steadily from 90.7 in 2008 to 85.5 percent in 2011 as the crop sub-sector's contribution increased. Crops have shown a steady increase in their contribution to AgGDP relative to livestock since. The steady growth in crop output also reflects the GoM's current policy objective of achieving self-sufficiency in food supply in Mongolia as stated in *strategic objective 2* of Mongolia MDG-based Comprehensive National Development Strategy (MCNDS 2008). The GoM has increased investments in irrigation systems and agricultural machinery to support crop production in addition to subsidies. The total number of irrigation systems established from 2008 to 2011 amounted to 215. This effort has led to an increase of 19,800 hectares of area under irrigation over the same period (annex 2). This in turn has also led to an increase in production and supply of major agricultural crops (annex 1). Figure 2 shows recent trends in the composition of AgGDP.

Figure 2. Composition of agriculture sector GDP (2005-2011)



Source: Compiled by authors from National Statistics Office (NSO) data. Note: Figures are in nominal values.

20. In absolute terms, the livestock subsector has historically contributed substantially to AgGDP compared with crops and fisheries subsectors. Livestock alone contributed MNT 557.8 billion in nominal values in 2005; thereafter, its contribution increased steadily to MNT 1,083.0 billion in 2008, but fell to MNT 999.7 billion and MNT 955.7 billion in 2009 and 2010 respectively. The fall in the livestock's contribution to AgGDP was attributable mainly to *dżud* weather, which killed an estimated 10.3 million animals in 2009 and 2010. Table 2 compares the composition of agriculture sector GDP over the period 2005-2011.

Table 2. Composition of agriculture GDP (2005-2011), in billions of MNT

Year	Total Agriculture, Forestry and Fisheries GDP (MNT billion)	Crops GDP (MNT billion)	Livestock GDP (MNT billion)	Forestry GDP (MNT billion)	Fisheries GDP (MNT billion)	Total Forestry & Fisheries	Agriculture GDP (excluding forestry & fisheries)
2005	602.1	42.1	557.8	2.1	0.12	2.2	599.9
2006	710.6	87.5	618.0	5.1	0.11	5.2	705.4
2007	913.4	92.0	816.1	5.3	0.73	5.3	908.1
2008	1,259.7	169.1	1,083.0	7.6	0.18	7.6	1,252.1
2009	1,177.4	204.1	966.7	6.5	0.267	6.6	1,170.8
2010	1,202.2	237.1	955.6	9.4	0.23	9.4	1,192.7
2011	1,365.1	263.3	1,090.5	11.3	0.1590	11.3	1,353.9

Source: NSO figures were only for the period 2005-2011. GDP figures are in nominal values.

21. **The share of agriculture's budget allocation is relatively low.** Agriculture's share of the national budget has been fairly stable over the period 2004-2013, and has averaged only 2.4 percent, 1.7 percentage points less than mining, manufacturing and construction (4.1 percent). It is higher or equal to energy and heating (2.4 percent), greater than transport and communication and housing and community amenities by 1.1 and 1.4 percentage points respectively. Table 3 shows percentage allocations of the national budget by sector.

Table 3. Sectoral comparison of the national budget (% of total government expenditure), 2004-2013

SECTORS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
GENERAL PUBLIC SERVICES	7.8	7.7	9.4	8.0	6.4	8.9	11.2	7.9	17.8	16.3	10.1
DEFENSE	4.1	4.2	3.5	3.5	3.2	3.2	3.2	2.9	3.3	2.8	3.4
PUBLIC ORDER AND SAFETY	5.4	5.7	4.8	5.4	8.9	5.1	4.6	4.3	4.4	4.7	5.3
EDUCATION	17.6	17.7	15.1	13.6	12.5	15.8	14.8	12.2	14.6	20.0	15.4
HEALTH	10.0	10.0	8.2	8.1	8.7	10.2	10.0	8.5	8.9	8.3	9.1
SOCIAL SECURITY AND SOCIAL WELFARE	18.3	21.0	19.7	20.1	24.6	27.3	30.7	31.6	31.2	19.5	24.4
HOUSING AND COMMUNITY AMENITIES	0.9	0.6	0.4	0.4	0.3	0.3	2.6	2.3	0.8	1.3	1.0
RECREATIONAL AND SPORTING, CULTURAL SERVICES	2.6	2.3	1.4	1.8	1.5	1.6	1.5	1.5	1.2	1.5	1.7
ENERGY, HEATING	3.1	2.4	3.0	1.7	2.0	1.5	2.7	3.4	2.6	1.9	2.4
AGRICULTURE, FORESTRY	1.6	1.6	1.4	1.8	2.8	2.5	3.4	4.5	2.1	2.0	2.4
MINING, MANUFACTURING AND CONSTRUCTION	3.3	3.7	3.5	2.7	3.0	3.8	6.4	11.9	1.2	1.2	4.1
TRANSPORT & COMMUNICATION	0.3	0.3	2.6	2.1	0.5	1.2	1.4	1.3	1.2	2.3	1.3
OTHER ECONOMIC ACTIVITY	1.4	1.3	9.4	19.8	17.2	10.6	3.2	3.6	2.6	3.6	7.3
OTHER UNCLASSIFIED EXPENDITURES	23.6	21.4	17.7	11.0	8.3	8.0	4.4	4.0	8.1	14.6	12.1

Source: Authors' own estimates from MoF expenditure data. Note: expenditure figures are in nominal values.

22. Over the same period, agriculture's share of the national budget, in absolute terms, has averaged MNT 90.4 billion compared with sectors such as mining, manufacturing and construction (MNT138.3 billion), energy and heating (MNT84.7 billion), transport and communication (MNT53.8), and housing and community amenities (MNT42.9 billion). Table 4 compares the allocation of the national budget by sector from 2004 to 2013.

23. In spite of the limited investments, MNT90.4 billion (US\$512.8million) as noted in table 4 above, compared with US\$1.6 billion in Kazakhstan, agriculture continues to perform reasonably well. Its contribution to GDP has remained stable and has even overtaken some sectors. More investment is likely to spur additional growth.

Table 4. Sectoral allocations of the national budget (2005-2013), in MNT billion

SECTORS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
GENERAL PUBLIC SERVICES	62.1	66.0	120.2	153.2	179.3	231.0	383.2	418.3	1,243.4	1,498.5	435.5
DEFENSE	32.8	35.6	44.7	66.6	91.0	84.5	109.6	155.0	233.6	258.7	111.2
PUBLIC ORDER AND SAFETY	42.9	48.7	60.9	103.4	250.4	132.5	158.0	230.5	307.5	432.8	176.8
EDUCATION	140.2	150.9	192.7	260.8	354.2	409.9	507.2	647.2	1,020.1	1,836.7	552.0
HEALTH	79.3	85.4	104.8	155.5	245.9	266.5	342.5	452.8	623.1	765.3	312.1
SOCIAL SECURITY AND SOCIAL WELFARE	145.3	179.8	251.6	384.5	695.2	709.1	1,054.3	1,677.7	2,180.5	1,789.8	906.8
HOUSING AND COMMUNITY AMENITIES	7.1	5.3	5.5	7.0	9.1	9.1	90.1	123.8	56.4	115.7	42.9
RECREATIONAL AND SPORTING, CULTURAL SERVICES	20.6	19.4	17.8	34.6	43.6	41.8	51.2	80.6	81.9	141.1	53.3
ENERGY, HEATING	24.9	20.6	38.4	31.7	56.3	37.8	93.1	181.6	183.8	178.8	84.7
AGRICULTURE, FORESTRY	12.5	13.8	17.9	35.0	78.1	66.1	116.3	239.8	143.6	181.0	90.4
MINING, MANUFACTURING AND CONSTRUCTION	26.3	32.0	44.9	52.7	85.7	99.7	218.5	633.3	81.4	108.9	138.3
TRANSPORT & COMMUNICATION	2.7	2.8	33.6	41.2	14.5	30.1	46.4	71.6	82.6	212.7	53.8
OTHER ECONOMIC ACTIVITY	10.9	11.3	119.7	379.5	484.4	274.7	109.6	191.0	180.2	334.6	209.6
OTHER UNCLASSIFIED EXPENDITURES	187.3	182.8	227.1	211.6	235.0	208.5	152.4	214.0	568.4	1,342.7	353.0
TOTAL	794.9	854.4	1,279.8	1,917.3	2,822.7	2,601.3	3,432.4	5,317.2	6,986.5	9,197.3	3,520.4

Source: Compiled by authors from Ministry of Finance (MoF) expenditure data. Note: Expenditure figures in nominal values

3.2 Trends in gross agricultural output

24. The Mongolian agriculture sector has witnessed a remarkable performance in recent years after having been hit by the *dzud* weather in 2009/2010 (see annex 1 for detailed data on key agricultural outputs). As shown in figure 3, gross agricultural output increased by 30.4 percent from MNT 1,297.5 billion in 2007 to MNT 1,691.6 billion in 2008. Thereafter, growth in output slowed down by an average 1.8 percent between 2008 and 2010. But it picked up significantly by 17.2 percentage points from MNT 1,752.5 billion in 2010 to MNT 2,053.7 billion in 2011. Overall, there has been a steady growth in output although that growth was slow between 2009 and 2010 due to a drop in livestock production from MNT 1,307.7 in 2009 to MNT 1,290.7 in 2010. The livestock subsector revamped after the *dzud* as a result of the implementation of the GoM's policy measures through investments in animals and through the implementation of the MLP(see annex 3), and targeted subsidies and transfers managed mainly through the

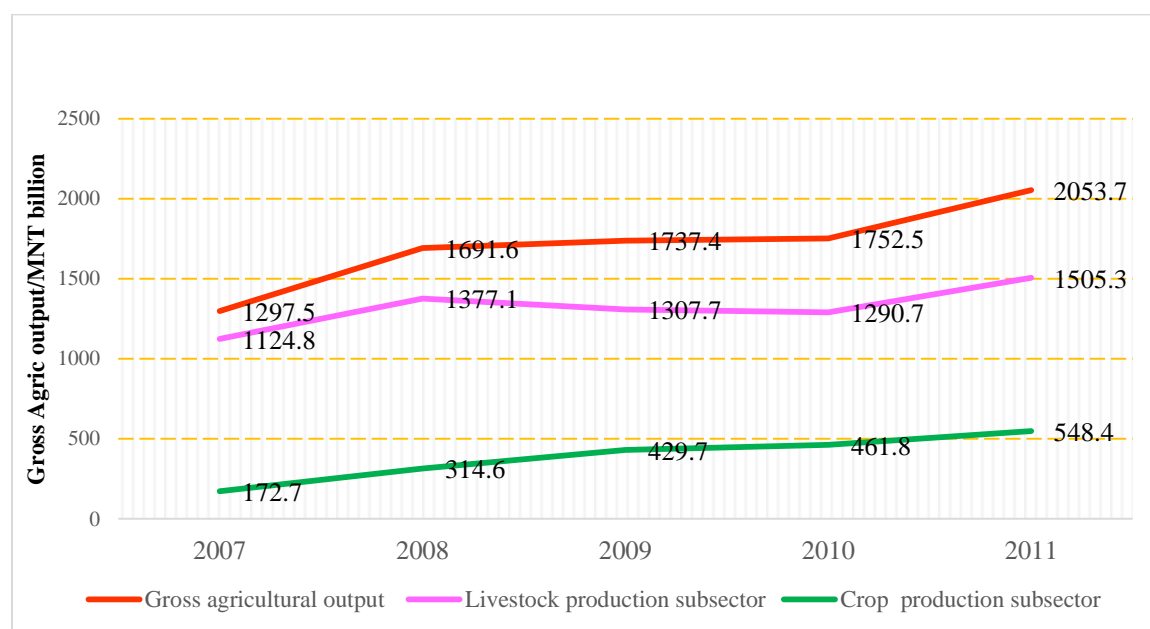


Mongolia's agriculture sector has witnessed a remarkable performance in recent years.

Livestock Conservation Fund (LCF).⁵ Gross livestock output rose from MNT 1,290.7 billion in 2010 to MNT 1,505.3 billion in 2011, representing an increase of about 16.6 per cent.

25. The positive trend in gross agricultural output has also been boosted by a sustained increase in crop production. Although crop production represents a smaller percentage of the gross agricultural output than livestock production, it has grown steadily over the same period. Crop output increased from MNT 172.7 in 2007 to MNT 548.4 in 2011 (figure 3). This performance of the crop sector is attributable to the GoM's recent agriculture support policies mainly through subsidies and transfers to major crops such as wheat, managed through the Crop Protection Fund (CPF) at MIA.⁶ Over the period, the GoM dramatically increased subsidies expenditures (see section 5.1 for a detailed analysis of composition of current expenditures). The GoM has also provided technical support in the form of subsidized soft loans for the acquisition of machinery and inputs, including adoption of new technologies to increase agricultural productivity all in fulfillment of the **Government's** objective of attaining food self-sufficiency (see Annex 1 for data on production and supply of major crops supported by the GoM). Overall, these policies seem to be working well, with positive trends in gross agricultural output of the two subsectors (figure 3).

Figure 3. Gross agricultural output in MNT billion, 2007-2011



Source: Compiled by authors from Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012. Note: Expenditure figures in nominal values

⁵ See a separate report on subsidies for a detailed discussion of the LCF by Kisan Gunjal and Charles Annor-Frempong.

⁶ See a separate report on subsidies for a detailed discussion of the CPF by Kisan Gunjal and Charles Annor-Frempong

4 LEVEL AND COMPOSITION OF AGRICULTURAL EXPENDITURES

4.1 Trends in Agriculture Sector Expenditures

26. **A great number of government agencies and institutions benefit from public sector resource allocation.** In Mongolia, MIA is responsible for managing agriculture sector expenditures. In addition, other autonomous and semi-autonomous agencies such as the State Property Committee (SPC), the Department of Veterinary and Animal Breeding (DVAB), the National Animal Gene Bank (NAGB), the Interprovincial Pastureland Management Authority (IPPMA), the National Agricultural Extension Center (NAEC), the Crop Production Support Fund (CPSF), the Livestock Conservation Fund (LCF), the State Central Laboratory for Veterinary and Sanitary Service (SCLVSS), the State Veterinary Laboratory for Certification of Veterinary Drugs and Vaccines (SLCVDV), and the Small and Medium Enterprises Agency (SMEA) received agriculture-related public expenditures. Expenditures on these institutions go to support agricultural policy development, management and coordination. Budgetary allocations to these activities, excluding donor funding, increased from MNT 6.2 billion in 2008 to MNT 12.0 billion in 2013. The 21 provincial (*aimag*) agricultural departments (PAD) and 330 *soums* benefit from public expenditures in agriculture (see section on paragraph 32 below).

27. The total allocations to agricultural policy development, management, and coordination are distributed among the agencies mentioned above. Of these agencies, the SMEA received an average of 58.8 percent of the total budget for agricultural policy development, management, and coordination over 2008-2013 period, followed by MIA (24.6 percent). These two agencies together received an average of 78.6 percent of the total budget over the same period. The rest of the agencies received an average less than 10 percent during the period under review.⁷ In 2013, the highest recipients of the sector budget were SMEA (52.1 percent) and MIA (24.6). The largest share of SMEA signifies the GoM's policy direction of encouraging investments in small and medium enterprises in the agricultural sector as stated in the MCNDS. Table 5 shows trends in budgetary allocations to key agricultural institutions/agencies over the period from 2008 to 2013.

⁷Expenditure data provided by Finance and Investment Division (FID) of MIA were over 2008-2013 period.

Table 5. Trends in budget allocations to departments/agencies, in MNT '000, and as a percentage of total budget, 2008-2013

Agency/Department	2008	Share of (%)	2009	Share of (%)	2010	Share of (%)	2011	Share of (%)	2012	Share of (%)	2013	Share of (%)	Average
SPC	-	-	-	-	-	-	-	-	1,302,877	12.7	989,873	7.9	3.4
VSL	84,000	4.6	84,646	4.4	304,903	4.6	76,079	4.9	47,970	4.4	546,787	4.4	4.5
CTVVM	196,100	3.2	191,298	3.0	77,213	3.1	225,956	2.9	296,640	2.9	389,925	3.1	3.0
CLG	102,400	1.7	95,548	1.5	117,893	1.8	140,870	1.8	177,487	1.7	188,398	1.5	1.7
MP	97,800	1.6	77,096	1.2	93,832	1.4	128,238	1.7	211,894	2.1	215,598	1.7	1.6
AEC	172,600	2.8	141,514	2.2	178,336	2.7	213,562	2.8	279,243	2.7	305,644	2.5	2.6
IA	1,462,500	23.8	1,933,762	30.0	1,697,359	25.4	1,752,586	22.7	2,283,537	22.3	3,068,057	24.6	24.8
BA	-	-	163,315	2.5	166,523	2.5	204,255	2.6	282,733	2.8	330,311	2.7	2.2
VC	368,000	6.0	300,169	4.7	318,371	4.8	362,268	4.7	443,525	4.3	488,661	3.9	4.7
MEA	3,468,600	56.4	3,266,126	50.6	3,588,906	53.8	4,330,879	56.0	5,527,880	54.0	6,487,806	52.1	53.8
PSM	-	-	-	-	-	-	-	-	294,268	2.9	432,976	3.5	1.1
total	,152,000	100	,453,475	100	,673,342	100	,734,697	100	0,245,179	100	2,454,168	100	

Source: Compiled by authors with expenditure date from FID, MIA. Note: expenditures are in nominal values.

Note: SPC =State Property Committee; DVAB= Department of Veterinary and Animal Breeding; NAGB=National Animal Gene Bank; IPPMA=Interprovincial Pastureland Management Authority, National Agricultural Extension Center (NAEC); CPSF=Crop Production Support Fund, LCF= Livestock Conservation Fund; SCLVSS =State Central Laboratory for Veterinary and Sanitary Service; SLCVDV=State Veterinary Laboratory for Certification of Veterinary Drugs and Vaccines, and SMEA=Small and Medium Enterprises Agency.

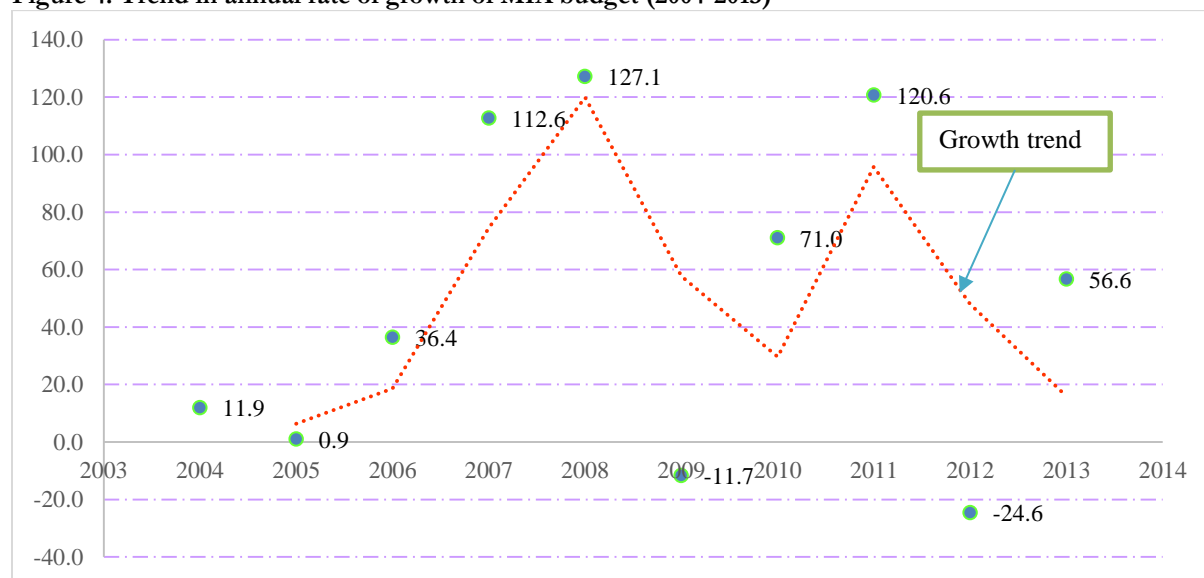
28. MIA budget statements do not reflect how budget is allocated to the different departments and divisions within the Ministry, which receives a single annual lump sum allocation. This makes it difficult to establish how much was allocated to the various administrative departments and divisions that constitute MIA. For effective planning, budgeting and expenditure management, and to improve transparency and accountability of sector resources, MIA must show clearly in its annual budgets the amount of budgetary allocations to its own departments and divisions.

29. **Over the past ten years (2004-2013)⁸ annual growth in budgetary allocations to MIA have been largely positive.** Aside from fiscal year 2009 and 2012, when the Ministry's approved budget decreased by 11.7 and 24.6 percent respectively, the annual growth rate of the approved budget has been consistently positive, albeit volatile, with the highest growth occurring in fiscal year 2008. In 2004, the agriculture budget grew by 11.7 percent. This rate of growth declined to 0.9 percent in 2005, increased to 36.4 percent in 2006, 112.6 percent in 2007, and 127.1 percent in 2008. In 2009, the rate of growth fell to 24.6 percent. Thereafter, it rose to 71.0 percent in 2010 and to

⁸ Most expenditure data from MoF spans over ten years.

120.6 percent in 2011, fell to 24.6 percent in 2012, and rebounded to 56.6 percent in 2013. The AgPER team could not obtain reasons for the volatile trend of the annual growth rate of the budget, but recent increases in subsidies and transfers expenditures could be the key factor for this trend. An analysis of agricultural sector subsidies conducted as part of the overall sector review shows that subsidies to key subsectors averaged as follows: crops (15%), wheat (50%), and livestock (4%) over the period 2008-2012 (see annex 3 for analysis table).⁹ Figure 4 shows the annual growth rate of budgetary allocations to MIA.

Figure 4. Trend in annual rate of growth of MIA budget (2004-2013)

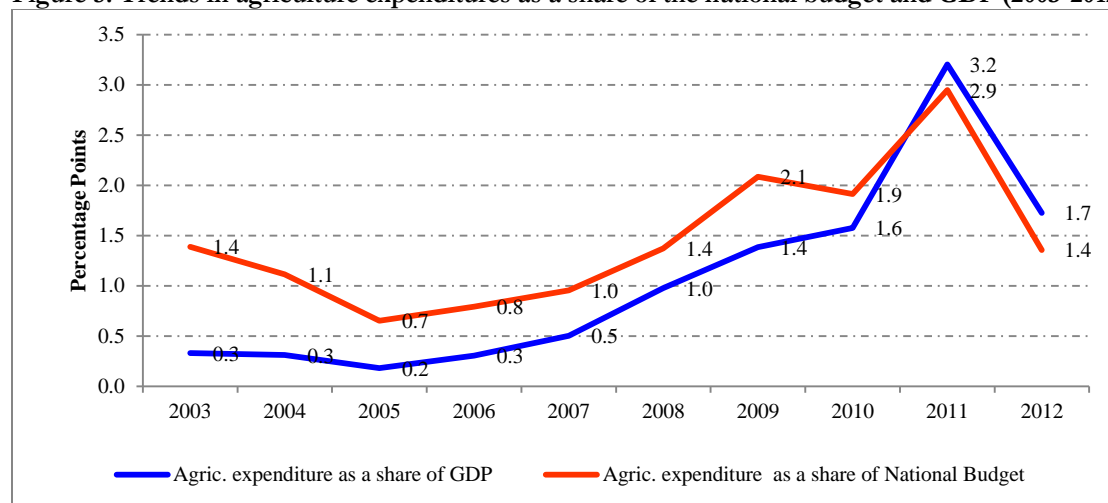


Source: Compiled by authors from MoF expenditure database

30. Budgetary allocations to agriculture are small relative to the national budget and GDP. In 2012, the share of the national budget allocated to agriculture, excluding forestry and fisheries, was about 1.4 percent. Between 2003 and 2012, agriculture's share of the national budget fluctuated, with the largest share (2.9 percent) occurring in 2011. Similarly, agriculture expenditure as a share of GDP has been relatively low over the same period. In 2012, agriculture expenditure as a percentage of GDP was only 1.7 percent, a decline from 3.2 percent in 2011. Figure 5 shows trends in agriculture expenditure as a share of the national budget and as a percentage of GDP.

⁹ Gunjal K. and Annor-Frempong C "Mongolia Agriculture Sector Review: Review, Estimation and Analysis of Agricultural Subsidies in Mongolia, December 2013"

Figure 5. Trends in agriculture expenditures as a share of the national budget and GDP (2003-2012)



Source: MOF and NSO. Note: GDP figures are up to 2012.

31. Public spending on agriculture is low relative to comparable middle income countries in Asia and elsewhere. To inform policy makers about the level and size of government spending on agriculture by international standards, the AgPER team estimated Mongolia's key agricultural expenditure performance ratios and compared them with eight other countries in Asia and elsewhere: China, Philippines, Sri Lanka, Namibia, Cape Verde, and Paraguay. Each of them spends a higher percentage of their total GDP on agriculture than Mongolia. Also, Mongolia spends a lower percentage of its national budget on agriculture than India, China, Philippines, Sri Lanka and Thailand despite having relatively a higher agricultural value-added.¹⁰ In relation to AgGDP, Mongolia spends less on agriculture than all the countries. Table 6 provides Mongolia's expenditure performance ratios with comparable countries around the world.



Mongolia's public spending on agriculture is low relative to comparable middle income countries in Asia and elsewhere.

¹⁰ Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.

Table 6. International comparison of public expenditures on agriculture

Country	Agriculture expenditure (% of national budget) 2007	Gov't expenditure on Agriculture (% of GDP) 2007	Gov't expenditure on agriculture (% of Agriculture GDP) 2008	Gov't expenditure on R&D % of Agricultural GDP	Agriculture GDP % of GDP	Agriculture Value added % of GDP 2003-2012	Income per capital 2012
India	5.0	1.0	205.9	0.3	2.5	17.6	1,530
China	6.8	6.0	20.9	0.4	3.7	10.0	5,740
Philippines	5.2	3.0	4.4	0.4	2.4	13.0	2,470
Mongolia	1.4	1.7	0.5	0.5	0.2	17.0	3,160
Sri Lanka	4.4	3.0	8.4	0.6	1.4	12.0	2,920
Thailand	6.6	3.0	12.9	0.0	1.8	12.0	5,210
Namibia	-	5.0	13.8	0.5	3.9	8.0	5,670
Cape Verde	-	2.0	12.6	2.7	2.6	10.0	3,810
Kazakhstan		4.4	16.4	-	4.7	5.0	9,780
Kyrgyz Republic	-	2.4	1.9	-		20.0	6,691
Paraguay	-	2.0	6.8	0.0	2.9	17.0	3,290

Source: Comparable countries data from WDI, IFPRI (2011 figures). Note: figures for Mongolia are authors' own estimates from National Statistics Office (NSO) and MoF data (2012).

32. **Budgetary allocations are concentrated at the center.** Total budgetary allocations to the 21 *aimags* and the city of Ulaanbaatar amounted to MNT 4.6 billion in 2013, representing 1.6 percent of the total agriculture sector budget, compared with MNT 13.4 billion for MIA and the autonomous agencies. Most of this budget will be executed by the *aimags* through the Local Development Fund (LDF) as stated in the new Integrated Budget Law (IBL).¹¹ Table 7 shows the budgetary allocations to the 21 *aimags* and Ulaanbaatar in 2013.

¹¹ The IBL was passed by parliament on December 23, 2011. Its main objective is to ensure fiscal stability, enhance efficiency and predictability of resource allocation, and increase citizens' participation in the annual budgeting process (Lkhagvadorj A. "An Analysis of the New Budget Law of Mongolia, 2011". National Academy of Governance, Ulaanbaatar, April 26 2012.

Table 7. Budgetary allocations to provincial governments (in MNT billion), 2013

NO.	AIMAG	2013	% OF TOTAL
1	Arkhangai	209.5	4.6
2	Bayan-Ulgii	231.9	5.1
3	Byankhongor	193.0	4.2
4	Bulgan	243.3	5.3
5	Gobi-Altai	230.2	5.0
6	Dorno-Gobi	161.3	3.5
7	Dornod	204.2	4.5
8	Dund-Gobi	227.8	5.0
9	Zavkhan	247.1	5.4
10	Uvurkhangai	180.4	3.9
11	Umnugobi	179.6	3.9
12	Sukhbaatar	263.2	5.7
13	Selenge	205.2	4.5
14	Tuv	218.9	4.8
15	Uvs	244.5	5.3
16	Khovd	199.3	4.4
17	Khuvsugul	240.0	5.2
18	Khentii	236.1	5.2
19	Darkhan-Uul	139.0	3.0
20	Ulaanbaatar	344.7	7.5
21	Orkhon	98.8	2.2
22	Gobi-Sumber	82.9	1.8
TOTAL EXPENDITURE (AIMAG)		4,580.9	100.0

Source: FID, MIA. Note: Only 2013 provincial budget figures were available. Note: Expenditure figures are in nominal values.

33. **Over the medium term, public spending on agriculture is projected to fall.**

According to the Medium-Term Fiscal Framework (MTFF)¹² figures for 2014 provided by the MoF, overall government expenditure on agriculture in 2014 is expected to fall by 0.13 percent from 2013. The reasons for the expected fall in the agriculture budget were not readily known at the time of the review. But, several factors, including the current fiscal



outlook of the Mongolian economy may have accounted for the projected decline in expenditures. According to the International Monetary Fund (IMF) staff report issued in November 2012, the GoM's overall fiscal balance deteriorated by 5.3 percent of GDP in 2011, to a deficit of 4.4 percent of GDP.¹³ The World Bank Economic Update for Mongolia in April 2013 affirmed this decline in the GoM's fiscal balance. According to the report, the fiscal balance significantly worsened to a record deficit of 8.4 percent of GDP in 2012. Given the challenging fiscal outlook currently confronting Mongolia, it is important for MIA to improve its resource allocation and expenditure management to avoid further reductions of its budget by the MoF. MIA should also consider reducing subsidies in favor of investments that enhance agriculture productivity.

Given the challenging fiscal outlook confronting Mongolia, public spending on agriculture is projected to fall.

¹² The GoM uses the term Medium-term Fiscal Framework, which is synonymous to Medium-term Expenditure Framework (MTEF).

¹³ Mongolia, 2012 Article IV Consultation and Third Post-program Monitoring, IMF Country Report No. 12/320.

5 ECONOMIC COMPOSITION OF AGRICULTURAL EXPENDITURES

34. Resources are said to be efficiently allocated when spending is directed to priority programs, particularly those that spur pro-poor growth. The analysis of allocative efficiency is determined by the assessment of economic and functional composition of expenditures. To determine the economic composition of public expenditures in the agriculture sector, expenditures are classified into current and capital expenditures in line with standard classification of expenditures by Mongolian Ministry of Finance. The following two sections provide an analysis of economic composition (current and capital expenditures) of agricultural expenditures in Mongolia, including external support to agriculture in the country.

5.1 Analysis of current expenditures

35. The GoM's nomenclature for expenditure disaggregates current expenditures into the wage bill (basic salaries, wages and supplementary, salaries for structural changes, wages for contracted out services, compensation for transportation and meals, and performance bonuses) and non-wage current expenditures (goods and services, employers social security contributions, other goods and services expenditures etc.). An in-depth analysis of current expenditures show that MIA's wage bill increased steadily from MNT 0.55 billion in 2003 to MNT 9.29 billion in 2013, an increase of about 83 percent. This is fueled mainly by a steady increase in basic salary and salaries for contracted staff. These two components of the current expenditure alone accounted for over 94.4 percent of the wage bill in 2013. Table 8 provides trends in the composition of recurrent budget allocation over the period 2003-2013.

Table 8. Trends in MIA recurrent budget allocation (in MNT billion), 2003-2013

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Goods and services expenditures	9.23	10.08	10.37	10.81	14.04	31.28	34.53	42.87	51.53	37.41	50.35
Salary, wages and supplementary	0.55	0.69	0.73	1.01	1.42	2.99	3.52	3.91	4.65	7.19	9.29
Employers' insurance contribution	0.14	0.18	0.19	0.27	0.38	0.29	0.39	0.43	0.52	0.80	1.03
Expenditure on other goods and services	8.43	9.19	9.44	9.55	11.96	27.99	30.62	38.53	46.26	29.42	40.03
Payment for services provided by private sector	-	-	-	-	0.16	9.90	17.69	10.56	6.92	5.41	3.06
Subsidies and transfers	0.51	0.38	0.38	0.61	0.64	8.49	19.25	16.44	72.11	59.25	68.33
Total current Expenditures	9.29	10.12	10.41	10.88	14.10	39.76	53.7	59.30	123.64	96.66	118.68

Source: MoF and MIA. Note: Expenditure figures in nominal values

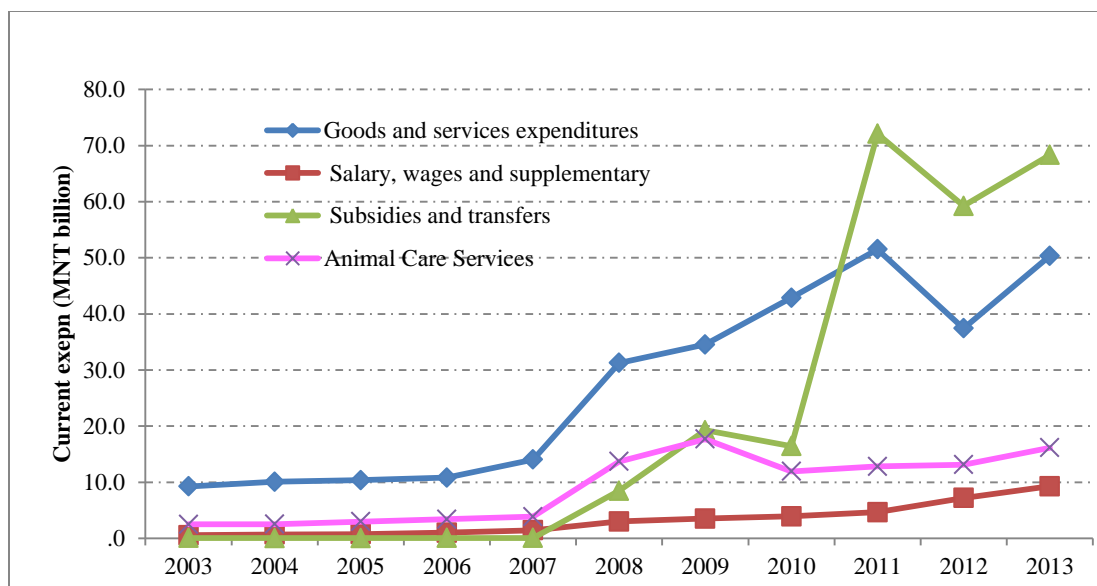
36. A closer examination of the major components of the current expenditures (salaries, goods and services, animal care services¹⁴ and subsidies and transfers) reveals that in recent years current expenditures have been geared more towards the provision of subsidies and transfers than for other important current expenditures such as goods and services that would otherwise support improvement in service delivery. In 2003, expenditures on goods and services constituted over 99.5 percent of total recurrent budget, compared with wages and salaries (5.8 percent) and subsidies and transfers (0.5 percent). Between 2003 and 2013, the share of spending on goods and services declined from 99.5 percent of total current expenditures to 42.4 percent. During that same decade, expenditures on subsidies and transfers increased from 0.5 percent to 57.6 percent of total current expenditures. Similarly, expenditures on subsidies and transfers for mainly wheat subsidies and output-based payments and technical assistance to wheat farmers through loans and grants far outweighs the wage bill, although the latter has been increasing consistently over the same period. Subsidies and transfers are also higher than animal care services in spite of the fact that the livestock subsector is the largest agricultural sub-sector, and disease prevalence is a major constraint to the export of livestock products – thereby limiting its potential contribution to the economy. Figure 6 shows trends in the four major components of the current expenditure.



Animal care services are essential, as the livestock subsector is the largest agricultural sub-sector in Mongolia.

Figure 6. Comparison of major components of the current expenditure (2003-2013)

¹⁴ Animal care services comprise outlays on vaccines, veterinary services, and private services providers.



Source: Compiled by authors from MoF expenditure database. Note that expenditures are in nominal values.

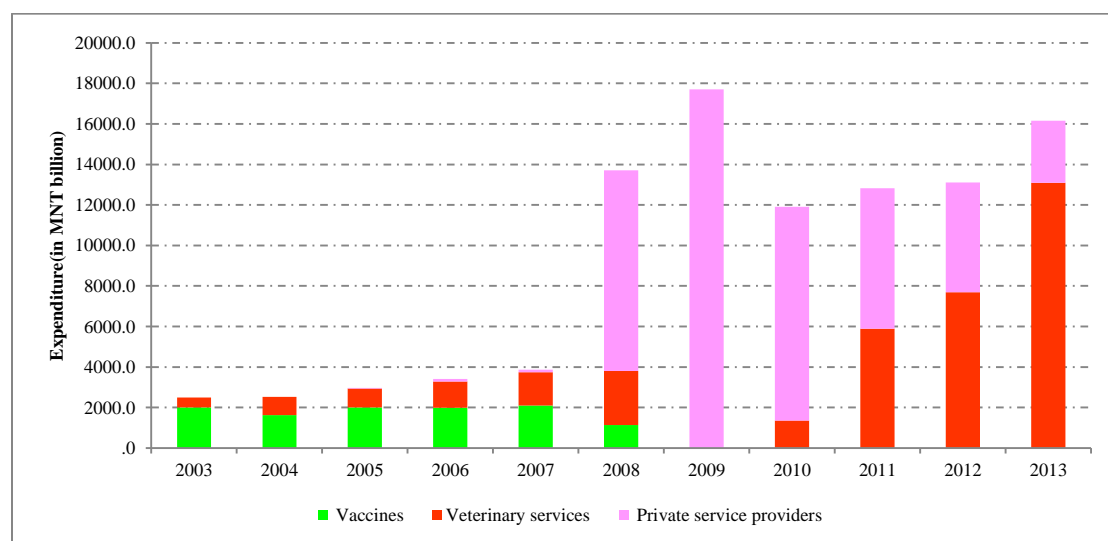
37. Figure 6 also shows that subsidies and transfers started rising in 2007, with the most dramatic rise occurring in 2011. The increased subsidies and transfers are mainly due to the government's policy of supporting crop and livestock production, including providing support to agro-based enterprises and wheat farmers, following the all-time low production of major crops such as wheat between 2005 and 2007, and the impact of the global food crisis on Mongolia in 2008. Taking into consideration the performance of the crop and livestock sector as indicated in section 3 above, and relatively higher agricultural output, the subsidy program has made a positive difference (Figure 3 above). But, the GoM needs to strike a balance between spending on subsidies and transfers and other important current expenditures, in particular those that address market constraints and support the provision of public goods.

38. **Disease control and eradication expenditures are difficult to track.** The disaggregation of the three main expenditure categories for animal care services—vaccines, veterinary services, and private service providers—reveals that funding for vaccines was discontinued after 2008. In fact, according to available expenditure data in MoF there is *no* record of budgetary allocations for vaccines between 2009 and 2013. The AgPER team uncovered no explanation regarding the gap in figures for vaccines. But, weaknesses in financial management analytical capacity of the Finance and Investment Division (FID) of MIA may account for the weaknesses in reporting expenditures to the MoF. The division lacks staff with the requisite capacity to undertake expenditure analysis, thereby impacting on documenting and accounting for sector expenditures.

39. The underreporting and lack of proper documentation of expenditures on vaccines is more pronounced when one compares trends in spending on vaccines with those of private veterinary service and other providers. As shown in figure 8 below, allocations for vaccines were only recorded

from 2003 to 2008. Spending on veterinary services dominated animal care services expenditures over the period under review, with the exception of 2009, when there were no records on veterinary services expenditures. It was not clear whether there were allocations to private service providers between 2003 and 2004. But, spending on private service providers continued, thereafter, and in fact, was the only item whose expenditure (MNT17.7 billion) was recorded in 2009. In 2013, private service providers were allocated (MNT13.1 billion) compared to MNT 3.1 billion for public veterinary services. The AgPER team could not authenticate this pattern of expenditure at MIA due to the dearth of expenditure data in the FID of the DSPP, which is mainly due to the reasons stated above.

Figure 7. Trends in budgetary allocations to animal care services (2003-2013), MNT billion

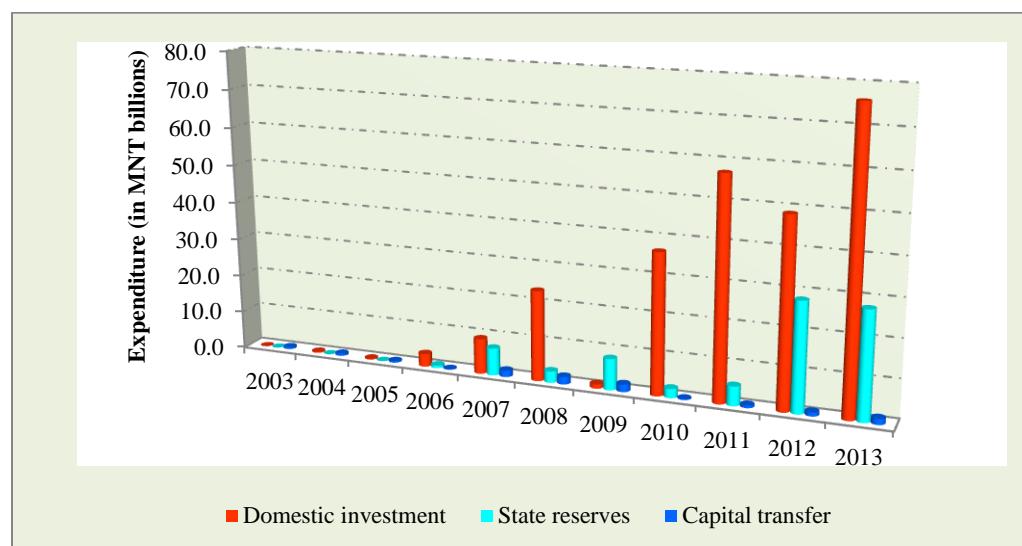


Sources: Authors' own estimates based on expenditure data from MoF.

5.2 Analysis of capital expenditures

40. **MIA has witnessed a steady growth in capital expenditures over the past ten years.** The capital budget increased from MNT 560.0 million in 2003 to MNT 186.2 billion in 2013. Major components of capital expenditures are (i) domestic investment; (ii) state reserves; and (iii) capital transfers. In 2013 domestic investment alone amounted to MNT 76.2 billion (40.9 percent) of the total capital budget, a significant increase from only MNT 0.10 billion (1.8 percent) of the capital budget in 2003. State reserves, mainly wheat reserves, accounted for MNT 28.0 billion (15 percent) of the total capital budget while capital transfers constituted only MNT 1.5 billion (0.8 percent) of the capital budget in 2013. Figure 8 presents trends in the major components of the capital expenditures over the period 2003-2013.

Figure 8. Trends in allocation of major components of MIA's capital budget, (in MNT billions), 2003-2013



Source: Compiled by authors from MoF expenditure data. Note: Expenditures are in nominal values

5.3 Capital expenditures vs. current expenditures

41. **Over time, capital expenditures have more than doubled compared with current expenditures.** A comparison of capital expenditures with current expenditures shows a steady and significant growth in capital expenditures over the past decade. In 2003, capital expenditures amounted to MNT 21.4 billion (43.3 percent of total expenditure) while MNT 27.9 billion (56.7 percent of total expenditure) was allocated to current expenditures.¹⁵ From 2003 to 2013, and from 2009 to 2013 in particular, capital expenditures more than doubled. In 2013, 74.9 percent of the total expenditures went into financing capital expenditure items compared to only 25.1 percent for current expenditures. In absolute terms, capital expenditures amounted to MNT 1,079.9 billion compared to MNT 362.4 billion for current expenditures in 2013. The consistent increase in capital expenditures provides the justification for the GoM's commitment to



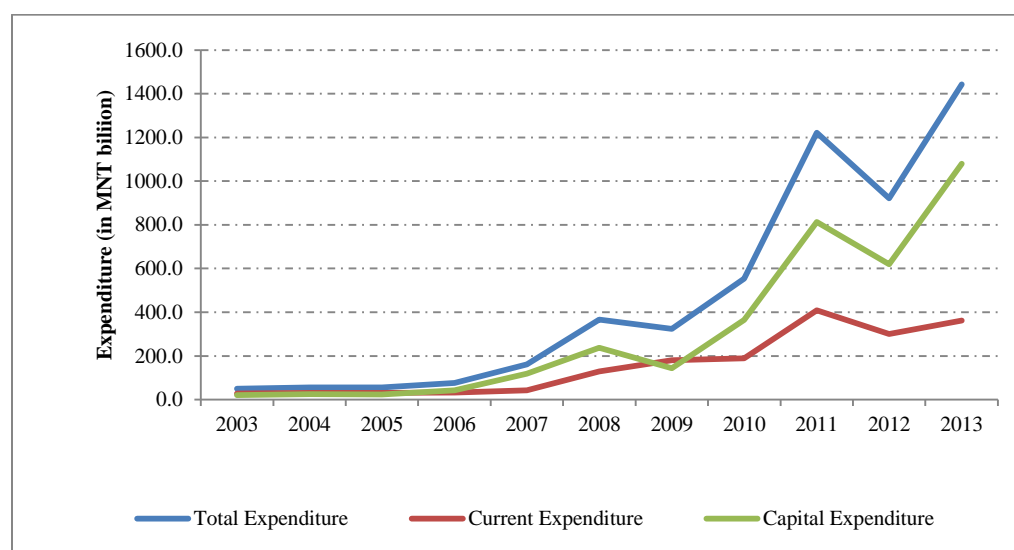
Since 2008 the Government scaled up investments for the construction and rehabilitation of wells.

¹⁵ For the purposes of this analysis, total expenditure is defined as current expenditures (including salaries and wages) plus all capital expenditure items.

provide public goods to improve the future welfare of the society by investing now. Since 2008 the GoM has embarked on scaling up investments for the construction and rehabilitation of wells, including irrigation and other important capital investments. While these types of investments are justifiable, it is unclear whether they are sustainable given the slow growth in rate of current expenditures, and indeed in operation and maintenance (O&M)¹⁶ budget. Figure 9 compares trends in capital and current expenditures over the 2003-2013 period.

¹⁶ In MIA's budget classification, O&M is referred to as capital repairs.

Figure 9. Trends in capital and current expenditures (in MNT billions), 2003-2013



Source: Compiled by authors from MoF expenditure data

42. **External support complements government efforts, but very limited information is available for donor spending on agriculture.** Donor-off budget expenditures (expenditures that are not part of the sector budget, but managed solely through a donor's procedures), mainly commitments, through implementation of investment projects at both national and local levels are a very important component of the sector expenditures.¹⁷ A variety of independent projects are implemented by various donors and NGOs in the sector. This analysis attempted to capture expenditures of the most important donors, as it was difficult to collect and gather expenditures from all donors in the sector. As shown in table 9 below, donors whose expenditures were readily available at the time of the review include: (i) the Swiss Development Cooperation (SDC); (ii) the European Union (EU); (iii) the Asian Development Bank (ADB); (iv) the Millennium Challenge Corporation (MCC); (v) the Japan International Cooperation Agency (JICA); (vi) the United Nations Food and Agriculture Organization (FAO); (vii) the International Fund for Agricultural Development (IFAD); (viii) the Korea International Cooperation Agency (KOICA); and the World Bank Group (WBG).

¹⁷ Trend analysis of donor budget expenditures was impossible due to the dearth of data for the period of review.

Table 9. Donor off-budget expenditure (commitments) on agriculture, in millions of US\$, 2012-2016

Donor	Project Name	Amount (US\$ million)	% of total
Swiss Development Cooperation	Animal Health Project	20.5	27.3
European Union	-	1.0	1.3
Asia Development Bank (ADB)	-	2.5	3.3
Millennium Challenge Corporation (MCC)	Peri-urban Rangeland project	5.9	7.9
JICA	Enhancing the Extension System for Comprehensive Crop-Livestock Management	2.0	2.7
UN	Improving Food Security for Rural Disadvantaged Population of Mongolia	1.3	1.7
UN	South-South Cooperation—Technical Assistance for Food Security Program	1.3	1.7
FAO	Integrated Livestock-based Livelihoods support program	12.5	16.7
IFAD	Market and Pasture Management Development Project	11.5	15.3
KOICA	Establishing an agricultural model enterprise in Khalkh gol soum	4.0	5.3
World Bank	Livestock and Agricultural Marketing Project (LAMP)	12.5	16.7
Total		75.0	100
Sector budget (2013)		287.1	
Share of (%)		26.1	

Source: Directorate of External Coordination, MIA.

43. As shown in table 9, four donors (SDC, FAO, IFAD, and WBG) are the major contributors to the sector with a combined funding of US\$57.0 million, representing 76 percent of total donor expenditures (US\$75 million) over the 2012-2016 period. The share of donor off-budget support in total sector budget was 26.1 percent in 2013. This shows that external funding is currently very important expenditure in the sector. None of the donors listed in table 9 channels its resources through the GoM Public Financial Management (PFM) system, and donor coordination is weak, although it is acknowledged that the Ministry has recently made some progress in bringing all donors on board for planning and prioritization of investment programs in the sector. In some instances, donors, particularly NGOs, operate with limited or no links to MIA. Improving donor coordination would obviously help in the planning and prioritization of sector investments and hence achievement of sector development goals. It would also eliminate duplication of efforts by ensuring that each donor focuses on areas where it enjoys a comparative advantage, and the GoM focuses on the provision of core public goods that are vital for agricultural development.

44. **The growth in capital expenditures has been spurred by increases in investment activities in the provinces.** The dramatic increase in capital expenditures is the result of the recent government policy of increasing investments in agriculture, particularly in the provinces (*aimags*). For example, MIA has earmarked about MNT 157.8 billion over the period 2012-2017 for targeted projects and activities in the *aimags* as well as the districts in Ulaanbaatar. Key activities to be financed under this program include construction of new wells, water systems, veterinary and sanitary laboratories, disinfection facilities, etc.), acquisition of equipment, feasibility studies, design and drawings and capital repairs (operation and maintenance). About 49.9 percent (MNT 78.8

billion) of the total budget has been allocated for capital investments in 2013. Among the activities currently receiving government funding are (i) construction of a food testing laboratory in Ulaanbaatar; (ii) construction of water supply points for livestock pasture land in all 21 *aimags*; (iii) construction of veterinary and sanitary laboratory in Khan-Uul district in Ulaanbaatar; (iv) construction of a national livestock genetic fund complex in Khongor in Darkhan Uul aimag; and (v) installation of wind pump for pasture watering in Domogobi and Gobisumber.



A water supply point for livestock in Ulaan Uul soum, Hovsgol aimag.

45. However, allocations for operation and maintenance are especially low relative to total capital investments. Although MIA has increased overall capital investments in the agriculture sector, the increase is not matched by adequate funding of O&M, which remains disproportionately small. Only 1.9 percent of the total capital/investment budget was allocated to O&M in 2013.¹⁸ The AgPER team was unable to obtain the rationale behind the small proportion of the capital budget being allocated for O&M. The GoM needs to consider increasing the budget for O&M to about 10 percent of the total sector budget because this underfunding could undermine the sustainability of investments in the sector.

¹⁸ There is no fixed rule on ratio of capital spending in capital intensive expenditures (ARD-WB Practitioners' Toolkit for Agricultural Public expenditure Analysis, p.12). But, it is important for GoM to maintain existing infrastructure versus investing in new infrastructure if it wants to sustain growth in agricultural output in the country.

6 FUNCTIONAL COMPOSITION OF EXPENDITURES

46. In the previous section, we analyzed economic composition of sector expenditures as an important aspect of the analysis of allocative efficiency. This section delves into the functional composition of sector expenditures as a determinant of the allocative efficiency of sector resources. The analysis of functional composition of sector expenditures is based upon the premise that it is not only the magnitude and size of the resources that comes into a particular sector that matters, but the manner in which the resources are allocated to relevant sector programs and activities. The two key questions that this chapter seeks to address are: (i) *Are resources allocated to the right programs and activities that provide significant social benefits and reduce poverty?* And (ii) *Are budgetary allocations in the sector aligned with priority sector objectives?*

47. Empirical evidence has shown that public sector spending on productivity enhancing and targeted pro-poor programs such as R&D, irrigation, rural infrastructure, and rural development has impacted positively on rural poverty and agricultural productivity growth. Using an econometric model to estimate the impact of additional spending by the Government of India on R&D, irrigation, rural infrastructure and rural development, Fan, Hazell, and Throat (1998) found that additional public spending on roads had the greatest impact on poverty reduction as well as significant impact on productivity growth. They also found that additional government spending on R&D and extension services had the greatest impact on agricultural productivity growth and led to substantial benefits for the rural poor. Education had the third largest impact on rural poverty reduction owing mainly to its potential to induce an increase in non-farm employment and rural wages.¹⁹ Another, more recent study published by IFPRI in 2011, found that public investment in rural infrastructure and extension services have significant impacts on the well-being of rural households in Nepal, as measured by land values, consumption growth, poverty reduction, and growth in agricultural incomes (Dillon, Sharma, and Zhang (2011)).²⁰

48. Many countries, and industrialized countries in particular, invest a substantial proportion of their public agriculture sector budget in areas such as research and development, and advisory and extension services, which are seen as strategic priorities in increasing agricultural growth. Mongolia in contrast allocates a disproportionately small percentage of its agriculture budget to these important core public goods (see chapter 7 for an overview of R&D expenditures). R & D and advisory services, including extension services, together received 4 percent of the functional budgetary allocations compared with planning and policy (11 percent) in 2013 (Figure 10). Pests and plant disease control received 13 percent of the functional budget, even though these functions are among the important activities that help increase agricultural productivity. The function that received the lion's share of the functional budget is subsidies and transfers (62 percent), followed by livestock diseases (16 percent) control program.²¹ This is not surprising given that subsidies and

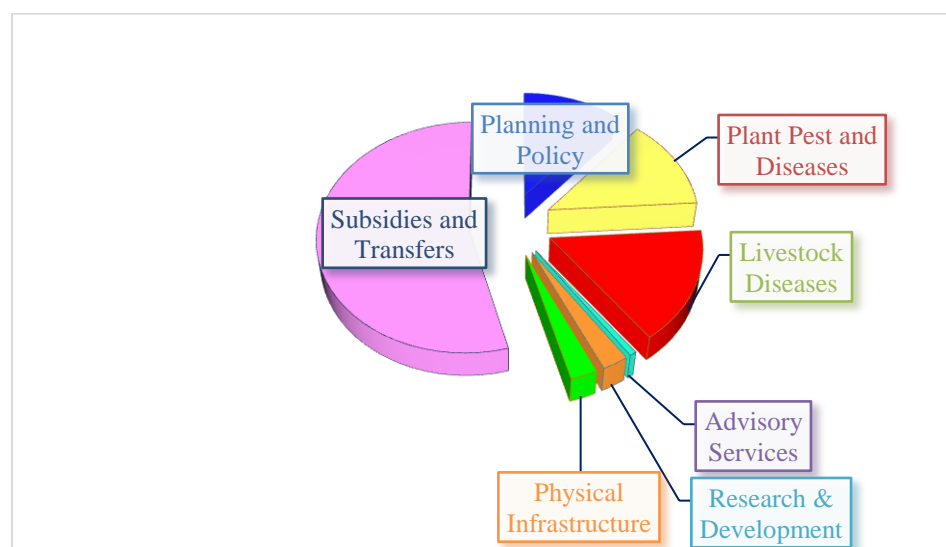
¹⁹ Shengen Fan, Peter Hazell, and Sukhadeo Thorat: "Government Spending, Growth and Poverty: An Analysis of Interlinkages in Rural India" IFPRI, Washington D.C., December 1998.

²⁰ Andrew Dillon, Manohar Sharma, and Xiaobo Zhang "Estimating the Impact of Access to Infrastructure and Extension Services in Rural Nepal." IFPRI, Washington D.C. 2011

²¹ According to MIA's program budget from the MoF, there are four main disease control programs: (i) preventive measures for contagious diseases, (ii) preventive measures for parasitic diseases; (iii) preventive measures for special contagious diseases; and (iv) treatment of chronic animal contagious diseases.

transfers now account for a substantial proportion of the sector budget due to government policy towards increasing livestock and crop production.

Figure 10. Functional composition of expenditures, 2013



Source: Compiled by authors from MIA and MOF expenditure data.

49. It is evident in figure 10 that the core public goods (research and extension) are significantly underfunded by international standards. For example, while Mongolia spends 0.5 percent of its AgGDP, Kyrgyzstan spends 2.2 percent of its AgGDP on these public goods. Thailand spends 12.9 percent of its AgGDP on research and extension. The underfunding of the core public goods is a matter of concern because they are areas in which the private sector is reluctant to invest, even though they are necessary for private investments in the sector.

50. **Another aspect of the functional analysis of allocative efficiency is to examine whether resources have been allocated in line with government priority programs and objectives.** This section will focus on the extent to which the allocation of agricultural public expenditures is aligned with sector development priorities. As indicated earlier, the key question that the section seeks to address is as follows. *Is the functional composition of expenditures aligned with the GoM's development priorities?*

51. The Agricultural Sector Development Strategy Paper (ASDSP) which outlines MIA's agricultural development priorities, provides the basis for allocating sector resources (see section 2 above).²² Key activities and initiatives of the ASDSP have been costed to ascertain funding requirements for effective implementation of the activities. The AgPER team compared the costed programs in the ASDSP with MIA's budgetary allocations to functional categories from 2008 to 2011 to ascertain the extent to which budgetary allocations to various programs have been aligned with the strategy objectives. However, it was difficult for the team to establish the alignment of all the costed programs with MIA's budget for functional categories because the ASDSP provides broad areas of activities, which might include several other functions indicated in the MIA's

²² Note that only ASDSP was analyzed and compared with the functional categories budget. The other policies and strategies in sector 2 were not costed.

functional categories budget. The only discernible functions in the ASDSP that could be aligned with the functional categories budget are shown in table 10 below.

52. MIA allocated an average of 23.0 percent of its total budget to disease management program compared with ASDSP projections, followed by planning and policy (5.8 percent) in 2011. An average of 14.8 percent was allocated for livestock diseases, 3.1 percent for R&D, and 6.7 percent for physical infrastructure (irrigation wells, water systems, laboratory buildings, etc.) compared with ASDSP average of 5.9 percent, 1.6 percent, and 8.5 percent respectively over the period under review. Table 10 also compares MIA's budgetary allocations to functional categories with ASDSP priority programs projections over the period 2008-2011.

Table 10. Percentage of MIA's functional budget allocated to ASDSP priority programs compared with ASDSP projections (%) 2008-2013

Functional Categories	Allocations				Average	ASDSP
	2008	2009	2010	2011	over the period	Average
Disease Management	21.9	25.3	21.2	23.4	23.0	5.9
Planning and policy	12.7	13.9	10.4	12.8	12.5	25.0
Research & development	3.9	3.0	3.2	2.0	3.0	1.6
Physical infrastructure	17	15.2	16.8	12.5	15.1	8.5
Advisory Services	9.4	9.7	8.8	10.3	9.6	26.0
Market Linkages	8.5	7.2	12.9	11.5	10.0	3.1
Crop and horticulture	13.7	14.7	12.7	13	13.5	22.8
Seed Capacity Development	12.9	11.9	14	14.5	13.3	7.1

Source: Authors' own estimates from MIA's budgetary allocations and MoF expenditure database. Note: Figures for functional allocations were obtained from MIA's 2008-2013 budget proposal document and Statistical Data of Food, Agriculture and Light Industry Sector, Published in 2012. Advisory services include extensions services and training and all related activities.

53. A thorough examination of the ASDSP and the sector budget shows significant differences between activities and functional categories in the MIA's budgets and those of ASDSP, which suggests that the ASDSP has not been fully utilized in the preparation of annual budgets. This implies that the government has not allocated its budget according to the priorities identified in the ASDP. There is, therefore, the need to utilize and align sector budget allocations to development priorities when assigning resources to functional programs.

7 AGRICULTURAL RESEARCH AND EXTENSION SERVICES

54. Public agricultural research financing in Mongolia is channeled through the Science and Technology Fund (STF), which is managed by an autonomous agency affiliated with the MoES. The STF employs government funds to research in all relevant sectors, including agriculture. The STF expenditures are outside MIA's budget, but go to support the agricultural research institutions. The agricultural research institutes that benefit from the fund include: (i) the Animal Husbandry Research Institute (AHRI); (ii) the Plant Protection Research Institute (PPRI); (iv) the Veterinary Research Institute (VRI); and (v) the Plant Science Agricultural Research and Training Institute (PSARTI); and (vi) the Mongolia State University of Agriculture (MSUA).²³

55. The STF funds research institutions using a grants-based approach. At the beginning of each calendar year, the fund publishes a Request for Proposal (RFP) in major newspapers. The research institutes develop and submit their proposals based on the content of the RFP through their respective operational ministries. There is an *inter-ministerial committee* headed by the Prime Minister which is the highest approving body for funds to all beneficiary institutions. Between 2008 and 2012, the STF financed a total of MNT 24.6 billion to the various field of research, including agriculture. As shown in table 12, over 50 percent of STF funding goes to technical and applied research fields per year followed by environment (20.0 percent). Agriculture has received an average of 5.4 percent of the total STF funding over the same period. Table 12 provides trends in the STF financing of research activities by sector from 2008 to 2012.

Table 11. Science and Technology Fund (STF) allocations by sector, MNT billion 2008-2012

Field of research /sector	2008	% of total	2009	% of total	2010	% of total	2011	% of total	2012	% of total	Total	Average Value	Average (%)
Technical	1,350,022	31.5	754,545	23.6	716,992	18.6	1,403,313	26.2	1,845,876	23.4	6,070,748	1,214,150	24.7
Social	418,253	9.8	339,393	10.6	268,902	7.0	345,593	6.5	832,935	10.6	2,205,076	441,015	8.9
Environmental	588,880	13.7	773,223	24.2	881,851	22.9	976,383	18.2	1,669,890	21.2	4,890,227	978,045	20.0
Medical	260,399	6.1	136,650	4.3	125,085	3.2	613,143	11.5	829,049	10.5	1,964,326	392,865	7.1
Agriculture	204,000	4.8	183,000	5.7	281,000	7.3	289,000	5.4	302,000	3.8	1,259,000	251,800	5.4
Applied Research	1,465,131	34.2	1,013,712	31.7	1,584,138	41.1	1,726,022	32.2	2,409,583	30.5	8,198,586	1,639,717	33.9
Total	4,286,685	100	3,200,523	100	3,857,968	100	5,353,454	100	7,889,332	100.0	24,587,962	4,917,592	

Source: STF, MoES. Note: Expenditures are in nominal values

56. **The selection and submission of agricultural research program of activities to STF is done in close collaboration with MIA.** Internally, the agricultural research institutes are required to submit their draft project proposals to a committee headed by the Vice-Minister of MIA. The committee prioritizes and selects the activities to be carried out by each research institute. The

²³ All the agricultural research institutes are under the MOES, but implements their programs through MIA.

selected activities/projects are then sent to STF at MoES for review and approval. Upon approval by the STF approving committee, the STF management releases funds to the research institutes.

57. An analysis of trends in funds received by the agricultural research institutes over the period 2003-2013 is shown in table 12 below. The table provides the cumulative expenditure of MNT 22.03 billion over the period under review. The table also shows that MSUA received the lion's share (27.0 percent) of the total agricultural research funds, followed by AHRI (220.30 percent) and PSPARTI (20.1 percent), respectively. Together these three institutions received 69.4 percent of the total allocations from the STF.

Table 12. Budgetary allocations to agricultural research institutes, 2008-2012 (in MNT billion)

Institute	2008	2009	2010	2011	2012	Total	Average	Share of Total (%)
Animal Husbandry Research Institute	0.59	0.47	0.71	1.03	1.17	4.92	0.49	22.3
Plant Protection Research Institute	0.27	0.21	0.24	0.26	0.38	3.97	0.40	18.0
Mongolia State University of Agriculture	0.12	0.37	0.71	0.23	0.41	5.95	0.60	27.0
Veterinary Research Institute	0.48	0.42	0.54	0.64	1.13	2.98	0.33	13.5
PSPARTI	0.58	0.57	0.61	0.73	1.06	4.42	0.44	20.1
Total	2.04	1.83	2.81	2.89	3.02	22.03	2.20	100.0

Source: Department of STF, MOES. Note: Expenditures and in nominal values.

58. **Research funding from STF is woefully inadequate to meet the growing needs for research.** The allocation of research budgets among different categories of expenditure (salaries, operating costs, and capital costs) has significant impact on the efficiency and effectiveness of agricultural research and development. To this end, the AgPER team collected information on expenditure categories from the finance departments of three research institutes (AHRI, PPRI, and VRI) for which data was available. The analysis of expenditure categories of these research institutes showed inadequate funding for research-specific activities. Worse still, most of this funding is used to pay salaries, leaving a very limited amount available to undertake research per se. For example, AHRI spent an average 55.2 percent on salaries compared to 16.5 percent on research-specific activities over the period 2009-2013. The breakdown of the spending structure of the three research institutes is given in table 13 below.

Table 13. Category of expenditure by institution (in MNT '000), 2008-2013

Animal Husbandry Research Institute							
Item of Expenditure	2008	2009	2010	2011	2012	2013	Average 2008-2013
Salaries	-	373,929	397,599	453,299	676,740	807,604	451,528.50
Research activities	-	24,300	72,520	450,901	380,118	61,060	164,816.50
Other Operational Expenses	-	68,833	108,710	141,616	126,644	115,740	93,590.50
Total	-	467,063	578,829	1,045,818	1,183,503	984,405	709,936.33
<i>Salaries of total (%)</i>	-	80.1	68.7	43.3	57.2	82.0	55.22
<i>Research activities share of total (%)</i>	-	5.2	12.5	43.1	32.1	6.2	16.53
<i>Other Operational Expenses (%)</i>		14.7	18.8	13.5	10.7	11.8	13.90
Plant Protection Research Institute							
Item of Expenditure	2008	2009	2010	2011	2012	2013	Average 2008-2013
Salaries	191,061,596	186,675,000	203,230,800	224,529,100	335,540,800	394,691,700	255,954,833
Research activities	106,034,674	25,971,800	35,115,700	37,678,800	49,046,400	34,698,300	48,090,946
Total	297,096,270	212,646,800	238,346,500	262,207,900	384,587,200	429,390,000	304,045,778
<i>Salaries share of total (%)</i>	64.3	87.8	85.3	85.6	87.2	91.9	83.69
<i>Research activities share of total (%)</i>	35.7	12.2	14.7	14.4	12.8	8.1	16.31
<i>Other Operational Expenses (%)</i>	-	-	-	-	-	-	-
Veterinary Research Institute							
Item of Expenditure	2008	2009	2010	2011	2012	2013	Average 2008-2013
Salaries	319,131	308,931	334,108	382,059	576,189	-	320,070
Research activities	130,721	52,819	52,508	177,168	288,957	-	117,029
Other operational Expenses	85,542	158,180	375,440	624,679	704,372	-	324,702
Total	535,395	519,930	762,056	1,183,906	1,569,517	-	761,801
<i>Salaries share of total (%)</i>	59.6	59.4	43.8	32.3	36.7	-	38.6
<i>Research activities share of total (%)</i>	24.4	10.2	6.9	15.0	18.4	-	12.5
<i>Other Operational Expenses (%)</i>	16.0	30.4	49.3	52.8	44.9		38.7
Overall Average (%)							
Salaries	62.0	75.8	65.9	53.7	60.4	87.0	59.2
Research activities	30.1	9.2	11.4	24.2	21.1	7.2	15.1
Other Operational Expenses	8.0	22.6	34.1	33.2	27.8	11.8	26.3

Source: Authors' calculation based on expenditure data from three agricultural research institutes. Note: expenditures are in nominal values.

59. The limited funding for research specific activities is aggravated by delays in the release of funds to the research institutes. The inadequacy of funds is compounded by the delay in the release of funds from the STF. Less-than-timely release of funds is a challenge to all the

research institutes. The STF approving committee does not meet regularly as required by law. For example by April 2013, none of the research institutes had received funds for the first quarter of 2013. The operations and structure of the approving committee need to be reformed in order to speed up the approval process and to ensure a regular and continuous flow of funds to the research institutes.

60. The current institutional arrangements also hamper the smooth operations of the research institutes. In addition to funding issues, senior managers interviewed at the research institutes described the disadvantages of operating under the aegis of the MoES instead of the MIA. They are not able to participate in and take advantage of many agricultural related capacity building interventions organized by MIA. The MoES does not organize agriculture-related capacity building and other operational activities that would help improve their skills and expertise.

61. MIA finances a number of research activities within the sector. In addition to research funded by the STF, MIA allocates part of its agricultural budget for R&D activities. This amount goes into the financing of investment activities, which include: (i) feasibility studies for construction of new buildings; (ii) feasibility studies for the establishment of plant nurseries; (iii) feasibility studies for the establishment of fish farms; and (iv) intensive research and testing of new quality seeds etc. Table 14 presents trends in total agricultural R&D expenditures from 2008 to 2013.

Table 14. Trends in agricultural research and development expenditures, (in MNT '000), 2008-2013

	2008	2009	2010	2011	2012	2013
Agriculture	38,769,977	54,290,579	65,692,863	156,706,413	94,898,239	145,187,123
R&D Agriculture (MIA)	2,310,224	1,708,946	2,001,856	2,407,665	3,474,362	3,670,920
Total Agriculture	41,080,201	55,999,525	67,694,719	159,114,078	98,372,601	148,858,043
STF (MOES)	204,000	183,000	281,000	289,000	302,000	-
Total R&D (MIA & STF)	2,514,224	1,891,946	2,282,856	2,696,665	3,776,362	3,670,920
R&D MIA (% of Agric. Budget)	5.6	3.1	3.0	1.5	3.5	2.5
R&D, including STF (% of Agric. Budget)	6.1	3.4	3.4	1.7	3.8	2.5

Sources: MoF and MIA expenditures by sector, and STF (MoES)

62. Spending on research is exceptionally low compared to total spending on agriculture and agriculture GDP. Public spending on R&D, (MIA and STF combined) in 2008 amounted to MNT 2.50 billion, which represented 7.0 percent of total agriculture spending, excluding fisheries and forestry in 2008. In 2013, although spending on R&D increased to MNT 3.67 billion, it represented only 2.5 percent of total agriculture sector spending. As a share of agricultural GDP²⁴, expenditure on R&D represented 0.4 percent in 2008, which is lower than 1.01 in Malaysia, but the

²⁴ Total public spending on R&D as a percentage of agricultural GDP (intensity ratio) is a commonly used and internationally accepted research investment indicator for spending on agricultural research and development (R&D). Thus this ratio helps place a country's agriculture R&D spending in an internationally comparable context.

same as the Asia-Pacific regional average of 0.42 in the same year.²⁵ This figure fell slightly to 0.3 percent in 2009, but rose to 0.40 percent and 0.50 percent of agricultural GDP in 2010 and 2011 respectively.²⁶ Mongolia fares relatively well when compared with Kyrgyzstan (0.09 percent), which has similar climatic conditions. Table 15 provides trends in agricultural research expenditures relative to the national budget and agricultural GDP.

Table 15. Agricultural research spending: share of total agriculture expenditure and agricultural GDP (2008-2013)

	2008	2009	2010	2011	2012	2013
Agriculture Expenditure (MNT billion)	41.08	55.10	67.69	159.11	98.37	148.86
Agricultural GDP (MNT billion)	768.40	796.32	664.15	660.68	801.27	-
Research expenditure (MNT billion)	2.50	1.90	2.28	2.70	3.78	3.67
Share of Agricultural Expenditure (%)	7.00	3.90	3.80	2.30	5.10	2.50
Share of Agricultural GDP (%)	0.40	0.30	0.40	0.50	-	-

Source: Authors' estimates based on data from NSO, MoF, and STF. Note: AgGDP figures are in nominal values. AgGDP figures for 2012 and 2013 were unavailable at the time of the study.

63. Inadequate funding for research has had significant impacts on the delivery of extension services. A discussion with the extension services policy unit of MIA revealed that delivery of extension services has been ineffective due to lack of concrete research results, particularly new technologies from the research institutes. The transfer of new technologies to farmers and herders is practically non-existent. Lack of funds has constrained the research institutes' ability to conduct long-term research, which is essential for discovering and adapting new technologies.

64. Extension services delivery is also hampered by inadequate funding. Limited funding affects extension services as well as extension activities. The National Agricultural Extension Center (NAEC) is located in Ulaanbaatar and is responsible for operating and managing all extension activities in the country mainly through MIA's extension units in the *aimags and soums*. The NAEC has 16 technical experts, 21 extension officers located in the *aimags*, and 330 extension officers in all *soums* together, one per *soum*. NAEC is funded through budgetary allocations from MIA. In 2013, it received about MNT300 million from MIA's budget. 70 percent of this amount was spent on administrative functions; 30 percent operational; and 10 percent for capacity building and field work. Like the research institutes, NAEC is not adequately funded. As a result, the implementation of its activities is significantly hampered by financial and logistic problems. As shown in table 16 below, budgetary allocations to NAEC have averaged MNT0.22 billion over the period 2008-2013. Agricultural extension expenditure as a percentage of AgGDP averaged 0.011 percent over this period.

²⁵ Global Food policy report, IFPRI, 2013.

²⁶ GDP figures for 2013 were unavailable at the time of the review.

Table 16. Trends in agricultural extension services expenditures and extension services expenditure as percentage of AgGDP (2008-2013)

	2008	2009	2010	2011	2012	2013	Average (2008-2013)
Agriculture Expenditure (MNT billion)	41.08	55.1	67.69	159.11	98.37	148.86	95.04
Agricultural GDP (MNT billion)	1,252.1	1,170.8	1,192.7	1,353.9	-	-	993.89
Extension expenditure (MNT billion)	0.17	0.14	0.18	0.21	0.28	0.31	0.215
Share of Agricultural Expenditure (%)	0.41	3.9	3.8	2.3	5.1	2.5	3.002
Share of Agricultural GDP (%)	0.014	0.012	0.015	0.016	-	-	0.011

Source: Compiled by authors from NSO, NAEC, MIA expenditure data. Note: AgGDP and expenditure figures are in nominal terms.

8 BUDGET PROCESSES AND PERFORMANCE

65. The timely preparation, approval, and execution of budgetary resources largely determine the effectiveness of public sector expenditures. Prompt approval and release of funds ensures that public sector institutions have the means to procure goods and services that would allow smooth implementation of their programs/activities. This section provides an overview of the budget preparation process in Mongolia. It also analyzes MIA's budget execution performance by comparing the level of its actual and planned expenditures.

8.1 Budget preparation

66. **Mongolia's budget cycle begins in the first month of the second quarter of the fiscal year.** Between April 15 and June 1 of each fiscal year, a Medium Term Fiscal Framework (MTFF) is developed and approved. Socioeconomic development priorities are developed in April.²⁷ And from June 10 to July 5, annual budget ceilings for spending agencies are prepared and approved. Between July 25 and November 15 the national budget proposal, social insurance fund budget, and the human development fund budget are developed and approved. The remaining period of the fiscal year is devoted to the development and approval of local government budgets. Box 1 summarizes the budget preparation process and its timelines.

67. **MIA's budget preparation process follows national timelines.** At the sector level the DSPP leads the budget preparation process through its Finance and Investment Division. At the beginning of the budget preparation period, the Division collects budget proposals from all relevant departments and agencies, including the *aimags* as soon as it receives the budget call circular from MoF. It also reviews and consolidates the departmental and agency proposals by ensuring that the proposals are consistent with the government's agricultural development policy objectives. The Division then convenes a stakeholder-meeting, which is attended by local NGOs, scientific research institutions, and sector departments and agencies. At the meeting, participants discuss the consolidated budget proposal, and stakeholders provide feedback and comments. The Division finalizes the proposal by taking into account comments from stakeholders. It submits the proposal to the MoF by August 15. The proposal then goes through the cabinet, audit service and finally to parliament for parliamentary discussion and approval.

²⁷ Socio-economic development priorities are developed by the Ministry of Economy and Development (MED).

Box 1. The budget preparation process in Mongolia

A. Development and approval of Medium-Term Fiscal(Expenditure) Framework

- i. The Ministry of Finance (MoF) prepares and submits draft Medium-term Fiscal Framework Statement to Government by April 15th.
- ii. The Government discusses and submits the Medium-term Fiscal Framework Statement to the State Great Khural (Parliament) by May 1st.
- iii. The State Great Khural discusses and approves the Medium-term Fiscal Framework Statement by June 1st.
- iv. The State Great Khural publishes the Medium-term Fiscal Framework Statement within 7 working days after its approval.

B. Development and approval of General Guidelines for Socio-Economic Development priorities

- i. The Ministry of Economy and Development (MED) prepares and submits to the Government a proposal on the State General Guidelines for Socio Economic Development by April 1st.
- ii. The Government reviews the proposal on the State General Guidelines for Socio Economic Development against the Medium Term Fiscal Framework Statement and submits it to the State Great Khural by May 1st;
- iii. The State Great Khural approves the State General Guidelines for Socio Economic Development in its spring session.

C. Development and approval of annual budget ceilings

- i. General budget governors (spending ministries) submit their proposal for a budget ceiling based on the Medium-term Fiscal Framework Statement to MoF by June 10th.
- ii. The MoF consolidates and prepares draft budget ceilings for spending ministries and submits them to the Government by June 20th.
- iii. The Government discusses and approves spending ministries' draft annual budget ceilings by July 1st.
- iv. The MoF circulates the approved budget ceilings to spending ministries along with the budget call circular by July 5th.

D. Preparation and approval of the State Budget, Social Insurance Fund Budget, and Human Development Fund Budget

- i. Direct budget governors (provinces/local agencies) submit their annual budget proposal to the respective central budget governors (spending departments/agencies) by July 25th.
- ii. Spending departments/ agencies submit their budget proposals to the respective spending ministers by August 1st.
- iii. Spending ministries submit their budget proposals to MoF by August 15th.
- iv. The MoF consolidates and prepares annual budget proposal and submits it to the Government by September 15th.
- v. The Government reviews and submits the annual budget proposal to the State Great Khural by October 1st.
- vi. The Government publishes the annual budget proposal within three working days after its submission to the State Great Khural.
- vii. The State central audit body presents its opinion on the annual budget proposal to the State Great Khural by October 15th.
- viii. The State Great Khural discusses and approves the annual budget proposal by November 15th.

Source: MoF

68. **While the process ensures a participatory approach, it is top-down with significantly limited involvement of subnational administrative units.** A key problem with agriculture sector budget preparation is that the local administrative units in the *aimags* and *soums* are not actively involved in the process, although they submit their respective proposals to MIA. During a

discussion with the *aimags* authorities, they complained that most of their needs are not taken into account in the overall sector budget, when the AgPER team visited the *aimags* of Tuv and Bulgan. A participatory approach with significant involvement of the heads of *aimags* would greatly strengthen planning and budgeting at MIA.

69. Development partners' involvement in the budget process is non-existent. Another drawback of the sector budget preparation process is that major development partners are not involved – which appears to reflect the weak donor coordination noted above. Increasing their involvement and fully taking into consideration their contributions when budget proposals are being prepared will ensure that total sector expenditures are fully captured. It will also allow the government to focus its investments in areas where donor support is limited.

70. In addition to the budget process, the AgPER team examined the 2013 capital and investment budget proposal and noted that all planned programs and activities, including those that would be implemented through the LDF, had been allocated resources. However, the team did not ascertain the basis for allocating resources to the programs, although most of the programs are in sector priority areas. In order to ensure investment programs are well-resourced, all of the activities that go into implementation must be properly and realistically costed. Medium Term Expenditure Frameworks (MTEF) are widely used for this purpose, and help to capture the cost of all programs in the sector over the next three years. MTEFs are also used to determine the amount of public sector resources which are required to implement government programs over the medium term while taking into account the constraints imposed by the fiscal space of a country. They will also help MIA to know its funding gaps, which could be an instrument for securing more donor resources to fill those gaps. At the moment, there is no sector specific MTEF in place and establishing one would greatly help improve resource allocation and expenditure management.

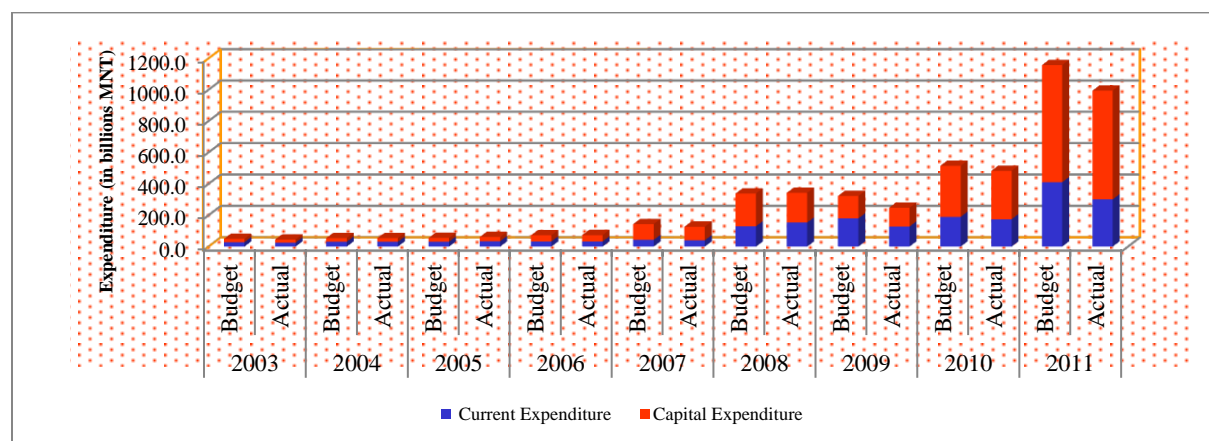
8.2 Budget Execution

71. Budget execution involves all actions required to effectively and efficiently accomplish programs/activities for which resources were requested and approved. The budget execution process, therefore, establishes the relationship between planned and actual expenditures, and provides a measure of effectiveness of public sector resources. The planned/budgeted expenditures provide the basis upon which all government agencies and institutions determine or develop the programs and activities they intend to implement. An analysis of budget execution performance is, therefore, critical to achieving a government's development objectives.

72. Overall MIA's budget execution performance is quite good, with most of its annual approved budgets executed. As shown in figure 11 below, trends in MIA's budget outturns are generally good when actual expenditures of the two main categories of expenditures (current and capital) are compared with approved/budgeted expenditures, although there are predominately

under-spending in most of the years, except fiscal years 2005 and 2008, when MIA recorded MNT3.3 billion and MNT23.9 billion overspending, respectively.

Figure 11. MIA's budget execution performance planned vs. actual expenditures, in MNT billion, 2003-2011



Source: Authors' own estimates from MoF expenditure database. Note: Actual expenditure figures for 2012 and 2013 were not available at the time of the review.

73. **Further breakdown of the two categories of expenditures provides a clearer picture of MIA's budget execution performance.** Current expenditures are split into salaries and operational expenditures, and are compared with capital expenditures over the period 2003-2011 (Table 17). Overall, the Ministry exhibited significant underspending of individual budget items. In terms of budget outturns, an average MNT31.07 billion was underspent in most of the years under review. However, the Ministry recorded high budget execution rates with an average of 94.5 percent of its total budget over the review period. The reasons for the causes of the underspending were not clear, but they could be attributed to weak capacity for accounting and reporting of expenditures at both MIA and *aimag* levels for current expenditures. For capital expenditures, delays in the procurement of goods and services coupled with weak capacity at the local level could be the underlying factor.²⁸

²⁸ According to MIA's 2013 capital/investment budget proposal, procurement activities commence in March 2013.

Table 17. MIA's Budget execution performance, 2003-2011

Expenditure Category	Allocation/ Approved budget (MNT billion)	Outturn (MNT billion)	Over spending/under spending		Budget Execution rate (%) (Outturn/ Total approved budget)
			Amount (MNT billion)	% of Allocation	
2003					
Salaries & Wages	546,743.7	486,692.0	(60,051.7)	(0.12)	1.00
Operational	27,427,377.2	24,934,827.9	(2,492,549.3)	(5.11)	51.12
Capital	20,800,482.6	19,364,695.2	(1,435,787.4)	(2.94)	39.70
Total (MIA)	48,774,603.5	44,786,215.1	(3,988,388.4)	(8.18)	91.82
GoM	612,069,485.3	650,970,690.3	38,901,205.0	6.36	106.36
2004					
Salaries & wages	697,975.0	669,702.2	(28,272.8)	(0.05)	1.23
Operational	29,809,618.0	29,523,454.0	(286,164.0)	(0.53)	54.35
Capital	23,817,887.2	23,523,571.8	(294,315.4)	(0.54)	43.30
Total (MIA)	54,325,480.2	53,716,728.0	(608,752.2)	(1.12)	98.88
GoM	794,752,126.9	800,494,457.2	5,742,330.3	0.72	100.72
2005					
Salaries & wages	733,669.2	699,500.4	(34,168.8)	(0.06)	1.27
Operational	30,648,527.1	33,941,093.3	3,292,566.2	5.99	61.70
Capital	23,624,215.0	26,675,402.0	3,051,187.0	5.55	48.50
Total (MIA)	55,006,411.3	61,315,995.7	6,309,584.4	11.47	111.47
GOM	853,830,211.9	822,988,814.0	(30,841,397.9)	(3.61)	96.39
2006					
Salaries & wages	1,005,765.8	976,096.0	(29,669.8)	(0.04)	1.36
Operational	31,848,738.1	31,251,517.6	(597,220.5)	(0.83)	43.58
Capital	38,853,964.6	40,809,656.2	1,955,691.6	2.73	56.91
Total(MIA)	71,708,468.5	73,037,269.8	1,328,801.3	1.85	101.85
GoM	1,279,702,899.8	1,234,222,866.9	(45,480,032.9)	(3.55)	100.96
2007					
Salaries & wages	1,421,184.2	1,371,133.1	(50,051.1)	(0.03)	0.96
Operational	41,056,249.6	39,102,037.6	(1,954,212.0)	(1.36)	27.27
Capital	100,918,216.0	86,273,718.0	(14,644,498.0)	(10.21)	60.16
Total(MIA)	143,395,649.8	126,746,888.7	(16,648,761.1)	(11.61)	88.39
GoM	1,917,346,914.4	1,844,388,641.9	(72,958,272.5)	(3.81)	96.19
2008					
Salaries & wages	2,986,082.6	3,216,614.5	230,531.9	0.07	0.95
Operational	126,538,851.1	150,230,150.3	23,691,299.2	7.00	44.41
Capital	208,765,314.4	188,790,288.2	(19,975,026.2)	(5.90)	55.81
Total (MIA)	338,290,248.1	342,237,053.0	3,946,804.9	1.17	101.17
GoM	2,822,714,359.2	1,919,414,544.1	(903,299,815.1)	(32.00)	68.00

Expenditure Category	Allocation/ Approved budget (MNT billion)	Outturn (MNT billion)	Over spending/under spending		Budget Execution rate (%) (Outturn/ Total approved budget)
			Amount (MNT billion)	% of Allocation	
2009					
Salaries & wages	3,522,881.1	3,415,714.3	(107,166.8)	(0.03)	1.06
Operational	176,144,581.2	124,233,695.3	(51,910,885.9)	(16.10)	38.53
Capital	142,771,527.0	119,800,803.0	(22,970,724.0)	(7.12)	37.15
Total (MIA)	322,438,989.3	247,450,212.6	(74,988,776.7)	(23.26)	76.74
GoM	2,601,263,565.8	2,020,531,552.2	(580,732,013.6)	(22.32)	77.68
2010					
Salaries & wages	3,910,264.3	3,952,888.5	42,624.2	0.01	0.77
Operational	185,720,968.0	170,191,794.2	(15,529,173.8)	(3.02)	33.08
Capital	324,808,675.4	308,400,650.6	(16,408,024.8)	(3.19)	59.95
Total(MIA)	514,439,907.7	482,545,333.3	(31,894,574.4)	(6.20)	93.80
GoM	3,432,195,554.3	2,590,863,526.0	(841,332,028.3)	(24.51)	75.49
2011					
Salaries & wages	4,646,051.0	4,670,889.2	24,838.2	0.002	0.40
Operational	404,884,895.0	295,546,192.2	(109,338,702.8)	(9.45)	25.54
Capital	747,653,031.4	693,877,601.3	(53,775,430.1)	(4.65)	59.96
Total (MIA)	1,157,183,977.4	994,094,682.7	(163,089,294.7)	(14.09)	85.91
GoM	5,316,996,616.1	3,955,720,117.5	(1361,276,498.6)	(25.60)	74.40
AVERAGES					
	300,618,192.87	269,547,819.88	(31,070,372.99)	(5.55)	94.45
MIA (2003-2011)					
	2,181,207,970.41	1,759,955,023.34	(421,252,947.07)	(12.04)	88.46
GOM (2003-2011)					

Authors' own calculations based on expenditure data from MoF. Note: Actual expenditure figures for 2012 and 2013 were not available at the time of the review. Figures in parenthesis show under-spending. All figures are in nominal values. Note: AgPER team could not obtain reasons for sharp increases in some of the GoM expenditure.

74. As noted earlier, expenditures for the analysis of the above budget execution performance were aggregate figures obtained from the MoF. The FID of DSPP does not have detailed actual expenditure records by department and agency within MIA, or by program and subsector. This situation made it difficult for the AgPER team to undertake an in-depth analysis of budget execution performance by department, agency or subsector. No concrete explanation was given for the lack of actual spending figures by department or agency. There is a need to document and analyze sector expenditures by department, agency and subsector to allow for proper tracking and monitoring of budget outcomes at all levels.

75. New staff needs to be hired to work on day-to-day planning, budgeting, and expenditure management in order to improve financial management and analytical

capacity. The inability of FID to carry out detailed analysis of budget execution performance is attributable to lack of analytical expertise in financial management among the staff of the Division. In addition to leading the sector budget preparation process, the FID is responsible for compiling, documenting, reporting, analyzing, and accounting for actual expenditures from departments, agencies and unit offices in the 21 *aimags*. However, it lacks staff with the requisite analytical skills mix to analyze *budget execution performance* that would provide useful information to senior management for decision-making. The lack of analysis of budget execution performance moreover means that no execution issues are taken into account in the following fiscal year's budget preparation process. Evidently, the overall financial management capacity of the division is weak. Staff currently consists of six members, including the head of the division working on various tasks on planning, procurement, documenting, and otherwise accounting for actual expenditures. Interviews with the Division staff found that annual planning and budgeting is fairly good compared to documentation, accounting, and reporting of core sector expenditures. Linkages between the planning staff and the staff who work on actual expenditures are limited, making it difficult to carry out proper budget execution performance analysis (analysis of budget outturns and budget execution rates). The lack of detailed analysis on budget execution performance also precluded the AgPER team from obtaining information on key components of budget execution (obligation, commitment, and payment).

76. There is also limited information flow between the FID and various departments and agencies, including the *aimag* units in terms of budgeting and expenditure management. This situation has hampered reporting and accounting for actual expenditures resulting from implementation of programs and activities at the departmental and *aimag* levels. Available expenditure figures obtained from FID are not only limited by period (2008-2013), but also by several gaps relating to actual expenditures, with some years virtually unrepresented by any figures. Moreover, the Division documents most of its expenditures by economic classification. The reporting and accounting for expenditures by economic classification is useful, particularly for the purpose of reporting to the Treasury, but it does not provide incentives for ascertaining what has actually been spent by departments and agencies in the sector and on which programs. The need to include program budgets as well as departmental budgets in the annual budget proposals is of paramount importance. There is also the need to document actual expenditures by department and agencies in order to properly account for what has actually been spent by all departments and agencies in the sector, and measure the impacts of programs' implementation.

77. Linkages between the FID and the Monitoring, Evaluation and Internal Audit Department (MEIAD) are weak. There is no indication of clear linkages between the MEIAD and FID in terms of sharing data on expenditures and on the physical progress of sector program. This situation undermines proper documentation and accounting for expenditures; and therefore, analysis of budget execution performance. The MEIAD should be in a position to provide the requisite information on physical progress of projects to FID staff who works on analysis of budget execution performance, and vice-versa. Ensuring that these two departments work in concert with

each other will improve transparency, accountability, and ultimately MIA's budget outcomes and performance.

8.3 Budget outcomes monitoring

78. **Budget outcome and performance monitoring and evaluation is inadequate.** International experience shows that the size of budgetary allocation (resource envelope) to a particular sector ministry depends not only on the macroeconomic fiscal situation of a country, but also on the spending levels and budget execution performance of the Ministry. Typically, if a sector ministry underspends its budget and does not provide evidence of achievements of its programs' implementation, the MoF reduces its budget for the following fiscal year. Against this backdrop, the review sought to investigate MIA's current budget outcome monitoring and evaluation situation by engaging in discussion with senior management of the MEIAD. The review noted that overall the implementation of programs and activities at all levels are not effectively monitored and evaluated.

79. In principle, monitoring and evaluation of budget outcomes is carried out by the MEIAD. The principal functions of the department are to: (i) conduct monitoring and evaluation of implementation of all programs and activities in the sector; (ii) review policy documents and report to the government on the status of implementation of policies and programs; (iii) monitor the activities of all departments and agencies, the 21 *aimags*, and 335 veterinary units in the *soums*. In addition to these functions, the department has been handed budget execution performance monitoring as an additional function in 2013 following the implementation of the IBL.

80. The AgPER team's investigation revealed no significant budget performance/outcomes/impacts assessment done by the department over the past year. The department is constrained by the lack of the personnel required to effectively carry out the above-mentioned functions. Currently there are only ten staff members, including the Director General, working in the department. Field work is supposed to be carried out by the nine personnel, but given the increased workload resulting from their additional mandate of covering every part of the country, they are not able to effectively undertake the evaluation task. In this regard, they conduct what is known as "spot checks" by selectively evaluating a few programs. This approach does not really provide detailed and concrete evidence of budget outcomes and performance in the sector. Nor is this approach based on the widely acceptable norms for evaluating programs: *relevance*, *effectiveness*, *efficiency*, and *sustainability*. To enable the department to carry out its functions as required, additional staff who are endowed with the requisite skills and expertise in conducting program monitoring and evaluation is required. New divisions also need to be formed within the department in order for responsibilities to be distributed rationally, and where possible, place program monitoring and evaluation personnel in the *aimags* to carry out specific tasks in specific geographical areas to ensure effective monitoring and evaluation of sector programs/activities.

9 EFFECTIVENESS AND EFFICIENCY OF SECTOR EXPENDITURES

81. A detailed analysis of technical efficiency of sector expenditures was not undertaken due to the short duration of the field work, coupled with the dearth of data in MIA. To this end, the AgPER team depended basically on expert opinion through discussions with sector authorities, and a review of available literature on program outcomes, in particular those that pertain to livestock disease control program and infrastructure projects (e.g. irrigation and wells).

82. **A visit to the *aimags* of Tuv and Bulgan clearly found that while the GoM's spending on vaccinations and animal disease response is in the right direction, the extent of spending on these important interventions requires further assessment.** The GoM uses a public-private partnerships (PPP) approach to carry out its vaccination and veterinary services program at the *soum* level. Government supplies the vaccines free of charge and the private veterinary units provide the services. The agricultural authorities in the *aimags* establish contracts with the private service providers in the *soums* (see annex 3). Upon successful completion of their services, the *aimag* authorities approve and authorize payment for the services rendered. A discussion with the *aimag* authorities to ascertain whether there is a proper monitoring mechanism in place yielded mixed results. While in Bulgan, a monitoring system, which tracks progress down to the herders, has been established, in Tuv *aimag*, there is no such a system in place.

83. **The vaccination program has helped increase livestock production, but spending patterns have not been properly documented and accounted for.** Available expenditure data show that outlays on vaccines, veterinary services, and contracted services together constituted a substantial proportion of current expenditures (about 11.2 percent in 2012 and 2013). The veterinary services budget pays for infectious, parasitic, Foot and Mouth Disease (FMD), and disinfection and sanitization. Vaccines, medicines, and service fees (payment to private service providers) are paid centrally for the services of private veterinarians who are responsible for treating infectious diseases, while herders pay for veterinary service fees for parasitic diseases. The increase in livestock production in recent years suggests that this strategy seems to be working fairly well. For example, gross livestock output/MNT has increased to MNT 1,505.7 billion in 2011, after falling from MNT 1,307.7 billion in 2009 to MNT 1,290.7 billion in 2010 due mainly to the *dzud* weather effect. Average survival rates per 100 female breeding stocks have rebounded after falling from 376 per head in 2009 to 212 per head in 2010 (see annex 1).²⁹ But the increased output has not been matched with proper documentation and accounting for vaccination program expenditures, making it difficult to measure the real impact of public expenditure on the program. As shown in section 5.1 above, vaccines expenditures, one of the components of animal care services, have not been properly documented since 2008. The team could not track where those expenditures were recorded at either

²⁹ Statistical Data of Food, Agriculture and Light Industry Sector, MIA, 2012

MIA or MoF. This could be attributed to weaknesses in financial management and reporting systems at MIA. MIA must improve its accounting, recording, and reporting systems to ensure that expenditures of such important programs are well documented and accounted for.

84. Lack of central-local accountability and coordination is a significant constraint to technical efficiency. A review of available reports also unearthed the following issues: (i) lack of central-local accountability; (ii) poor local ownership of central government programs; and (iii) seemingly weak communication and coordination between the central ministry and its offices in the *aimags and soums*. These factors have contributed to poor implementation of programs at the local level. The budget is formulated and paid for by the central government, which usually do not have the best information about the needs at the local level. This situation does not create incentives for the local governments to be accountable for undertaking the tasks at minimal costs. This issue is crosscutting as it is common in other sectors as well, and is mainly due to top-down and vertical reporting structure of the intergovernmental fiscal systems (World Bank, 2009). It is expected that the new IBL will address most of these issues as the local governments are now given more fiscal responsibilities.

85. Another constraint to technical efficiency that must be addressed by MIA and the local governments is the delays in executing infrastructure projects. The execution of most of MIA's infrastructure projects is characterized by considerable delays. The procurement process does not start early enough in the year and it takes some time before activities are accomplished. Delays are caused by a lack of quality appraisals and feasibility studies, including a lack of proper coordination between project design, preparation and implementation between MIA and the *aimag* authorities. Limited operational expenditure allocations to technical staff at *aimag* and *soum* levels also account for ineffective supervision of projects leading to low quality of work. In spite of these challenges, significant progress has been made in the provision of infrastructure such as irrigation and wells, which have helped increase crop production (see annexes 1 and 2 and section 3 above). To sustain development outcomes resulting from increased investment in infrastructure, MIA must take corrective measures to reduce delays and improve project implementation.

10 CONCLUSIONS AND POLICY RECOMMENDATIONS

86. This review summarizes the key issues constraining effectiveness and efficiency of public expenditures in Mongolia's agriculture sector. These include, among others, limited levels of funding for agriculture despite its significant contribution to the economy; limited O&M expenditures, which does not match growth in capital/investment expenditures; lack of funding for R&D development and extension services; limited financial management capacity of staff of FID; inadequate staffing levels for the MEIAD, which has constrained the department's ability to carry out effective monitoring and evaluation of sector programs; weak donor coordination; and limited involvement of the local authorities in the planning and budgeting of sector programs. Despite these weaknesses, there is evidence of the impacts of government spending on some key programs such as the livestock disease control program and investment in agriculture equipment and irrigation. Livestock mortality has declined and continues to fall. Production of major crops, which has been supported by government investment in irrigation and equipment, has increased consistently since 2008, and overall gross agricultural output continues to increase. MIA must urgently address the aforementioned issues and constraints to continuously increase output, and hence achieve its development objectives. Upon the basis of the above identified issues/constraints, we recommend the following.

- *Increase agriculture's share of the national budget relative to other key sectors.* The review showed that agriculture receives a disproportionately small percentage of the national budget relative to other key sectors, despite its huge contribution to the national output and GDP. The GoM needs to substantially increase agriculture's share of the national budget to enable it to continue to play its catalytic role as a key contributor to national output.
- *Strike a balance between capital and recurrent budget by substantially increasing the O&M budget.* The review showed that the GoM has increased investments in the sector by significantly increasing capital expenditures, but noted that O&M budget is inadequate to sustain the current investments in the sector. While there are no standard levels of allocation for O&M, the GoM needs to consider increasing allocations to O&M because at current levels, the O&M budget could undermine the sustainability of investments in the sector.
- *Strike a balance between budgetary allocations to subsidies and transfers, on the one hand, and goods and services on the other.* A review of the components of current expenditures shows that subsidies and transfers constitute the bulk of current expenditures compared to salaries, goods, and services. To improve services delivery, the GoM should increase allocations to goods and services, while having clear strategies for subsidies, and an exit strategy and a review of the efficiency of those subsidies in correcting market failures to achieve the desired goals.

- *Increase the budget for core public goods and improve funding flow to the agricultural research institutions and the extension agency.* The review unearthed limited funding for R&D and extension services in Mongolia. Mongolia needs to substantially increase funding for these important public goods (R&D and extension services) because they are vital for new agricultural technologies, and they create the enabling environment for increased private sector investments in agriculture. The flow of funding to the research institutes also needs improvement by reviewing the composition of the STF approval committee members as well as its processes. The approval committee also needs to meet regularly and on time to ensure that research institutes are well-resourced to carry out their duties effectively.
- *Strengthen the financial management capabilities of FID staff and budget managers.* The review identified weaknesses in recording, analyzing, and accounting for sector expenditures. This has led to a lack of financial data on past expenditures, in particular actual expenditures that are needed for the analysis of budget and program execution performance. Actual spending by departments, agencies, and provincial offices are, by and large, not properly documented. MIA needs to organize frequent training programs, including on-the-job training, in financial management and expenditure data analysis to help improve and upgrade financial management and analytical skills and expertise of FID staff, including all budget managers and heads of *aimag* offices.
- *Improve budget outcome monitoring and performance.* The review identified the important role played by the MEIAD. The department has been overwhelmed with a heavy workload, but it has very limited staff to carry out such a huge task bestowed on it. In order to improve budget outcome and performance, the department must be adequately resourced with staff that possess skills and expertise in program monitoring and evaluation both at MIA and *aimag* levels.
- *Sponsor regular training and capacity building interventions to upgrade the skills of MELAD staffs.* To improve budget monitoring and performance, MIA must build and maintain highly skilled staff able to conduct monitoring and evaluation of programs by using the widely-accepted standard monitoring and evaluation criteria: *relevance, effectiveness, efficiency, and sustainability*. This will require it to organize frequent training programs, including on-the-job training for the MEIAD staff to deepen their monitoring and evaluation skills that would enable them to effectively carry out their duties and inform decision-making.
- *Improve donor coordination and engagement in the sector.* The review revealed that MIA has made significant progress in improving donor coordination and relations in recent years, but more efforts must be made on this front. This will require involving key donors in the planning and prioritization of sector investments, including the sector budget

preparation process. An ideal approach is to establish a “*Sector Working Group*” chaired by the DG of Planning and Strategic Policy Directorate of MIA. It will consist of representatives of all stakeholders, including development partners and the heads and managers of the *aimag* offices. The working group could be tasked with the responsibility of conducting annual sector reviews as well as leading and undertaking the annual planning and budgeting process. The annual sector review will inform the planning and budgeting process.

- *Conduct a value-for-money analysis to extensively document program impacts and outcomes.* In order to obtain a clear picture of the quality of spending, and to inform decision-makers about program impacts, a detailed technical efficiency (value-for-money) analysis, either through a Public Expenditure Tracking Survey (PETS) or Benefit Incidence Analysis (BIA) needs to be conducted. This will provide senior management with information about where the money is going and about program impacts on beneficiaries at all levels.
- *Improve planning and budgeting by developing and implementing a sector MTEF that would detail the cost of programs at all levels and show funding requirements.* The review found it difficult to determine the basis for allocating sector resources to investment programs. This problem will be resolved with the development and implementation of a sector MTEF that captures all funding sources and requirements. MIA, therefore, must develop a sector specific MTEF to enable it to improve its resource allocations.
- *Establish an effective mechanism for monitoring disease control and vaccination programs in soums.* The review identified weaknesses in the current system of monitoring the vaccination program at *soum* level, based on discussion with the authorities in two *aimags*. While two out of 21 *aimags* cannot be said to be an adequate sample, MIA needs to review the current contracting and monitoring mechanism in place in all *aimags*. The review should aim at ascertaining the effectiveness of service delivery, including the extent of documentation, recoding and reporting of program expenditures, particularly outlays on vaccines.

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ANNEXES. SOURCE DATA AND PROGRAM IMPACTS

Annex 1. Main Agricultural Output Data

A. Livestock Production

Table 1. Number of livestock in thousands of heads, 2007-2011

Type of animal	2007	2008	2009	2010	2011
Camel	260,600	266,400	277,100	269,600	28,000
Horse	2,239,500	2,186,900	2,221,300	1,920,300	2,112,900
Cattle	2,425,800	2,503,400	2,599,300	2,176,000	2,339,700
Sheep	16,990,100	18,362,300	19,274,700	14,480,400	15,668,500
Goat	18,347,800	9,969,400	19,651,500	13,883,200	5,934,600
Total	40,263,800	33,288,400	44,023,900	32,729,500	26,083,700

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 2. Loss of adult animals in thousands of heads, 2007-2011

Type of Animal	2007	2008	2009	2010	2011
Camel	2	3.4	2.9	17	2.4
Horse	24.6	122	62.9	369.7	27.6
Cattle	27.9	132.9	107.1	581	52.9
Sheep	119.9	652.8	681.4	4363.8	284
Goat	119.8	729.4	878.5	4988.4	284.4
Total	294.2	1640.5	1732.8	10319.9	651.3

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 3. Number of intensive farming, 2007-2011

Type of farm	2007	2008	2009	2010	2011
Dairy farm	494	412	523	649	901
Cattle farm	10	48	94	101	64
Meat and wool sheep farm	15	57	107	128	200
Pig farm	79	172	135	190	187
Poultry farm	111	225	105	148	217
Bee farm	40	56	58	68	81
Total	749	970	1022	1284	1650

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 4. Gross Agricultural output per MNT, 2007-2011

	2007	2008	2009	2010	2011
Gross agricultural output	1297.5	1691.6	1737.4	1752.5	2053.7
Livestock	1124.8	1377.1	1307.7	1290.7	1505.3
Crop Production Sector	172.7	314.6	429.7	461.8	548.4

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

B. Crop Production

Table 1. Sown area per hectare

Type of crop	2007	2008	2009	2010	2011
Cereals	121777	153951.3	252389.8	259196.7	299927.4
Potatoes	11461.5	12291.5	13524	13813.7	15375.6
Vegetables	6134.5	6409.9	6517.9	7032.2	779630
Fodder crops	4939.4	5549.6	3305.5	11133.2	10874
Technical crops	58368	14282	6258	23319.3	10877
Fresh fruit	376.6	888.3	1556	2401.7	4000
Total	202729.3	192495.7	2821768	315295.1	345935

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 2. Production and supply of main agricultural products, 2007-2011

	2008	2009	2010	2011	2008	2009	2010	2011
Production/t/					Supply/%/			
Wheat	209829.9	388121.9	345457.5	435889.2	55.1	77.5	83.9	98.3
Barley	1394.3	1844.2	4319.6	4362.9	55	62.8	7.7	96.7
Oats	1177.7	1511.5	4349	4339.2	33.8	44	56.5	64.2
Other wheat	492.2	181.1	934.7	1459.2	10.6	7	31.5	40
Potatoes	134772.8	151211	167955.7	201638.9	79.2	86.7	95.6	97.2
Tomatoes	2805.3	1432.1	1565.6	2350.1	32.9	34.6	28.1	48.3
Onion and garlic	4221.5	4084.6	5839.9	6088.7	22.8	26.7	28.6	28.7
Cabbage	19327.7	19034	17856	208296.8	48.5	49	41.5	38.2
Carrot and turnip	39472.1	41857.7	46452.5	53897.9	87.3	73.5	82.1	72.5
Cucumber	2845	3075	3384.5	4373.9	40.1	76	70.6	79.6
Melon and pumpkin	6510	4942.1	3875.9	7471	59	75.2	79.7	83.1
Other vegetables	3360.5	3550.4	3325	3895.5	70.1	80.6	62.6	40.9

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Annex 2. Government Support to Crop Production

Table 1. Number of irrigation systems established and restored with state budget

	2008	2009	2010	2011
Number of irrigation system	92	59	55	9
Irrigated field/hectar/	8819	5263.3	4276.3	1419
Total investment/mln.tog/	24,787.7	13,738.2	12,162.9	24,63.2
State budget	6,404	5,470	5,927.9	2,463.2
Investment made by the entities and citizens	18383.7	8268.2	6235	-

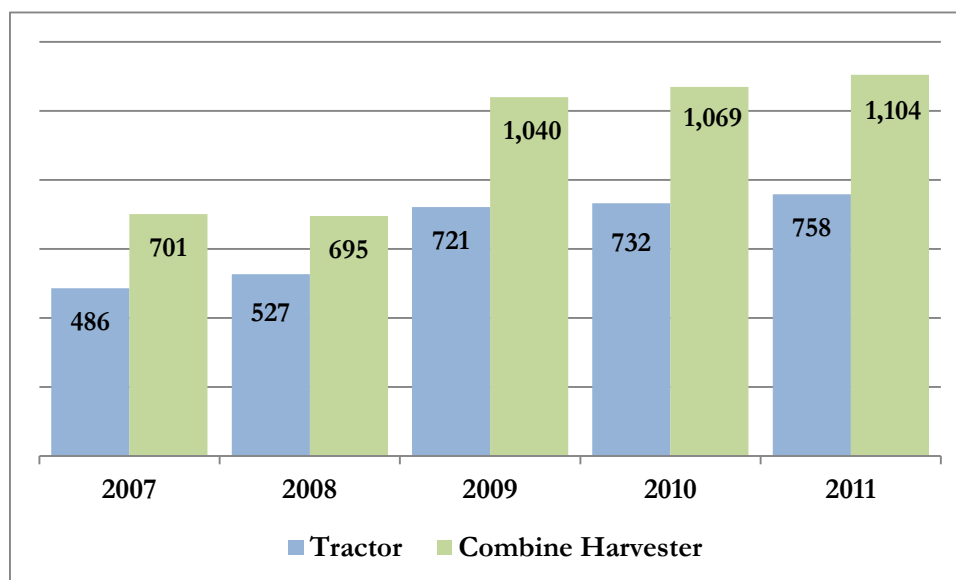
Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 2. Irrigated fields, 2011

	Cereals	Potato	Vegetable	Fresh fruit	Fodder crop	Total
Irrigated land/thous.hectar/	10.7	11.6	7.7	2.6	4.4	46.5
Percentage in total crop production	4	78	100	100	41	12
Total crops/thous.t/	19.8	157	106.1	627.7	16.6	

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Figure 1. Number of tractors and combined harvesters, 2007-2011

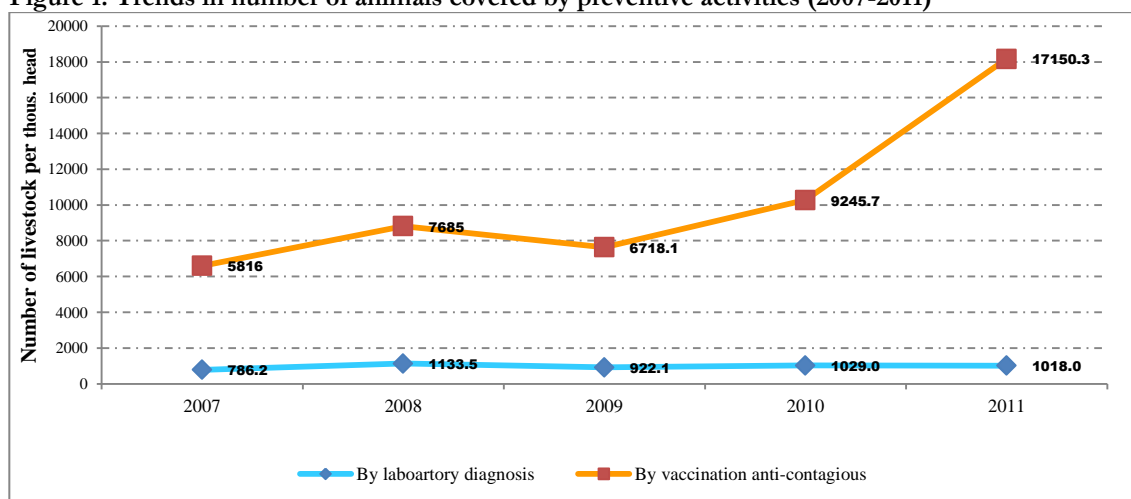


Annex 3. Livestock Disease Control Program

1. A Government initiative to control livestock diseases has helped to improve livestock production in recent years. The GoM has invested substantially in the provision of animal care services through its nationwide livestock vaccination program. The Ministry of Industry and Agriculture (MIA) partners with the private sector to implement the program at the *soum* level. The Government supplies the vaccines free of charge and the private sector provides the services. The agricultural authorities in the *aimags* establish contracts with the private service providers in the *soums*. Upon successful completion of their services, the *aimag* authorities approve and authorize payment for the services rendered centrally at MIA.

2. The program is implemented through laboratory diagnosis and vaccination against contagious diseases. Available data for the period between 2007 and 2011 show that the number of animals that have undergone laboratory diagnosis increased from 5,816 in 2007 to 7,685 in 2008, but fell slightly to 6,718 in 2009. Thereafter, the number of animals covered by laboratory diagnosis increased steadily to 17,150 in 2011. Vaccinations against contagious diseases increased from 786 in 2007 to 1,018 in 2011.

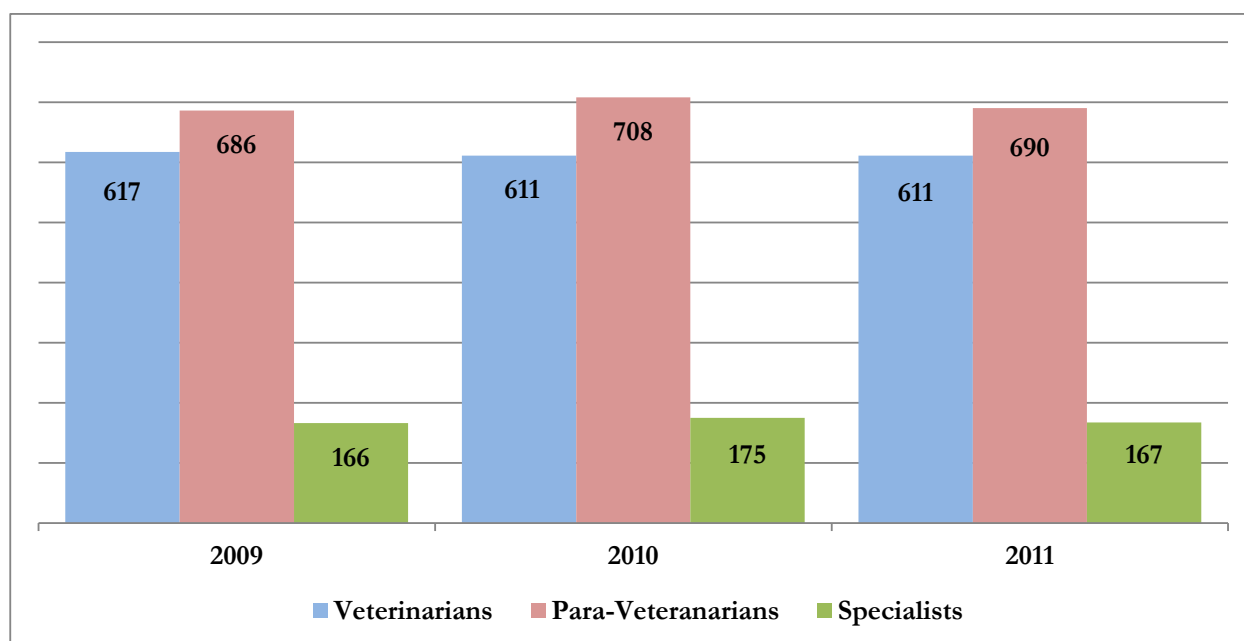
Figure 1. Trends in number of animals covered by preventive activities (2007-2011)



Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

3. The program is carried out by veterinarians, para-veterinarian and specialists throughout the country. Currently there is an average of 613 veterinarians, 695 para-veterinarians, and 169 specialists involved in the implementation of the program. Trends in the number of veterinarians and specialists are shown in the figure 1 below.

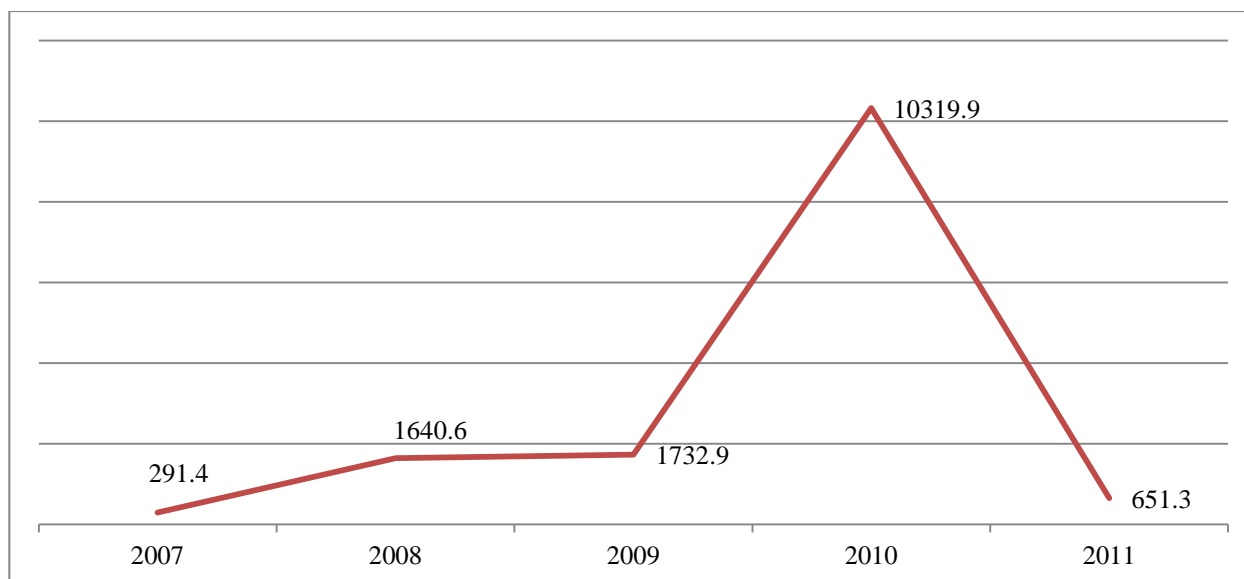
Figure 1. Animal Care Services Workers



Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Program impact

Figure 2. Trends in animal mortality (Per thousand), 2007-2011



Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Table 1. Average survival rate per 100 female breeding stocks per head. Percent, (2007-2011)

Young animal	2007	2008	2009	2010	2011
Young camels	45.0	50.0	47.0	41.0	47.0
Foals	73.0	60.0	67.0	42.0	72.0
Calves	82.0	72.0	74.0	53.0	73.0
Lambs	89.0	80.0	79.0	45.0	83.0
Kids	87.0	74.0	70.0	31.0	81.0
Total	376.0	336.0	337.0	212.0	356.0

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

4. Government support to intensified farming to boost livestock production increased markedly with total number of intensified farms increasing from 749 in 2007 to 1,650 in 2011. Table 2 provides trends in the number of intensified farming established in the sector.

Table 2. Number of intensified farming (2007-2011)

Intensified farming	2007	2008	2009	2010	2011
Dairy farm	494	412	523	649	901
Cattle farm	10	48	94	101	64
Meat and wool sheep farm	15	57	107	128	200
Pig farm	79	172	135	190	187
Poultry farm	111	225	105	148	217
Bee farm	40	56	58	68	81
Total	749	970	1022	1284	1650

Source: Statistical Data for Food, Agriculture and Light Industry Sector, MIA, 2012

Annex 4. Agriculture sector subsidies by subsector

Table 1. Trends in agriculture sector subsidies

	2008	2009	2010	2011	2012	2008-12 Avg.
Subsidies:						
Total Ag Subsidies (crop and livestock) 4/	57,300	22,014	26,905	47,583	91,128	48,986
% Change year-on-year	-	-62%	22%	77%	92%	15%
Crop Sector	13,566	16,119	18,359	24,485	40,665	22,639
% Change year-on-year	-	19%	14%	33%	66%	50%
Wheat Price subsidy	11,164	8,665	10,906	14,471	27,830	14,607
% Change year-on-year	-	-22%	26%	33%	92%	37%
Livestock Sector	43,734	5,895	8,546	23,098	50,462	26,347
% Change year-on-year	-	-87%	45%	170%	118%	4%
Agro-processing industry subsidies 4/	2,432	2,460	1,462	21,150	27,406	10,982
% Change year-on-year	-	1%	-41%	1347%	30%	257%
Total Government subsidies 5/	122,865	55,441	96,226	175,449	202,842	130,564
% Change year-on-year	-	-55%	74%	82%	16%	16%
Ag subsidies (crop and livestock) as percent of total subsidies	47%	40%	28%	27%	45%	38%
Ag and agro-processing industry subsidies as percent of total subsidies	49%	44%	29%	39%	58%	46%
Total Government subsidies 5/	122,865	55,441	96,226	175,449	202,842	130,564
Total Ag Expenditures (MIA) 2/ (in mill.)	98,803	46,648	106,175	238,968	223,033	142,725
% Change year-on-year	-	-53%	128%	125%	-7%	31%
Total Ag Investment Budget (MIA) (in Mill.)	23,000	17,300	10,917	23,670	29,031	20,784
% Change year-on-year	-	-25%	-37%	117%	23%	7%
Agriculture R&D Expenditure 3/ (in Mill.)	4,639	4,851	4,189	6,192	7,636	5,502
% Change year-on-year	-	5%	-14%	48%	23%	16%

Notes:

1/ 2008 to 2011 are actual expenditures and 2012 is planned budget.

2/ Ministry of Industry and Agriculture (MIA) expenditure plus livestock fund for wool and cashmere subsidies, and agriculture subsidy part of the SME loans. Wheat subsidies are already included in the normal MIA budget.

3/ This includes R&D budgets reported by MIA, plus the agricultural research expenditure through the Science and Technology Fund under the Ministry of Education and Science.

4/ Estimated subsidies in this study; These do not include the implicit subsidies calculated as the Market Price Support for wheat and wool, i.e. by comparing price received by farmers in relation to the international price.

5/ Including Government estimates of energy, transport, enterprises, and other subsidies; however, ag and agro-processing industry subsidies are as estimated in this in this study. 6/ Inflation rate is 12.5%.

Annex 5. Sample Aimag Veterinary Services Contract

AGREEMENT WITH VETERINARY AND BREEDING SERVICE UNIT, ERDENEBUGAN CO.,LTD OF SERGELEN SOUM

One. General provision

- 1.1. Main purpose of this agreement is dedicated to organize veterinary service unit.
- 1.2. Parties of Agreement should obey the Civil Code, Mongolian law on Cooperative, Law on protection livestock genetic fund and health, Law on Disaster protection, Law on Medicine and medical equipment, Law on Food, Law on Quarantine and control for raw material or products of animal and plant, Law on Labor, Law on Combating livestock robbery and preventative, Regulation on veterinary, sanitation and certification and its usage, Mongolian standard MNS 5368-2:2011 and other regulations.
- 1.3. Agreement should enter into force since signed and valid for four years.
- 1.4. Amendment could be entered into agreement based on discussion and to abolish according to legal condition.

Two. Responsibilities of Veterinary unit

- 2.1. Implement activities “Mongol Livestock” national program and “State policy on herders” in *soum* level.
- 2.2. Veterinary unit should obey standard MNS 5368-2:2011 for its operation.
- 2.3. Note regarding its service on herder household’s livestock health notebook after deliver service.
- 2.4. Develop general proposal on veterinary preventative activities and treatment based on customer contract and disease condition; and should approve by Governor and deliver to Department of Food, Agriculture and Small, medium industry on time.
- 2.5. Calculate expenses which requiring to implement activities as described in provision 15.2.2 of Law on Protect livestock genetic fund and health and provision 26.1.4 of Law on Disaster protection; and to present for Local assembly (People’s representatives Khural) for set up into *soum* budget.
- 2.6. Implement veterinary service which meets regulation and technology; and evaluate implementation quality by related officer and to deliver working papers to Department of FASMI.
- 2.7. According to Law on Disaster protection and Law on Protect Livestock genetic fund and health, to work on epicenter of disease in case of occurring livestock infectious or parasite diseases.
- 2.8. Make diagnosis for animal and its originated products and award origination certificate.
- 2.9. Cover health control for coming from abroad or transiting livestock for their area.

- 2.10. The unit should present report on veterinary service, disease, death, condition and other related situation for monitoring by Governor of soum and deliver to Department of FASMI on time.
- 2.11. Organize activities to earring for cattle, to install chip for horse and certification; and deliver action report to soum Veterinary and breeding service unit for merging into registration.
- 2.12. Cover to all livestock of nuclear herd, and pure livestock brands of herder households and to deliver report for soum veterinary and breeding service unit before every 1st October.

Three. Rights of Veterinary and breeding service unit

- 3.1. According to legislation and standard, the unit should implement and organize veterinary activities in its area.
- 3.2. The unit may operate other industries or services, which not conflicting main veterinary activity.
- 3.3. Develop proposal and claim relating to agreement responsibilities.

Four. Responsibilities of Soum Governor

- 4.1. Approve combined order on preventative activities for livestock infectious and parasite disease based on contract between veterinary service unit and herders, disease condition; and deliver to aimag Department of FASMI.
- 4.2. Set up expenses for activities, which described on provision 26.1.4 of Law on Disaster protection, into soum budget.
- 4.3. Support veterinary service by policy, to present report and deliver to aimag Department of FASMI.
- 4.4. Quarantine, announce and implement combating actions in case of occurring animal infectious disease.

Five. Rights of Soum Governor

- 5.1. Approve combined order of veterinary service in his area.
- 5.2. Organize combating actions in case of spreading infectious disease.
- 5.3. According to the provision 15.4.2 of Law on Protect livestock genetic fund and health, develop a proposal to give allowance to people, who worked in epicenter of disease, and deliver to related government body.
- 5.4. Control over activities of veterinary service units through state inspector for veterinary and agricultural specialist in soum area.
- 5.5. The Governor has a right to claim for agreement parts to discharge their duties.

Six. Responsibilities of Department of FASMI

- 6.1. Improve service on prevent animal infectious disease, livestock quality and breeding service; and to develop and combine activity expenses, which financing by state budget, for approving by aimag Governor and deliver to professional central organization.
- 6.2. Set up veterinary service expenses into aimag budget, according to the provision 15.2.1 of Law on Protect livestock genetic fund and health.
- 6.3. Monitor service report of veterinary units and distribute payments.
- 6.4. Distribute medicine to veterinary service units, according the order, to monitor spending; to present report and deliver to related organization.
- 6.5. Provide professional methodology for veterinary service units.

Seven. Rights of Department of FASMI

- 7.1. The department has a right to demand for veterinary service units to operate as described in standard MNS 5368-2:2011.
- 7.2. Present report and survey on veterinary service and deliver to related organization.
- 7.3. The department has a right to claim for agreement parts to discharge their duties.

Eight. General responsibilities.

- 8.1. Present agreement implementation within 25th of December.
- 8.2. Parts of agreement should solve arguments based on their discussion.

Nine. Binding effect

- 9.1. In the case of breach the contract, the guilty part should charge with responsibility.
- 9.2. In the case of breach the contract, the guilty part should discharge customer's loss.
- 9.3. The agreement should enter into force since 1st January 2013.

Parts

L.Davaasuren, Head, Department of FASMI

T.Gansukh, Soum Governor, Sergelen Soum

Jargalsaikhan, Director, Veterinary service unit

Annex 6. GDP data, ('000) 2003-2013, NSO

<i>Sectors</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>GDP, mln.tog</i>	1 829 072.2	2 361 156.9	3 041 405.7	4 027 558.6	4 956 647.2	6 555 569.4	6 590 637.1	8 414 504.6	11 087 723.8	13 944 238.1
<i>GDP per capita, thous.tog</i>	737.4	941.3	1 199.1	1 568.9	1 905.0	2 480.2	2 449.0	3 072.5	3 979.3	4 859.4
<i>GDP per capita, by World Bank Atlas method, USD</i>	609	747	904	1 128	1 443	1 847	1 855	2 065	2 562	
<i>GDP by sectors, mln. tog</i>										
<i>Agriculture, forestry and fishing</i>	337 272.1	472 934.5	602 136.3	710 609.2	913 409.2	1 259 660.8	1 177 380.3	1 202 155.6	1 365 115.0	2 066 952.9
<i>Mining and quarrying</i>	206 557.8	391 597.6	642 089.0	1 145 733.9	1 340 854.4	1 324 247.7	1 285 899.7	1 913 040.1	2 329 330.6	2 600 202.9
<i>Manufacturing</i>	121 551.5	130 576.3	175 155.9	218 885.6	309 500.4	430 179.4	425 000.6	539 836.0	665 537.0	869 764.7
<i>Electricity, gas, steam and air conditioning supply</i>										
	53 680.6	65 426.1	75 928.2	92 897.2	97 309.1	119 968.0	157 422.9	190 211.6	211 955.5	239 747.4
<i>Water supply; sewerage, waste management and remediation activities</i>										
	9 817.5	11 968.1	13 768.9	14 058.4	16 294.7	26 015.0	26 356.8	30 200.2	39 346.3	45 144.8
<i>Construction</i>	69 683.8	69 429.0	81 408.4	86 792.3	106 421.1	122 051.0	86 238.7	107 201.6	173 272.4	226 110.7
<i>Wholesale and retail trade; repair of motor vehicles and motorcycles</i>										
	185 210.8	202 639.9	227 478.2	271 511.6	313 204.4	472 226.5	432 646.2	696 502.6	1 020 944.4	1 298 687.7
<i>Transportation and storage</i>	166 101.2	198 897.0	256 726.4	287 501.5	322 307.0	419 323.2	546 745.5	645 747.5	785 475.4	905 268.4
<i>Accommodation and food service activities</i>										
	12 633.1	15 024.0	19 341.7	22 994.3	28 806.4	38 971.4	43 680.8	47 522.9	93 348.5	144 392.1
<i>Information and communication</i>	62 869.2	75 269.9	96 261.1	100 502.0	166 189.0	221 339.0	215 504.0	245 884.3	295 315.0	369 089.5
<i>Financial and insurance activities</i>	74 166.0	97 562.5	112 278.8	116 016.0	155 198.1	236 327.4	212 724.0	239 607.2	381 098.0	502 630.4
<i>Real estate activities</i>	125 910.9	137 681.2	160 522.7	173 846.0	186 823.5	345 984.2	479 635.3	554 498.9	768 719.9	880 848.0
<i>Professional, scientific and technical activities</i>										
	14 026.8	15 473.6	18 024.5	27 697.3	36 068.4	76 694.6	65 655.8	69 976.0	101 074.3	127 745.0
<i>Administrative and support service activities</i>										
	23 884.6	27 507.9	34 071.1	33 805.6	51 218.0	98 499.8	88 804.4	88 090.4	128 534.2	163 769.5
<i>Public administration and defence; compulsory social security</i>										
	50 485.2	58 190.6	66 923.1	117 236.4	141 514.3	247 723.6	267 246.3	303 036.1	366 726.8	593 715.3
<i>Education</i>	67 440.5	66 952.3	86 528.6	122 529.6	170 563.4	272 562.3	312 138.4	336 646.3	441 036.0	655 441.4

<i>Sectors</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>Human health and social work activities</i>	25 173.3	32 606.4	37 516.9	50 752.6	72 616.0	119 817.4	123 042.0	143 194.3	181 390.4	292 737.8
<i>Arts, entertainment and recreation</i>	5 930.5	7 314.9	7 744.5	10 206.0	12 980.0	23 211.4	27 876.2	31 064.1	37 609.2	53 279.1
<i>Other service activities</i>	12 073.1	14 887.4	15 763.7	18 729.2	23 503.6	27 950.0	24 871.5	26 473.7	38 798.6	48 756.5
<i>Net taxes on products</i>	204 603.7	269 217.9	311 737.9	405 253.9	491 866.0	672 817.0	591 767.8	1 003 615.1	1 663 096.2	1 859 954.0

Source: NSO

Annex 7. Data on General Government Expenditure by Sector, 2003-2013, in MNT billions, MoF

Sector	FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012	FY 2013
	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	plan
Total	612,069,48 5.3	650,970,69 0.3	794,752,12 6.9	800,494,45 7.2	853,830,21 1.9	822,988,81 4.0	1,279,702,89 9.8	1,234,222,86 6.9	1,917,346,91 4.4	1,844,388,64 1.9	2,822,714,35 9.2	1,919,414,54 4.1	2,601,263,56 5.8	2,020,531,55 2.2	3,432,195,55 4.3	2,590,863,52 6.0	5,316,996,61 6.1	3,955,720,11 7.5	6,991,495,56 1.8	9,199,752,00 8.8
GENERAL PUBLIC SERVICES	47,476,827 .8	58,099,915 .8	62,107,052 .8	69,995,377 .9	65,987,136 .3	76,570,867 .1	120,219,089 .3	89,472,633.8	153,219,830. 5	196,023,851. 1	179,336,965. 9	229,719,315. 4	231,025,846. 4	190,916,412. 8	383,237,147. 5	378,829,919. 3	418,267,492. 0	407,073,100. 3	1,243,382,44 7.4	1,498,503,18 6.7
DEFENSE	27,795,896 0	27,815,262 3	32,862,789 6	32,798,912 2	35,566,649 2	35,800,090 8	44,709,386.2	45,532,252.9	66,618,097.5	65,970,419.4	90,957,304.2	101,601,095. 1	84,487,837.8	84,612,270.0	109,544,322. 2	109,128,660. 8	154,968,904. 8	151,108,512. 1	233,627,919. 8	258,658,617. 9
PUBLIC ORDER AND SAFETY	35,000,871 2	35,797,258 5	42,903,084 .8	44,270,930 .9	48,727,678 .8	49,866,248 .3	60,876,784.4	64,387,649.2	103,402,965. 6	92,153,772.5	250,384,259. 7	144,485,749. 2	132,469,138. 6	128,823,273. 3	157,963,214. 5	157,561,437. 8	230,515,398. 9	228,530,273. 1	307,530,791. 6	432,746,279. 4
EDUCATION	118,976,79 6.0	115,643,84 7.3	140,183,65 0.3	141,368,20 1.7	150,854,40 2.0	148,122,84 0.7	192,691,064. 4	195,467,183. 9	260,805,158. 3	254,320,978. 9	354,223,908. 7	383,483,844. 2	409,878,728. 1	400,976,975. 6	507,180,231. 1	490,391,952. 0	647,189,344. 4	626,420,076. 8	1,020,074,67 4.0	1,836,729,52 4.9
HEALTH	62,908,457 .9	62,984,338 .6	79,278,406 .1	78,099,641 .1	85,344,479 2.8	85,008,284 4	104,837,798. 9	104,544,772. 4	155,526,106. 6	163,166,597. 4	245,900,733. 1	211,707,033. 1	266,525,543. 1	216,811,499. 7	342,474,621. 0	250,426,574. 2	452,759,192. 4	335,745,255. 2	623,134,026. 3	765,254,021. 8
SOCIAL SECURITY AND SOCIAL WELFARE	111,736,38 5.4	117,732,91 8.4	145,272,39 9.1	150,737,52 1.8	179,835,26 3.0	185,787,63 3.0	251,614,587. 9	258,207,536. 9	384,527,220. 3	378,338,921. 6	695,213,748. 1	308,657,586. 5	709,141,149. 6	291,827,896. 7	1,054,338,89 4.3	278,171,546. 9	1,677,685,30 7.7	333,193,578. 6	2,180,524,76 3.8	1,789,815,79 4.9
HOUSING AND COMMUNITY AMENITIES	3,727,108. 0	6,301,903. 8	7,064,505. 8	9,629,569. 7	5,308,932. 7	7,967,464. 5	5,495,629.2	978,393.1	7,022,162.8	6,123,341.4	9,070,547.7	10,748,882.9	9,088,393.0	0.0	90,050,983.8	91,020,971.4	123,795,674. 9	182,664,082. 7	56,440,121.9	115,690,579. 6
RECREATIONAL AND SPORTING, CULTURAL SERVICES	17,002,204 .3	17,953,767 5	20,565,593 .1	21,120,501 .1	19,419,531 .7	20,484,009 .1	17,786,120.8	17,902,770.6	34,566,800.1	30,899,234.2	43,632,056.0	43,360,595.3	41,762,803.3	40,002,556.3	51,173,814.2	52,338,878.2	80,579,080.5	80,577,355.0	81,862,625.2	141,064,673. 1
ENERGY, HEATING	16,308,465 2	17,385,014 6	24,843,241 5	24,423,308 .8	20,586,368 6	21,310,487 3	38,407,691.4	35,427,550.1	31,740,516.1	34,175,820.7	56,306,837.3	52,124,588.1	37,829,080.2	34,863,207.9	93,117,064.3	87,969,018.5	181,628,939. 3	167,587,284. 0	183,755,753. 3	178,790,523. 4
AGRICULTURE, FORESTRY	11,244,318 .1	10,529,836 .8	12,449,505 .8	12,763,701 .1	13,375,867 .3	14,532,021 .8	17,857,201.5	17,634,550.9	35,049,457.5	30,032,015.2	78,128,480.1	76,801,372.5	66,077,917.7	63,770,880.0	116,247,482. 7	110,254,242. 0	239,795,314. 7	221,439,319. 0	143,588,999. 8	180,994,482. 3
MINING, MANUFACTURING AND CONSTRUCTION	22,149,733 8	23,160,577 0	26,316,383 0	21,329,109 5	32,006,017 2	22,301,120 2	44,885,368.9	37,468,991.2	52,715,098.2	50,141,301.0	85,685,801.2	49,126,104.4	99,706,786.9	81,365,315.1	218,474,563. 1	175,960,419. 4	633,285,429. 5	612,907,271. 3	81,380,271.8	108,919,529. 3
TRANSPORT & COMMUNICATION	1,717,059. 7	5,390,754. 6	2,703,355. 7	6,311,434. 7	2,787,744. 8	7,979,974. 1	33,592,306.9	28,660,641.9	41,179,637.8	42,778,892.0	14,482,682.7	9,933,926.8	30,133,210.9	197,573,451. 5	46,350,856.5	46,932,890.6	71,564,373.3	96,784,700.5	82,546,612.3	212,717,349. 5
OTHER ECONOMIC ACTIVITY	8,763,667. 4	10,275,062 0	10,893,228 6	13,811,225 2	11,271,691 6	11,630,901 4	119,669,012. 8	211,418,504. 5	379,415,020. 1	340,809,089. 0	484,369,049. 0	89,711,054.7	274,693,307. 2	87,174,992.4	109,617,428. 9	98,149,390.9	190,959,997. 3	210,953,561. 9	180,208,981. 8	334,584,901. 4
OTHER UNCLASSIFIED EXPENDITURES	127,261,69 4.5	141,900,23 3.1	187,308,93 0.7	173,835,02 1.5	182,758,44 9.7	135,626,87 1.3	227,060,857. 2	127,119,435. 5	211,558,843. 0	159,445,407. 5	235,021,985. 5	207,953,395. 9	208,443,823. 0	201,812,721. 5	152,424,930. 2	263,727,624. 0	214,002,166. 4	300,735,747. 0	568,437,572. 8	1,342,646,33 2.2

Annex 8. Data on MIA's Expenditures by Economic Classification, MoF, 2003- 2013

	FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012	FY 2013
	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	plan
MINISTER OF INDUSTRY AND AGRICULTURE	9,845,341	9,043,133	10,998,944	10,940,389	11,110,008	12,189,205	15,152,982	14,934,309	32,280,008	27,331,309	71,353,157	68,175,775	61,046,830	44,255,489	108,443,638	102,614,325	236,722,859	219,358,226	182,005,853	287,173,234
II, TOTAL EXPENDITURE	9,845,341	9,043,133	10,998,944	10,940,389	11,110,008	12,189,205	15,152,982	14,934,309	32,280,008	27,331,309	68,471,957	66,794,775	54,891,730	38,284,059	98,793,638	90,082,727	188,686,359	172,713,019	212,848,612	304,876,757
IV, CURRENT EXPENDITURE	9,285,341	8,437,734	10,118,944	10,015,060	10,407,908	11,460,381	10,878,982	10,667,614	14,100,908	13,388,785	39,764,257	48,000,219	53,785,446	37,460,169	59,507,938	54,423,081	123,637,453	104,016,329	96,661,298	118,675,978
Goods and services expenditures	9,234,406	8,394,648	10,080,857	9,858,04	10,369,384	11,405,966	10,817,953	10,534,701	14,037,280	12,645,329	31,275,706	37,576,828	34,534,692	29,866,709	42,867,799	39,408,203	51,526,514	74,334,548	37,411,484	50,348,431
Salary, wages and supplementary	546,744	486,692	697,975	669,702	733,669	699,500	1,005,766	976,096	1,421,184	1,371,133	2,986,083	3,216,615	3,522,881	3,415,714	3,910,264	3,952,889	4,646,051	4,670,889	7,185,039	9,287,262
Basic Salary	493,010	463,823	693,341	669,702	648,792	699,500	1,005,766	976,096	1,421,184	1,371,133	2,218,333	2,338,752	2,500,111	2,402,304	2,735,361	2,739,255	3,323,976	3,502,401	5,084,456	6,689,064
Supplementary	0	0	4,635	0	84,878	0	0	0	0	0	0	68,187	0	0	0	0	0	1,135,119	0	0
Salary for structure changes	53,734	22,869	0	0	0	0	0	0	0	0	0	3,895	0	0	0	0	0	0	0	0
Wages for contracted out services	0	0	0	0	0	0	0	0	0	0	569,723	709,669	804,615	835,989	1,008,052	1,072,615	0	1,697,731	2,078,680	0
Compensation for transportation and meal	0	0	0	0	0	0	0	0	0	0	197,527	95,845	217,756	177,421	222,352	204,857	249,461	33,369	402,852	519,517
Performance bonuses	0	0	0	0	0	0	0	0	0	0	0	267	0	0	0	724	0	0	0	0
Employers' insurance contribution	144,341	131,131	184,265	179,774	193,690	185,932	265,399	260,936	373,191	361,177	298,607	337,567	392,237	366,097	430,130	437,761	519,658	528,887	804,796	1,025,842
Pension and benefit insurance contribution	118,097	108,319	150,762	147,972	158,474	155,719	217,557	224,012	306,979	316,086	238,885	279,077	321,748	296,948	351,925	362,047	426,849	456,348	659,870	840,097
Pension insurance	88,249	99,545	124,938	129,520	131,327	140,402	180,251	200,319	254,391	292,059	209,025	253,325	246,589	233,687	273,719	286,684	325,524	380,150	505,904	650,109
Benefit insurance	8,874	3,631	12,563	8,825	13,206	7,344	18,125	14,842	25,582	11,541	14,930	12,876	17,624	15,221	19,552	18,967	23,202	17,999	36,149	46,437
Industrial accident and occupational disease insurance	4,931	2,215	6,980	5,222	7,337	4,267	10,096	4,651	14,214	6,774	0	0	39,946	32,945	39,102	37,490	54,921	40,933	81,670	97,116
Unemployment insurance	4,437	1,838	6,282	4,410	6,603	3,707	9,086	4,200	12,792	5,713	14,930	12,876	17,624	15,095	19,552	18,906	23,202	17,266	36,148	46,437
Salary for structure changes	11,606	1,090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Health insurance contributions from employers	23,665	22,607	33,503	31,797	35,217	30,213	47,842	36,924	68,212	45,090	59,722	58,483	70,454	69,150	78,205	75,714	92,809	72,539	144,926	185,745
Health insurance for structure changes	2,580	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Expenditure on other goods and services	8,543,321	7,776,825	9,198,617	9,008,28	9,442,24	10,520,534	9,546,788	9,297,669	11,958,221	10,624,121	27,991,016	33,996,141	30,619,573	26,084,897	38,527,405	34,965,414	46,257,153	45,032,518	29,421,649	40,035,327
Stationery	26,011	31,085	40,804	60,498	40,169	41,074	37,695	39,493	40,237	37,932	62,413	53,232	44,744	53,413	53,134	60,974	202,198	180,672	72,247	120,378
Electricity	42,436	35,686	44,653	34,046	49,005	34,962	54,896	46,026	54,801	46,920	146,433	117,176	130,122	130,624	204,935	162,727	245,277	156,142	228,204	318,032
Heating	162,368	155,543	177,313	169,028	198,697	189,354	221,094	209,014	233,338	217,630	356,458	296,489	342,893	311,744	520,344	412,264	500,481	439,701	485,155	669,998
Fuel and transportation expenses	114,018	116,664	140,780	154,758	188,966	179,691	217,594	223,434	251,711	262,214	343,732	419,210	271,700	290,038	285,740	337,758	379,606	430,602	571,208	922,332
Postal and telecommunication	47,382	59,307	72,802	75,426	70,939	74,924	72,393	73,559	73,679	74,241	104,988	79,969	66,139	75,531	75,778	82,266	92,084	89,111	103,867	166,974
Water supply and treatment	9,697	8,604	15,125	11,389	16,902	12,062	21,512	16,949	21,260	19,445	39,494	27,581	31,414	22,068	38,863	27,216	47,633	37,736	45,458	61,303
Domestic business trip	51,557	54,988	74,680	76,282	75,338	65,885	119,529	114,791	128,342	137,696	203,771	164,256	154,096	167,961	182,780	231,363	262,447	301,631	547,771	770,017
Foreign business trip	15,580	11,708	24,586	14,267	23,777	23,423	26,528	30,337	47,335	43,367	113,475	63,230	45,336	22,680	51,675	53,972	27,500	23,103	33,276	59,903
Books and periodicals	2,369	1,992	8,138	9,171	7,857	5,210	6,078	5,589	6,378	5,960	14,859	14,413	2,342	686	1,805	2,102	27,037	1,978	2,652	5,104
Expenses on training and practice	50	75	10,057	25,103	7,741	17,297	9,497	6,546	9,697	0	80,267	54,066	0	0	0	0	0	0	0	2,500
Expenses on scientific research	250	250	0	0	0	0	0	0	0	0	0	296,000	0	0	0	0	0	0	0	0
Inventories and materials	14,500	29,781	44,676	121,657	41,304	58,239	34,965	507,785	25,187	34,263	86,404	135,531	46,371	79,194	49,770	61,591	5,610,466	5,755,442	3,857,563	832,858
Tools	0	0	0	0	0	0	0	0	0	0	0	2,715	22,157	51,023	23,334	21,529	5,087,698	5,236,421	3,528,671	751,696
Furniture	0	0	0	0	0	58,239	0	0	25,187	34,263	86,404	132,816	12,326	17,584	3,675	7,446	0	955	22,600	25,950

Labor safety tools	0	0	0	0	0	0	0	0	0	0	0	0	1,940	864	4,407	3,491	6,500	3,470	278,423	8,707
Low-cost, short-life things	0	0	0	0	0	0	0	0	0	0	0	0	9,949	9,722	18,353	29,125	26,006	28,612	27,870	43,005
Software	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	489,942	485,984	0	3,500
Clothing and bedding	7,660	5,873	9,942	6,943	8,159	6,763	7,943	7,639	7,943	7,337	27,164	36,843	19,966	15,564	26,645	30,690	33,345	39,939	34,144	38,844
Food expenses	0	0	0	49	0	375	0	97	0	0	16,243	23,202	0	0	0	0	0	0	0	0
Medicines & vaccines	3,335,952	3,189,220	3,048,013	2,769,300	2,858,272	2,725,438	2,647,707	2,522,339	3,362,036	3,295,698	4,898,594	4,785,010	4,296,868	4,293,065	4,825,301	4,817,843	10,944,114	10,935,248	8,627,418	9,459,050
Current renovation	20,750	36,900	40,714	47,456	40,320	66,292	37,799	45,146	46,929	46,663	151,564	115,534	90,061	159,736	139,642	216,988	167,806	341,099	224,671	197,596
Charges, fees and other expenses	45,447	88,525	256,263	272,260	238,830	196,440	131,364	201,160	132,624	136,553	176,326	166,263	85,540	308,797	123,523	233,476	7,741,651	7,766,977	211,963	1,464,696
Expenses to organize wholesale network	0	0	0	0	0	0	0	101,439	0	99,950	0	100,029	0	0	0	0	0	0	0	0
Research on economic policy and strategy	0	0	0	0	0	0	0	0	0	0	55,000	55,000	88,480	88,480	88,480	63,140	0	0	0	0
Foreign guest expenses	3,400	3,573	7,379	4,325	7,505	4,567	4,500	4,506	7,050	7,051	7,175	0	1,520	4,187	1,458	1,465	22,720	22,239	8,266	13,969
Sport competition expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,900
Usage of telecommunication channel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
Rent and leasing	8,362	8,382	14,983	15,212	2,542	2,156	3,942	3,942	6,592	6,946	10,122	10,338	18,760	22,416	42,462	47,377	47,218	54,950	43,291	62,288
Centralized measures	1,078,000	844,914	1,522,500	1,882,92	1,429,500	1,321,324	1,291,672	1,564,365	1,888,000	1,889,197	2,102,000	10,538,107	3,991,67	2,215,67	18,001,059	13,820,287	2,363,000	3,074,950	165,879	4,100,000
Measures to fight crime	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land map	0	0	0	0	0	0	0	20	0	50	0	50	0	0	0	0	0	0	0	0
Security Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,000	4,069	5,000	5,000
Service payment	0	0	0	0	0	0	0	0	0	0	1,698,598	1,087,849	0	0	0	0	0	0	0	0
Undistributed expenses of central budget	0	0	0	0	0	0	0	0	0	0	0	10,000	0	2,500	0	0	0	3,579	0	0
Undistributed other expenses of central budget	0	0	0	0	0	0	0	0	0	0	0	10,000	0	2,500	0	0	0	3,579	0	0
Undistributed local expenses	0	0	0	0	0	0	0	760	0	0	0	0	0	0	0	0	0	20,000	56,699	0
Renovation	0	0	0	0	0	0	0	760	0	0	0	0	0	0	0	0	0	0	0	0
Form printing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56,699	0
Other undistributed expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,000	0	0
Bank charges	0	0	0	4	0	0	0	2	0	0	0	0	0	485	0	0	0	0	0	0
Arrears from previous year	0	0	0	0	0	1,560,538	0	0	0	0	0	0	0	9,034	0	8	0	0	0	0
Plant protection	750,000	645,513	750,000	750,550	650,000	649,448	650,000	647,785	1,000,000	999,996	2,000,000	2,000,000	1,629,561	1,629,561	1,820,000	1,790,000	1,820,000	1,813,600	78,400	1,786,000
Green revolution program	70,000	103,312	150,000	166,780	120,000	148,602	120,000	121,213	200,000	199,996	364,350	364,350	486,520	486,520	486,520	486,520	45,800	45,800	0	452,000
Animal husbandry breeding	41,000	63,954	40,126	78,569	40,500	105,352	40,200	43,510	40,200	39,995	133,281	144,694	100,838	105,905	115,822	133,378	39,115	35,034	31,215	197,106
Operational expenses of program and projects	208,500	152,285	153,400	99,195	356,000	289,719	409,700	311,287	502,800	474,041	587,600	433,027	721,117	671,997	657,651	613,613	396,080	0	140,250	802,283
Advertising the country abroad	0	0	0	0	0	0	0	0	0	0	10,000	10,000	0	0	0	0	0	0	0	0
Land survey	0	0	0	0	0	0	0	100	0	292	0	0	0	0	0	0	0	0	0	0
Operating expenses of scientific research projects	0	0	0	0	0	0	0	0	0	8,920	0	0	21,484	15,232	85,706	35,199	1,530,060	1,556,321	386,170	963,294
Training and practice for vocational purposes	0	0	0	0	0	0	0	0	0	8,920	0	0	21,484	15,232	23,406	20,283	23,690	16,512	10,690	16,050
Organization of courses and seminars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62,300	14,916	1,506,370	1,539,810	375,480	947,244
Vaccination of animals	2,000,000	1,915,448	1,630,000	1,546,979	2,000,000	2,040,166	1,994,000	1,641,366	2,105,300	2,043,623	1,135,083	1,136,680	0	0	0	0	0	0	0	0
Veterinary services	488,033	213,245	895,013	589,411	929,703	655,741	1,284,369	720,367	1,637,200	3,761	2,664,58	1,389,324	0	0	0	1,351,216	5,896,699	6,789,805	7,696,788	13,089,458
Payment for services provided by private sector	0	0	0	0	0	45,493	0	0	125,229	236,446	9,904,233	9,043,071	17,698,549	14,672,493	10,560,397	9,817,648	6,921,530	4,255,211	5,414,528	3,062,652

Payment for scientific R&D	0	0	0	0	0	0	0	0	0	50	0	0	29,600	29,600	19,300	20,000	1,136,159	780,945	0	25,000
Payment for general services	0	0	26,670	27,871	40,001	45,493	97,098	86,133	125,229	236,396	9,904,233	9,043,071	17,649,149	14,623,093	10,521,747	9,778,298	5,767,464	3,457,220	5,410,603	2,924,895
Payment for auditing and credit ranking services (domestic)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	21,300
Property insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54,010
Vehicles insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,685	3,006	3,765	36,234
Payment for security services	0	0	0	0	0	0	0	0	0	0	0	0	19,800	19,800	19,350	19,350	14,040	14,040	0	0
Vehicle inspection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1,214
Information & Advertisement	0	0	0	0	0	0	0	0	0	0	290,410	209,607	234,088	228,750	87,917	74,266	874,500	855,027	315,023	356,000
Brochures and distribution materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,000	45,000
Land rent	0	0	0	0	0	0	4,715	970	4,355	0	5,952	1,821	0	272	0	0	10,106	2,554	9,544	3,794
Fertilizer	0	0	0	0	0	0	0	0	0	0	200,000	614,200	0	0	0	0	0	0	0	0
Transfer of remaining balance and savings from previous year's expenses to organizations	0	0	0	0	0	0	0	0	282,684	288,898	0	26,513	0	0	0	52,140	103,652	24,102,254	0	0
Interest payment	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0
Interest payment of domestic loan	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0
Interest payment of government bond	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0
Subsidies and transfers	50,935	43,086	38,087	156,756	38,524	54,415	61,029	132,913	63,628	743,456	8,488,551	10,420,891	19,250,754	7,593,459	16,440,138	15,014,878	72,110,939	29,681,781	59,249,814	68,327,547
Subsidies	0	0	0	0	0	0	0	0	0	0	8,000,000	9,795,097	14,890,828	6,090,362	11,360,000	12,643,725	43,272,430	27,402,064	52,950,000	67,200,000
Other subsidies and transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,858,430	1,040,538	37,950,000	36,200,000
Wheat subsidies	0	0	0	0	0	0	0	0	0	0	8,000,000	9,795,097	11,360,000	4,959,335	11,360,000	12,643,725	15,000,000	16,165,436	15,000,000	31,000,000
Subsidies to private sector for production increase	0	0	0	0	0	0	0	0	0	0	0	0	3,530,828	1,130,828	0	0	20,414,000	10,196,090	0	0
Intergovernmental transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,000,000	0	0	0
Intergovernmental current transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,000,000	0	0	0
Transfer from State budget to other levels	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,000,000	0	0	0
Transfers to the households	15,825	17,275	23,144	135,730	22,379	35,269	40,642	112,365	38,667	40,468	462,179	625,794	445,275	427,383	1,000,022	766,450	1,805,629	315,067	604,042	973,985
Pension and benefit	0	0	0	0	0	0	0	0	0	0	2,640	840	0	0	0	0	0	0	0	0
Training cost	0	0	0	0	0	0	0	0	0	0	2,640	840	0	0	0	0	0	0	0	0
Social welfare expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500,000	499,050	0	0	0	0
Support for food and nutrition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500,000	499,050	0	0	0	0
Compensations	0	0	0	0	0	0	0	0	0	0	332,887	332,887	191,039	191,039	294,100	69,060	1,491,975	0	29,145	64,527
One time benefit and bonus	15,825	17,275	23,144	135,730	22,379	35,269	40,642	112,365	38,667	40,468	126,652	287,964	31,300	33,806	46,300	46,294	80,000	91,620	0	227,000
Non-continuous compensation by the employer	0	0	0	0	0	0	0	0	0	0	0	0	4,103	222,938	159,622	152,046	233,654	223,447	574,897	682,458
One-time cash compensation for retirement	0	0	0	0	0	0	0	0	0	0	0	0	4,103	134,840	116,406	86,870	84,763	153,203	144,122	324,912
One time grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation allowance for visit to motherland during holiday	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0
Bonuses and compensation	0	0	0	0	0	0	0	0	0	0	0	0	4,809	4,808	4,800	4,648	4,800	4,775	8,300	21,340
Compensation to public employees who got laid off due to restructuring	0	0	0	0	0	0	0	0	0	0	0	0	7,740	0	0	0	0	0	0	0
Payment and grants to specific group of citizens	0	0	0	0	0	0	0	0	0	676,581	0	0	3,909,163	1,073,858	4,073,790	1,602,473	3,032,880	1,964,600	5,694,882	0
Herdstock vaccination	0	0	0	0	0	0	0	0	0	676,581	0	0	3,659,163	843,870	4,073,790	1,602,473	3,032,880	1,964,600	5,694,882	0
Fertilizers for farmers	0	0	0	0	0	0	0	0	0	0	0	0	250,000	229,988	0	0	0	0	0	0

Other payments and fees	0	0	0	0	0	0	0	0	0	1,446	0	0	5,489	1,856	6,327	2,231	0	50	890	27,222
Land fee	0	0	0	0	0	0	0	0	0	1,446	0	0	5,489	1,856	6,327	2,231	0	50	800	18,055
Vehicles tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	9,168
Foreign transfers	35,110	25,811	14,943	21,026	16,145	19,146	20,388	20,549	24,961	24,962	26,372	0	0	0	0	0	0	0	0	126,340
Membership fees to international organization	35,110	25,811	14,943	21,026	16,145	19,146	20,388	20,549	24,961	24,962	26,372	0	0	0	0	0	0	0	0	126,340
CAPITAL EXPENSES	560,000	605,399	880,000	925,329	702,100	728,824	4,274,000	4,266,695	18,179,100	13,942,524	28,707,700	18,794,556	1,106,284	823,890	39,485,700	35,659,646	65,048,907	68,696,690	116,187,314	186,200,779
Domestic investment	10,000	14,260	298,900	344,230	284,700	320,595	3,424,000	3,439,420	9,313,600	8,277,083	23,726,300	16,827,046	1,106,284	823,890	36,844,100	35,420,951	57,441,800	56,770,282	48,886,700	76,217,000
Investment to be financed from budget	0	8,260	250,000	249,245	284,700	267,004	3,374,000	3,362,625	9,113,600	8,128,923	17,396,800	13,543,429	605,600	605,600	35,242,100	33,490,795	47,061,800	46,400,528	43,007,500	73,663,000
Plan and equipment to be financed from budget	10,000	0	48,900	48,818	0	0	50,000	72,000	200,000	148,160	5,609,500	1,472,586	0	0	602,000	599,282	10,380,000	10,364,754	5,879,200	2,554,000
Investment to be financed from own resources	0	0	0	0	0	0	0	2,295	0	0	720,000	1,811,032	500,684	218,290	1,000,000	1,317,175	0	0	0	0
Local government investment and capital renovation	0	6,000	0	2,000	0	0	0	2,500	0	0	0	0	0	0	0	13,000	0	5,000	0	0
Capital expenses to be financed from Local Road fund	0	0	0	44,169	0	53,591	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase the State reserves	0	0	0	0	0	0	700,000	700,000	7,200,000	3,945,427	3,000,000	0	0	0	2,400,000	0	5,090,000	11,271,141	28,395,919	28,000,000
Food and goods reserves	0	0	0	0	0	0	700,000	700,000	1,200,000	1,008,315	3,000,000	0	0	0	2,400,000	0	0	6,049,758	0	0
Grains reserves	0	0	0	0	0	0	0	0	6,000,000	2,937,113	0	0	0	0	0	0	0	0	0	0
Wheat reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,090,000	5,221,583	28,395,919	28,000,000
Expenses of Land and intangible items	0	3,240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forestry expenses	0	3,240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital transfers	550,000	587,899	581,100	581,098	417,400	408,230	150,000	127,275	1,665,500	1,720,140	1,981,400	1,967,510	0	0	241,600	238,694	658,700	655,267	983,000	1,520,600
Capital renovation of Budget entities	550,000	587,899	581,100	581,098	417,400	408,230	150,000	127,275	1,665,500	1,720,140	1,981,400	1,967,510	0	0	241,600	238,694	658,700	655,267	983,000	1,520,600
Investment to be financed from foreign loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,858,007	0	37,021,696	80,463,179
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	279,989	0	19,434,860	80,137,179
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,578,180	0	18,486,836	326,000
NET LENDING (SUBTRACTED THE REPAYMENTS)	0	0	0	0	0	0	0	0	0	0	2,881,200	1,381,000	6,155,100	5,971,430	9,650,000	12,531,598	48,036,500	46,645,207	30,842,759	17,703,523
Repayable loan	0	0	0	0	0	0	0	0	0	0	2,881,200	1,381,000	6,155,100	5,971,430	9,650,000	12,531,598	48,036,500	46,645,207	32,886,017	27,379,543
Repayment from central budget lending	0	0	0	0	0	0	0	0	0	0	2,881,200	1,381,000	6,155,100	5,971,430	9,650,000	12,531,598	48,036,500	46,645,207	32,886,017	27,379,543
Financing from foreign project loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,043,258	9,676,020
To be transferred lending from foreign loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,043,258	9,676,020
Financing resource to cover expenses:	9,840,241	9,076,948	11,028,944	10,836,457	11,110,008	12,608,877	15,152,982	16,138,133	32,280,008	29,194,335	71,353,157	73,529,088	61,046,830	50,119,366	108,443,638	99,743,282	236,722,859	208,274,301	182,005,853	287,173,234
From financial loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,000,000	9,849,933	0	0
Foreign projects' loan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,183,565	0	34,324,184	92,357,624
From core activitie's revenue	48,300	130,221	481,538	394,061	499,745	571,295	376,152	870,172	439,963	273,359	8,957,567	16,739,088	20,316,692	12,268,241	17,085,099	19,023,712	18,107,302	16,667,222	3,787,930	5,053,042
From non-core activitie's revenue	73,460	60,298	60,265	266,832	69,878	129,021	108,668	1,240,108	116,768	79,468	1,632,553	2,774,262	1,918,190	587,538	2,254,228	2,010,610	364,285	265,170	251,111	164,313
From grant funds	0	0	0	0	0	0	0	0	0	0	5,380,000	0	2,206,892	0	0	0	0	0	5,867,897	0
From budget and repayment of loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35,000,000	35,000,000	0	29,550,000
Financed from beginning balance	0	0	0	0	0	1,591,392	0	0	282,684	0	0	0	0	0	0	0	4,241,474	0	0	0
Mongolian development fund	0	0	0	0	0	0	0	0	0	0	0	0	0	6,394,632	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28,395,919	28,000,000
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	941,098	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35,000,000	0
Financed from budget	9,718,481	8,886,430	10,487,141	10,175,565	10,540,384	10,317,169	14,668,163	14,027,853	31,440,593	28,841,508	55,383,038	54,015,738	36,605,056	30,868,955	89,104,311	78,709,509	156,826,233	146,491,975	143,437,715	191,148,255
Revenue to be collected in budget 2009	0	0	0	0	0	0	0	0	0	0	0	0	481,648	0	0	0	0	0	0	0
NUMBER OF ENTITIES	36	34	34	33	32	27	26	0	26	0	34	0	33	0	34	3	34	0	36	38
	36	34	34	33	32	27	26	0	26	0	34	0	33	0	34	3	34	0	36	38
TOTAL EMPLOYEES	678	581	683	636	662	630	668	0	668	0	994	0	900	0	913	52	913	14	1,061	1,175
Management staff	63	53	58	64	53	44	55	0	54	0	56	0	45	0	47	3	47	2	59	66
Specialist staff	404	361	442	403	434	413	433	0	434	0	487	0	465	0	483	32	483	12	561	655
Support staff	211	167	183	169	175	173	180	0	180	0	207	0	187	0	188	9	188	0	207	193
Contractual employees	0	0	0	0	0	0	0	0	0	0	244	0	203	0	195	8	195	0	234	261
Net cash flow	0	33,816	0	103,556	0	419,671	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beginning cash and cash equirament assets	0	22,570	0	394,830	0	5,729	0	422,386	0	0	0	0	0	0	0	0	0	0	0	0
Ending cash and cash equirament assets	0	56,386	0	5,724	0	425,401	0	1,626,211	0	0	0	0	0	0	0	0	0	0	0	0
Remaining deposit to be closed in the budget	0	0	0	285,174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: MoF

Annex 9. Agriculture Sector Development Strategy, Summary of Costed Programs, 2007-2016, MIA

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
A. Livestock Subsector Initiatives											
Land Utilization and Management	6,435.50	5,015.10	5,015.10	4,632.30	3,831.90	3,251.90	1,214.40	1,214.40	1,214.40	1,214.40	33,039.20
Risk Management	8,241.80	9,153.30	31,966.80	32,055.80	31,505.80	29,202.00	28,317.00	4,248.00	4,248.00	3,148.00	182,086.70
Disease Management	4,374.90	4,209.90	4,141.90	4,141.90	4,124.90	2,914.90	2,914.90	2,914.90	1,704.90	1,704.90	33,148.00
Market Linkages	2,458.00	5,348.00	8,413.00	8,392.00	8,362.00	8,062.00	8,062.00	8,062.00	8,061.00	8,061.00	73,281.00
Production Management and Breeding	3,383.90	3,047.90	3,047.90	2,796.80	2,696.80	462	459	459	459	459	17,271.30
Total	24,894.10	26,774.20	52,584.70	52,018.80	50,521.40	43,892.80	40,967.30	16,898.30	15,687.30	14,587.30	338,826.20
Subtotal Livestock Subsector Initiatives	24,894.10	26,774.20	52,584.70	52,018.80	50,521.40	43,892.80	40,967.30	16,898.30	15,687.30	14,587.30	338,826.20
B. Crop Subsector Initiatives											
Irrigation	2,428.10	2,798.20	2,503.50	10,121.20	11,455.20	10,901.70	10,588.50	10,553.70	2,888.40	104.4	64,342.90
Feed Production	14,957.30	15,897.00	15,688.30	17,312.30	17,463.10	13,247.70	12,946.10	12,946.10	12,922.90	12,922.40	146,303.00
Horticulture Crops	513.9	774.9	653.1	455.9	616	126.4	103.2	85.8	80	74.2	3,483.50
Seed Production	174	408.3	484.9	466.3	249.4	251.7	66.1	80	63.8	63.8	2,308.40
Subtotal Crop Subsector Initiatives	18,073.30	19,878.30	19,329.70	28,355.70	29,783.70	24,527.50	23,703.90	23,665.60	15,955.10	13,164.80	216,437.80
C. Sector Wide Initiatives											
Agricultural Support Services - Research	1,189.00	933.8	1,450.00	1,183.20	1,136.80	1,354.30	1,354.30	1,331.10	1,331.10	1,331.10	12,594.70
Credit	-	736.6	4,011.60	4,011.60	4,000.00	4,000.00	4,000.00	-	-	-	20,759.80
Food and Hygiene	266.8	1,200.60	852.6	580	452.4	214.6	203	174	174	174	4,292.00
Subtotal Sector Wide Initiatives	1,455.80	2,871.00	6,314.20	5,774.80	5,589.20	5,568.90	5,557.30	1,505.10	1,505.10	1,505.10	37,646.50
Total PROGRAM COSTS	44,423.20	49,523.60	78,228.60	86,149.30	85,894.30	73,989.20	70,228.50	42,069.00	33,147.50	29,257.20	592,910.50

Source: MIA

Annex 10. MIA Capital/ Investment Budget, in MNT billions,2013

№	Name of project and measures, capacity, location	Start, end date	Estimated cost	Budget projection for 2013			
				by government decree	Budget proposal of the Minister of Industry and agriculture		
				Budget limit	Approved within the limit	Budget Proposal	Total proposal
	MINISTER OF INDUSTRY AND AGRICULTURE		257,984	66,336	66,336	57,450	123,786
1	Investment:		221,292	51,527.1	52,527	47,350	99,877
1.1	Storage for agricultural products /Selenge, Darkhan-Uul, Central, Bulgan,Ulaanbaatar, Uvs,Khuvsgul, Dornod/	2012-2013	21,000	10,500	10,500	-	10,500
1.2	Improve water supply for people, livestock and pasture in the rural area /In all provinces/	2011-2015	26,584	6,000	6,000	8,000	14,000
1.3	Reconstruction and construction of watering systems /Regions suitable for farming with watering and with ready design drawings/	2012-2013	6,600	4,800	4,800	4,050	8,850
1.4	Support establishing of farm for winter greenhouses /Darkhan-Uul, Orkhon, Ulaanbaatar/	2011-2013	3,000	1,000	1,000		1,000
1.5	National complex of livestock genetic fund/Darkhan-Uul, Khongor/	2012-2015	12,271	5,500	5,500	-	5,500
1.6	Establish inquiry laboratory for food /Ulaanbaatar/	2012-2013	4,300	3,138	3,138	-	3,138
1.7	Establish exchange for raw materials and products, construct storage for raw materials / Ulaanbaatar, in all provinces/	2012-2015	5,000	5,000	1,800	3,200	5,000
1.8	Establish disinfection facilities in border points (National program "Mongolian livestock")	2012-2017	29,000	3,800		3,800	3,800
1.9	Building for veterinary and sanitary laboratory (Khan-Uul district, Ulaanbaatar)	2012-2013	1,225	485	485	-	485
1.10	Center for support of small and medium enterprises /Bayankhongor/	2011-2013	2,970	304	712	-	712
1.11	Building for Division of small and medium enterprises in the food and agricultural sector in Khuvsgul province/Murun/	2013-2014	626.3	500	626.3	-	626.3
1.12	Building for Division of small and medium enterprises in the food and agricultural sector in Khentii province /Ondorkhaan/	2013-2014	650	500	650	-	650
1.13	Building for Division of small and medium enterprises in the food and agricultural sector in Sukhebaatar province /Baruun-Urt/	2013-2014	705.8	500	705.8	-	705.8
1.14	Building for Division of small and medium enterprises in the food and agricultural sector in Bayanulgi province/Ulgii/	2013	500	500	500		500
1.15	Develop feasibility study for construction of new veterinary building in Bayankhongor province	2013	20		20	-	20
1.16	Survey and project design of Industry and technology park in the wool and cashmere sector	2013	20		20	-	20
1.17	Survey and project design of Industry and technology park in the wood sector	2013	50		50	-	50
1.18	Project design for complex service center in the rural area and in Industry and technology park	2013	80		80	-	80
1.19	Feasibility study and project design of laboratory for research, test and domestication of high technology of light industry to be established in the Industry and technology park	2013	120		120	-	120
1.20	Develop feasibility study to extend laboratory of scientific organization for leather and to increase capacity of bio-technological laboratory	2013	80		80	-	80
1.21	Survey and feasibility study of plants to be developed in connection with mining industry	2013	120		120	-	120

№	Name of project and measures, capacity, location	Start, end date	Estimated cost	Budget projection for 2013			
				by government decree	Budget proposal of the Minister of Industry and agriculture		
				Budget limit	Approved within the limit	Budget Proposal	Total proposal
1.2.2	Develop feasibility study to establish centralized meat sale center	2013	20		20	-	20
1.2.3	Develop feasibility study to establish center and laboratory for nano-technology	2013	100		100	-	100
1.2.4	Develop feasibility study to establish baby nutrition plant with capacity to receive not less than 5 ton milk per day in Ulaanbaatar	2013	50		50	-	50
1.2.5	Develop feasibility study to establish fish farm in Zavkhan, Arkhangai, Gobi-Altai, Khovd and Khuvsgul provinces	2013	50		50	-	50
1.2.6	Breed elite seeds of plants, create new sorts, intensify research and test of new sorts, improve quality of seeds;	2013	3,000	3,000	3,000	-	3,000
1.2.7	Project for registration of rights of state and domestic property	2013-2014	3,850		200	-	200
1.2.8	Develop general plan to establish administration of industrial complex in Saishand, industry and technology park in Baganuur and Darkhan, /Dornogobi, Ulaanbaatar, Darkhan-Uul/	2013-2015	67,500	6,000	8,700	-	8,700
1.2.9	Complete preparation to establish copper melting plant, develop feasibility study to establish plant for producing liquid fuel and gas from coal	2013	2,900		2,900	-	2,900
1.3.0	Research to establish plant for processing of metal from deposits in eastern region	2013	100		100	-	100
1.3.1	Establish coal test laboratory and create united information database	2013	500		500	-	500
1.3.2	Support solving of social problems and providing apartments to civil servants serving under Minister of Industry and agriculture	2013	900			900	900
1.3.3	Support establishing of slaughtering shop within of several soums	2013	400			400	400
1.3.4	Infrastructure outside of industry and technology park in Saishand /Dornogobi/	2013-2015	13,500			13,500	13,500
1.3.5	Infrastructure inside of industry and technology park in Saishand /Dornogobi/	2013-2015	13,500			13,500	13,500
2	Capital repair		1,849.	1,580.	1,580.	-	1,580
2.1	Reconstruction of veterinary laboratory. Bulgan	2013	50	50	50	-	50
2.2	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector /Gobi-Altai/	2013	15	15	15	-	15
2.3	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector/Dornod/	2013	15.4	15.4	15.4	-	15.4
2.4	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector/Dornogobi/	2013	54.8	54.8	54.8	-	54.8
2.5	Reconstruction of veterinary laboratory. /Dundgobi/	2013	170	170	170	-	170
2.6	Reconstruction of veterinary laboratory. /Zavkhan/	2013	288.6	288.6	288.6	-	288.6
2.7	Reconstruction of veterinary laboratory. /Ovorkhangai/	2013	5	5	5	-	5
2.8	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector and of veterinary laboratory. /Omnogobi/	2013	157.9	157.9	157.9	-	157.9
2.9	Reconstruction of hall with 250 seats in the Ministry of Industry and agriculture. /Ulaanbaatar, Bayanzurkh district/	2013	445	445	445	-	445
2.10	Reconstruction of veterinary laboratory./Sukhbaatar/	2013	25	25	25	-	25
2.11	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector /Central/	2013	11.1	11.1	11.1	-	11.1

№	Name of project and measures, capacity, location	Start, end date	Estimated cost	Budget projection for 2013			
				by government decree	Budget proposal of the Minister of Industry and agriculture		
				Budget limit	Approved within the limit	Budget Proposal	Total proposal
2.1.2	Reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector/Khuvsgul/	2013	60	60	60	-	60
2.1.3	Capital reconstruction of veterinary laboratory. /Khentii/	2013	50	50	50	-	50
2.1.4	Capital reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector/Darkhan-Uul/	2013	150	150	150	-	150
2.1.5	Capital reconstruction of building of the Division for small and medium enterprises in the food and agricultural sector/Gobisumber/	2013	2	2	2	-	2
2.1.6	State center for test and approval of veterinary drugs /Khan-Uul district/	2013	350	80.8	80.8	-	80.8
3	Equipment:		34,842	13,228	12,227	10,100	22,328
3.1	Renovation of mechanisms for vegetable breeding /last funding for 2012/	2012-2013	11,000	5,000	5,000	6,000	11,000
3.2	Establishing of greenhouse farm for vegetables	2012-2013	1,000	1,000	1,000		1,000
3.3	Equipment for livestock fodder plant (In all provinces, cities and settlements with intensive livestock breeding)	2012-2017	13,749	2,500	1,500	1,000	2,500
3.4	Domestication of nano-technology in the light industry	2012-2013	500	250	250	-	250
3.5	Renovation of equipment of organizations in the Industry and agricultural sector	2012-2013	2,030	1,015	1,015	-	1,015
3.6	Equipment of state property committee	2013	89	89	89	-	89
3.7	Equipment for disinfection of livestock and slaughtering of sick livestock in order to prevent from infection (National program "Mongolian livestock")	2011-2013	1,200	1,200	1,200	-	1,200
3.8	High sensitive modern equipment for veterinary laboratory to improve biological safety, fence. /National program "Mongolian livestock"/	2012-2013	2,173.9	2,173.9	2,173.9	-	2,173.9
3.9	Establish plant for construction materials, equipment for laboratory of construction materials	2013	3,100	-	-	3,100	3,100

Source: FID, MIA

Annex 11. MIA's Expenditure Classification by Program, in MNT billion, 2008-2013

Program	FY 2008	FY 2009	FY 2010	FY 2011
	plan	plan	plan	plan
MINISTRY OF INDUSTRY AND AGRICULTURE	93,515,105	121,587,000	146,409,625	386,726,673
Not elsewhere classified	320,000	2,139,920	2,720,025	86,591,992
General public services	0	431,499	526,839	8,124,702
Executive and legislative organs, financial and fiscal affairs, external affairs	0	431,499	526,839	8,124,702
Financial and fiscal affairs	0	431,499	526,839	8,124,702
Ownership rights implementation	0	431,499	526,839	8,124,702
Financial and fiscal operations	0	0	0	24,000,000
Special funds, unclassified reserve funds	0	0	0	24,000,000
General economic, commercial, and labor affairs	80,000	103,481	153,167	1,523,296
General economic and commercial affairs	0	63,481	113,167	1,523,296
Commerce and trade	0	63,481	113,167	1,523,296
Domestic trade	0	63,481	113,167	1,523,296
Labor and Employment Services	80,000	40,000	40,000	0
Public works employment services	80,000	40,000	40,000	0
Public works organized within the framework of state programs or policies	80,000	40,000	40,000	0
Agriculture	93,195,105	119,447,079	143,689,600	300,134,682
Livestock	37,128,770	30,502,911	66,346,755	128,695,205
Preventive measures by veterinaries	10,034,176	9,449,198	26,501,486	25,333,701
Preventive measures from contagious disease	3,577,432	3,436,107	20,120,936	3,789,400
Preventive measures from parasitic disease	496,699	240,000	0	0
Preventive measures from special contagious disease	1,766,243	1,287,570	1,391,817	3,833,768
Treatment of chronic animal contagious disease	779,552	736,203	833,147	12,333,200
Diagnosis and analysis through laboratory	571,321	655,944	709,564	1,288,977
Drug test and certification in veterinary	170,387	191,298	207,214	225,750
Hygienic analysis and control in veterinary	240,981	284,646	304,903	368,401
Diagnosis and analysis through laboratory	159,954	180,000	197,447	694,826
Disinfection activities	155,700	177,601	174,941	954,100
Veterinary service fee	2,664,558	2,815,293	3,170,802	3,054,256
Training, advertisement and research works	22,671	100,480	100,280	80,000
Animal quality and breeding	2,806,392	1,714,578	1,816,024	20,851,997
Activities for improvement of animal quality	407,692	446,478	456,574	278,997
Restoration of animal origin source	167,692	95,548	117,894	140,497

Service for breeding of original animal group	50,000	110,000	107,000	49,500
Selection by animal benefits and nest quality	45,000	150,000	142,000	0
Protection, breeding and production support for rare animals	145,000	90,930	89,680	89,000
Development of intensified animal husbandry	2,340,000	1,268,100	1,253,100	20,543,000
Improvement in capacity for intensified animal husbandry	2,240,000	1,205,100	1,175,100	20,543,000
Breeding of high efficient animals	100,000	63,000	63,000	0
Training and promotion	0	0	15,000	0
Development of cooperative	58,700	0	106,350	30,000
Activities for pasture land and animal feed	2,709,540	1,934,946	2,430,833	2,422,278
Plant protection in pasture land	2,089,503	1,566,396	2,009,533	2,422,278
Struggle against field mouse	1,021,265	720,000	1,220,000	1,220,000
Struggle against destructive grasshopper	980,000	707,600	624,900	600,000
Establishment and protection of "Otor" zone	88,238	138,796	164,633	602,278
Pasture land irrigation	108,437	0	0	0
New establishment of well with engineering structure in grassland	108,437	0	0	0
Animal feed	511,600	368,550	421,300	0
Protection and improvement of pasture land and hay-field	190,000	64,950	100,000	0
Support of production for planted animal food	321,600	303,600	321,300	0
Preparation of animal feed-stuff and provision of small sized equipment	0	0	0	0
Program on Mongolian meat	0	0	0	6,946,000
Crop and cultivation	56,066,335	88,944,168	77,342,845	171,439,477
Cultivation supporting activities	21,847,793	37,248,775	30,326,041	71,950,648
Support for wheat production	19,467,793	34,905,412	23,939,041	71,650,648
Plantation of elite seeds	500,000	583,275	6,387,000	300,000
Supply of cultivation equipment	1,680,000	0	0	0
Productivity of farming soil	200,000	1,516,528	0	0
Protection of farming vegetables or plants	0	243,561	0	0
Support of household farming	381,129	1,975,105	1,990,680	610,000
Supply of small sized irrigation system and equipment	104,800	162,000	162,000	0
Farming activities of reserved area	132,870	704,385	719,960	75,000
Farming of fruits	72,350	1,054,000	1,054,000	65,000
Training, advertisement and exhibition	71,109	54,720	54,720	470,000
Harvesting activities	12,000	10,800	10,800	10,800
Harvesting commission, headquarter and management	12,000	10,800	10,800	10,800
Food	3,690,760	2,901,960	3,415,773	6,312,000
Food supply, safety and monitoring	34,736	12,990	529,050	210,000
Support for production of milk or milk products	505,247	450,000	450,000	42,000
Support and advertisement of pure ecological products	95,000	21,650	20,285	60,000

Struggle against iodine deficiency related ailment	55,778	17,320	16,438	0
Improvement in supply of strategical food products	3,000,000	2,400,000	2,400,000	6,000,000
Development, management and coordination of agriculture related policies	4,202,970	4,670,889	4,964,558	5,659,290
Scientific and research works on agriculture	0	0	0	1,858,430
Research and analysis on agriculture	0	0	0	1,858,430
Scientific and technological projects to be implemented by the state budget in accordance with order by the Government	0	0	0	1,858,430
Mining, manufacturing, and construction	0	0	222,925	732,000
Manufacturing	0	0	222,925	732,000
Light industry	0	0	222,925	242,000
Printing house	0	0	19,950	20,000
Wood processing	0	0	32,600	25,000
Wool and cashmere	0	0	47,625	90,000
Leather	0	0	38,450	20,000
Domestic service	0	0	49,400	30,000
Sewn products	0	0	34,900	57,000
Control for industry and service	0	0	0	490,000
Heavy industry	0	0	0	0
Industrial area	0	0	0	0

Source: MoF

Annex 12. MIA's Approved Capital (Investment) Budget, in MNT billion, 2013

N o.	Type of Project	MNT
1	Deep well with engineering construction	320,000
2	Overhaul of the well at the end of Bayan nuruu scree	26,587
3	Deep well with engineering construction	320,000
4	Repair of animal feed reserve building	50,000
5	For implementation of pastureland management	50,000
6	To improve drinking water supply in Tugrug soum	6,000
7	To support corps plantation	50,000
8	Supply of livestock	47,500
9	To create meat reserve	60,000
10	Overhaul of the well at the end of Bayan nuruu scree	26,587
11	To establish hay stock in Urt bagh	19,000
12	To establish hay stock in Badral bagh	19,000
13	To establish hay stock in Bayantsagaan bagh	19,000
14	To provide yaks and sheep	102,000
15	Purchase of a field tent for rural baghs communal event	3,000
16	Building of 2 new wells in otor grassland area	60,000
17	Livestock breed improvement	15,000
18	Dig wells in 6 baghs	18,000
19	To create hay-field	10,000
20	Animal washing tub for bagh no. 1	5,000
21	Animal washing tub for bagh no. 2	5,000
22	Animal washing tub for bagh no. 3	5,000
23	Animal washing tub for bagh no. 4	5,000
24	Animal washing tub for bagh no. 5	5,000
25	Fence for washing big cattle	5,000
26	Provide livestock to herders in bagh no. 1	4,000
27	Provide livestock to herders in bagh no. 2	4,000
28	Provide livestock to herders in bagh no. 3	4,000
29	Provide livestock to herders in bagh no. 4	4,000
30	Provide livestock to herders in bagh no. 5	4,000
31	Livestock breed improvement /male camel/	7,500
32	Livestock breed improvement /bull/	9,900
33	Livestock breed improvement /male sheep/	7,700
34	Drill bore well in bagh no.1	19,000
35	Drill bore well in bagh no.2	19,000
36	Drinking water pump, stainless pipe	10,000
37	Agricultural equipment /with mower and rake/	4,000
38	Grain seeder	1,000

N o.	Type of Project	MNT
3 9	Grain separator	9,000
4 0	Plough /to process soil/	800
4 1	Hand-scythe with motor	1,700
4 2	Greenhouse plastic cover	600
4 3	Repair of drinking water well	2,500
4 4	Poun repair in 5th bagh	24,000
4 5	Pound repair in 4th bagh	10,000
4 6	Road repair in 3rd bagh	7,500
4 7	Road repair in 4th bagh	7,500
4 8	Set of technical insruments for hay-cutting	80,000
4 9	Fencing of bagh hay-field, building a hay storage	15,000
5 0	Breeding of high yield livestock	50,000
5 1	Building of hay and animal feed storage in soum center and Bijin am	20,000
5 2	Repair of hillroad at Ulaan sair /Khujirt bagh/	250,000
5 3	Garbage truck /Uildver bagh/	15,000
5 4	Repair of well /Ikhes bagh/	20,000
5 5	Building of hay and animal feed fund /Khujirt bah/	30,000
5 6	Repair of well in Ulaan bulag /Javkhlant bagh/	18,500
5 7	Repair of well	75,000
5 8	Fencing of hay field	30,000
5 9	Dig a new well	36,000
6 0	Building of flood protection dam and water pool	25,000
6 1	Hay and Fodder Storage	10,000
6 2	Building of water dam at "Ajig lake", trenching of a canal	15,000
6 3	Fencing of hay fields	20,000
6 4	Overhaul repair of drinking water well	15,000
6 5	Renewal of wells	12,000
6 6	Renewal and repair of water pound	6,000
6 7	Hay storage /Khurimt bagh/	50,00
6 8	Hay storage/Galuut bagh/	5,000
6 9	Hay storage /Dalan bagh/	10,000
7 0	Poultry farm	10,000
7 1	Animal washing tub /Khurimt/	4,000
7 2	Repair of well	1,000
7 3	Selected breed livestock	97,000
7 4	Fencing of hay field in Alan soyombo bagh	25,000

N o.	Type of Project	MNT
7 5	Well at Maanitiin hotol	23,800
7 6	Provide livestock to 3rd bagh	10,000
7 7	Pound in Hariin khamar	9,900
7 8	Pound in Khar uzuur	8,900
7 9	Animal washing tub 4th bagh	6,600
8 0	Hay field in Ogoomriin gol	13,800
8 1	Hay storage in Tungalag bagh	20,000
8 2	Provide livestock to 2nd bagh	14,000
8 3	Animal washing tub 2nd bagh	6,000
8 4	Hay and animal feed storage	30,000
8 5	Repair of Toliin well	3,800
8 6	Improvement of drinking water supply for soum center	50,000
8 7	Program on re-stocking with cattle	70,000
8 8	Create forage reserve in hay and animal feed storage /soum center/	20,000
8 9	Transfer of drinking water at soum center	2,000
9 0	Build a animal slaughtering place / soum center/	1,800
9 1	Fencing of hay field	12,000
	Program on re-stocking with sheep	40,000
	Drill a bore well /Tataal/	20,000
	Newly dig 2 hand well / at Ar khokh tolgoi and Suvne hudag/	2,000
	Build a construction for mine wells -Delgeriin haya, shirengiin khudag, khotol, zangiin ders, zamiin ereg, khokh tolgoi, khujriin khudag, tashaa, khoyor khudag, dersin khudag, namiin khudag, suvene khudag, oold, khairkhan, tovgor, naranbulag	19,000
	Build big cattle fenes in 4 baghs	4,000
	Fence for livestock transfer	2,000
	Animal washing tub /Tsoohor nuurt bagh /	10,000
	Build a new standard well for drinking water	38,800
	Cultivation and hay-cutting technical equipment / purchase of tractor/	20,000
	Selected breed sire / improve livestock quality/	20,000
	Build animal washing facility	20,000
	Dig and repair hand wells in baghs	33,500
	Build drinking water purifying system in Bayantooroi village	13,200
	Fencing of hay field	20,000
	Building of bagh centers	10,000
	Build a fence for hay fund /Khurkhree gol/	20,000
	Order drawings of water pool to be built in Botgono gol	15,000

N o.	Type of Project	MNT
	Purchase of hay-cutting equipment	20,000
	Repair of hand wells / 10 wells/	8,000
	Repair of hay and animal feed storage	5,000
	Hay storage	20,000
	Dig a well	25,000
	Fencing of seabuckthorn field	7,500
	Wells	10,000
	Slaughter point	10,000
	Deep drilled wells 8	200,000
	Repair of hand well 4	50,700
	Building of water well points in baghs /4/	40,000
	Total	3,319,174

Source: FID, MIA