Report No. 36366-MD

Moldova: Agricultural Policy Notes

Policy Priorities for Agricultural Development

Volume II—Public Expenditures

June 1, 2006

Environmentally and Socially Sustainable Development Sector Unit
Europe and Central Asia Region

Document of the World Bank

CURRENCY EQUIVALENTS

(As of June 1, 2006)
Currency Unit = Moldovan Leu (MDL)
USD 1 = MDL 13.25

ACRONYMS AND ABBREVIATIONS

CEM	Country Economic Memorandum (World Bank)
CIS	Commonwealth of Independent States
CPI	Consumer Price Inflation
DFID	Department for International Development (UK government)
EBRD	European Bank for Reconstruction and Development
EGPRSP	Economic Growth and Poverty Reduction Strategy Paper
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross National Product
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFI	International Financial Institution
IMF	International Monetary Fund
MAFI	Ministry of Agriculture and Food Industry
MDL	Moldovan Leu (Lei)
MOE	Ministry of Economy
MOF	Ministry of Finance
MOI	Ministry of Interior
MTEF	Medium-Term Expenditure Framework (2005-2007)
MTS	Machinery Technology Stations
NBM	National Bank of Moldova
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
PER	Public Expenditure Review
PFAP	Private Farmers Assistance Program (USAID)
PFCP	Private Farmer Commercialization Program (USAID)
PFM	Public Financial Management Project (World Bank, Netherlands, SIDA)
RFC	Rural Finance Corporation
RISP	Rural Investment and Services Project
SCAs	Savings and Credit Associations
SIDA	Swedish International Development Cooperation Agency
SME	Small- and Medium-Size Enterprise
TA	Technical Assistance
TACIS	Technical Assistance to CIS (European Commission)
UN	United Nations
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VAT	Value-Added Tax
WB	The World Bank
WTO	World Trade Organization

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FOREWORD

This report was prepared by a team led by William Sutton, and comprising Sylvie Tillier, Alexandru Muravschi, Natalia Otel, and Stela Corobceanu. The report was prepared under the guidance of Sector Manager Benoit Blarel. Peer reviewers were Edward Cook, Stephen Mink and Mona Sur. This study would not have been possible without the assistance and cooperation of the Government of Moldova, and in particular the Ministries of Agriculture and Food Industry, Economy, and Finance. In addition, we would like to thank all of those in the private sector, civil society and development partners who gave generously of their time and information. The team would also like to thank Edward Brown, World Bank Country Manager, and the staff of the World Bank Moldova Country Office for their assistance, especially Tamara Ursu who helped with all of the logistics.

EXECUTIVE SUMMARY

1. **The objective of this policy note is to assist the Government of Moldova in improving the effectiveness of public spending in agriculture, with a view to enhancing its contribution to Moldova's economic growth and poverty reduction objectives**. The note provides a sector-wide picture of the magnitude and structure of public spending on agriculture in Moldova. It is intended that this analysis will inform future decisions over priority public expenditures for agriculture and the shifts in expenditure allocations that are necessary to make the most efficient and effective use of scarce government budgetary resources.

2. **Agricultural expenditures are an important tool for Government to promote growth and poverty reduction in agriculture, and in the economy as a whole**. There is ample international evidence of the strong positive impact public agricultural expenditures have on pro-poor growth. Since it is the largest real sector in Moldova, growth of the agricultural sector is essential to sustaining and accelerating growth of the economy in general. Cross-country comparisons of agricultural expenditures indicate that investment in public goods such as research and development, rural infrastructure, advisory services and education, along with creating a good policy and institutional environment, are the most important drivers of growth. In contrast, there is no evidence that subsidies for inputs such as fertilizer, irrigation operations, energy and pesticides promote long-term growth.

3. **The overall share of the agricultural sector in total public spending is low in Moldova relative to other countries, but there is little hope for a significant increase in the near future**. The share of agriculture in total public spending has been fluctuating between 2 and 4 percent in Moldova, and stood at about 3.2 percent, or MDL 235.7 million (USD 18.9 million), in 2004. By comparison, the share of total public spending allocated to agriculture is typically around 6-8 percent for developing countries, and 3-5 percent for developed industrialized countries. Despite this, projections from the Medium Term Expenditure Framework (MTEF) indicate that there is little room for an increase in the near future.

4. **Within the limited budget available for the agricultural sector, care should be taken to achieve efficient use of public resources.** Government should ensure that spending is directed towards the most essential priorities requiring public sector support, with the greatest potential to have a positive impact. In particular, public support should address the needs of the new class of individual family farmer/entrepreneurs, because they are generally the most productive and hold the most potential for growth in agriculture. Such support includes extension and business advisory services, marketing infrastructure, credit and targeted research.

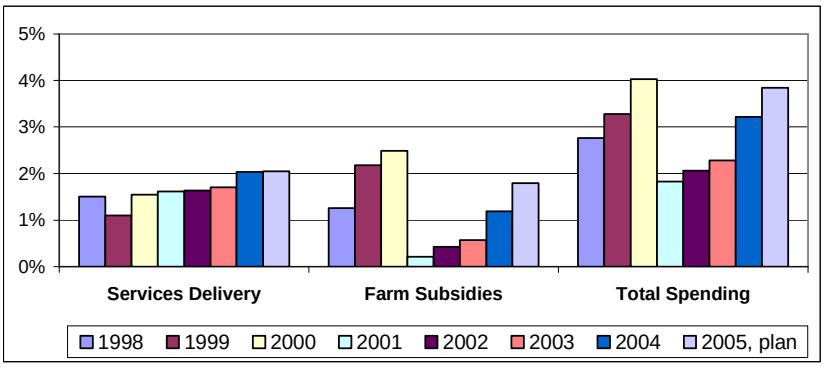
5. **Support to the agricultural sector currently lacks an appropriate strategic framework**. There is no effective mechanism for linking agricultural sector strategy and priorities to the Ministry of Agriculture and Food Industry's (MAFI) institutional organization and budget allocations. The annual budget appears to be prepared primarily on the basis of political pressure and past expenditure patterns, irrespective of whether these patterns correspond to actual sector priorities in the present economic environment. Development plans elaborated by MAFI in recent years are mostly aimed at rehabilitating the industries that Moldova used to have during the Soviet period. As a result, MAFI activities (and therefore expenditures for them) have undergone little change over time, as they have not been subject to the major overhaul that would be necessary to adapt them to the needs of private farmers.

CURRENT AGRICULTURAL SUPPORT PROGRAMS REPRESENT AN INEFFICIENT USE OF SCARCE PUBLIC RESOURCES

6. **Public expenditures for the delivery of agricultural services represent a very low share of agricultural GDP, and investments are negligible**. Expenditures on services have, however,

seen slow but steady growth in recent years, from about 1.5 percent of the consolidated budget in 1998 to 2.0 percent at present (**see Figure 1**). All expenditures are recurrent expenditures, consisting of salaries and other operating costs. Official public expenditures on agricultural investments are negligible. There are fairly significant IFI-financed agricultural expenditures in some years, much of which is for investment and service provision, but because these are not included in the budget, it is very difficult to measure their size, or manage them as part of the overall public expenditure framework. The vast majority of expenditures comes from the state budget, with only 6-7 percent coming from local budgets.

Figure 1: Agricultural Expenditure by Main Type, 1998-2005 (% consolidated budget of Moldova)



Source: Data from Table 17. Note: includes both central and local government expenditures on agriculture. Local expenditures are included in Services Delivery.

7. **Expenditures on subsidies have been growing in importance relative to other types of public support.** Large inter-annual fluctuations of total agricultural public spending between 2 and 4 percent of the total consolidated budget are mainly due to variations in the amounts allocated to farm subsidies during the period 1998-2005 (**see Figure**). Farm subsidies collapsed in 2001, but have been growing ever since. Given total public expenditure in agriculture of about MDL 236 million in 2004, 37 percent (MDL 87 million) was for farm subsidies. A substantial increase in subsidies is planned in 2005, mainly to support the development of vineyard plantations. Another growing subsidy scheme is for Machinery Technology Stations (MTS). These subsidy schemes are primarily targeted to large corporate farms, which have less potential in current conditions than individual family farms. They also often have unclear eligibility criteria and non-transparent selection processes, and they insufficiently leverage public resources, particularly in the case of MTS. The various subsidy schemes are often set up in an ad hoc manner with inadequate budgetary resources to back them up, which further reduces their effectiveness. Indeed, the subsidies have had little impact on improving producers' terms of trade.

8. **Other support funds outside of MAFI's budget have been growing lately, which reduces the effectiveness of agricultural public expenditures**. This reflects a growing trend in the Moldovan public sector for "special" extra-budgetary funds based on specific taxes or fees earmarked for specific end uses. However, this trend appears to be particularly common in the agricultural sector, with the proliferation of special funds for subsidizing activities such as walnut production and fall plowing. Such extra-budgetary funds make strategic planning and budgeting by MAFI difficult, and reduce the transparency of agricultural expenditures. Combined, the various subsidy programs decrease the resources available to MAFI for provision of necessary services and investments for agricultural development.

9. **In recent years, significant debt forgiveness was granted to large agricultural enterprises by Government, diminishing resources available to support agriculture and reducing the incentive for reform**. Since 2000, Government has abstained from providing guarantees on domestic and external loans contracted by state enterprises. However, it still has to honor debt service obligations resulting from old loan guarantees. This cost Government MDL 156 million in 2004, or more than the entire combined value of IFI-financed investments. In 2003, following drought and adverse weather conditions, a total amount of MDL 195.7 million of tax liabilities was cancelled, mostly for large, inefficient enterprises. More recently, it was reported that

seven tobacco plants would have MDL 120 million in debts frozen, which is nearly as large as the entire MAFI budget for 2004. Such fiscal vacations have recurred repeatedly over time, creating soft budget constraints that reduce the incentive for reform, and squandering precious public resources on items with little hope of enhancing growth prospects.

IMPROVING PUBLIC EXPENDITURE MANAGEMENT TO PROMOTE AGRICULTURAL DEVELOPMENT

10. **The overall budget formulation and execution process in Moldova needs further strengthening**. Progress has been made in the context of the MTEF, but many of the recommendations have not been followed through in practice, particularly in the following areas:

- **Improve strategic planning.** To be effective, sector spending should be based on a clearly specified strategy with priorities; a set of programs and policies that respond to these priorities; and allocations of financial and human resources that are consistent with the strategy, priorities, policies and programs**.**
- **Consolidate the budget formulation process.** Donor financed investments, extra-budgetary or special funds and resources, and the State Social Insurance Fund budget should be fully integrated for presentational purposes in the national public budget.
- **Reduce the number of "special funds" and integrate them into the budget process**. The increasing number of "special funds and resources" (also called "extra-budgetary funds and resources") makes overall financial management more difficult. There is an intention to limit their number and activities in future, which is a positive development.
- **Improve coordination of investment projects and integrate externally funded projects into the budget.** Government investment projects are not well coordinated or integrated with the recurrent budget. Domestically financed investment projects and externally financed projects are not consolidated into the national public budget. Both types of projects should be incorporated into the budget and strategic planning.
- **Streamline accounting systems and budget regulations.** Budget execution is hampered by cumbersome accounting and internal regulations, which need to be streamlined. Greater coordination is needed between the Ministry of Finance, the revenue authorities, and the spending agencies to improve cash management.

11. **Support should be re-aligned to create a level playing field and invest in the future**. In the coming years, public finances in Moldova will continue to be extremely tight. Meanwhile**,** investment needs to develop Moldova's agriculture in line with its comparative advantages are very large—some estimate as high as USD 2 billion. Therefore, the first priority in the near term should be to re-align existing resources towards those investments and services that will enhance growth prospects. In general, this means that public support should address the needs of the individual family farmers who hold the most potential for growth in agriculture and also play an important social role through the provision of employment. Government's policies should not discriminate against specific legal forms or farm sizes.

12. **Remove wasteful subsidies to create fiscal space for growth-enhancing investments and services**. A prime candidate for cancellation is the MTS subsidy program, due to the problems with the program mentioned above, and also because the successful 2KR program already fulfills the role of increasing access to agricultural machinery in a more transparent, effective and sustainable manner. Other candidates for removal are the subsidies for planting of vineyards and walnuts, which discriminate against small farmers, and are not necessary due to existing market-based incentives for investment. Government should also refrain from providing de facto subsidies like the major fiscal vacations that are very costly in terms of lost revenues, and also reduce the incentive for inefficient enterprises to restructure and increase productivity.

13. **Providing a stable and predictable policy environment is key to future sector growth**. Investment and productivity growth in agriculture depend as much, if not more, upon improvements in the wider policy and institutional environment as upon the provision of public-funded services and farm subsidies. While some of the investments required for agricultural development—such as public infrastructure—should appropriately be carried out by Government, for both efficiency reasons and given the size of the required investments, capital should be mobilized to the extent possible from private sources, both domestically and through foreign direct investment (FDI). But attracting sufficient private investment requires substantial improvement in the business and investment climate. Government should remove remaining non-tariff trade barriers and eliminate practices such as preferential treatment of some enterprises. MAFI should also pay increased attention to the elaboration of appropriate and affordable sector policies, including the development of standardization and certification systems based on EU and other international market requirements, and the provision of information and other public services to facilitate the introduction of improved technologies. The recommendations of the Economic Growth and Poverty Reduction Strategy Paper (EGPRSP) provide useful policy guidance and Government should implement them.

14. **Delivery of services should be rationalized and adapted to the needs of private farmers**. For example:

- **Reform veterinary services to focus on public good aspects.** Livestock services currently account for about 35 percent of the shrinking total service delivery expenditures. The number of public veterinarians in Moldova—at about 2,400—seems excessive. They carry out public responsibilities related to public health, food safety, control of epidemics and quarantine measures, but also services like treatment of animals, artificial insemination, and vaccination campaigns that are of a private nature, and should be paid for, at least in part.
- **Make irrigation support sustainable**. Irrigation accounts for about 15-20 percent of total public expenditure for agricultural services. Instead of continuing to subsidize outdated and unsustainable irrigation systems, consider fostering the modernization of infrastructure and supporting the development of water user associations.
- **Restructure agricultural education and research to increase efficiency**. Education and research have proven in international studies to provide strong returns to public investments. However, the number of institutions in Moldova—about 11 of each type—is too high, and Government cannot afford to maintain them. The number should be reduced, and quality and funding improved for those remaining. Meanwhile, the process for allocating scarce research funds should be restructured so that it is based on the demands of the newly independent farmers.
- **Reduce or remove certain dubious support services related to crop production.** Support services for crop production account for about 10-13 percent of total public expenditure for agricultural services. For example, the anti-hail service absorbs a large share of MAFI's public spending (MDL 10.9 million, or 8% of the total) and employs 860 people (more than 10 times the central MAFI staff), with doubtful value. Moldova could also save considerably on seed testing by accepting the rigorous certification carried out by OECD countries in Western Europe and North America.

15. **Use budget savings to improve services and investments required to support the new independent farmers**. International experience indicates the positive impact of farm support services on achieving broad-based agricultural growth and poverty reduction in rural areas, and in transition countries they are even more important. Government has made important strides in this regard through the World Bank-financed RISP project. Unfortunately, extension services are not identified as a separate item in MAFI's budget and MAFI has no extension department. Government should plan to expand on the services developed under RISP and make them sustainable by incorporating them in the budget. Government should also improve coordination between central and raion level agricultural administrations. Roles and responsibilities should be clarified, job descriptions developed for staff at all levels, and rationalization carried out where there are duplications. Government should

also increase the share of expenditures on growth-enhancing investments, including development and maintenance of transportation and marketing infrastructure such as rural roads, storage facilities, collection points, wholesale markets, and market information systems.

16. **Use foreign-financed projects to address critical constraints in the near term**. Given the tight fiscal environment, a significant increase in the availability of public resources for agriculture is unlikely in the near future. Re-aligning current levels of public spending towards growth-enhancing activities will help increase their effectiveness, but gaps in investment needs will remain. In this context, foreign-financed projects and bilateral aid can be used to help fill in the gaps in the short term. However, Government should improve donor coordination, and plan to scale-up and mainstream successful donor-supported interventions on a sustainable basis. Currently, foreign financed projects are not included, or only partly included, in the state budget. In the interests of mainstreaming, sustainability and transparency, Government should also include donor-financed expenditures into the consolidated budget, particularly for funds provided by IFIs, and begin planning now to create the fiscal space for funding the total recurrent costs of successful projects such as the advisory services of the RISP 2. The EGPRSP provides a good framework that all donors can use to guide and coordinate their activities.

17. **Public support to the agricultural sector should be stabilized and gradually increased, based on objective assessments of the impact and quality of public expenditures**. The frequent shifts in the budget for agriculture, both between categories and in the overall envelope, are disruptive to the sector. Public expenditures should be stabilized and planned strategically within the MTEF. They should also be rationalized away from wasteful subsidies and towards growth-enhancing investments in agricultural infrastructure and education that meet the needs of the new independent farmers. Once this has been accomplished, Government should seriously consider increasing expenditures on agriculture to match its importance to the economy, and to bring the degree of public support into line with practice in other countries. However, strengthening the claim for increased public resource allocations requires an understanding of the links between spending on agriculture and wider economic growth and poverty reduction. It is also important that decisions over future levels of public funding for agriculture be based upon an assessment of the quality of support provided. Improved monitoring and evaluation of public support to agriculture will help to improve quality, and to garner the support the sector needs to achieve its considerable potential in Moldova.

1. Public Expenditures in Moldova

OBJECTIVES AND SCOPE

This note is part of a series of three policy notes prepared by the World Bank to advise the Moldovan Government and inform World Bank decision-makers on agricultural policies for economic growth and poverty reduction in key areas:

- **Markets**
- **Land**
- **Public Expenditures**

The inter-relationships between the three topics, the importance of the agricultural sector to economy-wide growth and poverty reduction, and the main challenges facing the sector were highlighted in the agriculture chapter of the 2005 Moldova Country Economic Memorandum.[1]

The objective of this policy note on public expenditures is to assist the Government of Moldova in improving the effectiveness of public spending in agriculture, with a view to enhancing the sector's contribution to Moldova's economic growth and poverty reduction objectives. The note provides a sector-wide picture of the magnitude and structure of public spending for agriculture in Moldova. It is intended that this analysis will inform future decisions over priority public expenditures for agriculture and the shifts in expenditure allocations that are necessary to make the most efficient and effective use of scarce government budgetary resources.

This agricultural public expenditure review (PER) examines public expenditures in the agricultural sector over the period 1998-2005. It covers both central and local government expenditures. The review addresses the following main topics:

- Overall magnitude and trends in agricultural public expenditures over the last eight years (1998-2005)
- Distribution and coordination of expenditures between central and local levels
- Functional and economic (capital vs. salaries and other recurrent expenditures) composition of expenditures, including a main distinction between transfers (mainly subsidies) and expenditures incurred for investment and the delivery of public services

The note discusses the linkages between agricultural sector policies, strategy and public expenditures. It also suggests possible ways to raise the effectiveness and efficiency of current public spending in agriculture.

The note is structured as follows. Section 1 reviews the current state of public expenditure management in the context of Moldova's Medium Term Expenditure Framework (MTEF), outlines the importance of agricultural public expenditures, and describes agricultural sector strategic planning issues and institutions. Section 2 provides an analysis of the trends and composition of agricultural expenditure by function and by economic classification, and highlights the growing dependence on subsidies. Section 3 provides recommendations on improving the allocation, efficiency and effectiveness of agricultural expenditures in Moldova. Detailed data on public expenditures and other relevant indicators are provided in Annex B. Annex A provides a description of the data used.

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[1] *Opportunities for Accelerated Growth: A Country Economic Memorandum for the Republic of Moldova (CEM)*, World Bank Report No. 32876-MD, September 9, 2005.

THE MEDIUM-TERM EXPENDITURE FRAMEWORK AND THE NEED TO ACHIEVE EFFICIENT USE OF PUBLIC RESOURCES

The prospects for public support to agriculture and the ability to fund corresponding public expenditures are conditioned by factors both inside and outside the sector. Relevant macro-economic factors include current and projected levels of economic growth, levels of budget expenditure and tax revenue, the overall size of the budget and current account deficits, and levels of public debt. These factors have a major influence on the availability of government resources and the extent to which they are likely to increase or decrease in the future. The level and focus of donor resources is also conditioned by the progress achieved with economic transformation and reform, and donor perceptions of constraints to further development.

The fiscal reforms implemented during the late 1990s – together with tight monetary policies and exchange rate flexibility – paved the way for the resumption of growth in the early 2000s. Moldova's fiscal policy was loose until the 1998 regional financial crisis, but tightened significantly thereafter. Fiscal laxity was driven by political pressure and excessively optimistic growth expectations, and was accommodated by soft external borrowing constraints. Moreover, significant energy-related quasi-fiscal deficits and expenditure arrears piled up. The drying-up of external finance following the August 1998 crisis added urgency to the fiscal reforms launched in the spring of 1999. In 2000, the government eliminated a wide range of tax exemptions, improved tax collection and benefits targeting, reduced wage arrears, and eliminated pension arrears. The consolidated budget deficit shrank during 2000-2002 as a result, and moved into surplus in 2003. However, external arrears started to accumulate in 2003 and 2004.

In the short and medium terms, the key fiscal challenge will continue to be external debt service. In 2003, scheduled public debt service amounted to USD 136 million – about 45 percent of central government revenues. The fiscal stance was loosened considerably in 2004, with actual expenditures exceeding original budget projections. Also, expenditure plans for 2005 entail a significant increase in budget spending. In view of the limited privatization earnings and multilateral inflows, the government is likely to continue experiencing difficulties in meeting its external debt-service obligations.

The government has made significant progress in improving and streamlining public expenditure management. In 2002, strategic planning of revenues and expenditures was introduced in the budgetary process in order to plan public expenditures in accordance with government policies and priorities. This process was initiated by the introduction of a **Medium Term Expenditure Framework (MTEF)** covering a rolling three-year period. Initially, the MTEF for the period 2003-2005 established only the parameters of the consolidated budget,[2] which were then taken into consideration in preparation of the 2003 budget. The MTEF for 2004-2006 was strengthened through the inclusion of the State Social Insurance Fund, mandatory medical insurance funds, projects financed from abroad, and other extra-budgetary funds and resources (or special funds and resources). The MTEF for 2005-2007 has been drafted within the framework of the **Economic Growth and Poverty Reduction Strategy Paper (EGPRSP)**. The EGPRSP, adopted in May 2004, reaffirms Government's commitment to implementing agricultural policies and supporting institutions aimed at developing a vibrant market-based rural economy, in accordance with the Memorandum of Understanding on Agriculture signed with the World Bank in December 2001. The recently approved USD 15.3 million Public Financial Management Project (PFM Project), financed in part by the World

[2] The budgetary system in Moldova consists of the state budget, local government budgets, the State Social Insurance Fund and extra-budgetary funds and resources. The state budget and local budgets form the consolidated budget as defined in Moldova. Starting in 2005, the state budget includes special funds and resources (previously called extra-budgetary funds and resources) and externally financed projects, which were previously managed separately.

Bank, should in the future help to improve the overall public expenditure framework so that it more effectively contributes to achieving the priorities of the EGPRSP.

The projections developed for the 2005-2007 MTEF predicted that public finances over the next three years would remain extremely tight. However, with prudent economic and fiscal management, backed up by renewed international assistance to support implementation of the EGPRSP, the government expects that there should be opportunities to achieve modest increases in the real value of public spending. Under these circumstances, the MTEF emphasizes the central importance of achieving more efficient use of existing public resources. The base case scenario forecasts real economic growth of 5 percent annually in 2005-07, annual inflation declining to 5 percent by the end of 2007, and a modest depreciation of the exchange rate to MDL 15.8 per USD.[3] The fiscal policy envisages a reduction of the overall tax burden through tax rate cuts. Domestic revenues and grants are projected to increase in absolute terms, although as a share of GDP they would fall from 36.1 percent to 34 percent. Public expenditure policy for 2005-07 envisages a growth in the national public budget expenditures[4] of 4.6 percent per year on average, corresponding to a gradual reduction of their share in GDP from 36.4 percent in 2005 to 34.3 percent in 2007.

As outlined in the EGPRSP, Government places priority on social expenditures and foresees a relative decline in economic expenditures. Thus, the modest growth in real terms of public expenditure projected in the MTEF would be concentrated in the social insurance budget and medical insurance funds. Expenditures in economic sectors would decrease from 4 percent of GDP in 2004 to 3.2 percent by 2007, with the sector "agriculture, fishing and water" experiencing a smaller relative decline from about 1 percent to 0.9 percent of GDP. Within the latter, real sector spending is supposed to be focused on agriculture and rural development, and public roads and energy infrastructure, which have a direct impact on poverty reduction.

PUBLIC EXPENDITURES CAN BE A KEY TOOL FOR PROMOTING AGRICULTURAL DEVELOPMENT

Agricultural expenditures are an important tool for Government to promote growth and poverty reduction in agriculture, and in the economy as a whole. There is ample international evidence of the strong positive impact agricultural expenditures have on pro-poor growth (**see Box 1**).[5] Since it is the largest real sector in Moldova, accounting for 30% of GDP[6], growth of the agricultural sector is essential to sustaining and accelerating growth of the economy in general. Cross-country comparisons of public agricultural expenditures indicate that investment in public goods such as research and development, rural infrastructure, and education, along with the creation of a good policy and institutional environment, are the most important drivers of growth.[7] In transition countries like Moldova, where a large share of farmers are relatively new to farming, farm advisory services are particularly important. In contrast, there is no evidence that subsidies for inputs such as fertilizer, irrigation operations, energy or pesticides promote long-term growth. Moreover, in a context of overall fiscal constraints, as is the case in Moldova, there is a risk that continuation and expansion of direct farm subsidies would crowd out essential public funding of growth-enhancing investments in public goods, such as infrastructure and agricultural R&D.

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[3] This scenario assumes: (i) continuation of structural reforms in the economy; (ii) implementation of post-privatization measures in agriculture, industry and energy sectors; (iii) attracting internal and external investment; and (iv) promoting exports.

[4] The national public budget (or general government budget) includes state budget, local government budgets, State Social Insurance Fund, and extra-budgetary funds and resources.

[5] See for example: Fan, S. and N. Rao (2003), *Public Spending in Developing Countries: Trends, Determination, and Impact*, EPTD Discussion Paper No. 99, IFPRI, Washington DC; and Byerlee, D., X. Diao and C. Jackson (2005), *Agriculture, Rural Development , and Pro-poor Growth*, Agriculture and Rural Development Discussion Paper 21, The World Bank.

[6] Including agroprocessing.

[7] Fan, S. and N. Rao (2003); Byerlee, D. (2005); op. cit.

The overall share of the agricultural sector in total public spending is low in Moldova relative to other countries, but there is little hope for a significant increase in the near future. The share of agriculture in total public spending has been fluctuating between 2 and 4 percent in Moldova, and stood at about 3.2 percent, or MDL 235.7 million (USD 18.9 million), in 2004.[8] By comparison, the share of total public spending allocated to agriculture is typically around 6-8 percent for developing countries, and 3-5 percent for developed industrialized countries. Examples of the share of public spending going to agriculture in other countries include: Poland at 8 percent, Kyrgyzstan at 7 percent), and Armenia at 9 percent (**see Table 1.1**). Public expenditures on agricultural are also low relative to the sector's importance to the Moldovan economy. Although agricultural expenditures are relatively low in Moldova, projections from the MTEF indicate that they will have to remain below 1 percent of GDP for the near future.

Table 1.1: Comparator Country Agricultural Public Expenditure Data (approximate figures)

	Agriculture as Share of GDP	Agriculture Budget share	Agriculture spending as share of GDP
Moldova	**30%**	**3%**	**0.9%**
Others			
Armenia	35%	9%	1.2%
Azerbaijan	18%	6%	3.1%
Kyrgyz Republic	47%	7%	1.8%
Nicaragua	30%	8%	3.5%
Poland	3%	8%	3.5%
Turkey	12%	6%	1.1%

Source: World Bank PERs and country studies. Figures are only indicative as different accounting practices are applied in different countries. The Moldova GDP figure includes processing, and budget figures include off-budget and special funds but not IFI funds. Agricultural spending in Poland includes a large subsidy and pensions element, equivalent to around 2.5% GDP

Within the limited budget available for the agricultural sector, care should be taken to achieve efficient use of public resources. Government should ensure that spending is directed towards the most essential priorities requiring public sector support, with the greatest potential to have a positive impact. In particular, public support should address the needs of the new class of individual farmers/entrepreneurs, because they are generally the most productive and hold the most potential for growth in agriculture (see the Agricultural Land Policy Note in this series). This includes extension and business advisory services, marketing infrastructure and standards, credit, and targeted research. Instead, many resources, in particular subsidies, are presently targeted at large corporate farms with questionable impact.

Box 1: Agricultural Spending and Economic Growth—A Review of the Evidence

A recent study of public expenditure in 43 developing countries shows average spending on agriculture falling from 9.8 percent of agricultural GDP in 1980, to 7.9 percent of agricultural GDP in 1998 (Fan and Rao, 2003). This compares to public spending on agriculture in developed countries of around 20 percent of agricultural GDP.

The Africa and Latin America regions experienced a fall in spending on agriculture between 1980 and 1990 (the fall was especially sharp in Latin America), with some recovery of spending by 1998. Asia has experienced a more gradual but steady decline in spending in agriculture, falling from 9.6 percent of agricultural GDP in 1980 to 8.2 percent in 1998.

But what has been the impact of public spending on agriculture? The analysis by Fan and Rao (2003) suggests that public spending on agriculture has a significant positive impact on agricultural GDP, with investments in rural infrastructure (primarily irrigation and roads) and in generation and dissemination of improved technology (Research and Development, R&D) contributing most strongly to this growth. This is supported by other studies that suggest investment in productivity-enhancing R&D has a larger output-promoting effect than other forms of public spending on agriculture (including subsidies).

Fan and Rao show that overall the impact of government spending on different sectors is mixed. However, in Africa, government spending on agriculture and health has been particularly important in promoting economic growth. In Asia, investment in agriculture has also had strong growth effects (together with education and defense). The study also found growth in agricultural production to be the most crucial element in addressing poverty in rural areas.

[8] This includes both central and local government expenditures, but not donor or IFI support, or extra-budgetary funds; see below and Annex 2, Table 17 for more details.

Several lessons can be drawn:

- Governments should consider increasing spending on agriculture, particularly on investments such as R&D and rural infrastructure. This type of spending not only yields high returns to agricultural production, but also has a large impact on poverty reduction since most of the poor still reside in rural areas and their main source of livelihood is agriculture.
- Sector spending has differential impacts on economic growth, implying that there is potential to improve the efficiency of government spending by reallocation among sectors.
- The estimated returns to the generation and dissemination of improved technologies are as high now as they ever were, and high enough to justify greater investment of public funds.

Source: Fan, S. and N. Rao, 2003, "Public Spending in Developing Countries: Trends, Determination and Impact", EPTD Discussion Paper No.99, International Food Policy Research Institute

PUBLIC AGRICULTURAL INSTITUTIONS HAVE NOT YET ADAPTED TO THE NEEDS OF A MARKET ECONOMY

Despite reorganizations, the Ministry of Agriculture and Food Industry (MAFI) has not yet adapted to the needs of a market economy. Its structure and operations are still based to a large extent on past practices. MAFI, the central body in charge of formulating and implementing Moldova's agricultural policy, went through a number of reorganizations and downsizings since 1995. A recent reorganization in April 2004 reduced by half the number of staff in MAFI's central administration, bringing it down from 166 to 83 people (an organization chart is in Annex B, Table 7). Politicization of Moldova's civil service in general, together with political instability and low remuneration levels, translate into a high turnover of staff, discontinuity in policy, and low operational efficiency of MAFI. In addition, MAFI has continued to respond in central planning terms when developing sector strategies and it tends to carry out its regulatory functions in an authoritarian and heavy-handed manner, rather than being supportive of private sector development.

Despite MAFI's apparently lean central administration with only 83 staff, there is a large number of additional institutions and staff reporting directly or indirectly to the Ministry. Government employees paid under MAFI's state budget presently amount to a total of some 3,600 people (**see Table 1.2**; details are in Annex B, Table 12). In addition, staff of the "Sanitary and Veterinary Territorial Services" (1,976 people) also report to MAFI's General Directorate of Veterinary Medicine, although their salaries are not paid out of MAFI's budget but transferred directly from the state budget for payment by local governments. Out of the 3,400 staff paid under MAFI's budget, close to 1,800 belong to agricultural education institutions (mostly staff of agricultural secondary schools and the agricultural university). The balance belongs mainly to the "Anti-Hail Service" (860 people), MAFI's various "State Inspectorates" and other bodies with control and regulatory functions such as the "State

Table 1.2: Staff of Institutions Funded under the State Budget of MAFI, 2004 (no. of personnel)

Education	**1,778**
Organizations reporting to MAFI (funded under State Budget):	**1,705**
National Veterinary Diagnostic Center	90
State Veterinary Service on Borders and Transport	180
State Inspectorate for Plant Protection	150
State Inspectorate for Seeds	136
State Commission for Plant Variety Testing	90
State Inspectorate for Animal Selection and Breeding	28
State Inspectorate for Cereals and Bakery Products	18
Anti-Hail Service	860
State Veterinary Inspectorate	153
Ministry Central Administration:	**178**
Central staff of Ministry	166
State-owned enterprise AT Prolin (cattle-breeding farm)	12
TOTAL MAFI	**3,661**

Source: Data from Annex B, Table 12. Notes: Table does not include employment by raion agriculture departments. The Education category includes the following institutions: Plant Protection Institute, Institute of Economics and Training in Agriculture and Food, State Agrarian University, and a number of agricultural high schools.

Commission for Variety Testing and Homologation". Most institutions reporting to MAFI have their own special resources, derived from user fees charged for their services in addition to their allocations under MAFI's state budget. The contribution of these special resources to the total expenditures of these institutions has increased from less than 35 percent in 1999-2000 to 40 percent in 2004 and a projected 44 percent in 2005 (Annex B, Table 14). Some institutions (State Inspectorate for Cereals and, to a lesser extent, State Commission for Variety Testing, National Veterinary Diagnostic Center) are close to self-financing, deriving some 80-90 percent of their resources from user fees and charges. The institution with the greatest extra-budgetary resources in 2004 was the State Veterinary Service on Borders and Transport, with MDL 3.6 million.

A number of other self-managed institutions are not directly part of MAFI, but are under its oversight and receive some funds from its budget. These include:

- A total of about 10 **agricultural research institutes**, with some affiliated research stations, are under the oversight of MAFI. These institutes are self-managed and only partly funded under MAFI's state budget. Most of them have extensive tracks of land (e.g., 1,500 - 2,000 ha in some cases) and they derive most of their revenues from the production of seeds and seedlings, sales of agricultural produce and/or lease of part of their land.
- **"Apele Moldovei"** is a semi-autonomous state institution in charge of irrigation, also placed under the supervision of MAFI and partly funded under its state budget. It works through district offices that are responsible for the operation and maintenance (O&M) of pumping, conveyance and distribution infrastructure and the supply of water to farms.
- Agro-industrial Department **"Moldova-Tutun"** was created in November 2002 under the oversight of MAFI. This Department is involved in supervising the management of the Chisinau tobacco factory (Tutun-CTC) and tobacco-fermenting plants, all of which are predominantly state-owned companies.[9]

Finally, some 30 state-owned enterprises, mostly of small size, are under the supervision of MAFI. These enterprises are fully self-managed and in principle, they do not receive any funding from the state budget. They include seed production companies, enterprises with activities such as flower production, fish breeding or aviculture, machinery repairs, testing of food products, etc.

The Agro-Industrial Department "Moldova-Vin" supervises the management of the state-owned wineries and other wineries in which the state retains an equity stake. Being previously under MAFI and in 2002 becoming a separate government Department with its own allocation under the state budget, "Moldova-Vin" has the specific mandate to articulate a strategy for viticulture development, to promote wine exports, and to coordinate investment issues in this sector.

Local government has unclear roles in relation to MAFI structures. Local government activities in agriculture are limited due to recent changes in local government finances that tend to reduce local autonomy and to hinder the provision of services. As is also the case at the central level, the key problem is the imbalance between the responsibilities and resources assigned to local governments. Most local public administrations are weak, which further reduces the ability of local governments to effectively deliver on existing mandates. The local public administration of each raion has an "agriculture department" with staff typically composed of a department chief (who is also deputy head of the raion administration), his deputy, and a team of 5-7 specialists (agronomist, livestock specialist, mechanical engineer, accountant, 1-2 cadastral engineers). However, it is difficult to find any clear job description for these local staff, and their roles and responsibilities are unclear. At the same time, most agricultural sector responsibilities are carried out by MAFI and its own parallel decentralized structures.

[9] A recent journal article argues against privatizing the state-owned tobacco enterprises in Moldova on public health grounds. See A. Gilmore et al. (2005), "Pushing up smoking incidence: plans for a privatized tobacco industry in Moldova," *The Lancet* 365: 1354-59.

SUPPORT TO THE AGRICULTURAL SECTOR LACKS AN APPROPRIATE STRATEGIC FRAMEWORK

There is currently no effective mechanism for linking agricultural sector strategy and priorities to MAFI's institutional organization and budget allocations. The annual budget appears to be prepared largely on the basis of political pressure and past expenditure patterns, irrespective of whether these patterns correspond to actual sector priorities in the present economic environment (although there have been some changes over time; see below and Annex B for details). Development plans elaborated by MAFI in recent years are mostly aimed at rehabilitating the industries that Moldova used to have during the Soviet period. As a result, MAFI activities (and therefore expenditures for them) have undergone little change over time, as they have not been subject to the major overhaul that would be necessary to adapt them to the needs of private farmers.

Following the 2001 elections and appointment of a new communist administration, the declarations made by the government on agricultural development objectives and strategy have reverted towards a degree of central planning, with a focus on three general issues: (i) production growth and food security; (ii) stimulation of land consolidation through associations of farmers, toward development of large production cooperatives; and (iii) development of "strategic" sectors such as viticulture and wine, fruits and vegetables, tobacco, grains, oils, sugar-beet, and livestock (though it is unclear which criteria were used to choose these sectors, other than that in many cases they were important in Moldova during the Soviet era).

Various draft laws envisage the reinstatement of "consolidated agricultural enterprises" that would be run by state-appointed managers and would pressure small farmers to join and contribute their land to the cooperatives' founding capital. Starting in 2002, Government has attempted to revise the Land Code towards an administrative, rather than market-based, approach to land and farm consolidation. According to the plans, the state would control the provision of key inputs and credits, with agricultural subsidies to be targeted largely to producer cooperatives. In 2002, the government effectively started to establish Machinery and Technology Stations (MTS) in districts centers. However, these and similar plans have so far been implemented only to a very limited extent, partly as a result of pressure from IFIs and partly due to the government's limited financial means to implement them.

MAFI prepared in 2001-2002 a series of strategy papers for the development of strategic agricultural sub-sectors, which seem to simply aim for reinstating previous production structures not adapted to the current economic realities. These strategy papers – which are currently being updated and consolidated into a "Strategic plan for agricultural and food sector development 2004-2015" – consist mainly of plans for production and investment in the various "strategic" sub-sectors already mentioned. Most importantly, these plans are very ambitious, but their investments are neither funded nor prioritized, and they do not provide any clarification on how the government would ensure their effective implementation. For example:

- The "State Program for the development of viticulture for 2001-2020" foresees the plantation of 100,000 ha with improved grape seedlings, with the necessary investments evaluated at approximately USD 700 million (compared to total public expenditure on agriculture of about USD 10.5 million in 2004).[10] Although the plantation of vineyards has started to pick up in recent years and Government has allocated funds for this purpose, the present rate of re-planting is far below Government's plan. Similarly, the "State Program for the development of the fruit tree sector for 2002-2020" foresees the re-plantation of 50,000 ha of orchards, corresponding to investments totaling about USD 600 million.[11]

[10] As a result, the vineyard productivity is expected to reach 8 t/ha by 2020 (vs. 4 t/ha at present).

[11] This would include about USD 100 million for capital investment in new orchard creation and USD 500 million for production investment. As a result, the orchard productivity would be expected to reach 14.5 t/ha by 2020 (vs. 3 t/ha at present).

- A Government Decision for the rehabilitation of irrigation systems was approved in April 2001, which foresees the rehabilitation of existing irrigation systems over an area of 124,300 ha in an eight-year period (2001 to 2008), with total investment requirements estimated at USD 123 million. Implementation was supposed to start in 2001, but the government failed to mobilize the financial resources necessary for the first stage of this ambitious program (USD 3.5 million for irrigation rehabilitation on 25,000 ha).
- MAFI has recently developed a production program to 2015 for various field crops, based on soil quality and "optimal" crop rotations (based mostly on Soviet-era technical norms, rather than economic criteria). These projections, however, remain largely theoretical. For instance, in its outline program for crop production to 2015, MAFI envisages a reduction in the area under sunflower from the present level (which would be compensated by increased yields), so as to ensure the maintenance of soil fertility through appropriate crop rotations. However, the types of economic incentives that would induce private farmers to change their cropping patterns in this direction and to adopt high yield technologies are not specified.
- MAFI also has plans, which remain so far largely unfunded, for the rehabilitation of large animal breeding and production complexes built in the Soviet times, without demonstrating a clear comparative advantage in livestock production or the financial viability of such enterprises. In fact, Government is still servicing the unpaid debt from loan guarantees provided to similar livestock enterprises in the past.

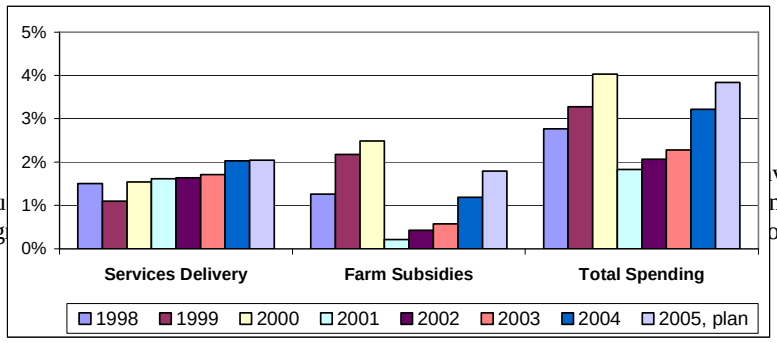
The Reliance on Subsidies

CURRENT AGRICULTURAL SUPPORT PROGRAMS REPRESENT AN INEFFICIENT USE OF SCARCE PUBLIC RESOURCES

1.1 Public spending in Moldovan agriculture can be subdivided into two main types of expenditures: (i) public expenditure incurred for the delivery of services to farmers; and (ii) direct cash support or subsidies to agricultural producers. Until 2004, the bulk of farm subsidies were channeled through MAFI's budget allocation for "Agricultural Support" (also known as "the special fund for agricultural support"). However, beginning in 2004 subsidies to agriculture through "other support funds" (outside MAFI) surpassed those under MAFI's budget. Details on planned and actual spending under MAFI's agricultural support are given in Annex B, Table 15 (see also Annex A for an explanation of the data).

Public expenditures for the delivery of agriculture services represent a very low share of agricultural GDP, and investments are negligible. Expenditures on services have, however, seen slow but steady growth in recent years, from about 1.5 percent of the consolidated budget in 1998 to 2.0 percent at present. (**see Figure 2.1**; details are in Annex B, Tables 9 to 14 and summarized in Table 17). All expenditures are recurrent expenditures, consisting of salaries and other operating costs. Official public expenditures on agricultural investments are negligible.[12] The quasi-totality of expenditures comes from the state budget. Expenditures from local governments (raion agriculture departments) accounted for about 9-10 percent of service delivery in 2000-2001, decreasing to only 6-7 percent since 2003.

Figure 2.1: Agricultural Expenditure by Main Type, 1998-2005 (% consolidated budget of Moldova)



Source: Data from Annex B, Table 17. Note: includes both central and local government expenditures on agriculture. Local expenditures are included in Services Delivery.

Expenditures on subsidies have been growing in importance

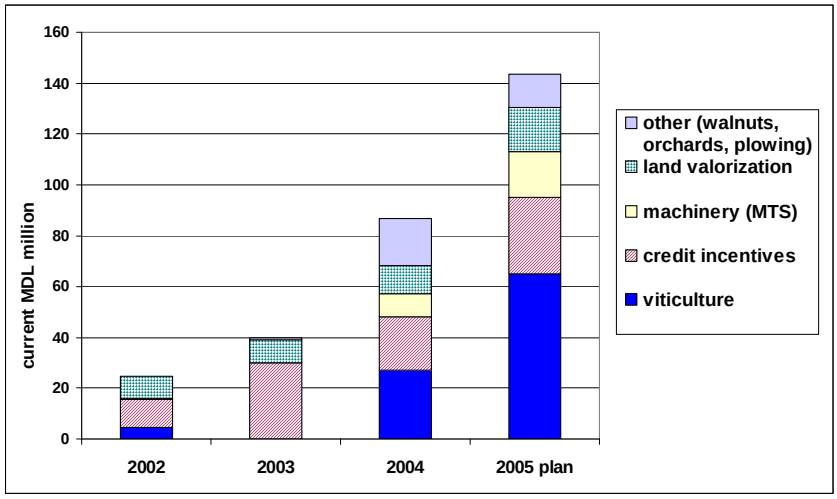
12 vestments are not included in the bu n the amount of total spending on ag ow.

relative to other types of public support. Large inter-annual fluctuations in total agricultural public spending between 2 and 4 percent of the total consolidated budget are mainly due to variations in the amounts allocated to farm subsidies during the period 1998-2005 (**see Figure 2.1**). Previously, government support to agriculture was mostly in the form of debt cancellation, tax reductions or cancellations of arrears and other quasi-fiscal operations in favor of large-scale agricultural enterprises. While farm subsidies accounted for a larger share of consolidated budget at the beginning of the period, they collapsed in 2001, but have again been given a growing importance by government in recent years. As summarized in Annex B (Table 17), given total public expenditure in agriculture of about MDL 236 million in 2004, 37 percent (MDL 87 million) was for farm subsidies (including both MAFI and extra-budgetary funds). An increase of MAFI subsidies from MDL 36 to 60 million under the "special fund for agricultural support" was planned for 2005. This was mainly to support the development of vineyard plantations. However, in July of 2005, Government announced that, given the high price of fuel, it would significantly increase the amount allocated to the special fund for agricultural support to MDL 180 million for 2005 (though past experience suggests that this may not be fully implemented due to a lack of funds).[13]

THE NATURE OF SUBSIDIES HAS SHIFTED OVER TIME

The amounts and purposes of farm subsidies have been unstable and have changed since 1998. Initially, substantial amounts were channeled to emerging small-scale producers in order to encourage them to start up agricultural activities outside of the former large-scale agricultural enterprises. Subsidies subsequently dried up in 2001. When they resumed in 2002, the bulk of subsidies was directed to credit incentives for farmers borrowing from credit institutions, including commercial banks as well as smaller-scale Savings and Credit Associations. Other activities have assumed growing importance in the allocation of subsidies starting in 2004, including interest-free state credit for the purchase of farm equipment by Machinery and Technology Stations (MTS) and substantial amounts of subsidies for the plantation of vineyards, with ambitious plans for 2005 (**see Figure 2.2**).

Figure 2.2: Farm Subsidies by Purpose, MAFI and Other Funds, 2002-2005



Source: Data from Annex B, Table 15. Note: "land valorization" is mainly for activities such as drainage and erosion control.

In the wake of land distribution, significant subsidies to private agricultural producers sought to facilitate the start-up of private agricultural activities by small landowners encouraging them to break away from former large-scale agricultural enterprises. These subsidies were targeted at newly registered peasant farmers and non-registered landholders. The funds, distributed in cash at the rate of MDL 150 per hectare (later reduced to MDL 75 per hectare), were specifically aimed at facilitating the spring field works and intended to be spent on fuel, seeds, chemicals and fertilizers. Although this program was relatively successful as a temporary measure to facilitate the transition to independent farming, and the amount originally

[13] SeeNews, Chisinau, Moldova, July 21, 2005.

planned was fully disbursed during 1999 and 2000, some infringements were found by the Court of Accounts and the subsidy program was stopped after 2000.

Two subsidy funds for viticulture and tobacco were underfunded and later liquidated following heavy criticism from IFIs. The support fund for viticulture was designed by MAFI to partly compensate for the costs incurred by farmers who plant new vineyards. The fund was active until 1998 but remained basically dormant thereafter. Due to a lack of budget funds, out of a total planned amount of MDL 10 million, the viticulture fund actually received only MDL 1 million in 2001. Its budget allocation was also reduced from about MDL 13.6 million to MDL 4.7 million in 2002. Subsequently, the government set up in 2004 a new viticulture fund outside of MAFI with a different funding mechanism (see below). The tobacco fund, set up in 2002, was to be funded by a share of excise duties on tobacco products but was cancelled in 2003.

Credit incentives accounted for the bulk of subsidies distributed by MAFI from 2001 to 2004. Introduced in 2001, this subsidy had the aim of stimulating participation in credit programs through grants paid to farmers who had obtained and fully repaid an agricultural loan. This scheme, still ongoing, accounts for a significant, though declining, share of MAFI's agricultural support. Initially, only credits from commercial banks were eligible, but from 2002 onwards the scheme was extended to also include credits from the Rural Finance Corporation (RFC) and small Savings and Credit Associations (SCAs). The subsidy is equivalent to 20 percent of the credit amount, with a maximum value per agricultural producer within one calendar year that cannot exceed MDL 85,000 or the interest paid on the subsidized credit. The subsidy is paid only after full repayment of principal and interest by the borrower to the credit agency, which fosters financial discipline.

Despite the amount of about MDL 30 million being allocated annually to the credit subsidy scheme from 2001 through 2005, funds were not always available as planned. Since no funds were made available in 2001 due to a lack of budget resources, the actual implementation started in 2002 with only about MDL 11.1 million disbursed mainly due to an overall shortage of funds and the reallocation of part of MAFI's budget to other purposes (mainly irrigation schemes). In 2003 the planned amount was made available and disbursed (MDL 30 million), and in 2004 the whole amount planned under MAFI's agricultural support (MDL 36 million) was allocated to credit incentives. However, in April 2004 Parliament decided to reduce this amount to MDL 22 million in order to allocate the balance to the government's program for the establishment of Machinery and Technology Stations (see below). During preparation of the 2005 budget, MAFI proposed an allocation of MDL 35 million for credit incentives (out of a total allocation of MDL 60 million for agricultural support). A parliamentary decision in February 2005 reduced this amount to MDL 30 million in favor of MTS support.

A growing subsidy scheme, the Machinery and Technology Stations (MTS), has no clear eligibility criteria. Unlike the credit scheme managed by MAFI described above, this subsidy scheme is managed by "Moldresurse", a state-owned enterprise, and consists of "technical credits" from the state reimbursable without interest over a four-year period for the purchase of agricultural machinery. A central government committee selects the beneficiaries based on proposals from local administrative authorities, and there is no explicit requirement for down payment. This presents important risks of non-transparent selection of beneficiaries and subsequent write-off of their debt to the state, as was generally the case in the past with "technical state credits" granted to large-scale agricultural enterprises. By encouraging the Japanese 2KR program (see below) to distribute machinery to the new MTS, this subsidy scheme also risks undermining the sustainability, financial leverage, and discipline of that successful program. Lack of financial leverage under the MTS subsidy scheme also represents an inefficient use of scarce public resources. The 2KR program has a waiting list of applicants, while requiring substantial down payment from beneficiaries. The MTS scheme will not really increase the pool of agricultural machinery in Moldova, but instead it will discourage potential private applicants who would be ready to contribute cash down payments under the 2KR program. As noted earlier, MDL 14 million were reallocated from credit incentives to MTS support

in 2004. However, this amount was subsequently reduced to MDL 9 million in order to reallocate the balance to fuel subsidies for plowing works. Allocation for MTS has been increased again to MDL 18 million in the 2005 budget.

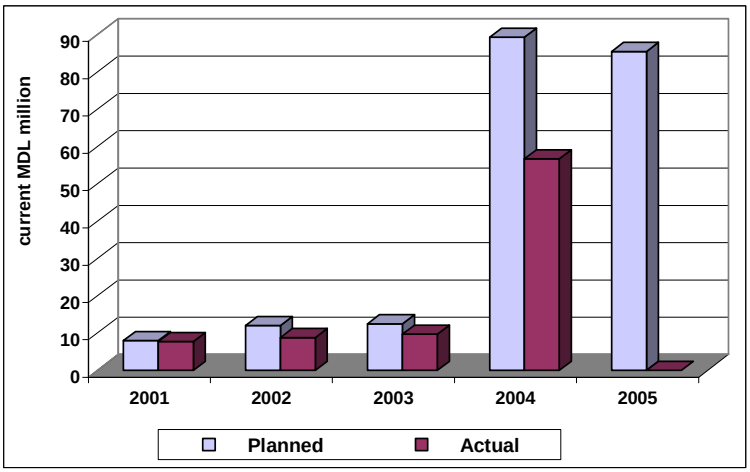
The growing subsidies have had little positive impact on farmers or agricultural production. The overall objective of producer-oriented subsidies is typically to either, (a) reduce the prices to farmers of the inputs they require for production, or (b) to increase the prices they receive for their final outputs. However, as discussed in the Agricultural Markets Policy Note and the CEM, Moldovan farmers continue to pay significantly more than they should for their inputs, and receive much less than they should for their outputs, relative to world prices for the same commodities (after accounting for transport and other transaction costs). More importantly, the agricultural sector as a whole has continued to stagnate.

EXTRA-BUDGETARY SUPPORT FUNDS HAVE BEEN MULTIPLYING

Other support funds outside of MAFI's budget have been growing in recent years, and this reduces the effectiveness of agricultural public expenditures. This reflects a growing trend in the Moldovan public sector for "special" extra-budgetary funds based on specific taxes or fees earmarked for specific end uses.[14] However, this trend appears to be particularly common in the agricultural sector (**see Figure 2.3**). Of the nearly MDL 87 million spent on agricultural subsidies in 2004, MDL 56.7 million, or 65 percent, was through extra-budgetary support funds. Such extra-budgetary funds make strategic planning and budgeting by MAFI difficult, and reduce the transparency of agricultural expenditures. They also reduce the resources available to MAFI for provision of necessary services and investments for agricultural development. The special funds are:

- A "special fund for the valorization of land and improvement of soil fertility" had an allocation of MDL 9.5 million in 2003, increased to MDL 11 million in 2004 and MDL 17 million in 2005. This extra-budgetary fund managed by the National Agency for Cadastre and Land Development draws most of its resources from a share of taxes on sales of state land. It is used mainly for drainage, erosion control and other land improvement works.
- In 2002, a "special fund for development of walnut production" was set up, to be funded from a 1% levy on walnut exports. Proceeds of this extra-budgetary fund are intended for the production of seedlings and development of walnut plantations, with an annual allocation of MDL 3 million.
- A "fund for subsidizing plowing works carried out in the fall" was created in the fall of 2004, following a steep increase in the price of imported fuel which resulted in threats that agricultural producers would not plow their land. This fund has been managed by the Ministry of Finance (MOF), with resources drawn from allocations initially intended for MAFI's agricultural

Figure 2.3: Other Support Funds outside MAFI, 2001-2005



Source: Data from Annex B, Table 15

[14] Government has stated that it intends to fully integrate these funds into the national budget in the future.

support and other activities. Actual expenditures in 2004 amounted to MDL 13 million, consisting of a subsidy of MDL 500 per ton of fuel used by farmers for plowing works in the fall. Funds were distributed by local raion administrations. This program was repeated again in 2005.

- In 2004, Moldova-Vin started to operate a "special fund to support vineyard plantation" (**see Box 2**). Although there was a shortfall of funds compared to initial ambitions, a substantial amount (MDL 27 million) was paid out of this fund in 2004.

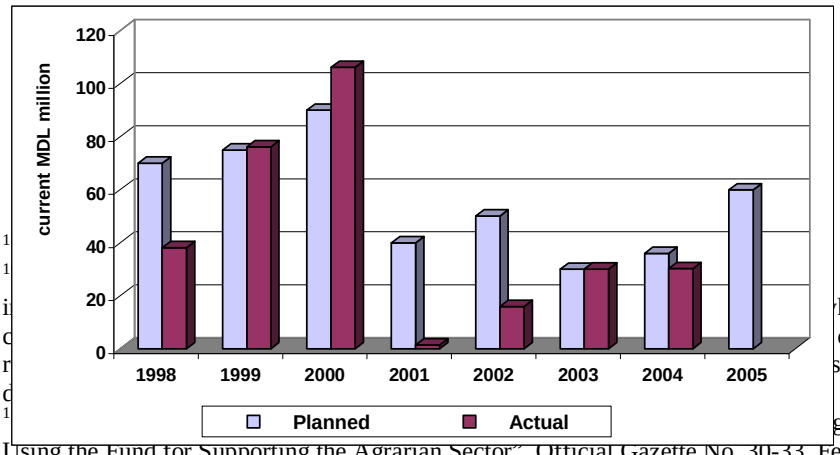
CURRENT SUPPORT ENCOURAGES PRODUCTION WHERE PRODUCTIVITY IS LOWEST AND DISCOURAGES PRODUCTION WHERE PRODUCTIVITY IS HIGHEST

Small and medium size independent farmers have demonstrated, both in Moldova and elsewhere, that they are more efficient than large corporate farms.[15] Under Moldova's present economic circumstances, they also play an important social role by ensuring employment and income for a significant part of the country's rural population. Efficiency considerations about the optimal size of land plots are largely theoretical and they have not been borne out by Moldova's previous experience with collective farms and their subsequent transformation into joint stock companies, which was motivated by such theoretical considerations and supposed economies of scale, but which turned out to be unviable in a market economy.

Starting in 2004, there has been not only a shift in activities eligible for subsidies, but also a trend towards concentration of subsidies on medium to large-scale operators. The overall amount that the government is able to devote to these more recent subsidies is likely to remain limited, which will allow only a modest impact on overall investment levels in the agricultural sector. Furthermore, the efficiency of these subsidies is limited by the fact that they are directed towards relatively large operators who are less efficient producers. While the credit subsidy program that began in 2001 has a ceiling per beneficiary per year and is intended to benefit mainly small to medium size farmers, the more recent subsidies for Machinery and Technology Stations (MTS) and for the plantation of vineyards are designed in such as way that it is difficult for small producers to benefit. This is despite the fact that the large corporate farms would likely find other sources of funds, even in the absence of these subsidies, whereas the small producers have fewer options.[16]

As designed, the MTS, viticulture and other subsidy schemes have raised concerns that they may be used as an indirect way to foster the revival of production cooperatives and administrative land consolidation. The official description of the MTS subsidy scheme explains that it is targeted to "Machinery and Technology Stations that shall process contiguous land plots ensuring efficient exploitation of agricultural machinery."[17] While these criteria are somewhat obscure and subjective, they seem to imply that the

Figure 2.4: Planned vs. Actual Agricultural Subsidies Under MAFI State Budget, 1998-2005



Source: Data from Annex B, Table 15

farmers (about 700,000) are
hile a little over 2,000 large,
of all agricultural land. More
smooth out the farm structure

gulation on the Procedure for Using the Fund for Supporting the Agrarian Sector", Official Gazette No. 30-33, February 25, 2005.

subsidized machinery is for use only on large, consolidated farms. The viticulture scheme, meanwhile, has a specific requirement to plant a minimum of 5 ha on one plot (**see Box 2**). As a result of the requirement for a minimum plot size and the absence of upper limits on area and subsidy per beneficiary, the viticulture scheme contributes to concentrating subsidies in favor of medium- and large-scale agricultural enterprises. This is evidenced by the average size of eligible applications, which was 31 ha in 2004 (the average size of individual farms in Moldova is 1.9 ha), with net eligible area ranging from the minimum of 5 ha up to 330 ha (see Annex B, Table 16). Applications above 50 ha, which all come from agricultural enterprises with various legal statuses and activities (including some wineries), account for 17 percent of the total number of applications and 60 percent of total areas and subsidies. Applications below 10 ha account for 48 percent of the total number of applications, but only 12 percent of total areas and subsidies.

Subsidies have been unreliable, reducing their impact further. As subsidy plans announced by Government are often not respected, predictability for producers is very low, which inherently reduces the potential effectiveness of the programs in encouraging investment. Allocations for subsidies included in the annual Budget Law are subject to frequent modifications and amendments during the year, including changes in the total amount, as well as eligible types of support and allocation of funds among different purposes (**see Figure 2.4**). In some years, actual spending on subsidies has been substantially below the total amount announced by government at the beginning of the year, due to lack of availability of budget resources. This applies to subsidies under MAFI's budget as well as extra-budgetary funds such as the recently established special fund for viticulture. One example is the MTS fund. Initially, MDL 14 million were reallocated from credit incentives to MTS support in 2004. However, this amount was subsequently reduced to MDL 9 million in order to reallocate the balance to fuel subsidies for plowing works. As mentioned above, the lack of public resources to back up government plans has also affected the credit subsidy scheme. Since the targeting of beneficiaries is not clearly defined for many of these schemes, it is often unclear how priority beneficiaries are selected in case of shortages of funds.

Box 2: Agricultural Subsidies—The Case of Viticulture

The subsidy scheme managed by Moldova-Vin introduced in 2004 consists of a revival of earlier support to the plantation and replacement of vineyards. Following its establishment as a separate government department in 2002, the Agro-Industrial Department Moldova-Vin has sought ways to secure resources for the viticulture support fund, which had received only minimal budget allocations since the late 1990s. An initial proposal was to introduce a special tax or levy (5 percent) on exports of alcoholic products to subsidize credit for the replanting of vineyards. This was strongly opposed by the industry exporters as well as IFIs. The government then made a decision to introduce payment for use by the wine industry of old trademarks created in the Soviet period and owned by the state.[18] An extra-budgetary fund was created to collect the needed amounts, and earmarked to subsidize part of the costs of planting new vineyards. Following the creation of the new "special fund to support vineyard plantation" in 2004, a substantial amount (MDL 27 million) was paid out of the fund in the same year.

This scheme pays a subsidy of about MDL 25,000 per hectare planted, with a requirement to plant a minimum of 5 ha in one plot (meaning most of the subsidies go to larger farms). This represents a subsidy of about 20 percent given a total investment estimated at MDL 125,000 per ha during the first four years before production. In 2004, following an extensive advertising campaign, Moldova-Vin received 107 eligible applications for a total net area of 3,334 ha actually planted. Corresponding payments due from the subsidy fund amounted to MDL 83.35 million. However, when Moldova-Vin was supposed to pay this amount in July 2004, only MDL 5 million had been accumulated in the fund (out of in payments due It was then decided to make payments to beneficiaries in three installments and the legislation was amended accordingly. But even by the end of 2004,

[18] The state has registered 74 brand names of wines and alcohols. Since September 2003, producers of wine and alcohols have the right to use these trademarks only after concluding an agreement with Moldova-Vin setting the volume of output, amount to pay, payment transfer fee and payment dates. Charges amount to MDL 0.10 per bottle of wine, MDL 0.5 for brandy.

when wine and alcohol producers were supposed to have made payments for the use of trademarks (a total of MDL 87 million according to Moldova-Vin)[19], income accumulated in the fund only allowed Moldova-Vin to effectively pay a total amount of MDL 27 million (about 32.5 percent of total subsidies due for 2004). As a result, many payments were delayed.

For 2005, Moldova-Vin has stated that it would enter new contracts with wine and alcohol producers only if previous ones have been fully paid. Since entities supplying wine in bulk will also have to contribute to the fund, Moldova-Vin expects total receipts in the fund to increase by about 25 percent above the 2004 level, which would allow it to subsidize the plantation of up to 4,500 ha in 2005.

Subsidies for vineyard plantations have probably contributed to increasing the area of vineyard plantation in 2004. However, their efficiency is probably low, since the plantation and replacement of vineyards was already starting to pick up when the subsidy was introduced. In particular, wineries with foreign partners had initially invested in wine-processing industrial equipment, and were also starting to invest in grape production even before introduction of the subsidy.[20] As Moldova-Vin was not able to meet its obligations in 2004, the confidence of grape producers in the subsidy scheme was undermined, so while they will certainly take the subsidy when/if given to them, they are unlikely to base their future investment decisions on it.

DEBT FORGIVENESS, TAX HOLIDAYS, AND OTHER QUASI-FISCAL OPERATIONS BECOME DE FACTO SUBSIDIES

Before 1998, government support to agriculture was provided mainly through non-budget mechanisms and quasi-fiscal operations benefiting large-scale agricultural enterprises. These enterprises accumulated considerable arrears in the payment of taxes and other dues, which were periodically written-off by government. They also benefited from state guaranteed credits, including technical credits with state-owned suppliers for the purchase of petroleum products, fertilizers, spare parts, etc. An important share of these credits was never paid back and ultimately cancelled by the state, thus converting them into de facto subsidies. Another widespread practice consisted in the netting out of arrears, which resulted in a lack of transparency of the national public budget in favor of some enterprises or activities.[21]

In 1999, a massive debt cancellation program was introduced for collective agricultural enterprises that accepted to undergo restructuring and liquidation, thus fostering actual land privatization and enabling the newly created units to start essentially debt-free. Total write-offs of tax liabilities under this law[22] during the period 2000-2004 amount to MDL 1,260.7 million. This type of indirect support took place mostly in 1999-2000 and almost stopped in 2001. However, there have been occasional complaints that this law was used thereafter to restructure the debts of some agricultural enterprises that had not been privatized.

In recent years, significant debt forgiveness was granted to large agricultural enterprises by Government, diminishing resources available to support agriculture and reducing the incentive

[19] Moldova-Vin had no estimate and no control over the amount of eligible applications for subsidies in 2004. It acknowledges that it is only by chance that their total (MDL 83 million) is compatible with the expected income of the subsidy fund (MDL 87 million) in the same year.

[20] A "Wine Sub-Sector Case Study", carried out in September 2003 as part of a World Bank Trade Diagnostic Study, had estimated through discussions with winery owners and key stakeholders that between 1,500 and 2,000 hectares were likely to be replanted during 2003/04, which was expected to increase in subsequent years. This was before introduction of the subsidy.

[21] For example, in 1996 and 1997 the wheat program aimed to facilitate the procurement of grain for the state reserves without actual state cash expenditure. Wheat procured for the state grain reserves was paid only half in cash to farmers, while the other half was balanced with debts/tax arrears. In the same period, the milk program aimed at guaranteeing low consumer prices for milk without cash expenditures from the state. A ceiling price for milk purchased by dairy factories was set by government, which was partly offset by debts/tax relief for farmers delivering their milk.

[22] Law on restructuring of agricultural enterprises during privatization No. 392-XIV (May 15, 1999).

for reform. Since 2000, Government has abstained from providing guarantees on domestic and external loans contracted by state enterprises. However, it still has to honor debt service obligations resulting from old loan guarantees. This cost Government MDL 156 million in 2004, or more than the entire combined value of IFI-financed investments. These obligations apply in particular to large livestock enterprises[23] that are now basically bankrupt (see point above on Government plans to revive these enterprises). In 2003, following drought and other adverse weather conditions, a total amount of MDL 195.7 million of tax liabilities was cancelled, corresponding to penalties and fines on tax arrears of some 400,000 agricultural production enterprises. Also, accumulated tax penalties and fines of large livestock enterprises were canceled in 2003 for an amount of MDL 2.8 million. More recently, it was reported that seven tobacco plants would have MDL 120 million in debts frozen.[24] If correct, this would represent a sum nearly as large as the entire MAFI budget for 2004. The concessions to tobacco plants also include cancellation of tax penalties and fines corresponding to an amount of MDL 5.7 million for 2004. Such fiscal vacations have recurred repeatedly over time, creating soft budget constraints that reduce the incentive for reform, and squandering precious public resources on items with little hope of enhancing growth prospects.

Direct and indirect taxation of agriculture is significant, although generally lower than in other sectors of the economy, mainly due to exemptions or reduced rates of import duties and VAT. On the domestic market, VAT is payable on goods and services at a standard rate of 20 percent, with a reduced VAT rate of 5 percent applied to primary agricultural products and a VAT rate of 8 percent applied to some basic food products (bread and baking products, milk and dairy products). In practice, even this VAT is only collected from larger agricultural producers. The government has suggested since 2003 that the VAT discounts on agri-food products would be discontinued, with application of the standard rate of 20 percent. No change has been introduced so far, so this exemption continues to act as a de facto subsidy for agriculture. (There is a proposal to increase the VAT on agricultural products to the standard 20 percent in 2006, though it would likely still apply only to larger producers).

Individual farmers, including registered peasant farmers and other rural households, pay income tax at the same rate as the general population,[25] although those who qualify as small businesses are exempt of income tax if they pay land tax on time. Land property tax is presently applied at the rate of MDL 1.5 per point-hectare,[26] which is equivalent to about MDL 110 per hectare on average. Corporate agricultural enterprises are subject to the general company tax on profits,[27] with tax facilities for establishment of small businesses applicable to agriculture as well as other sectors. In addition, agro-processing enterprises pay excise taxes on alcohol and tobacco products. Social fund contributions are assessed on the basis of 29 percent of gross salaries.

[23] Such credit was reportedly received in 1995 from EBRD and within the PL-480 Project.
[24] "Executive Accepts Fiscal Vacation for Seven Tobacco Plants", article in BASA-business, Chisinau, 12/2/04.
[25] Rates in 2004 are as follows: 10 percent of gross yearly taxable income between MDL 12,180 and MDL 16,200; 15 percent between MDL 16,200 and MDL 21,000; and 22 percent above MDL 21,000. These rates are to be reduced in 2005 respectively to 9 percent, 14 percent and 20 percent.
[26] The 'point' is an indicator of the quality of agricultural land (regardless of the crop actually grown) and varies within the range of 1 to 100. The rate of MDL 1.5 per point-hectare is applicable to arable land and land under perennial crops. A rate of MDL 0.75 per point-hectare is applicable to pastures and hay land.
[27] Legal persons pay income tax at the flat rate of 20 percent.

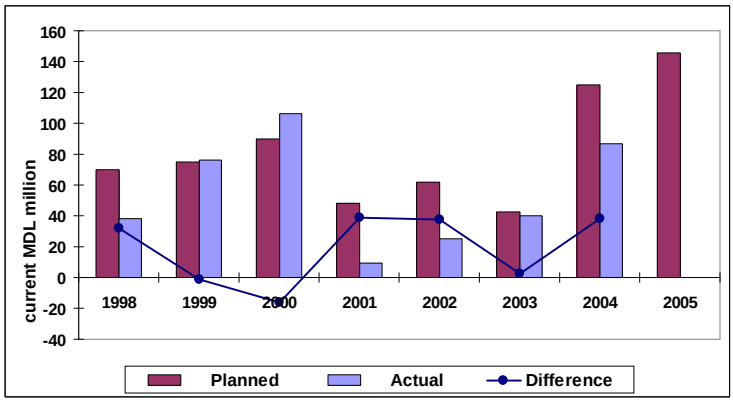
Public Expenditures for Agricultural Development

IMPROVING THE MANAGEMENT OF PUBLIC EXPENDITURES WILL HAVE A POSITIVE IMPACT ON AGRICULTURE

1.2 **The overall budget formulation and execution process in Moldova needs further strengthening**. Progress has been made in the context of the MTEF, but many of the recommendations have not been followed through in practice, particularly in the following areas:

- **Improve strategic planning.** While the MTEF is a step in the right direction, strategic planning is still very weak and should be improved**,** both in line ministries and local governments as well as at the center. In most cases, budget formulation is incremental in nature and input-oriented rather than output- or outcome-oriented. The MTEF is often treated as an exercise apart, rather than being integrated into the annual budget process. Budget proposals from line ministries and local governments usually bear little relationship to clearly defined strategic priorities. Budget negotiations with the Ministry of Finance (MOF) tend to focus mainly on controlling the budget numbers rather than allocating resources efficiently and strategically. On the positive side, actual agricultural expenditures do not normally exceed budgeted amounts (**see Figure 3.1**). However, in recent years there has been an increasing tendency to substantially under run budgets due to a lack of resources. This is due in large part to the increased reliance on ad hoc, unfunded subsidy programs, but also indicates the need for improved strategic planning.

Figure 3.1: Planned vs. Actual Total Agricultural Expenditures, 1998-2005



Source: Data from Annex B, Table 15. Note: includes expenditures both inside and outside MAFI's state budget.

- **Consolidate the budget formulation process.** The budget formulation process should be consolidated to provide a comprehensive view of public revenues and expenditures. Indicative local government budgets are presented, but not consolidated with the state and other budgets. Donor financed investments, extra-budgetary or special funds and resources, and the State Social Insurance Fund budget should be fully integrated for presentational purposes in the national public budget. This shortcoming is being gradually overcome under the MTEF.

- **Reduce the number of "special funds" and integrate them into the budget process**. The increasing number of "special funds and resources" (also called "extra-budgetary funds and resources") makes overall financial management more difficult. These special funds, established recently by line ministries, are based on specific taxes or fees earmarked for specific end uses (e.g., the viticulture fund). Special resources of institutions under the consolidated budget originate from official user charges and fees that they assess for their services (e.g. fees charged by veterinary and seed institutes). In 2005, these special funds and resources were supposed to became part of the state budget in order to ensure increased transparency. There is an intention to limit their number and activities in future, which is a positive development.

- **Provide a more comprehensive framework for resource management within income earning institutions**. In addition to integrating special funds and semi-autonomous agricultural institutions into the budget process, a framework should be established to create incentives for sound management of public resources while increasing transparency. A principle of good public expenditure management is that accountability and authority should go hand-in-hand. International experience suggests that, in order to deliver services efficiently and responsively, spending units should be given a clear mandate; be assigned appropriate resources; and be held accountable for the way they use the resources to deliver their mandate. In introducing market-like incentives to revenue-producing units, Government should be clear about where to draw the boundary between the public and private spheres and why. Public resources could then be focused on the provision of core public services, while non-core services could be gradually commercialized. One method for ensuring accountability of service delivery is through the use of the "citizen's score card" approach.

- **Improve coordination of investment projects and integrate externally funded projects into the budget.** Government investment projects are not well coordinated or integrated with the recurrent budget. Management of public investment has remained fragmented with no overall assessment of public investment priorities and with domestically and externally financed investment projects being identified and managed as separate programs. Neither domestically nor externally funded investment projects are consolidated into the national public budget. Instead, both types of projects are presented separately in annexes to the state budget. In 2003, capital expenditure (public investment) was equivalent to 4.6 percent of GDP, of which almost one third was financed by external grants and credits.

  Investment projects financed by foreign loans and grants are generally implemented through project implementation units which use special accounting and reporting mechanisms, reflecting in part special requests from donors related to accounting and procurement practices. While these projects are included in a separate annex in the state budget, they are not consolidated with the state budget in the annual budget presentation and periodic budget reports.

  For domestically financed public investment projects, the selection and prioritization criteria, including social goals, economic rates of return, and recurrent cost implications, are not transparently reported in the annual budget or elsewhere. Funding limitations have resulted in excessive project implementation time, which has considerably reduced the efficiency of the investment programs.

- **Streamline accounting systems and budget regulations.** Budget execution is hampered by cumbersome accounting and internal regulations, which need to be streamlined. Greater coordination is needed between the Ministry of Finance, the revenue authorities, and the spending agencies to improve cash management. The internal and external control frameworks are weak and the existing internal audit organizations need to move from ex post control and inspection activities to an audit model that is supportive of improving the overall control environment.

RE-ALIGN THE ALLOCATION OF SCARCE PUBLIC AGRICULTURAL RESOURCES

To be effective, sector spending should be based on a clearly specified strategy with priorities; a set of programs and policies that respond to those priorities; and allocations of financial and human resources that are consistent with the strategy, priorities, policies and programs. Within the limited budget available for the agricultural sector, care must be taken to ensure that spending is directed towards the most essential priorities that effectively require public sector support. Currently, the agricultural sector in Moldova sorely lacks this framework. MAFI should develop a comprehensive sector strategy and reorganize its services to effectively implement the strategy, including the various public institutions under its supervision. Future budgets should be driven by the

implementation of this strategy, and elaborated within the framework of the overall MTEF exercise. In a context of overall fiscal constraints, as is the case in Moldova, there is a risk that continuation and expansion of direct farm subsidies will crowd out essential public funding of growth-enhancing investments in public goods, such as extension and business advisory services, infrastructure, credit and targeted agricultural research. Investment in such public goods should be given high priority considering their impact both on growth and equity.

Support should be re-aligned to create a level playing field and invest in the future. In the coming years, public finances in Moldova will continue to be extremely tight. Therefore, the first priority in the near term should be to re-align existing resources towards those investments and services that will enhance growth prospects. Public support should address the needs of the independent farmers/entrepreneurs who hold the most potential for growth in agriculture and also play an important social role through the provision of employment. As mentioned earlier, the majority of government support to agriculture, in particular subsidies, is presently geared towards larger, corporate farms, which are less efficient than the new smaller, independent farms. Government policies should therefore not discriminate against specific legal forms or farm sizes. It should be left to the initiative of the actual landowners to consider various possibilities of land use and structural form, and choose the most profitable one. This means removing restrictions such as the minimum size requirement to qualify for viticulture subsidies, and the "efficiency" and "contiguous land plot" requirements for the MTS subsidy.

Investment needs to develop Moldova's agriculture in line with its comparative advantages are very large. As described in the Agricultural Markets Policy Note, since independence and restructuring of the agricultural sector, Moldova's natural comparative advantages have begun to re-emerge. Moldova is fortunate to have a comparative advantage in the production of high-value fruits and vegetables like tomatoes and grapes, and less of a comparative advantage in the production of extensive crops like wheat and sunflowers. The production of high-value fruit and vegetable crops is well suited to the new independent, family farms. But realizing these comparative advantages requires substantial investment, including in the development and maintenance of transportation and marketing infrastructure such as rural roads, storage facilities, collection points, wholesale markets, and market information systems. The size of the required investments to improve markets alone has been estimated to reach a total of some USD 2 billion.[28] Since productive investments currently account for a negligible share of MAFI's budget (though this does not include IFI expenditures), this share should be increased substantially—in place of subsidies—in order to promote future growth in the sector.

Remove wasteful subsidies to create fiscal space for growth-enhancing investments and services. A prime candidate for cancellation is the MTS subsidy program, due to the problems with the program mentioned above, and also because the successful 2KR program already fulfills the role of increasing access to agricultural machinery in a more transparent, effective and sustainable manner. Other candidates for removal are the subsidies for planting of vineyards and walnuts, which discriminate against small farmers, and are not necessary due to existing market-based incentives for investment. These programs also involve much bigger expenditures than the MTS program, and Government has had difficulty funding them (especially the viticulture program). Government should also refrain from providing de facto subsidies like the fiscal vacations that are very costly in terms of lost revenues, and also reduce the incentive for inefficient enterprises to restructure and increase productivity.

Providing a stable and predictable policy environment is key to future sector growth. Investment and productivity growth in agriculture depend as much, if not more, upon improvements in the wider policy and institutional environment as upon the provision of public-funded services and farm subsidies. While some of the investments required for agricultural development—such as public

[28] "Moldovan High Value Agriculture Export Competitiveness Study", CNFA/ USAID, Chisinau, 2004.

infrastructure—should appropriately be carried out by Government, for both efficiency reasons and given the size of the required investments, capital should also be mobilized to the extent possible from private sources, both domestically and through foreign direct investment (FDI). But attracting investments in vineyard and orchard rehabilitation, irrigation systems and other infrastructure needed for the recovery and development of agriculture in line with its comparative advantages would require substantial improvement in the business environment and investment climate. At present, Moldova continues to pose a significant sovereign risk for many investors due to its frequent changes in policy and regulations. Government should adopt policies that are more conducive to private sector investment, including foreign investment and remittances, in particular through the removal of remaining non-tariff trade barriers and elimination of practices such as preferential treatment of some enterprises. This would have a greater impact on sector growth than partial subsidization of investment, as currently attempted by Government in viticulture. MAFI should also pay increased attention to the elaboration of appropriate and affordable sector policies to enhance growth prospects for the new farm structure given current market realities. These include the development of standardization and certification systems based on EU and other international market requirements, and the provision of information and other public services to farmers and other operators in the value chain to facilitate the introduction of improved technologies (see Agricultural Markets Policy Note).

The recommendations of the EGPRSP provide useful policy guidance and Government should implement them. If effectively implemented, the EGPRSP would represent a radical departure from the policies adopted or declared by Government in recent years. Unfortunately, most of the recommendations have yet to be put in practice. The EGPRSP foresees a restructuring of MAFI to adapt its role from executive to facilitator, minimizing regulation. Special attention should be paid to developing MAFI's role as a central government body responsible for analysis-based policy development, and the monitoring of the implementation of policy. The EGPRSP supports a speedier implementation of structural reforms (including the resumption of privatization) and the elimination of existing restrictions and barriers to business. Regulatory functions would be limited to food safety, and veterinary and phytosanitary controls required by international conventions. In the agri-food sector, the EGPRSP confirms Government's objective to promote increased competition and to stimulate private initiative. It states that land consolidation should be addressed through the further development of the land market. Producers will choose the scale and legal organizational form which suits their needs and circumstances, with agricultural support subsidies to be targeted in a way that promotes growth and poverty reduction objectives, while ensuring that these policies will be non-discriminatory and will not introduce distortions in the efficient functioning of commercial markets. Though the new PFM Project will facilitate more effective budgeting in general, additional international donor support and technical assistance is likely to be needed as called for in the EGPRSP to prepare a long-term strategic plan for restructuring public administration in agriculture both at central and local levels.

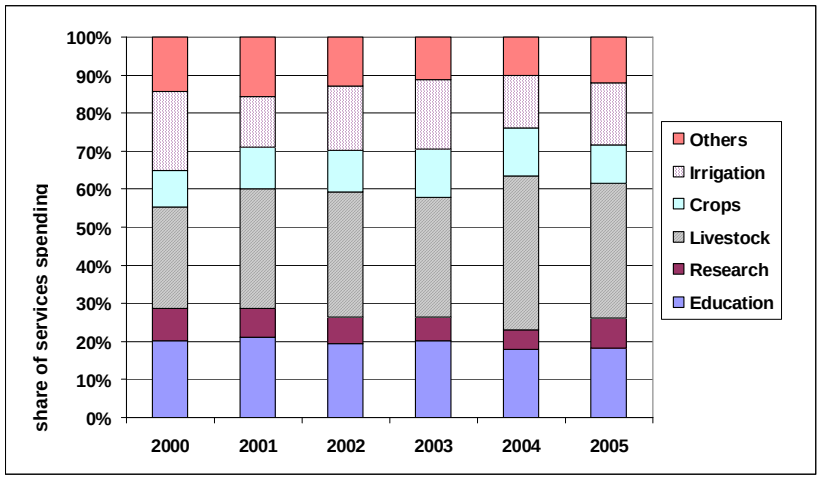
DELIVERY OF SERVICES SHOULD BE RATIONALIZED AND ADAPTED TO THE NEEDS OF PRIVATE FARMERS

Veterinary services should be reformed to focus on public good aspects. Since 2000 Government has decided that services related to livestock (mainly *veterinary services* and, to a much lesser extent, *animal breeding*) should account for a major and growing share of expenditures for delivery of public services in agriculture, even though Moldova does not have a demonstrated comparative advantage in livestock production in the new market economy.[29] Livestock services currently account for about 35 percent of the shrinking total service delivery expenditures, mostly for Sanitary and Veterinary Territorial Services (**see Figure 3.2**). This is an important service, part of which undoubtedly belongs to the public sector. However, the number of public veterinarians in Moldova—at about 2,400—seems excessive, particularly considering the size of the animal herd as well as the size of the

[29] For example, all livestock products combined accounted for less than 8% of Moldova's agricultural exports in 2003. For more information on Moldova's comparative advantages, see the Agricultural Markets Policy Note.

country.[30] Public responsibilities of veterinarians include public health, food safety, control of epidemics and quarantine measures, whereas other services (treatment of animals, artificial insemination, implementation of vaccination campaigns) are of a private nature. At present, however, civil service veterinarians perform both functions, which is not the most efficient use of public resources. Instead, under present economic circumstances, consideration should be given to redirecting efforts in this sub-sector to supporting the ongoing development of livestock production by smaller-scale private producers, in particular through adequate market infrastructure and veterinary support services. Private functions should be paid for, at least in part.

Figure 3.2: Functional Distribution of Agricultural Services Spending, 2001-2005



Source: Data from Annex B, Table 15

Instead of continuing to subsidize outdated and unsustainable irrigation systems, consider fostering the modernization of infrastructure and supporting the development of water user associations. Irrigation accounts for about 15-20 percent of total public expenditure for agricultural services and, as mentioned earlier, Government would like to increase this substantially. Total expenditure in 2004 was about MDL 20.4 million, including MDL 12.8 million for the exploitation of irrigation systems, MDL 5.6 million for energy subsidies and MDL 2.0 million for the water design institute. "Apele Moldovei" (AM), a semi-autonomous organization under MAFI, is in charge of the exploitation and maintenance of headworks and primary distribution systems. It has a total of 1,149 employees, of which 30 are at headquarters and the balance posted mainly to the water design institute ("Acvaproject") and, in smaller numbers, AM's 13 regional centers. Water users currently make only symbolic contributions to AM to cover the costs of exploitation of large-scale systems. The sustainability of this program is highly questionable and it is very difficult to attract external (non-budgetary) financial resources for this purpose, due to the very low economic efficiency (high operation and maintenance costs) of most of Moldova's large-scale irrigation systems, which were built in the Soviet period when energy prices were highly subsidized. A major constraint to the development of irrigated agriculture in Moldova is the lack of appropriate on-farm equipment, including implementation of small-scale on-farm technologies which would be more appropriate for private farmers' needs, and the need to develop water user associations (WUAs), which are still embryonic. The development of WUAs could be encouraged through the passage of a law based on international good practice describing their special status, and through capacity building activities to help them organize and develop strong institutional structures (as well as providing appropriate investments in on-farm irrigation infrastructure if possible).

Restructure agricultural education and research to increase efficiency. Education and research have proven in international studies to provide strong returns to public investments (**see Box 1**). In Moldova, they account respectively for about 18-20 percent and 5-8 percent of total public expenditure for agricultural services. The number of *agricultural education institutions* has remained

[30] By comparison, with a much larger livestock sector and country, Turkey has a total of about 3,000 veterinarians (and 2,100 veterinary technicians) employed by its Ministry of Agriculture, with another 2,000 in private practice.

unchanged in recent years, consisting of one agrarian university in Chisinau and about ten other institutions (mostly agricultural colleges and high schools) in various locations. There is also presently a total of about 10-12 agricultural research institutes,[31] plus some affiliated research stations. Agricultural research institutes and education programs receive very limited and declining resources from the state budget, and those resources often arrive late or not at all. The research allocation to MAFI used to represent about 20-25 percent of the total national science (research) budget in the late 1990s, but it has steadily declined to about 10-15 percent in recent years. In real terms, the decline is even more significant. Currently the ratio of agricultural research funding as a percent of agricultural GDP in Moldova is only about 0.13 percent. This GDP share is much smaller than in developed countries (0.5 percent) or even in Russia (0.25 percent). As a result, extra-budgetary resources have accounted for an increasing share of funding during the period 1998-2005 (see Annex B, Table 14). These resources come from activities such as seed and other commercial production on the institutes' extensive tracks of land, as well as consulting services. Attempts to restructure the agricultural research establishment and to support selected research institutes were made in the past by several donors (EU/TACIS, World Bank) without much success. Given the small size of the country and limited public budget, a serious effort should be made to rationalize these institutes. In addition, importing of advanced agricultural technologies, including seeds, should be strongly encouraged. In Western European countries and the USA, agricultural research and development (R&D) is largely in the hands of private companies (seeds, chemicals, etc.). Facilitating the entry of these companies into the Moldovan market would enable the country to significantly increase access to advanced agricultural technology with little public investment. Meanwhile, the process for allocating Moldova's scarce research funds should be restructured so that it is based on the demands of the newly independent farmers, rather than solely on the Science Council's and MAFI's preferences.

Reduce or remove certain dubious support services related to crop production. Support services for crop production account for about 10-13 percent of total public expenditure for agricultural services. Total expenditure in 2004 was MDL 19.0 million, consisting of MDL 4.4 million for *plant protection*, MDL 3.7 million for *seeds and variety testing*, and MDL 10.9 million for operations of the *anti-hail* service. Anti-hail services, implemented jointly with the military, absorb a large share of MAFI's public spending for support to crop production, and employ 860 people (more than 10 times the central MAFI staff). The effectiveness of anti-hail rocket firing is also very difficult to measure, and no OECD countries currently operate such a system. This service therefore seems to be of doubtful value, particularly if confronted with other priorities for public spending in agriculture. Government should consider canceling it and instead focus on the development of a more comprehensive and efficient weather-index risk insurance program (rather than a traditional crop insurance program, which is notoriously difficult and costly to implement).[32] As recommended above, Moldova could also save considerably on seed and variety testing by accepting the rigorous certification carried out by OECD countries in the Western Europe and North America.

Use budget savings to improve services required by the new independent farmers. International experience indicates the positive impact of farm support services on achieving broad-based agricultural growth and poverty reduction in rural areas, and in transition countries they are even more important. Many of the recipients of land shares after Moldova's agricultural restructuring had never farmed before, at least not independently. Even those with experience in agricultural production, including the "leaders" of corporate farms, often have little grasp of marketing and other business skills necessary to compete in a market economy. There is therefore a strong need for good advisory services. Unfortunately, extension services are not identified as a separate item in MAFI's budget and MAFI has no extension department. Some institutions under MAFI – such as the State Inspectorate

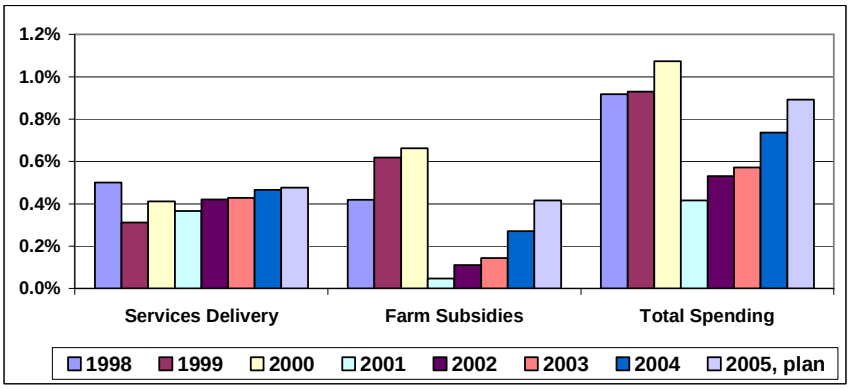
[31] Research Institute for Field Crops "Selectia" in Balti – Maize and Sorghum Institue "Porumbeni" in Chisinau – Tobacco Research Institute – Viticulture and Wine National Institute – Fruit Growing Research Institute – Animal Husbandry and Veterinary Medicine Institute – Soils, Agrochemistry and Hydrology Institute "N. Dimo" – Agricultural Mechanization and Electrification Institute "Mecagro" – Food Industry Research Institute – Plant Protection Research Institute – Research Station for Aquaculture.

[32] The World Bank will be carrying out an analysis to provide advice on this question in 2005-2006.

for Plant Protection or the Sate Inspectorate for Seeds – are occasionally involved in delivering training to farmers, jointly with staff of the raions' agriculture departments. But for the time being agricultural extension is almost entirely funded under foreign assistance projects, and all extension services are dependent upon this external assistance. Government should plan to improve these services and make them sustainable by incorporating them in the budget (see below). Government's support for extension services could also be leveraged (and its long-term investment requirements reduced) by using NGOs and other private providers where possible. Government should also improve coordination between central and raion level agricultural administrations. Roles and responsibilities should be clarified, job descriptions developed for staff at all levels, and rationalization carried out where there are duplications. Experience from other countries suggests that agricultural services are most effective when decentralized due to varying needs across a country, and this should be considered in Moldova. At the same time, more public funding is required for services that increase market opportunities, such as improving standards and certification for fruit and vegetable exports, in which Moldova holds a distinct comparative advantage (see Agricultural Markets Policy Note).

INCREASE PUBLIC SUPPORT TO AGRICULTURE OVER TIME

Figure 3.3: Agricultural Expenditure by Main Type, 1998-2005 (% total GDP of Moldova)



Source: Data from Annex B, Table 17. Note: includes both central and local government expenditures on agriculture. Local expenditures are included in Services Delivery.

Agricultural spending is low in Moldova by almost any measure. As mentioned earlier, agricultural spending as a share of total public expenditures is low, particularly when the importance of agriculture to the Moldovan economy is taken into account. Another measure for assessing the level of spending in agriculture is to calculate spending as a percentage of total GDP. In Moldova, spending on agriculture represents less than 1 percent of total GDP (**see Figure 3.3**). This is less than equivalent figures for other countries, which tend to show spending on agriculture at 1.1 to 3.5 percent of GDP. Alternatively, agricultural expenditure as a percentage of agricultural GDP can be used to measure government spending on agriculture relative to the size of the sector. As a percentage of agricultural GDP, public spending in Moldovan agriculture is presently about 4 percent, which is also low relative to most other countries.

Use foreign-financed projects to address critical constraints in the near term. Given the tight fiscal environment, a significant increase in the availability of public resources for agriculture is unlikely in the near future. Re-aligning current levels of public spending towards growth-enhancing activities will help increase their effectiveness, but gaps in investment needs will remain. In this context, foreign-financed projects and bilateral aid can be used to help fill in the gaps in the short term. Currently, foreign financed projects are not included, or only partly included, in the state budget, and are not included in the MAFI budget at all. In the case of loans or credits from international institutions, only the annual contribution from Government is included in an annex to the state budget, not the borrowed amount. There are two such items for agriculture in the 2004 budget: World Bank-financed activities,[33] primarily the RISP (MDL 5.8 million government budget

[33] This includes all contributions to activities of the CAPMU project implementation unit.

allocation); and the IFAD project Rural Finance and Development of Small-Scale Enterprises (MDL 0.4 million government budget allocation). Although not included in the budget, we have obtained figures that show that the total value of investments in agriculture under IFI-funded projects, including both IFI and government contributions, was approximately MDL 92.5 million in 2004, and is planned to increase to MDL 133.4 million in 2005. Grant funding by external donors is also not included in the budget. At present, bilateral donors involved in agriculture include mainly USAID, SIDA, DFID and the Netherlands. Foreign-financed projects are usually implemented through collaboration with non-governmental organizations (NGOs), and have been active in a wide range of activities aimed at addressing some of the critical constraints faced by farmers and rural entrepreneurs. The main activities include:

- Improvement to the legislative framework related to newly created private farms and their relationships in the new market environment.
- Rural finance, including the development of rural banking through Savings and Credit Associations.
- Improvement in the availability of farm machinery through the 2KR program initially funded by Japan (JICA). Farmers are required to contribute 25 percent down payment – which was increased to 50 percent due to high demand and a long waiting list – for the purchase of machinery procured under the 2KR program, with subsequent repayments of 25 percent annually.
- Support (matching grants) for the creation of farm stores providing services to farmers for inputs, machinery services, agronomic training and output marketing.
- Rural advisory and agricultural extension services.
- Matching grants to support agro-processing activities.

Improve donor coordination in the sector, and plan to scale-up and mainstream their successful interventions on a sustainable basis. Despite many successes, donor coordination has been problematic at times. This has been especially true of bilateral donors, whose involvement of Government in activities varies widely. The EGPRSP provides a good framework that all donors can use to guide and coordinate their activities. Government should also require all donors to provide rigorous, independent evaluation of their activities so that lessons can be learned from the experiences, impact measured, and successful efforts scaled-up. In the interests of mainstreaming, sustainability and transparency, Government should also include donor-financed expenditures into the consolidated budget, particularly for funds provided by IFIs. These are public monies that should be subject to the same scrutiny and accountability as any other public expenditures. For example, Government currently contributes 25 percent of costs incurred under the successful World Bank-financed Rural Investment and Services Project (RISP) for the establishment and operation of a nationwide network of rural advisory service providers. While this contribution is included in the overall state budget, it has yet to be fully incorporated in MAFI's own budget and operations. The contribution from the World Bank-financed credit is not included at all. For the sake of sustainability, it is important that these expenditures be integrated into MAFI's budget, and that planning begin now to create the fiscal space for funding the total recurrent costs of advisory services after the close of RISP 2. This should be accomplished by a combination of payments for services from beneficiaries and public funds. But even with payments for services, we estimate that Government would have to provide at least USD 0.9 million (MDL 11.25 million) per year to continue the program.

Public support to the agricultural sector should be stabilized and gradually increased, based on objective assessments of the impact and quality of public expenditures. The frequent shifts in the budget for agriculture, both between categories and in the overall envelope, are disruptive to the sector. Public expenditures should be stabilized and planned strategically within the MTEF. As discussed above, they should also be rationalized away from wasteful subsidies and towards growth-enhancing investments in agricultural infrastructure and education that meet the needs of the new

independent farmers. But once this has been accomplished, Government should seriously consider increasing expenditures on agriculture to match its importance to the economy, and to bring the degree of public support into line with practice in other countries (taking into account, of course, all forms of public support to agriculture, including IFI-finance projects and tax breaks for agricultural producers). The needs of the sector are great, and it is not sustainable to expect foreign donors to fill the funding gaps indefinitely. However, strengthening the claim for public resource allocations for agriculture requires an understanding of the links between spending on agriculture and wider economic growth and poverty reduction. It is also important that decisions over future levels of public funding to agriculture be based upon an assessment of the quality of support provided. Currently, analysis of the impact of public support to agriculture is prevented by a complete absence of data on costs and quality of services. Improved monitoring and evaluation of public support to agriculture will help to improve quality, and to garner the support the sector needs to achieve its considerable potential in Moldova.

ANNEX A

Note on Data and Definition of Public Expenditures

The Ministry of Agriculture and Food Industry (MAFI) and related public institutions under its supervision account for the bulk of public spending in Moldovan agriculture. In addition, some support funds that distribute subsidies to agricultural producers are funded and managed outside of MAFI's budget. The quantitative analysis of public spending in agriculture provided in the report takes into account:

- all expenditures of MAFI and related public institutions under the state budget,
- expenditures related to support funds outside of MAFI's state budget, and
- local government expenditures related to agriculture.

Extra-budgetary resources of MAFI and related institutions are discussed and quantified separately. Since they correspond mostly to user fees, they are not included in the aggregate figures for public expenditure. The quantitative analysis also excludes foreign financed projects, because their expenditures have not been included so far (or only partly included) in the state budget and only fragmentary information is available. However, they are discussed separately on a qualitative, rather than quantitative, basis.

Cancellation of debt and/or calls on government guarantees are another indirect form of public spending in agriculture which is discussed in a separate section. Fiscal advantages in the agriculture and food sector such as reduced import duties and, to some extent, VAT exemptions represent another indirect form of support, which could be quantified. They undoubtedly have an impact on the resource side of the state budget. However, their benefits cannot always be clearly attributed solely to the agricultural sector (e.g. VAT is in essence a tax on final domestic consumption, not a tax on production although it is collected by producers and other intermediaries in the supply and distribution chain). Moreover, such fiscal regulations relate to agriculture policy in general more than public spending proper. While fiscal advantages and tax exemptions in agriculture are an indirect form of support, other government policies are an indirect form of taxation (e.g. trade restrictions). Therefore, no attempt has been made to quantify the balance of cost and benefit implications of government's agricultural policy in general.

The Ministry of Agriculture and Food Industry (MAFI), as well as the Ministry of Finance (MOF) and the Ministry of Economy (MOE), have stated officially on several occasions that present government support to agriculture would amount to a total of over MDL 400 million and up to almost MDL 700 million annually in each of 2004 and 2005. These figures are much higher than those presented in this report. They include various items – either actual government outlays (e.g. debt amortization) or foregone revenues (tax exemptions) – that are not considered in this report because they do not correspond to a direct and/or actual support to agriculture in the year under consideration. In particular:

- MOE estimates that government contribution to the development and support of the agricultural sector amounts to a total of MDL 436 million in 2004, with some MDL 480 million planned for allocation in 2005. This would represent about 6 percent of the total consolidated budget. However, besides allocations under the state budget of MAFI, this includes other items such as the amounts due for repayment of past IFI loans to agriculture,[34] as well as the total amounts disbursed by IFIs under ongoing projects,[35] including credit lines that will be recovered by government.

[34] MDL 156.2 million in 2004, MDL 120 million in 2005.

[35] MDL 98.6 million (including MDL 64.5 million through CAPMU for implementation of WB projects) in 2004, MDL 137.5 million (including MDL 81.3 million through CAPMU) in 2005.

- MOF has a similar though higher estimate than MOE, amounting to MDL 511.8 million actual support in 2004 and MDL 545.9 million planned in 2005. The main difference with MOE estimates is that MOE included only part of the MAFI budget, whereas MOF also includes all operational expenses (including staff salaries) of the various institutions under MAFI and raion agriculture departments. MOF also includes the amortization of some past government liabilities resulting from privatization.

MAFI mentioned that the government would allocate MDL 684 million to agriculture in 2005. However, this includes only MDL 195 million in direct financing (which roughly matches the total planned budget allocations of MAFI and local governments for agriculture discussed in the report), whereas the balance of MDL 489 million corresponds to exemptions from customs duties (for imports of agricultural inputs) and land taxes.

ANNEX B

Data Tables

Table 1
Basic Economic Indicators

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
														semi-final	*prelim.*
Gross Domestic Product (GDP) 1/															
GDP (MDL million) at current prices						6,479.7	7,797.6	8,917.0	9,122.1	12,321.6	16,019.6	19,051.5	22,555.9	27,618.9	31,991.7
GDP (MDL million) at constant (previous year) prices						4,670.5	6,097.4	7,922.3	8,337.4	8,812.0	12,580.3	16,996.8	20,537.6	24,049.8	29,625.2
Real GDP growth (in percent)	-2.4%	-16.0%	-29.1%	-1.2%	-30.9%	-1.4%	-5.9%	1.6%	-6.5%	-3.4%	2.1%	6.1%	7.8%	6.6%	7.3%
Implicit GPD deflator (in percent)						38.7%	27.9%	12.6%	9.4%	39.8%	27.3%	12.1%	9.8%	14.8%	8.0%
Exchange Rate (MDL/USD) 2/															
annual average						4.4955	4.6026	4.6232	5.3726	10.5242	12.4334	12.8668	13.5730	13.9426	12.3283
end of period						4.4990	4.6500	4.6605	8.3226	11.5902	12.3833	13.0909	13.8220	13.2200	12.4600
Consumer Price Index (% annual change) 1/															
annual average						30.0%	24.0%	11.9%	7.8%	39.4%	31.2%	9.6%	5.2%	11.6%	
end of period						23.8%	15.1%	11.2%	18.3%	43.7%	18.4%	6.3%	4.4%	15.7%	12.5%
Gross Domestic Product (GDP) by Sector 1/														*prelim.*	*prelim.*
Nominal GDP (MDL million - current prices)						6,479.7	7,797.6	8,917.0	9,122.1	12,321.5	16,019.6	19,051.6	22,555.9	27,296.8	31,991.7
of which:															
Agriculture						1,896.8	2,143.1	2,315.2	2,350.6	3,065.7	4,070.5	4,271.4	4,741.7	5,264.9	5,833.5
Industry						1,618.6	1,798.7	1,803.2	1,521.8	2,093.1	2,611.9	3,564.1	3,900.7	4,864.4	5,230.7
Construction						228.2	297.8	421.9	288.6	409.0	432.7	583.5	665.3	905.1	1,313.6
Services						2,000.5	2,586.4	3,124.5	3,557.7	5,430.7	6,907.0	8,354.1	10,381.6	12,321.6	14,975.1
Net taxes on goods & imports						735.6	971.6	1,252.2	1,403.4	1,323.0	1,997.5	2,278.5	2,866.6	3,940.8	4,638.9
% of total value added (GDP):															
Agriculture	*30.7%*	*42.7%*	*50.9%*	*32.5%*	*29.2%*	*33.0%*	*31.4%*	*30.2%*	*30.5%*	*27.9%*	*29.0%*	*25.5%*	*24.1%*	*22.5%*	*21.3%*
Industry						*28.2%*	*26.4%*	*23.5%*	*19.7%*	*19.0%*	*18.6%*	*21.2%*	*19.8%*	*20.8%*	*19.1%*
Construction						*4.0%*	*4.4%*	*5.5%*	*3.7%*	*3.7%*	*3.1%*	*3.5%*	*3.4%*	*3.9%*	*4.8%*
Services						*34.8%*	*37.9%*	*40.8%*	*46.1%*	*49.4%*	*49.3%*	*49.8%*	*52.7%*	*52.8%*	*54.7%*
Agriculture value added 3/															
constant 1996 MDL million		6,871.7	5,778.3	3,797.3	2,293.1	2444.6	2,143.1	2,402.0	2,252.5	2,163.7	2,212.9	2,309.0	2,394.8	2,157.7	2,453.4
annual growth rate (in percent real terms)			-15.9%	-34.3%	-39.6%	6.6%	-12.3%	12.1%	-6.2%	-3.9%	2.3%	4.3%	3.7%	-9.9%	13.7%
Gross Output 1/															
Agricultural output (MDL million - current prices)						4,243.0	4,639.0	5,100.0	4,775.0	6,396.0	8,268.0	8,646.0	9,474.0	10,300.0	12,765.9
annual growth rate (in percent real terms)						2.0%	-12.0%	11.0%	-12.0%	-8.0%	-3.3%	6.4%	3.4%	-14.1%	21.7%

1/ Source: Department of Statistics and Sociology of the Republic of Moldova
2/ Source: National Bank of Moldova
3/ Source: World Bank SIMA database (1995-2003) - mission's calculations (2004) based on detailed GDP data from the Department of Statistics and Sociology of the Republic of Moldova

Table 2
Structure of Gross Value of Agricultural Output

		(as percentage of total)		
		2000	2001	2002
CROP PRODUCTION		**69**	**70**	**70**
o/w				
	Cereals	**25**	**32**	**32**
	Industrial crops	**11**	**9**	**9**
	o/w sunflower	5	4	5
	sugarbeet	3	3	3
	tobacco	3	2	1
	Potatoes, vegetables, squash	**13**	**14**	**13**
	o/w potatoes	8	8	7
	vegetables & squash	5	6	6
	Fruit and grapes	**15**	**12**	**14**
	o/w fruit & berries	3	4	4
	grapes	12	8	10
	Forage crops & other	5	3	2
LIVESTOCK PRODUCTION		**31**	**30**	**30**
o/w				
	Meat	**14**	**13**	**13**
	o/w cattle	2	2	2
	pigs	8	7	7
	sheep and goats	0.3	0.3	0.3
	poultry	3	4	4
	Milk	12	12	12
	Eggs	**4**	**4**	**4**
	Wool	**0.1**	**0.1**	**0.1**
TOTAL AGRICULTURAL OUTPUT		**100**	**100**	**100**

Source: "Agricultura Republicii Moldova", 2003 - Department of Statistics and Sociology of the Republic of Moldova

Table 3
Trends in Agricultural Areas

	1985 **	1990 **	1995	1996	1997	1998	1999	2000	2001	2002	2003 semi-final	2004 prelim.
Sown Areas ('000 ha)	**1,789.8**	**1,733.1**	**1,529.6**	**1,529.7**	**1,535.8**	**1,526.9**	**1,483.7**	**1,527.3**	**1,555.1**	**1,573.8**		
Cereals and Legumes	**742.8**	**745.7**	**827.2**	**819.7**	**950.9**	**937.4**	**935.7**	**987.6**	**1,076.5**	**1,071.5**		
o/w winter wheat	257.2	286.7	346.4	335.0	355.4	356.2	340.0	369.9	433.9	442.7		
maize (for grain)	298.8	258.0	307.0	339.4	431.2	399.5	403.2	441.5	471.3	446.7		
Industrial crops	**338.9**	**295.3**	**255.0**	**300.0**	**269.6**	**309.1**	**320.3**	**330.4**	**301.0**	**331.0**		
o/w sunflower	134.3	134.1	142.9	198.4	174.3	204.3	216.7	227.7	208.4	256.7		
sugarbeet	93.8	81.5	82.2	77.0	70.7	71.5	61.1	62.7	59.5	49.7		
tobacco	77.1	32.1	20.0	16.3	17.2	21.8	18.6	23.5	16.9	9.2		
Potatoes, vegetables, squash	**146.5**	**131.8**	**125.7**	**119.3**	**124.4**	**117.8**	**121.8**	**124.8**	**114.2**	**107.7**		
o/w potatoes	44.2	41.2	56.2	59.1	61.9	61.9	66.5	65.3	42.7	45.0		
vegetables (field)	86.2	71.1	59.3	51.4	53.6	49.0	47.8	50.2	62.2	54.3		
Forage crops	**561.6**	**560.3**	**321.7**	**290.7**	**190.9**	**162.6**	**105.9**	**84.5**	**63.4**	**63.6**		
Perennial plantations ('000 ha)	**422.0**	**434.8**	**370.3**	**352.8**	**339.1**	**322.3**	**299.8**	**285.7**	**276.5**	**272.0**		
o/w fruit trees	201.8	233.5	184.5	173.8	165.2	156.3	145.5	136.6	122.0	120.2		
vineyards	220.2	201.3	185.8	179.0	173.9	166.0	154.3	149.1	154.5	151.8		
Total cultivated area ('000 ha)	**2,211.8**	**2,167.9**	**1,899.9**	**1,882.5**	**1,874.9**	**1,849.2**	**1,783.5**	**1,813.0**	**1,831.6**	**1,845.8**		
PERCENTAGES OF TOTAL CULTIVATED AREA:												
Sown Areas	**81%**	**80%**	**81%**	**81%**	**82%**	**83%**	**83%**	**84%**	**85%**	**85%**		
Cereals and Legumes	**34%**	**34%**	**44%**	**44%**	**51%**	**51%**	**52%**	**54%**	**59%**	**58%**		
o/w winter wheat	12%	13%	18%	18%	19%	19%	19%	20%	24%	24%		
maize (for grain)	14%	12%	16%	18%	23%	22%	23%	24%	26%	24%		
Industrial crops	**15%**	**14%**	**13%**	**16%**	**14%**	**17%**	**18%**	**18%**	**16%**	**18%**		
o/w sunflower	6%	6%	8%	11%	9%	11%	12%	13%	11%	14%		
sugarbeet	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%		
tobacco	3%	1%	1%	1%	1%	1%	1%	1%	1%	0%		
Potatoes, vegetables, squash	**7%**	**6%**	**7%**	**6%**	**7%**	**6%**	**7%**	**7%**	**6%**	**6%**		
o/w potatoes	2%	2%	3%	3%	3%	3%	4%	4%	2%	2%		
vegetables (field)	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%		
Forage crops	**25%**	**26%**	**17%**	**15%**	**10%**	**9%**	**6%**	**5%**	**3%**	**3%**		
Perennial plantations	**19%**	**20%**	**19%**	**19%**	**18%**	**17%**	**17%**	**16%**	**15%**	**15%**		
o/w fruit trees	9%	11%	10%	9%	9%	8%	8%	8%	7%	7%		
vineyards	10%	9%	10%	10%	9%	9%	9%	8%	8%	8%		
Total cultivated area	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**		

****** Note: Data include Transnistria until 1993, but not thereafter

Source: "Agricultura Republicii Moldova", 2003 - Department of Statistics and Sociology of the Republic of Moldova

Table 4
Trends in Crop Production

	1985 **	1990 **	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
											semi-final	*prelim.*
Annual crops ('000 ton)												
Cereals and Legumes												
o/w winter wheat	781.5	1,129.0	1,126.4	673.7	1,152.6	951.9	797.8	725.0	1,180.8	1,113.1		
maize (for grain)	1,106.9	885.5	908.2	988.6	1,717.0	1,239.0	1,140.3	1,031.2	1,117.6	1,193.6		
Industrial crops												
o/w sunflower	243.6	232.3	182.1	248.5	151.7	173.6	258.1	268.6	254.5	317.5		
sugarbeet	2,364.8	2,149.8	1,733.2	1,587.5	1,562.9	1,292.5	926.7	943.5	1,085.0	1,129.4		
tobacco	121.4	66.2	27.0	19.5	23.6	24.5	22.4	25.3	16.1	11.8		
Potatoes, vegetables, squash												
o/w potatoes	408.3	295.3	383.0	343.4	391.2	371.9	329.5	330.0	384.8	325.2		
vegetables (field)	1,252.6	1,161.1	465.0	300.3	334.4	472.1	463.5	349.9	442.7	390.0		
Perennial crops ('000 ton)												
o/w fuit & berries	999.3	901.1	528.2	521.3	946.6	367.2	136.3	255.4	317.1	327.1		
grapes	654.4	939.7	852.2	767.3	300.8	342.7	464.9	703.8	505.0	641.2		

** Note: Data include Transnistria until 1993, but not thereafter

Source: "Agricultura Republicii Moldova", 2003 - Department of Statistics and Sociology of the Republic of Moldova

Table 5
Agricultural Areas and Output by Farm Type, 2002

	total	agricultural enterprises	individual (peasant) farms	households plots	*agricultural enterprises*	*individual (peasant) farms*	*households plots*
Sown Areas ('000 ha)	**1,573.9**	**693.5**	**604.7**	**275.7**	***88%***	***83%***	***83%***
Cereals and Legumes	**1,071.6**	**454.3**	**430.9**	**186.4**	***58%***	***59%***	***56%***
o/w winter wheat	442.7	270.8	169.7	2.2	*34%*	*23%*	*1%*
maize (for grain)	446.7	83.9	202.3	160.5	*11%*	*28%*	*48%*
Industrial crops	**331.0**	**184.2**	**135.7**	**11.1**	***23%***	***19%***	***3%***
o/w sunflower	256.7	133.0	113.8	9.9	*17%*	*16%*	*3%*
sugarbeet	49.7	34.5	14.5	0.7	*4%*	*2%*	*0%*
tobacco	9.3	6.5	2.8		*1%*	*0%*	*0%*
Potatoes, vegetables, squash	**107.7**	**13.9**	**21.9**	**71.9**	***2%***	***3%***	***22%***
Forage crops	**63.6**	**41.1**	**16.2**	**6.3**	***5%***	***2%***	***2%***
Perennial plantations ('000 ha)	**272.0**	**94.5**	**121.3**	**56.2**	***12%***	***17%***	***17%***
o/w fruit trees	120.2	48.5	57.7	14.0	*6%*	*8%*	*4%*
vineyards	151.8	46.0	63.6	42.2	*6%*	*9%*	*13%*
Total cultivated area ('000 ha)	**1,845.9**	**788.0**	**726.0**	**331.9**	***100%***	***100%***	***100%***

Gross Value of Agricultural Output (Lei million - current prices):

	total	enterprises	indiv. farms & households
crop production	6,298.0	2,333.0	3,965.0
livestock production	2,870.0	346.0	2,524.0
Total crop and livestock	9,168.0	2,679.0	6,489.0
percentage of total cultivated area	100%	43%	57%
percentage of crop production	100%	37%	63%
percentage of livestock production	100%	12%	88%
percentage of total agricultural output	100%	29%	71%

indiv. farms 39% *household. plots 18%*

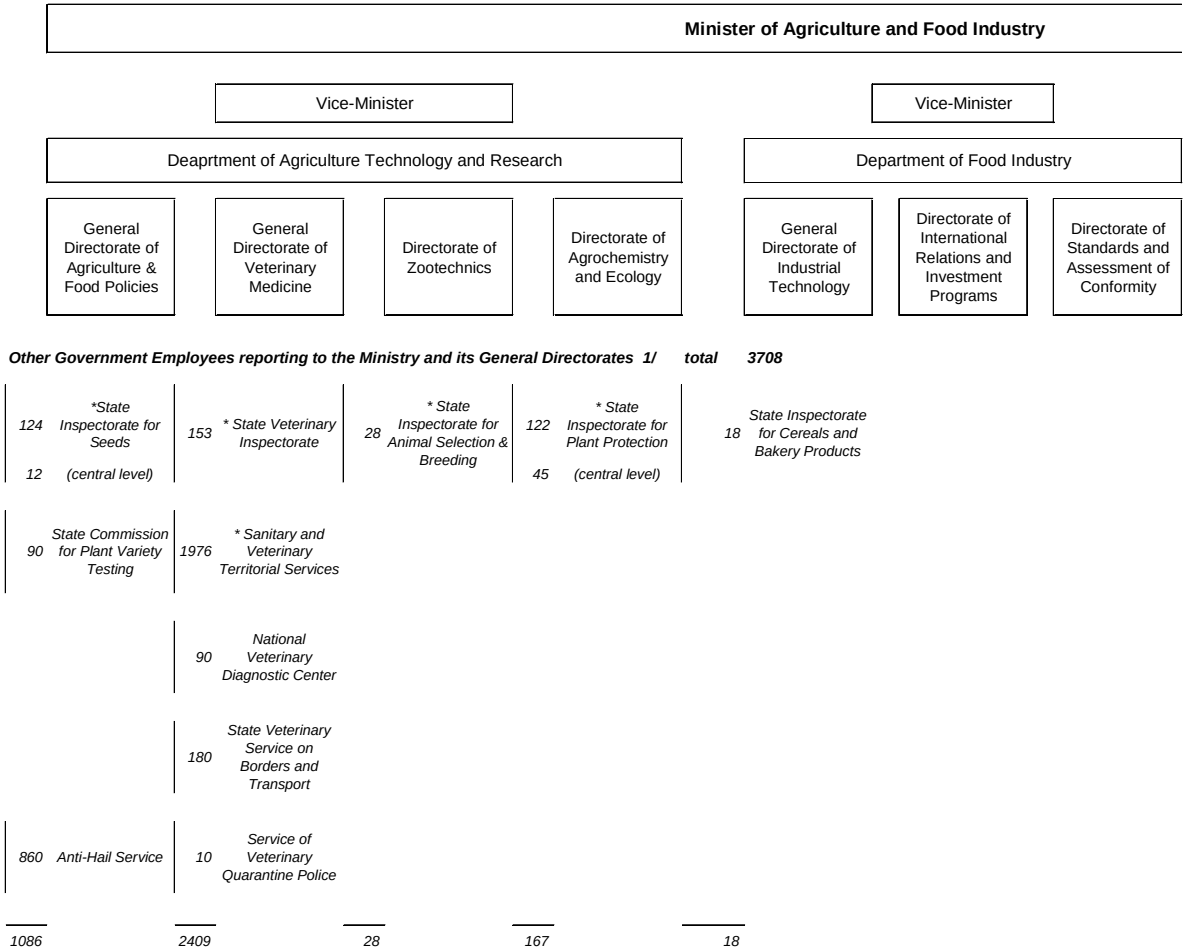
Source: "Agricultura Republicii Moldova", 2003 - Department of Statistics and Sociology of the Republic of Moldova

Table 6
Agricultural Employment

	1985	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
											semi-final	*prelim.*
Total employment in the economy ('000 people)	**2,080**	**2,071**	**1,673**	**1,660**	**1,646**	**1,642**	**1,495**	**1,515**	**1,499**	**1,505**		
o/w agriculture, wine economy & silviculture	757	678	771	710	683	749	730	765	763	745		
industry	432	456	199	195	191	182	160	161	165	171		
construction	147	172	68	55	52	58	44	44	43	46		
trade	152	148	164	256	258	190	135	146	145	155		
transport & communications	145	112	69	66	72	77	70	64	64	62		
other branches	447	505	402	378	390	386	356	335	319	326		
(as percentages)	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
o/w agriculture, wine economy & silviculture	36.4%	32.7%	46.1%	42.8%	41.5%	45.6%	48.8%	50.5%	50.9%	49.5%	43.0%	40.5%
industry	20.8%	22.0%	11.9%	11.7%	11.6%	11.1%	10.7%	10.6%	11.0%	11.4%	12.1%	12.3%
construction	7.1%	8.3%	4.1%	3.3%	3.2%	3.5%	2.9%	2.9%	2.9%	3.1%		
trade	7.3%	7.1%	9.8%	15.4%	15.7%	11.6%	9.0%	9.6%	9.7%	10.3%	44.9%	47.2%
transport & communications	7.0%	5.4%	4.1%	4.0%	4.4%	4.7%	4.7%	4.2%	4.3%	4.1%		
other branches	21.5%	24.4%	24.0%	22.8%	23.7%	23.5%	23.8%	22.1%	21.3%	21.7%		

Source: "Agricultura Republicii Moldova", 2003 - Department of Statistics and Sociology of the Republic of Moldova

Table 7
Organization Chart of the Ministry of Agriculture and Food Industry (MAFI)
(as of February 2005, last amended in April 2004)



1/ Staff indicated with * are posted to the various territorial units. Others are posted to the central level.

Table 8
General Government Budget Framework, 2002-2007

(MDL million - current prices)

	2002	2003	2004	2005	2006	2007
			estimated	*projected*	*projected*	*projected*
Total Revenues	**7,432**	**9,480**	**11,054**	**12,434**	**13,427**	**14,536**
Consolidated budget	**5,788**	**7,488**	**8,325**	**9,173**	**9,765**	**10,495**
state budget	4,075	5,403	6,733	7,347	7,845	8,386
local government budgets	1,713	2,085	1,592	1,826	1,920	2,109
State Social Insurance budget	**1,644**	**1,990**	**2,310**	**2,828**	**3,213**	**3,588**
Compulsory medical insurance funds	**0**	**2**	**419**	**433**	**449**	**453**
Total Expenditures	**7,649**	**9,215**	**11,157**	**12,705**	**13,579**	**14,692**
Consolidated budget	**5,801**	**6,934**	**7,321**	**8,104**	**8,399**	**8,992**
state budget	3,490	4,249	5,141	5,845	5,988	6,436
local government budgets	2,311	2,685	2,180	2,259	2,411	2,556
State Social Insurance budget	**1,848**	**2,268**	**2,765**	**3,298**	**3,739**	**4,143**
Compulsory medical insurance funds	**0**	**13**	**1,071**	**1,303**	**1,441**	**1,557**
Balance	**-217**	**265**	**-103**	**-271**	**-152**	**-156**
	as % of GDP					
Total Revenues	**32.9%**	**34.7%**	**36.1%**	**35.6%**	**34.6%**	**34.0%**
Consolidated budget	**25.7%**	**27.4%**	**27.2%**	**26.3%**	**25.2%**	**24.5%**
state budget	18.1%	19.8%	22.0%	21.1%	20.2%	19.6%
local government budgets	7.6%	7.6%	5.2%	5.2%	4.9%	4.9%
State Social Insurance budget	**7.3%**	**7.3%**	**7.5%**	**8.1%**	**8.3%**	**8.4%**
Compulsory medical insurance funds	**0.0%**	**0.0%**	**1.4%**	**1.2%**	**1.2%**	**1.1%**
Total Expenditures	**33.9%**	**33.8%**	**36.5%**	**36.4%**	**35.0%**	**34.3%**
Consolidated budget	**25.7%**	**25.4%**	**23.9%**	**23.2%**	**21.6%**	**21.0%**
state budget	15.5%	15.6%	16.8%	16.7%	15.4%	15.0%
local government budgets	10.2%	9.8%	7.1%	6.5%	6.2%	6.0%
State Social Insurance budget	**8.2%**	**8.3%**	**9.0%**	**9.4%**	**9.6%**	**9.7%**
Compulsory medical insurance funds	**0.0%**	**0.0%**	**3.5%**	**3.7%**	**3.7%**	**3.6%**
Balance	**-1.0%**	**1.0%**	**-0.3%**	**-0.8%**	**-0.4%**	**-0.4%**
GDP nominal	*22,556*	*27,297*	*30,600*	*34,900*	*38,800*	*42,800*

Source:
Medium-Term Expenditure Framework (2005-2007), Government of Moldova, 2004

Table 9
Planned and Actual Budget Expenditures of Local Governments, 2000 to 2004

(MDL)

	2000	2001	2002	2003	2004	2005
Planned Expenditures, Total	**1,367,799**	**1,896,835**	**2,342,878**	**2,718,168**	**2,906,559**	
o/w Agriculture 1/	20,069	25,418	30,583	42,680	50,759	
o/w Raion Agriculture Department 2/	6,216	6,688	8,228	6,794	10,197	
incl. total salary fund	3,692	3,782	5,363	4,952	4,358	
Sanitary and Veterinary Territorial Service 3/	13,852	18,730	22,356	35,886	40,562	
Actual Expenditures, Total	**1,387,984**	**1,797,452**	**2,436,957**	**2,788,624**	**2,872,113**	
o/w Agriculture 1/	19,134	22,652	29,664	28,143	50,240	
o/w Raion Agriculture Department 2/	5,774	6,881	7,235	7,739		
incl. total salary fund	3,677	4,382	4,976	5,266		
Sanitary and Veterinary Territorial Service 3/	13,359	15,771	22,428	20,404		

1/ Includes Agriculture Departments in Raions (or judets until 2002), and Sanitary and Veterinary Territorial Service
2/ Judet until 2002, Raion from 2003
3/ Estimate calculated by difference

Source: Data from the Ministry of Finance (MOF)

Table 10
Planned Budget Expenditures of the Ministry of Agriculture and Food Industry (MAFI), 1998-2005

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004	2005
Education	**15,571**	**11,722**	**13,481**	**16,340**	**18,793**	**24,581**	**27,404**	**30,095**
education, reserve				7				
Science (research)	**5,500**	**6,028**	**5,635**	**5,508**	**6,720**	**7,364**	**7,627**	**13,149**
Operational expenditures :	**11,023**	**8,426**	**12,166**	**17,004**	**22,189**	**34,358**	**39,912**	**42,050**
One time help- fire								
Animal Diseases Control Station (Vulcanesti)	335	250	15					
National Veterinary Diagnostic Center	310	303	337	447	493	518	3,130	685
Antiepizootic measures	1,630	2,088	2,105	2,630	3,100	5,217	5,100	5,100
State Veterinary Service on Borders and Transport	320	120	20	194	197	50		
State Inspectorate for Plant Protection	1,450	1,053	1,900	2,268	2,832	2,990	3,978	3,396
Plant protection measures against damages	50	100	63	124	200	300	406	400
State Inspectorate for Seeds	143	168	1,500	1,731	2,769	2,850	3,100	3,177
State Commission for Plant Variety Testing	345	250	300	395	443	404	701	717
State Inspectorate for Animal Selection and Breeding	170	103	500	595	916	920	595	813
National Center for Radioactive Control	20	20	30	51	54	55	65	66
State Station for Machinery Experimentation		50	8					
Publicity and contests in agricultural area	50	50	144	100	156	170	200	200
State Technical Supervision bodies	175	20						
State Inspectorate for Cereals and Bakery Products	25	20	20	80	132	45	50	52
State Inspectorate for Supervision of Alcoholic Products	70	78	136	129	178	180		
Anti-Hail Service	3,830	2,691	2,661	4,123	4,479	8,706	10,916	9,182
Multiannual Plants Cadaster elaboration	250							
Other institutions and activities in agriculture		90	397	560	1,100	914	43	750
Measures for orchards development					500	775	810	810
Measures to support pedigree animals breeding	1,850	917	300	1,070	1,300	7,000	7,200	8,000
Measures to support pedigree animals breeding, reserves			250					
Other expenses				500				
State Veterinary Inspectorate		55	1,480	2,007	3,340	3,265	3,618	3,702
Subsidies for risks insurance in agriculture								5,000
Agricultural Support :	**43,528**	**75,460**	**109,030**	**40,200**	**21,300**	**30,130**	**31,000**	**60,000**
Measures for viticulture development	37,500			10,000	10,000			
State support of producers and entrepreneurs "for seeds and maize"			3,420					
Capital investments	2,628	460	610	200	175	130		
Fund for supporting the agrarian sector (producers and entrepreneurs)			90,000	30,000	11,125	30,000	31,000	60,000
State support of agricultural enterprises "for support of peasants farms"	3,400	75,000	15,000					

Water Organization (and other):	**15,818**	**11,100**	**15,900**	**11,900**	**21,828**	**22,850**	**20,745**	**27,206**
Exploitation of irrigation systems	9,318	8,989	9,285	9,500	10,545	11,745	12,745	10,545
Electric power used for irrigation systems exploitation	4,300		4,000		7,350	8,800	6,000	7,000
Fixed assets procurement								7,620
Capital investments in construction of communal services objects								41
Design Institute "Acvaproiect"	2,200	2,111	2,615	2,400	3,885	2,000	2,000	2,000
Other institutions and actions for insurance and social support					48			
Other services related with economic activity						305		
Ministry Central Administration:	**2,507**	**2,828**	**3,056**	**3,339**	**3,633**	**3,568**	**4,003**	**2,751**
Administration (staff)	2,507	2,828	2,984	3,277	3,625	3,568	3,773	2,341
Administration (staff), reserve			72	62	8	1		
Administrative authorities within the Ministry							230	410
TOTAL MAFI	**93,947**	**115,563**	**159,267**	**94,297**	**94,463**	**122,851**	**130,690**	**175,251**
Education (agricultural university, schools, etc.)	**15,571**	**11,722**	**13,481**	**16,347**	**18,793**	**24,581**	**27,404**	**30,095**
Research	**5,500**	**6,028**	**5,635**	**5,508**	**6,720**	**7,364**	**7,627**	**13,149**
Other Public Services:	**11,023**	**8,426**	**12,166**	**17,004**	**22,189**	**34,358**	**39,912**	**42,050**
Veterinary Services 1/	2,595	2,816	3,957	5,278	7,130	9,050	11,848	9,487
Animal Breeding 2/	2,020	1,020	1,050	1,665	2,216	7,920	7,795	8,813
Plant Protection 3/	1,500	1,153	1,963	2,392	3,032	3,290	4,384	3,796
Seeds and Variety Testing 4/	488	418	1,800	2,126	3,212	3,254	3,800	3,894
Anti-Hail Service	3,830	2,691	2,661	4,123	4,479	8,706	10,916	9,182
Others	590	328	735	1,420	2,120	2,139	1,168	6,878
Agricultural Support (subsidies)	**43,528**	**75,460**	**109,030**	**40,200**	**21,300**	**30,130**	**31,000**	**60,000**
Water Organization	**15,818**	**11,100**	**15,900**	**11,900**	**21,828**	**22,850**	**20,745**	**27,206**
Ministry Central Administration	**2,507**	**2,828**	**3,056**	**3,339**	**3,633**	**3,568**	**4,003**	**2,751**
TOTAL MAFI	**93,947**	**115,563**	**159,267**	**94,297**	**94,463**	**122,851**	**130,690**	**175,251**

Education (agricultural university, schools, etc.)	**17%**	**10%**	**8%**	**17%**	**20%**	**20%**	**21%**	**17%**
Research	**6%**	**5%**	**4%**	**6%**	**7%**	**6%**	**6%**	**8%**
Other Public Services:	**12%**	**7%**	**8%**	**18%**	**23%**	**28%**	**31%**	**24%**
Veterinary Services 1/	3%	2%	2%	6%	8%	7%	9%	5%
Animal Breeding 2/	2%	1%	1%	2%	2%	6%	6%	5%
Plant Protection 3/	2%	1%	1%	3%	3%	3%	3%	2%
Seeds and Variety Testing 4/	1%	0%	1%	2%	3%	3%	3%	2%
Anti-Hail Service	4%	2%	2%	4%	5%	7%	8%	5%
Others	1%	0%	0%	2%	2%	2%	1%	4%
Agricultural Support (subsidies)	**46%**	**65%**	**68%**	**43%**	**23%**	**25%**	**24%**	**34%**
Water Organization	**17%**	**10%**	**10%**	**13%**	**23%**	**19%**	**16%**	**16%**
Ministry Central Administration	**3%**	**2%**	**2%**	**4%**	**4%**	**3%**	**3%**	**2%**
TOTAL MAFI	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

1/ Includes:
Animal Diseases Control Station (Vulcanesti)
National Veterinary Diagnostic Center
Antiepizootic measures
State Veterinary Service on Borders and Transport
State Veterinary Inspectorate

2/ Includes:
State Inspectorate for Animal Selection and Breeding
Measures to support pedigree animals breeding
Measures to support pedigree animals breeding, reserves

3/ Includes:
State Inspectorate for Plant Protection
Plant protection measures against damages

4/ Includes:
State Inspectorate for Seeds
State Commission for Plant Variety Testing

Source: Data from MAFI (Directorate of Finance-Credit and Accounting)

Table 11

Actual Budget Expenditures of the Ministry of Agriculture and Food Industry (MAFI), 1998-2004

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004	2005
Education	**12,977**	**11,455**	**13,313**	**14,806**	**18,403**	**23,980**	**26,748**	
education, reserve								
Science (research)	**6,540**	**6,028**	**5,618**	**5,322**	**6,709**	**7,360**	**7,563**	
Operational expenditures :	**10,212**	**8,393**	**11,180**	**14,709**	**20,672**	**33,878**	**39,476**	
One time help- fire					48			
Animal Diseases Control Station (Vulcanesti)	297	250	15					
National Veterinary Diagnostic Center	302	303	337	447	493	518	3,109	
Antiepizootic measures	1,396	2,088	1,513	2,004	3,048	5,216	5,100	
State Veterinary Service on Borders and Transport	293	120	20	194	197	50		
State Inspectorate for Plant Protection	1,233	1,053	1,890	2,242	2,824	2,981	3,966	
Plant protection measures against damages		100	63	124	200	298	406	
State Inspectorate for Seeds	141	167	1,427	1,671	2,459	2,708	3,043	
State Commission for Plant Variety Testing	324	250	300	391	443	404	701	
State Inspectorate for Animal Selection and Breeding	147	102	334	555	915	842	529	
National Center for Radioactive Control	14	20	29	51	54	52	65	
State Station for Machinery Experimentation		38	8					
Publicity and contests in agricultural area		46	73	100	88	128	97	
State Technical Supervision bodies	114	20						
State Inspectorate for Cereals and Bakery Products	17	18	20	80	107	44	50	
State Inspectorate for Supervision of Alcoholic Products	65	78	136	115	154	171		
Anti-Hail Service	3,822	2,691	2,615	3,204	4,475	8,704	10,910	
Multiannual Plants Cadaster elaboration	214							
Other institutions and activities in agriculture		90	396	50	440	914	43	
Measures for orchards development								
Measures to support pedigree animals breeding	1,833	917	300	1,070	1,056	7,000	7,200	
Measures to support pedigree animals breeding, reserves			250					
Other expenses				500	500	775	810	
State Veterinary Inspectorate		43	1,454	1,913	3,170	3,074	3,448	
Subsidies for risks insurance in agriculture								
Agricultural Support :	**38,173**	**76,161**	**106,145**	**1,484**	**15,959**	**30,079**	**30,243**	
Measures for viticulture development	32,495		1,000	1,000	4,662			
State support of producers and entrepreneurs "for seeds and maize"			3,420					
Capital investments	2,311	1,161	267	60	175	130		
Fund for supporting the agrarian sector (producers and entrepreneurs)		75,000	90,000		11,122	29,949	30,243	
State support of entreprises collecting agriculture products (milk compensation)	3,367		11,457	424				

Water Organization (and other):	**13,486**	**9,726**	**13,639**	**9,217**	**16,038**	**21,594**	**20,363**
Exploitation of irrigation systems	6,986	7,615	7,717	7,260	7,482	11,109	12,745
Electric power used for irrigation systems exploitation	4,300		3,307		4,671	8,485	5,618
Fixed assets procurement							
Capital investments in construction of communal services objects							
Design Institute "Acvaproiect"	2,200	2,111	2,614	1,957	3,885	2,000	2,000
Other institutions and actions for insurance and social support							
Other services related with economic activity							
Ministry Central Administration:	**2,384**	**2,826**	**2,995**	**3,234**	**3,534**	**3,464**	**3,855**
Administration (staff)	2,371	2,781	2,924	3,234	3,534	3,464	3,676
Administration (staff), reserve	13	45	72				
Administrative authorities within the Ministry							179
TOTAL MAFI	**83,772**	**114,588**	**152,889**	**48,771**	**81,315**	**120,354**	**128,248**
Education (agricultural university, schools, etc.)	**12,977**	**11,455**	**13,313**	**14,806**	**18,403**	**23,980**	**26,748**
Research	**6,540**	**6,028**	**5,618**	**5,322**	**6,709**	**7,360**	**7,563**
Other Public Services:	**10,212**	**8,393**	**11,180**	**14,709**	**20,672**	**33,878**	**39,476**
Veterinary Services 1/	2,288	2,804	3,338	4,558	6,908	8,858	11,658
Animal Breeding 2/	1,980	1,019	884	1,625	1,971	7,842	7,729
Plant Protection 3/	1,233	1,153	1,953	2,366	3,024	3,279	4,372
Seeds and Variety Testing 4/	465	417	1,727	2,061	2,902	3,112	3,743
Anti-Hail Service	3,822	2,691	2,615	3,204	4,475	8,704	10,910
Others	424	309	661	895	1,392	2,083	1,065
Agricultural Support (subsidies)	**38,173**	**76,161**	**106,145**	**1,484**	**15,959**	**30,079**	**30,243**
Water Organization	**13,486**	**9,726**	**13,639**	**9,217**	**16,038**	**21,594**	**20,363**
Ministry Central Administration	**2,384**	**2,826**	**2,995**	**3,234**	**3,534**	**3,464**	**3,855**
TOTAL MAFI	**83,772**	**114,588**	**152,889**	**48,771**	**81,315**	**120,354**	**128,248**

Education (agricultural university, schools, etc.)	**15%**	**10%**	**9%**	**30%**	**23%**	**20%**	**21%**
Research	**8%**	**5%**	**4%**	**11%**	**8%**	**6%**	**6%**
Other Public Services:	**12%**	**7%**	**7%**	**30%**	**25%**	**28%**	**31%**
Veterinary Services 1/	3%	2%	2%	9%	8%	7%	9%
Animal Breeding 2/	2%	1%	1%	3%	2%	7%	6%
Plant Protection 3/	1%	1%	1%	5%	4%	3%	3%
Seeds and Variety Testing 4/	1%	0%	1%	4%	4%	3%	3%
Anti-Hail Service	5%	2%	2%	7%	6%	7%	9%
Others	1%	0%	0%	2%	2%	2%	1%
Agricultural Support (subsidies)	**46%**	**66%**	**69%**	**3%**	**20%**	**25%**	**24%**
Water Organization	**16%**	**8%**	**9%**	**19%**	**20%**	**18%**	**16%**
Ministry Central Administration	**3%**	**2%**	**2%**	**7%**	**4%**	**3%**	**3%**
TOTAL MAFI	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

1/ Includes:
Animal Diseases Control Station (Vulcanesti)
National Veterinary Diagnostic Center
Antiepizootic measures
State Veterinary Service on Borders and Transport
State Veterinary Inspectorate

2/ Includes:
State Inspectorate for Animal Selection and Breeding
Measures to support pedigree animals breeding
Measures to support pedigree animals breeding, reserves

3/ Includes:
State Inspectorate for Plant Protection
Plant protection measures against damages

4/ Includes:
State Inspectorate for Seeds
State Commission for Plant Variety Testing

Source: Data from MAFI (Directorate of Finance-Credit and Accounting)

Table 12
Staff of Institutions Funded under the State Budget of MAFI, 1998-2005

(Number of personnel)

	1998	1999	2000	2001	2002	2003	2004	2005 *plan*
Education 1/	**2,286**	**2,199**	**2,091**	**2,035**	**1,791**	**1,800**	**1,778**	**1,780**
Science (research)								
Organizations reporting to MAFI (funded under State Budget):	**1,969**	**1,914**	**1,967**	**1,335**	**2,103**	**1,865**	**1,705**	**1,525**
Animal Diseases Control Station (Vulcanesti)	73	73						
National Veterinary Diagnostic Center	123	103	75	89	90	90	90	90
State Veterinary Service on Borders and Transport	117	120	127	127	180	179	180	
State Inspectorate for Plant Protection	365	319	245	235	226	215	150	150
State Inspectorate for Seeds	25	127	129	129	129	136	136	136
State Commission for Plant Variety Testing	80	80	91	91	91	90	90	90
State Inspectorate for Animal Selection and Breeding	35	38	39	39	42	43	28	28
National Center for Radioactive Control	6	6	6	6	6	6		
State Station for Machinery Experimentation								
State Inspectorate for Cereals and Bakery Products	18	18	18	18	18	18	18	18
State Inspectorate for Supervision of Alcoholic Products	8	8	8	8	8	8		
Anti-Hail Service	1,119	1,022	1,009	374	1,094	860	860	860
State Veterinary Inspectorate			220	220	220	220	153	153
Ministry Central Administration:	**206**	**166**	**165**	**194**	**194**	**178**	**178**	**95**
Central staff of Ministry	206	166	165	181	181	166	166	83
Agro-industrial Department "Modova-Tutun" (Tobacco Department)								
State-owned enterprise AT Prolin (cattle-breeding farm)				13	13	12	12	12
TOTAL MAFI	**4,460**	**4,279**	**4,223**	**3,564**	**4,088**	**3,843**	**3,661**	**3,400**

1/ Includes the following institutions:
- 1 Plant Protection Institute (Chisinau)
- 1 Institute of Economics and Training in Agriculture and Food (Chisinau)
- 1 State Agrarian University (Chisinau)
- 8-10 Agricultural High Schools or Colleges (various locations)

Source: Data from MAFI (Directorate of Finance-Credit and Accounting)

Table 13
Actual Budget Expenditures of Institutions Funded under the State Budget of MAFI, 1998-2005

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004	2005
TOTAL BUDGET EXPENDITURES								*plan*
Education 1/	**11,451**	**11,729**	**13,825**	**12,848**	**15,651**	**20,421**	**21,800**	**27,425**
Science (research)								
Operational expenditures :	**6,667**	**5,133**	**8,585**	**10,860**	**15,292**	**19,547**	**25,820**	**21,790**
Animal Diseases Control Station (Vulcanesti)	297	250	15					
National Veterinary Diagnostic Center	302	303	337	447	493	518	3,109	685
State Veterinary Service on Borders and Transport	293	120	20	194	197	50		
State Inspectorate for Plant Protection	1,233	1,053	1,890	2,242	2,824	2,981	3,966	3,396
State Inspectorate for Seeds	141	167	1,427	1,671	2,459	2,708	3,043	3,177
State Commission for Plant Variety Testing	324	250	300	391	443	404	701	717
State Inspectorate for Animal Selection and Breeding	147	102	334	555	915	842	529	813
National Center for Radioactive Control	14	20	29	51	54	52	65	66
State Station for Machinery Experimentation		38	8					
State Inspectorate for Cereals and Bakery Products	17	18	20	80	107	44	50	52
State Inspectorate for Supervision of Alcoholic Products	78	78	136	115	154	171		
Anti-Hail Service	3,822	2,691	2,615	3,204	4,475	8,704	10,910	9,182
State Veterinary Inspectorate		43	1,454	1,913	3,170	3,074	3,448	3,702
Ministry Central Administration:	**2,384**	**2,826**	**2,995**	**3,304**	**3,584**	**3,704**	**4,105**	**3,001**
Central staff of Ministry	2,384	2,826	2,995	3,234	3,534	3,464	3,676	2,341
Agro-industrial Department "Modova-Tutun" (Tobacco Department)							179	410
State-owned enterprise AT Prolin (cattle-breeding farm)				70	50	240	250	250
TOTAL MAFI	**20,502**	**19,688**	**25,405**	**27,012**	**34,527**	**43,672**	**51,725**	**52,216**
o/w SALARY FUND								
Education 1/	**3,764**	**4,998**	**5,037**	**6,095**	**6,915**	**9,412**	**10,446**	**13,373**
Science (research)								

Operational expenditures :	**5,402**	**5,400**	**9,019**	**10,506**	**15,036**	**13,876**	**14,911**	**16,060**
Animal Diseases Control Station (Vulcanesti)								
National Veterinary Diagnostic Center	403	392	459	592	849	990	1,366	1,483
State Veterinary Service on Borders and Transport	976	1,213	1,143	1,315	1,644	2,631		
State Inspectorate for Plant Protection	1,178	1,034	1,621	2,123	2,714		2,654	2,714
State Inspectorate for Seeds	139	332	1,252	1,563	2,306	2,229	2,732	2,973
State Commission for Plant Variety Testing	398	395	384	680	781	1,040	1,141	1,745
State Inspectorate for Animal Selection and Breeding	101	54	226	357	766	691	414	465
National Center for Radioactive Control	14	20	23	47	50			
State Station for Machinery Experimentation								
State Inspectorate for Cereals and Bakery Products	208	310	282	559	263	288	293	295
State Inspectorate for Supervision of Alcoholic Products	40	53	60	76	125	128		
Anti-Hail Service	1,945	1,555	2,306	1,469	2,370	2,816	3,788	3,772
State Veterinary Inspectorate		43	1,263	1,727	3,170	3,063	2,524	2,615
Ministry Central Administration:	**1,321**	**2,274**	**2,350**	**2,332**	**2,598**	**2,574**		**1,742**
Central staff of Ministry	1,321	2,274	2,350	2,332	2,598	2,574		1,742
Agro-industrial Department "Modova-Tutun" (Tobacco Department)								
State-owned enterprise AT Prolin (cattle-breeding farm)								
TOTAL MAFI	**10,486**	**12,673**	**16,406**	**18,933**	**24,549**	**25,862**	**25,358**	**31,175**
SALARY FUND as % of TOTAL BUDGET								
Education 1/	**33%**	**43%**	**36%**	**47%**	**44%**	**46%**	**48%**	**49%**
Science (research)								
Operational expenditures :	**81%**	**105%**	**105%**	**97%**	**98%**	**71%**	**58%**	**74%**
Animal Diseases Control Station (Vulcanesti)	0%	0%	0%					
National Veterinary Diagnostic Center	134%	129%	136%	132%	172%	191%	44%	216%
State Veterinary Service on Borders and Transport	333%	1010%	5717%	678%	835%	5262%		

State Inspectorate for Plant Protection	96%	98%	86%	95%	96%	0%	67%	80%
State Inspectorate for Seeds	98%	198%	88%	94%	94%	82%	90%	94%
State Commission for Plant Variety Testing	123%	158%	128%	174%	176%	257%	163%	243%
State Inspectorate for Animal Selection and Breeding	69%	53%	68%	64%	84%	82%	78%	57%
National Center for Radioactive Control	100%	100%	79%	92%	92%	0%	0%	0%
State Station for Machinery Experimentation		0%	0%					
State Inspectorate for Cereals and Bakery Products	1246%	1701%	1419%	701%	245%	653%	587%	567%
State Inspectorate for Supervision of Alcoholic Products	52%	68%	44%	66%	82%	75%		
Anti-Hail Service	51%	58%	88%	46%	53%	32%	35%	41%
State Veterinary Inspectorate		100%	87%	90%	100%	100%	73%	71%
Ministry Central Administration:	**55%**	**80%**	**78%**	**71%**	**72%**	**69%**		**58%**
Central staff of Ministry	55%	80%	78%	72%	74%	74%		74%
Agro-industrial Department "Modova-Tutun" (Tobacco Department)								0%
State-owned enterprise AT Prolin (cattle-breeding farm)				0%	0%	0%		0%
TOTAL MAFI	**51%**	**64%**	**65%**	**70%**	**71%**	**59%**		**60%**

1/ Includes the following institutions:
- 1 Plant Protection Institute (Chisinau)
- 1 Institute of Economics and Training in Agriculture and Food (Chisinau)
- 1 State Agrarian University (Chisinau)
- 8-10 Agricultural High Schools or Colleges (various locations)

Source: Data from MAFI (Directorate of Finance-Credit and Accounting)

Table 14
Extra-Budgetary Resources of Institutions Funded under the State Budget of MAFI, 1998-2005

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004	2005
EXTRA-BUDGETARY RESOURCES								*plan*
Education 1/	**0**	**5,266**	**7,223**	**9,176**	**13,444**	**15,599**	**22,753**	**30,763**
Science (research)								
Operational expenditures :	**3,336**	**4,421**	**4,745**	**6,835**	**9,134**	**10,596**	**10,728**	**10,135**
Animal Diseases Control Station (Vulcanesti)	33	43						
National Veterinary Diagnostic Center	678	569	632	976	1,823	1,508	1,661	2,600
State Veterinary Service on Borders and Transport	1,521	2,025	2,097	2,569	3,149	4,770	3,588	
State Inspectorate for Plant Protection	72	112	140	208	353	398	367	445
State Inspectorate for Seeds	26	74	418	890	1,176	978	1,479	1,892
State Commission for Plant Variety Testing	262	441	410	708	1,303	1,387	1,977	3,500
State Inspectorate for Animal Selection and Breeding								
National Center for Radioactive Control								
State Station for Machinery Experimentation								
State Inspectorate for Cereals and Bakery Products	375	662	584	412	506	618	601	683
State Inspectorate for Supervision of Alcoholic Products					21	23		
Anti-Hail Service	369	495	463	711	803	914	1,056	1,015
State Veterinary Inspectorate				361				
Ministry Central Administration:	**284**	**365**	**571**	**479**	**467**	**679**	**950**	**800**
Central staff of Ministry	284	365	571	479	467	679	950	800
Agro-industrial Department "Modova-Tutun" (Tobacco Department)								
State-owned enterprise AT Prolin (cattle-breeding farm)								
TOTAL MAFI	**3,620**	**10,051**	**12,539**	**16,489**	**23,045**	**26,874**	**34,431**	**41,698**
EXTRA-BUDGETARY as % of TOTAL BUDGET+EXTRA-BUDGETARY								
Education 1/	**0%**	**31%**	**34%**	**42%**	**46%**	**43%**	**51%**	**53%**
Science (research)								

Operational expenditures :	**33%**	**46%**	**36%**	**39%**	**37%**	**35%**	**29%**	**32%**
Animal Diseases Control Station (Vulcanesti)	10%	15%	0%					
National Veterinary Diagnostic Center	69%	65%	65%	69%	79%	74%	35%	79%
State Veterinary Service on Borders and Transport	84%	94%	99%	93%	94%	99%	100%	
State Inspectorate for Plant Protection	6%	10%	7%	8%	11%	12%	8%	12%
State Inspectorate for Seeds	15%	31%	23%	35%	32%	27%	33%	37%
State Commission for Plant Variety Testing	45%	64%	58%	64%	75%	77%	74%	83%
State Inspectorate for Animal Selection and Breeding	0%	0%	0%	0%	0%	0%	0%	0%
National Center for Radioactive Control	0%	0%	0%	0%	0%	0%	0%	0%
State Station for Machinery Experimentation		0%	0%					
State Inspectorate for Cereals and Bakery Products	96%	97%	97%	84%	82%	93%	92%	93%
State Inspectorate for Supervision of Alcoholic Products	0%	0%	0%	0%	12%	12%		
Anti-Hail Service	9%	16%	15%	18%	15%	10%	9%	10%
State Veterinary Inspectorate		0%	0%	16%	0%	0%	0%	0%
Ministry Central Administration:	**11%**	**11%**	**16%**	**13%**	**12%**	**15%**	**19%**	**21%**
Central staff of Ministry	11%	11%	16%	13%	12%	16%	21%	25%
Agro-industrial Department "Modova-Tutun" (Tobacco Department)							0%	0%
State-owned enterprise AT Prolin (cattle-breeding farm)				0%	0%	0%	0%	0%
TOTAL MAFI	**15%**	**34%**	**33%**	**38%**	**40%**	**38%**	**40%**	**44%**
SALARY FUND as % of TOTAL BUDGET+EXTRA-BUDGETARY								
Education 1/	**33%**	**29%**	**24%**	**28%**	**24%**	**26%**	**23%**	**23%**
Science (research)								
Operational expenditures :	**54%**	**57%**	**68%**	**59%**	**62%**	**46%**	**41%**	**50%**
Animal Diseases Control Station (Vulcanesti)	0%	0%	0%					
National Veterinary Diagnostic Center	41%	45%	47%	42%	37%	49%	29%	45%
State Veterinary Service on Borders and Transport	54%	57%	54%	48%	49%	55%	0%	

State Inspectorate for Plant Protection	90%	89%	80%	87%	85%	0%	61%	71%
State Inspectorate for Seeds	83%	137%	68%	61%	63%	60%	60%	59%
State Commission for Plant Variety Testing	68%	57%	54%	62%	45%	58%	43%	41%
State Inspectorate for Animal Selection and Breeding	69%	53%	68%	64%	84%	82%	78%	57%
National Center for Radioactive Control	100%	100%	79%	92%	92%	0%	0%	0%
State Station for Machinery Experimentation		0%	0%					
State Inspectorate for Cereals and Bakery Products	53%	46%	47%	114%	43%	43%	45%	40%
State Inspectorate for Supervision of Alcoholic Products	52%	68%	44%	66%	72%	66%		
Anti-Hail Service	46%	49%	75%	38%	45%	29%	32%	37%
State Veterinary Inspectorate		100%	87%	76%	100%	100%	73%	71%
Ministry Central Administration:	**49%**	**71%**	**66%**	**62%**	**64%**	**59%**		**46%**
Central staff of Ministry	0%	0%	0%	0%	0%	0%		0%
Agro-industrial Department "Modova-Tutun" (Tobacco Department)								0%
State-owned enterprise AT Prolin (cattle-breeding farm)				0%	0%	0%		0%
TOTAL MAFI	**43%**	**43%**	**43%**	**44%**	**43%**	**37%**		**33%**

1/ Includes the following institutions:
- 1 Plant Protection Institute (Chisinau)
- 1 Institute of Economics and Training in Agriculture and Food (Chisinau)
- 1 State Agrarian University (Chisinau)
- 8-10 Agricultural High Schools or Colleges (various locations)

Source: Data from MAFI (Directorate of Finance-Credit and Accounting)

Table 15
Direct Cash Support (Subsidies) to Farmers, 1998-2005

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004	2005 *plan*
PLANNED EXPENDITURES								
Agricultural Support (under MAFI state budget)	**70,000**	**75,000**	**90,000**	**40,000**	**50,150**	**30,000**	**36,000**	**60,000**
o/w viticulture support fund	50,000			10,000	13,650			
tobacco support fund					6,500			
subsidized credit for agricultural equipment purchase	10,000							
support to private agricultural producers	10,000	75,000	90,000					
credit incentives (partial subsidy of interest rates on repaid bank loans)				30,000	30,000	30,000	22,000	30,000
encouragement of MTS creation							14,000	18,000
orchard development								10,000
technological equipment for veterinary units								2,000
Other Support Funds (outside MAFI)				**8,000**	**12,000**	**12,500**	**89,300**	**85,500**
special fund for the valorization of land and improvement of soil fertility				8,000	9,000	9,500	11,000	17,500
special fund to encourage the development of walnut production					3,000	3,000	3,000	3,000
fund for subsidizing ploughing works carried out in the fall							15,300	
special fund to support vineyard plantation							60,000	65,000
ACTUAL EXPENDITURES								
Agricultural Support (under MAFI state budget)	**38,173**	**76,161**	**106,144**	**1,484**	**15,959**	**30,079**	**30,243**	
o/w viticulture support fund	32,495		1,000	1,000	4,662			
tobacco support fund								
subsidized credit for agricultural equipment purchase	2,311	1,161	267	60	175	130		
support to private agricultural producers		75,000	90,000					
credit incentives (partial subsidy of interest rates on repaid bank loans)					11,122	29,949	21,243	
encouragement of MTS creation							9,000	
orchard development								
technological equipment for veterinary units								
emergency support following drought (maize seeds to replant fields)			3,420					
state support of enterprises collecting agricultural products (milk compensation)	3,367		11,457	424				
Other Support Funds (outside MAFI)				**7,700**	**8,800**	**9,700**	**56,700**	
special fund for the valorization of land and improvement of soil fertility				7,700	8,800	9,200	11,000	
special fund to encourage the development of walnut production					0	500	5,700	
fund for subsidizing ploughing works carried out in the fall							13,000	
special fund to support vineyard plantation							27,000	

Source: Compiled on the basis of data from MAFI, MOF, MOE and various official publications

Table 16
Applications Eligible for Vineyard Plantation Subsidy, 2004

serial no.	net area (ha)		serial no.	net area (ha)		serial no.	net area (ha)	
1	7.94		41	18.06		81	85.99	
2	7.03		42	55.53		82	14.80	
3	12.86		43	133.21		83	11.14	
4	21.00		44	19.00		84	18.75	peasant
5	13.42		45	22.13		85	10.01	peasant
6	53.25		46	21.50		86	13.31	peasant
7	62.27		47	18.29		87	7.39	peasant
8			48	22.80		88	9.40	
9	5.00	peasant	49	65.93		89	30.97	
10	5.37	peasant	50	33.42		90	39.60	peasant
11	2.37	peasant	51	9.00	peasant	91	22.61	
12	10.07	peasant	52			92	4.80	peasant
13	18.77	peasant	53	4.98	peasant	93		
14	330.34		54	29.89		94	23.81	
15	6.23		55	76.63		95	22.22	
16	6.10	peasant	56	9.52	peasant	96	6.01	
17	77.29		57	200.36		97	3.00	
18	2.30	peasant	58	18.00		98	18.56	
19	77.66		59	10.00		99	7.69	
20	5.92	peasant	60	9.55	peasant	100	59.92	
21	74.78		61	142.51		101	15.30	
22	45.13		62	5.13	peasant	102	24.36	
23	25.00		63	13.00		103		
24	14.65		64	43.00	peasant	104	5.60	peasant
25	37.00		65	6.89	peasant	105	6.54	peasant
26	6.76		66	23.00		106	17.29	peasant
27	4.46	peasant	67	20.37	peasant	107	6.07	
28	3.98	peasant	68	9.87	peasant	108	10.95	
29	6.42	peasant	69	7.65	peasant	109	6.17	
30	27.27	peasant	70	28.00		110	15.00	
31	40.00		71	155.64		111	24.57	
32	16.50	peasant	72	5.03	peasant	112		
33	192.00		73	7.58	peasant	113	29.35	
34	17.50		74			114	25.99	
35	76.26		75	13.60		115	12.70	
36			76			116	26.66	
37	10.00		77	11.94				
38			78	64.28				
39	6.00	peasant	79	16.76				
40	10.44		80	6.10				

total number of eligible applications	**107**		**number peasant applications**	**35**
total area (ha)		3,334.02	total area (ha)	382.39
average area (ha)		31.2	average area (ha)	10.9

number of applications	**107**	**3334.02**	**% no.**	**% area**
5-10 ha	35	219.85	32.7%	6.6%
10-15 ha	16	192.89	15.0%	5.8%
15-20 ha	13	227.78	12.1%	6.8%
20-30 ha	18	440.53	16.8%	13.2%
30-50 ha	7	269.12	6.5%	8.1%
50-100 ha	12	829.79	11.2%	24.9%
above 100 ha	6	1,154.06	5.6%	34.6%

Source: Detailed list of applications from Moldova-Vin

Table 17
Summary of Agricultural Public Expenditure, 1998-2005

(MDL thousand)

	1998	1999	2000	2001	2002	2003	2004 estim	2005 plan
DELIVERY OF SERVICES	**45,599**	**38,427**	**65,878**	**69,938**	**95,020**	**118,418**	**148,764**	**166,011**
Education	**12,977**	**11,455**	**13,313**	**14,806**	**18,403**	**23,980**	**26,748**	**30,095**
Research	**6,540**	**6,028**	**5,618**	**5,322**	**6,709**	**7,360**	**7,563**	**13,149**
Veterinary Services	**2,288**	**2,804**	**16,698**	**20,329**	**29,336**	**29,263**	**52,220**	**50,049**
Central Institutions (incl. field offices) 1/	892	716	1,825	2,554	3,860	3,642	6,558	4,387
Antiepizootic measures	1,396	2,088	1,513	2,004	3,048	5,216	5,100	5,100
Sanitary and Veterinary Territorial Services			13,359	15,771	22,428	20,404	40,562	40,562
Animal Breeding	**1,980**	**1,019**	**884**	**1,625**	**1,971**	**7,842**	**7,729**	**8,813**
State Inspectorate for Animal Selection and Breeding	147	102	334	555	915	842	529	813
Measures to support pedigree animals breeding	1,833	917	550	1,070	1,056	7,000	7,200	8,000
Plant Protection	**1,233**	**1,153**	**1,953**	**2,366**	**3,024**	**3,279**	**4,372**	**3,796**
State Inspectorate for Plant Protection	1,233	1,053	1,890	2,242	2,824	2,981	3,966	3,396
Plant protection measures against damages	0	100	63	124	200	298	406	400
Seeds and Variety Testing	**465**	**417**	**1,727**	**2,061**	**2,902**	**3,112**	**3,743**	**3,894**
State Inspectorate and Commission 2/	465	417	1,727	2,061	2,902	3,112	3,743	3,894
Anti-Hail Service	**3,822**	**2,691**	**2,615**	**3,204**	**4,475**	**8,704**	**10,910**	**9,182**
Other Central Services	**424**	**309**	**661**	**895**	**1,392**	**2,083**	**1,065**	**6,878**
Water Organization	**13,486**	**9,726**	**13,639**	**9,217**	**16,038**	**21,594**	**20,363**	**27,206**
Ministry Central Administration	**2,384**	**2,826**	**2,995**	**3,234**	**3,534**	**3,464**	**3,855**	**2,751**
Raion Agriculture Departments			**5,774**	**6,881**	**7,235**	**7,739**	**10,197**	**10,197**
FARM SUBSIDIES	**38,173**	**76,161**	**106,144**	**9,184**	**24,759**	**39,779**	**86,943**	**145,500**
TOTAL AGRICULTURE	**83,772**	**114,588**	**172,022**	**79,122**	**119,779**	**158,197**	**235,707**	**311,511**
% consolidated budget expenditures	2.8%	3.3%	4.0%	1.8%	2.1%	2.3%	3.2%	3.8%
% GDP	0.9%	0.9%	1.1%	0.4%	0.5%	0.6%	0.7%	0.9%
% agricultural GDP	3.6%	3.7%	4.2%	1.9%	2.5%	3.0%	4.0%	
consolidated budget expenditures (MDL Million)	*3,027*	*3,495*	*4,269*	*4,326*	*5,801*	*6,934*	*7,321*	*8,104*

1/ Includes:
Animal Diseases Control Station (Vulcanesti)
National Veterinary Diagnostic Center
State Veterinary Service on Borders and Transport
State Veterinary Inspectorate

2/ Includes:
State Inspectorate for Seeds
State Commission for Plant Variety Testing

Source: Data from Tables 9, 10, 11 and 15

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