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in association with MNT Consulting

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Asian Development Bank



Kyrgyz Republic



Asian Development Bank

Agricultural Strategy Formulation

TA No. 4409-KGZ



Final Report

prepared by



AFC Consultants
International GmbH



MNT Consulting

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**Agricultural Strategy
Formulation**



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Final Report

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CURRENCY EQUIVALENTS

(Exchange Rate Effective as of June 1, 2007)

Currency Unit = Kyrgyz Som (KGS)

KGS37.8 = US\$1

ABBREVIATIONS AND ACRONYMS

ABCC	Agribusiness Competitiveness Center
ADB	Asian Development Bank
ADS	Agriculture Development Strategy
AFD	Agro Foundation for Development
ARIS	Community Development and Investment Agency
CDF	Comprehensive Development Framework
CDS	Country Development Strategy
CU	Credit Unions
DFID	UK Department for International Development
DWR	Department of Water Resources
FDI	Foreign Direct Investment
GoK	Government of the Kyrgyz Republic
GTZ	German Technical Cooperation
IDA	International Development Agency
ISF	Irrigation Service Fee
JICA	Japan International Cooperation Agency
KAFC	Kyrgyz Agricultural Financial Corporation
KAMIS	Kyrgyz Agricultural Market and Information System
KAU	Kyrgyz Agrarian University
KRII	Kyrgyz Research Institute for Irrigation
KSAP	Kyrgyz Swiss Agricultural Program
LARC	Legal Assistance to Rural Citizens
LRF	Land Redistribution Fund
M&E	Monitoring and Evaluation
MAWRPI	Ministry of Agriculture, Water Resources and Processing Industry
MFI	Micro Finance Institution
NPRS	National Poverty Reduction Strategy
NSC	National Statistic Committee
O&M	Operation and Maintenance
PBA	Program-Based Approach
PIP	Public Investment Program
PPP	Public-private-partnerships
RAS	Rural Advisory Services

SDC	Swiss Agency for Development and Cooperation (SDC)
SECO	Swiss State Secretariat for Economic Affairs
SRI	Scientific Research Institute
SVD	State Veterinary Department
TACIS	Technical Assistance for CIS countries
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WB	World Bank
WG	Working Group
WUA	Water User Association
EC	European Commission

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The Report was prepared in collaboration with a team of consultants led by Dr. Peter Corbin (Team Leader) and comprised of five team members, namely Baktygul Jeenbaeva, Chnara Mamatova, Raushan Kozhombaeva, Asel Mamatova and Madaminbek Seitov.

We express our sincere thanks for the efforts of all those involved in contributing their expertise to the development of agriculture sector and benefits to the Kyrgyz Republic.

EXECUTIVE SUMMARY

The Vision. The overall development vision for the agriculture sector was formulated and agreed upon in consultations with all relevant parties involved in the strategy formulation process. The vision provides the direction and framework for the Government's long-range strategy for the development of the agriculture sector. The vision comprises two synergistic components, namely (i) the existence of a productive and profitable diversified market-oriented agricultural system and (ii) the existence of a well-developed rural sector of the economy consisting of prosperous rural communities.

There is limited scope for expansion of the Republic's agricultural area. Therefore, the principal source of sector growth must become agriculture factor productivity. This necessitates a shift away from the current resource and input-based growth to productivity as the major factor in promoting growth. It requires increased application of agricultural knowledge and science-based technologies. Hence, the strategy focuses on ensuring continuous flows of knowledge and innovations into the private production entities and government administration agencies.

The donor community, through the provision of technical assistance, will continue to be instrumental in ensuring flows of knowledge and innovations required to enhance agriculture sector productivity. The continued provision of innovative best practices in agriculture production, through technical assistance will be decisive for the success of the strategy.

Strategy Components. The Agricultural Development Strategy (ADS) contains eight priority components, namely (i) Public Sector Services, (ii) Agro-Processing and Marketing, (iii) Land Market Development, (iv) Water Resources Management, (v) Training, Research and Development (R&D), (vi) Trade and Tax Policy, (vii) Rural Finance, and (viii) Rural Development. During the Current Situation Analysis 120 problem areas restricting agriculture development were identified within the framework of the eight priority components. These problem areas are addressed by the strategy. In addition to the eight strategy components, the regional dimensions of the strategy and the legal environment are presented in the current situation analysis. The treatment of the legislative requirements of the strategy are systematically treated in legislative requirements in each component, an overview of the legislative requirements of the sector, and the specification of projects designed to upgrade the sector's legal environment.

Strategy Phasing. The ADS involves long-range strategic planning for the sector. It is an integrated program of development interventions extending over the period 2007-2015. It is divided into three medium-term strategy phases of three years duration namely, 2007-2009, 2010-2012 and 2013-2015. The first three-year phase contains an Action Plan for first Phase implementation. The "strategy cycle" employed, involves an iterative process by which the strategy is progressively up-dated.

The three phases constitute a logical sequence for the agriculture sector's transition to an efficient market-oriented production system.

- **First phase.** The first phase is dominated by the government sector and donor initiatives, which lay the basis for the second phase. During the first phase the strategy focuses on upgrading the public sector capacity and operational infrastructure for agricultural production. It also contains several strategic initiatives to foster the expansion of incipient private sector entities.
- **Second phase.** The second phase is characterized by increasing growth of private sector entities. Investment in the sector begins to shift from almost exclusively government and donor sources to increasing domestic and foreign private sector investment.

- **Third phase.** The third phase involves the development of a modern market-oriented system of balanced public and private entities working to establish public-private-partnerships (PPP) in a well-designed and highly productive Strategic Alliance between the public and private sectors.

Participation in Strategy Formulation. The strategy formulation process involved wide participation by all relevant parties including all multilateral and bilateral donor agencies, relevant Government agencies, NGOs and private sector representatives. Close liaison was also maintained with the Oblast administrations to ensure their participation in both the design and implementation of the strategy. The overall participation was mobilized within the framework of a Program-Based Approach (PBA) developed and applied during the strategy formulation process.

Strategy Policy Objectives. The specific policy objectives of the strategy and therefore the underlying principles of the strategy include the following six specific objectives:

- ***Supporting continuous flows of scientific and knowledge-based innovation to the three main components of the agricultural sector production framework.***
 - **Agricultural technology:** This involves the agricultural technologies that govern sector production.
 - **Agricultural institutional structures and instruments:** This element of the strategy involves the institutional structures and instruments governing sector administration and development.
 - **Agricultural policy formulation:** In terms of agricultural policy formulation, the strategic role to be played by innovative public sector policies for agriculture is well understood by the administration. However, the capacity and knowledge of the sector officials in the formulation of such sector policies remains to be developed.
- **Ensuring complementary and balanced development of the agricultural public sector and private sector.** This modality requires simultaneous measures for (i) enhancing the productivity growth in the agricultural private sector and (ii) enhancing the capacity, and efficiency of the agricultural public sector.
- **Increasing productivity by accelerating collaboration among the agriculture sector entities.** This modality involves increasing the collaboration among the public sector agencies, research and training organizations, farmers, the private sector and other stakeholders developing and utilizing agricultural innovations.
- **Enhancing the diffusion of technological innovations that address the needs of small-scale farms.** This modality includes not only the introduction of advanced farming techniques but also the provision of the conditions to meet the economic requirements necessary for the emergence of profitable small-scale private farms.
- **Accelerating rural development and rural diversification.** This will be achieved through the provision of support for the establishment of non-agricultural rural services and agricultural processing operations in the rural communities.
- **Expanding the capacity for agricultural Training, Research and Development (R&D).** The strategy focuses on the Republic's capacity for agriculture training and R&D as a critical factor in increasing the pace of innovation and agricultural sector productivity.

Strategy Modalities. The following constitute modern agricultural sector development modalities that will be developed and applied during the strategy implementation.

- **Public-Private-Partnerships.** The formulation of public-private-partnerships in the agriculture sector will represent a major innovation for stimulating the cooperation of Government and private sectors.
- **Privatization and Sustainability of Services.** The policy direction is for the agriculture public administration to specialize on a limited range of essential public services provision, and to conduct the privatization of those services best provided by the private sector. In order for the privatized services to be sustainable they must be economically viable at the time of privatization or, if not economically viable, then they must be subsidized under private ownership until they become viable.
- **Public Sector Investment.** The Public Investment Program (PIP) funded projects in the agricultural sector should employ the technique of investment leveraging. PIP investment should be deployed to induce further investment by the private sector. Two main themes have been suggested by the World Bank to guide future public sector investment. These are (i) financing rural development programs and (ii) financing programs and projects that increase agricultural productivity, marketing and trade. Both themes will have major impacts on the profitability of agricultural and rural non-agricultural investment by raising the marginal efficiency of capital investment in the related rural areas. These themes have been integrated into the ADS.
- **Private Sector Investment.** The pace of private sector investment in agriculture must be significantly increased. The establishment in the Ministry of Agriculture of the capacity for the attraction and programming of private sector investment, both foreign investment in the form of FDI and domestic private investment is required by the strategy.

Strategy Management Instruments. Both a Program-Based Approach (PBA) and a strategy Monitoring and Evaluation (M&E) system are required for the formulation and implementation of the ADS. The two modalities namely, the PBA and the M&E system are mutually reinforcing. They engender strong synergistic relationships in the process of strategy implementation. They constitute joint instruments for strategy implementation.

Strategy Funding. The funding sources are Government funding, dominantly in the form of the PIP, Donor funding, in the form of technical assistance, budgetary support and investment projects, and Government funding in the form of in-kind contributions to project implementation.

The Public Investment Program (PIP). The main donors implementing the Public Investment Program in the agriculture sector are the Asian Development Bank and the World Bank. There are eight on-going projects in the sector, five of which commenced implementation several years ago and three have recently commenced implementation (2005 and 2006). There is one planned project due to commence in 2007, and one project under negotiation due to commence in 2008. The total investment in the agricultural sector being implemented under the PIP, including ongoing, planned and projects under negotiation, is currently US\$221.6 mln.

Aggregate Funding Allocations of the Strategy. The total financing required for the phase I of the Strategy is US\$220.4 million. Of this figure, US\$ 107 million is already programmed for on-going and pipe -line projects. This means that almost 50 per cent of the funding required for phase I of the Strategy has already been secured, leaving US\$113 million to be identified and secured.

I. INTRODUCTION

1. Agriculture Sector Vision

As overall objective a “vision” for the agriculture sector was established in the early stage of the work on strategy formulation. It was established and agreed upon in consultation with all donors, Government agencies, representatives of the private sectors and NGOs involved in strategy formulation. The overall vision agreed upon, provided the direction and framework for the subsequent specification of more detailed objectives for both the strategy and its constituent components.

The vision for the agriculture sector consists of two essentially synergistic elements namely,

- ***the existence of a diversified and profitable market-oriented agricultural system and***
- ***the existence of a well-developed rural sector of the economy consisting of prosperous rural communities.***

These twin elements constituting the essence of the vision for the Republic's agriculture sector provided the overall direction for the work on formulating the Agriculture Development Strategy (ADS). The protection of the environment is a serious element for the sustainable development of the rural sector in Kyrgyz Republic.

The work involved in the strategy formulation required analysis of the two vision elements as they related to each of the ADS components. This analysis of the problems constraining the realization of the vision in each of the strategy components provided the basis for the specification of the projects and programs in those components required to achieve the agriculture sector vision.

2. Policy Directions

The first medium-term phase of the agriculture strategy and associated Action Plan are designed to reflect and support the policy prescriptions for the agriculture sector contained in the four-year medium-term Country Development Strategy (CDS) (2006-2010)¹ developed under the Ministry of Economy and Finance. The strategy is also designed to achieve the policy objectives, relating to the agriculture sector, that are contained in the Republic's major policy documents including the Comprehensive Development Framework (CDF), National Poverty Reduction Strategy (NPRS), and the Agrarian Policy Concept of the Kyrgyz Republic to 2010.

The President of the Republic in his Annual Presidential Address to the Nation, (28, September 2006) identified investment in agriculture as a national priority. He also identified the major constraints on agricultural production and productivity to be (a) the low level of agro-processing, (b) the lack of quality control, (c) the need for the development of agricultural marketing systems, and the (d) inadequacy of rural infrastructure. In support of the Presidents policy prescriptions, the ADS makes provision for addressing these constraints and the achievement of the objective of enhanced investment in the agriculture sector.

¹ The Country Development Strategy (2006-2010) includes the two following policy directions, also stressed in the President's Annual Address to the Nation on September 28, 2006. (i) Development and Expansion of Agro-Processing sub-sector. (ii) Investment Promotion in Agriculture. There is a critical need to raise the overall level of investment in the agricultural sector in order to raise productivity.

3. Strategy Components

The ADS contains eight components consisting of priority areas. These priority areas were specified and agreed upon by the Government and relevant donor agencies during the formulation of the strategy. During the Current Situation Analysis of strategy formulation, 120 problem areas that constitute constraints on the Republic's agriculture development were identified in the eight priority components of the strategy. The problems were prioritized into three levels namely, high, medium and lower priority areas. The ADS contains the necessary initiatives, in the form of programs and projects, which will address these constraints on the Republic's agriculture development.

4. Strategy Phases

The formulation of the ADS involved long-range strategic planning for the agriculture sector. The strategy constitutes a single, integrated program of development interventions extending over the period 2007-2015. The nine years of the ADS duration are divided into three medium-term phases. Each of the phases is of three years duration namely, 2007-2009, 2010-2012 and 2013-2015. Of the three medium-term phases, the first three-year phase contains an associated Action Plan for its implementation.

The three phases constitute a logical sequence for the achievement of the vision and the agriculture sector's transition to an efficient market-oriented production system.

- **The first phase** is dominated by the government sector and donor initiatives, which lay the basis for the second phase. During the first phase the strategy focuses on upgrading the public sector capacity and operational infrastructure for agricultural production. It also contains several strategic initiatives to foster the expansion of incipient private sector entities.
- **The second phase** is characterized by increasing growth of private sector entities. Investment in the sector begins to shift from almost exclusively government and donor sources to increasing domestic and foreign private sector investment.
- **The third phase** involves the development of a modern market-oriented system of balanced public and private entities working to establish public-private-partnerships (PPP) in a well-designed and highly productive Strategic Alliance between the public and private sectors.

The formulation and implementation of this long-range ADS requires the application of an overall "strategy cycle". The adoption of a "strategy cycle" enables the redrafting of the subsequent phases based on the lessons learned during implementation of the first phase, as well as enabling it to take into account the emergence of new policy priorities. The "strategy cycle" is also necessary to accommodate the medium-term technical cooperation funding programs employed by most of the donor agencies. In practice, the "strategy cycle" involves an iterative process by which the ADS is progressively up-dated and developed.

A corresponding Action Plan will implement each of the medium-term phases of the long-range strategy. The planning required for the detailed specification of the second Action Plan, that implements the second three-year phase will necessarily be based on three sets of information. These are: (i) the policy changes and priorities that evolve during the implementation of the first phase; (ii) the information derived (including lessons learned) from the monitoring and evaluation of the implementation of the first phase; and (iii) changes in the macroeconomic environment that require agriculture sector adjustments

to be introduced. This information is critical for the detailed specification of the second phase. The process will be repeated for the third phase within the framework of the overall “strategy cycle”.

The application of the “strategy cycle” requires the simultaneous implementation of a strategy monitoring and evaluation (M&E) system. In order to ensure that an M&E system is in place, the first phase of the strategy, includes a project on, Strategic Planning, Monitoring and Evaluation for the Agriculture Sector. The Project is designed *inter alia*, to implement the “strategy cycle” and M&E system. The project will establish the capacity to implement these two modalities by providing the necessary training for the Government officials mandated to operate them. This intervention will ensure the sustainability of the process of agriculture sector strategy formulation, implementation and monitoring and evaluation.

5. Participation in Strategy Formulation

The strategy formulation process involved wide participation by all relevant parties. This participation was both required and engendered by the adoption of a Program-Based Approach (PBA) for the formulation of the strategy. Close liaison and detailed discussions were conducted with all multilateral and bilateral donor agencies and continuous meetings were held with all relevant government and private sector entities, NGOs and regional representations. Close liaison was also maintained with the agriculture sector of the Oblast administrations to ensure their participation in both the design and subsequently, in the implementation of the strategy. Oblast agriculture Working Groups were established, Guidelines on Oblast agriculture strategy formulation were designed and training sessions were conducted. The agriculture development strategy therefore contains a regional component including the contributions of the seven Oblasts.

Within the two months from the completion of the first strategy formulation Workshop to the preparation final draft strategy, the Project team conducted continuous consultations with donor representatives, Government agencies, private sector representatives and NGOs. These discussions were to further confirm Government priority needs and donor predilections for their technical assistance funding initiatives to be included in the agriculture strategy.²

6. Cross Cutting Issues

The main cross cutting issues included in the strategy are (i) poverty reduction, (ii) gender equality and, (iii) environmental protection. Each of these issues received rigorous attention during the strategy formulation and will receive priority attention during strategy implementation. In the case of poverty reduction, in 2004 approximately 55.5 per cent of the rural population was recorded as living at the poverty level (NSC data).

The agriculture sector activities play a major role in the reduction of poverty by engaging 84 per cent of the total rural population in farming activities. According to the CDS, a one per cent increase in agriculture value-added reduces rural poverty by 1.06 percentage points.

In the case of gender equality, all donor-funded projects are required to make effective provisions to accommodate the gender equality objectives of their parent organizations.

² A total of 54 formal meetings were conducted. Of these, 28 were with donor representatives, 20 with Government agencies, and 6 with representatives of the private sector. In addition, two national Workshops were conducted, that included 70 participants in each, to discuss and to deliberate on the content of the Strategy.

In the ADS Rural Finance component, special provisions are made for female heads of farm households in applications for credit. In the case of environmental protection, this plays a major role in the application of best farming practices and sustainability. Two of the strategy's components are designed to directly address environmental issues namely, Land Market Development in terms of the sub-component, pasture management, and Water Resources Management in terms of efficient management techniques for irrigation, drainage and water-logging of agricultural land³.

³ In addition to the predilection of donor agencies to address these three priority cross-cutting issues, which will provide safeguards at the appraisal stage of projects included in the strategy, the M&E system for strategy implementation will provide an explicit monitoring checklist for each of these cross-cutting issues.

II. CURRENT SITUATION ANALYSIS

The work of analyzing the current situation in the agriculture and rural sub-sectors, their development during the last decade and principal constraints and needs was undertaken by the Coordination Working Group, Steering Working Group and Project team.

1. Agriculture Sector Description

The Kyrgyz Republic (KR) is among the poorest of the former Soviet Union republics. During the 1990s, economic performance of KR has been impressive, with annual GDP growth averaging about 5%. In 2002, real GDP growth fell to zero due to problems in the gold and power sectors of the economy. In 2003 and 2004, real GDP growth rebounded to about 7%. Due to the political instability in 2005, real GDP contracted by 0.6%. This slowdown was mainly caused by a decline in gold production and a weakening of the business environment following the political protests in March 2005.

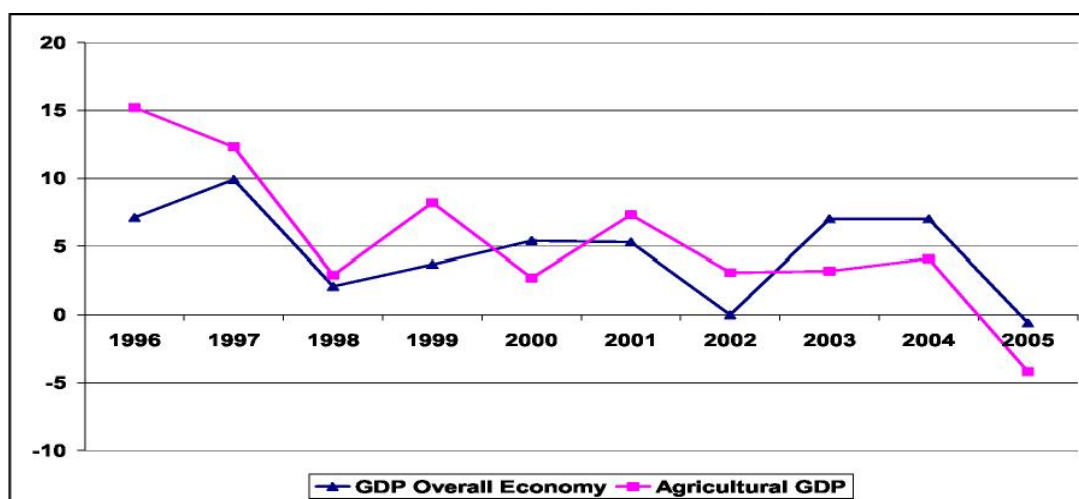
Only 7% of KR's total land area consists of arable land (1.4 mio. ha), of which 66% is irrigated. About 14% of the total area is currently used as pasture (2.8 mio. ha). A further 25% of the total area is considered as "land reserves", which is mostly pasture.

The agriculture sector contributes one third of the Republic's GDP. More than half of the value - added in agriculture is derived from private plots. Peasant farms produce the major part of the remainder⁴. The long-term average rate of growth of the sector has been 5.4 per cent. This average rate of growth is a result of the secular decline in the growth of output, from 15 per cent in 1996 to 4.1 per cent in 2004. A further decline resulted from the political unrest in 2005 amounting to - 4.2 per cent of agricultural output (Graph 1).

Crop production accounts for 54.7 per cent of the total value of agricultural output, with 43.7 per cent of the output derived from livestock production. Peasant farms produce two thirds of the output of crops. Slightly more than half of livestock production is from private plots of households. These output proportions reveal the significant level of fragmentation of the farm units and the dominant role played by individual households and small farms in the sector.

⁴ The distinction between peasant farms and private plots in the Kyrgyz Republic is not an economic distinction. It is a legal difference based on individual registration of the land.

Graph 1: Gross Domestic Product 1996-2005



Institutional Structure. The sector is administered by the MAWRPI, which, in addition to the regional representations of the Ministry, has 16 specialized subordinated agencies. The sector administration is funded from the Republican budget. More than half of the sector budget is allocated for water resources management. Private ownership is now dominant in the sector, with the exception of several breeding, seed and State farms that continue to remain in the public sector.

Public Expenditure. The Republic continues to face severe budgetary constraints in financing its transition initiatives. It has therefore relied on the international community to assist the Republic by providing concessional loans and grant financing during the transition period. In response, the Government has been implementing stringent conditions required for tight budget execution and expenditures control. The public funding for the agriculture sector has been from two sources: from the recurrent budget and the PIP.

Recurrent Budget Funding. The budgetary allocations for the agriculture sector comprise approximately 2 to 3 per cent of the total budgetary expenditure. These funds provide for the maintenance of the existing institutional infrastructure and operation of the sector administration. More than half of the recurrent budget funds go to finance the Department of Water Resources Management and its subordinated units. The recurrent budget funds are mainly allocated to the classified protected items, such as wages and social fund contributions. Some funds are allocated to support State owned agricultural enterprises (on average 1 per cent of the agriculture expenditures) and to subsidize spring field works (on average 2-4 per cent of total recurrent agricultural expenditures). In terms of agriculture sector revenue generation, the agricultural tax revenues contribute about 2 to 3 per cent of total budgetary revenues. Up to 2005, a significant part of the revenues were derived from land tax and value added tax imposed on processing enterprises.

Capital Expenditures Financed through PIP Allocations. These allocations fund a significant part of the sector infrastructure. They are mainly in the form of specialized loans provided by the development partners. In 2005, the agriculture sector received 41.3 per cent of the total PIP budget expenditure. Most of the PIP funds have been allocated to improve water resources management in the sector (See Table 1).

Public finance constraints are endemic throughout the entire public administration. The lack of budgetary resources acts as a constraint on Government to adequately provide even the necessary recurrent funding. There is therefore, no excess of revenues over recurrent expenditures available for capital allocations. Agriculture sector investment is to-

tally dependent on the ability of Government to obtain concessional and grant funds from the donor community. Currently, with only incipient development of the private sector, there are inadequate investment funds available from the domestic private sector.

Agriculture Sector Employment. The agriculture sector employs half of the total labor force of the economy. Of this, 65 per cent of agricultural employment is in private farming, with 20 per cent of those employed working on individual plots. Thirty five per cent of the labor force is in agricultural enterprises or collective farms.

Agriculture Sector Labour Productivity⁵. The average wage in agricultural employment is approximately US\$22 per month. This is less than a half of the average wage for the national economy, which is US\$52 per month. The relatively low returns to labor in the agriculture sector reflect the low level of labor productivity and diminishing returns to labor in the sector. A reduction in the sector's labor force would raise the marginal product of labor. If the average productivity of labor in the agriculture sector could be increased to the level of the current national average, this would mean a significant increase in the per capita agriculture sector output. The critical importance to the growth and development of the economy of raising the productivity of labor in the agriculture sector is clearly apparent.

Trade in Agricultural Production. The major part of the Republic's agricultural production is marketed on the internal markets. This reflects, to large degree, the high costs of commodity transportation to other countries. Average prices for agricultural outputs on the internal markets are generally lower than those obtaining in the major external markets, such as on the Kazakh or Russian markets. Agricultural exports account for between 15 to 18 per cent of total national exports. The composition of exports is approximately 2 per cent livestock products, 8 per cent crop products and 7 per cent processed agricultural products⁶. Increasing the value of agricultural exports must be accorded high priority for the Republic.

Table 1: Agriculture Sector Expenditures and Revenue Generation (2001-2005).

	2001	2002	2003	2004	2005
Expenditures (million soms)	15188	16891	18842	18841	20143
Revenues allocated to the MAWRPI	307	430	509	519	541
Share of Recurrent Expenditure on Agriculture as a per cent of total Recurrent Budgetary Expenditures	2,0%	2,5%	2,7%	2,8%	2,7%
Tax Revenues derived from Agriculture, (Mln soms)	10474	11912	13987	13980	16361
Agricultural tax collections, including:	240	271	309	235	326
Land tax on agricultural land	200	185	182	180	167
VAT Processing agricultural production	40	85	127	16	134
VAT Agricultural producers				38	23

5 Total factor productivity in the agriculture sector is defined as 'the growth in agriculture output less the growth in the weighted sum of all inputs'. After extracting the growth resulting from the labor capital and land inputs, the remaining growth is a residual factor that results from technological innovation. It is therefore a measure of productivity growth. It may be restated thus. Agriculture sector productivity is the excess value of agriculture output over that produced by the increase in inputs. In economists terms, productivity is a surrogate variable for technological change.

6 Source: the MAWRPI, Speech of the Deputy Minister, Mr. Kulov in the Ministry of Agriculture, on trade in agricultural production, June 2006

Tax Revenues derived from Agriculture (% of total)	2,3%	2,3%	2,2%	1,7%	2,0%
Total PIP	3 476	4 904	4 569	4 276	3971
Agricultural PIP	992	1461	1372	1510,7	1640,6
Share of Agricultural PIP in Total PIP	28,5%	29,8%	30,0%	35,3%	41,3%

Source: Ministry of Economy and Finance data

Investment in the Agriculture Sector. Agricultural sector investment is dominantly in the form of public sector investment funds provided under the PIP. The volume of funds available to the MAWRPI for projects financed under the PIP, increased between 2001 and 2005. Most of the expenditure was for on-going projects that were being implemented under the Ministry. In terms of private sector investment, there has been extremely little FDI into the sector and domestic private investment is almost insignificant relative to the sector investment requirements⁷. The critical importance of increasing the volume of investment in the agriculture sector was stressed by the President in his Annual Address to the Nation on September 28, 2006. Capital deepening, which results in increased amounts of capital per worker, can dramatically increase labor productivity in agriculture⁸.

2. ADS Priority Components

Like the development of the Vision, the identification of priorities was developed through intensive consultations with all stakeholders and in consensus in the early stages of the strategy formulation process⁹. This process resulted in the specification of eight strategy components:

- Public Sector Services,
- Agro-Processing and Marketing,
- Land Market Development,
- Water Resources Management,
- Training, Research and Development (R&D),
- Trade and Tax Policy,
- Rural Finance and
- Rural Development.

These eight priority components of the strategy areas were established by broad participation. Each of the priority components is central to the sustainable development of the agriculture sector. There are close relationships between all eight components in the form of the linkages and overlaps between them. There are close relationships between the agro-processing and the marketing component and the trade and tax policy component. Similarly, there are close relationships between the public services component and the training, research and development component. The land market development compo-

⁷ In 2005, of the total FDI in the Republic, only 0.4 per cent was in the agriculture sector amounting to a mere USD763,000 (NatStatCom). No figures are available for domestic private investment in the sector.

⁸ In order to highlight the importance of capital deepening in agriculture, it is instructive to observe the example of the United States where enormous increases in output per worker has resulted from the multiplication of farm machinery, agricultural irrigation systems and improvements in rural infrastructure and utilities.

⁹ Altogether, 197 persons participated in three rounds of seminars focusing on different issues.

ment, the water resources management component and the rural development component are closely interrelated and linked with the agro-processing and the rural finance components.

2.1 Public Sector Services

Introduction. The institutional structure of the public administration in the agriculture sector has been subjected to a number of changes over the past several years. The repeated changes in responsibilities and the functional-structural organization of the three levels of the administration namely, central, regional and local, have produced a current psychology of uncertainty among the sector officials at all three levels. Public sector institutions in all countries maintain evolutionary functional-structures. The flexibility enables them to adjust efficiently to new administrative developments and requirements. It is the magnitude and frequency of changes in institutional functional structures that can become counter-productive, resulting in insecurity and reduced productivity of the staff. To some extent, this is currently the case in the agriculture sector administration.

Institutional Rationalization. The EU TACIS Project, Support to Civil Service Reform in the Kyrgyz Republic, addressed the problem of rationalization of the agriculture public sector administration. The Project conducted assessment work on the reorganization of the MAWRPI¹⁰, and functional reviews of the subdivisions of the Ministry in the Issyk-Kul, Osh and Talas *Oblasts* and their *rayons*. The assessment resulted in several recommendations in the development and strengthening of the Central Apparatus of the MAWRPI. Recommendations were also provided on the reorganization of the oblast and rayon subdivisions of the Ministry¹¹.

It was also recommended that the functions of two sub-divisions, which performed complementary and linked activities of plant protection and quarantine, be included under the Department of Chemical Plant Protection. These subdivisions are: the Republican Center on Production of Bio-means for Plant Protection; and the State Inspection of Plant Quarantine¹².

Recent Administrative Restructuring¹³. Two Government administrative instruments have recently been prepared on the functional-structural reorganization of the agriculture public administration. These instruments constitute a major step designed to improve the overall efficiency and productivity of the sector's public administration. They are also designed to achieve the objectives and targets set for the agricultural sector by the CDS. One of these organizational instruments provides the functional-structure for the sector-wide public administration namely, the Government Resolution No. 294 of April 25 2006. The other organizational instrument is for the central apparatus of the MAWRPI namely, the MAWRPI Order No. 103 of May 4, 2006.

10 The establishment of two new units was recommended namely, an Agricultural Information Center and a Legal Unit for legal drafting capacity to be established within the Directorate of Administrative Support. These two units were directly in-line with and in support of the four key functions of the Ministry namely (i) policy formulation and strategy setting; (ii) provision of extension and consultative services to farmers and cattle breeders; (iii) provision of support to the agro-processing industry; (iv) provision of support in the establishment of cooperatives.

11 At the regional and local levels it was recommended that Departments of Agriculture be established in Oblasts and Rayons and that the Oblast Department of Agriculture and the Rayon Departments of Agriculture maintain three small units (1) Administrative Unit (2) Land Reform Unit (3) Technical Support Unit (including animal health, plant protection, agro-processing and cooperatives).

12 These subdivisions are now incorporated in the Ministry's Department of Chemicals, Plant Protection and Quarantine.

13 See Annex I Agriculture Public Administration: Functional-Structural Organization

Regional Level Provisions. In the case of the agriculture sector-wide administration at the regional and local levels, the capacity is established for the provision of four technical public services. They are: (i) the Oblast Regional Agrarian Policy Services and Rayon Development Advisory Services under the MAWRPI, (ii) the Oblast Water Resources Directorates and Rayon Water Resources Directorates under the Department of Water Resources, (iii) the Regional State Veterinary Directorates, Rayon and State Veterinary Directorates and Inter-Rayon and Rayon Veterinary Laboratories under the State Veterinary Department, (iv) the Inter-Regional and Rayon Stations of Plant Protection and Quarantine under the Department of Chemicals, Plant Protection and Quarantine. In addition to these services at the regional levels, there is also the Territorial Rural Water Supply Branches. These come under the Department of Rural Drinking Water Supply.

Apparatus Provisions. In terms of the central apparatus, the restructured MAWRPI contains six Directorates and a Unit for Monitoring and Budgetary Execution (see Annex II, Organization structure of Central Administration of the MAWR&PI) The largest Directorate, containing twenty-seven staff, is the Main Directorate of Agrarian Policy and Investments.

The Directorate consists of four units. These are: (i) Unit of Agrarian Policy and Strategic Studies (8 staff); (ii) Unit of Economics and Forecasting (6 staff); (iii) Unit of External Links and PIP. (6 staff), and (iv) Unit of Cooperatives and Land Issues Development (5 staff). There is now a Personnel and Legal Office, under the Permanent Secretary in the Ministry. This office will be staffed with three officials and will play an important role in the administration and development of the agriculture sector.¹⁴

Operational Activities. The Public services provided by the agriculture sector administration include, agro-chemical services, seed services, farm equipment and mechanization, and livestock and veterinary Services.

- **Agro-chemical services.** The supply of fertilizer inputs has been inadequate to meet the sector needs. Therefore, the Government has directly purchased fertilizers, combines, and pesticides. Generally, the actual imports depended on the available external financing and therefore they have often been below that necessary to sustain modern agriculture. The Government interventions in the supply markets have been inimical to the growth of private trading in these markets.

Measures to control weeds either do not exist or are not enforced. Agro-chemicals also pose a major hazard, both in use and in storage. There is inadequate knowledge on the handling and optimal applications of agro-chemicals. The existing legislation does not ensure safe storage of these chemicals. There are also stocks of banned chemicals, which are still in use. The efficient organizational and regional structure for this service and its funding, must be established if the necessary degree of control is to be achieved.

- **Services.** The Government involvement in the seed market remains significant and there is some contention that the public sector involvement in the seed market has affected agricultural productivity adversely. Inefficiencies in the present system result from the prohibition by Government of seed sales until it has approved the new variety. With limited budgetary resources, and the Government only able to meet the salary needs of scientists, there is limited development of new seed varieties. As a result, agricultural productivity growth is constrained and only limited levels of technology transfer from abroad is taking place.

¹⁴ Because of the important role the Legal Office must play in the administration and development of the agriculture sector, it is important that it be strengthened. Therefore, at the request of Government, a technical assistance project designed to strengthen the legal office is recommended for inclusion in the agriculture strategy

- **Farm Equipment and Mechanization.** The farm sector suffers from a serious lack of capital equipment, which constitutes an impediment to increased agricultural productivity. Existing farm machinery is dominantly old and inefficient and is poorly suited to the small-scale and character of the private farms. In the market-oriented economies, most farm machinery is owned by individuals and in the Republic, there are no restrictions on private ownership and management of farm machinery. From the policy perspective, there remains the belief that large-scale operations are superior in efficiency compared with the dominantly small-scale farming structure of production currently characteristic of the Republic's agricultural economy. In terms of Government interventions in agricultural mechanization, a recent development has been the provision of agricultural machinery, valued at 100 million Yuans, to the Kyrgyz Republic by the Chinese Government. The provision of the machinery is under a 100 per cent grant arrangement¹⁵.
- **Livestock Services.** The current indications are that there has been almost no pedigree and selection work aimed at improving breed composition of animals undertaken in the Republic for the last 15 years. Technical capacities of pedigree enterprises are rapidly deteriorating.
- **Veterinary Services.** The Republic's veterinary services were originally designed to service large-scale livestock operations that no longer exist. Therefore, the veterinary service is in the process of restructuring to meet the current realities of meeting the veterinary needs of a large number of private small-scale producers. The central apparatus of veterinary services is now under three administrative entities headed by (i) the State Veterinary Department, (ii) the Republican Veterinary Laboratory and (iii) the Veterinary Militia. At the regional level, there are the (i) Regional State Veterinary, (ii) Rayon and City State Veterinary and (iii) Inter-Rayon and Rayon Veterinary Laboratories. These administrative entities are under the MAWRPI and within the Ministry, the Livestock Development and Veterinary Unit under the Directorate of Agriculture Development.

2.2 Agro-Processing, Marketing and Market-Information Services

2.2.1 Agro-Processing

Introduction. Agro-processing is specified as a priority economic sub-sector in the Republic. It includes 13 branches and produces more than 25-30 per cent of total production and more than 25 per cent of all exports. Currently, only 7 per cent of the Republic's agricultural output is domestically processed, which radically constrains the overall level of agriculture sector productivity. There are 28 large enterprises processing dairy products that together with the small and medium enterprises, provide a total capacity of more than 1,500 tones per 24 hours. The local and foreign investment in the dairy sector has included a range of products and quality improvement. Large investors include the Russian "Vimm-Bill-Dann", a Canadian corporation "Max Lion", and investments through the Swiss "Helvetas", as well as investment by Kazakh companies. In spite of these developments, there is still unused potential in production and processing. Currently, dairy production is only 25-30 per cent of the potential capacity, and the proportion of processed milk is only 7-8 per cent of total volume of milk produced in the Republic.

¹⁵ The agricultural machinery includes: 1,200 tractors, 1,200 ploughs and spare parts. The distribution of the machinery will be carried out by the Oblast administrations that will arrange for the setting up of tender commissions. Farmers will receive the machinery at discounted prices with the amount of the discount being proportional to size of the initial down payment. The period for repayment is 10 years and payments will be made though an account with the National Bank

Meat processing enterprises are located throughout the country. As a result of the shortages of working capital, the existing meat plants operate irregularly. The utilization of production capacity does not exceed 5-10 per cent and processing equipment is outdated. Mini-plants for the production of sausages are ubiquitous and occupy a niche in the domestic market, which previously had been occupied by meat plants. Today they number approximately 170 mini-plants¹⁶.

Since 2002, food and processing industry enterprises have achieved stable growth of between 2 to 8 per cent in food production. A range of agricultural products were marketed (domestically and exported) for direct consumption and processing in 2005. Agricultural processing enterprises produced food products valued at 7,658.5 mln. Som constituting growth of 1 per cent over 2004.

Constraints on the development of agro-processing. The domestic markets provide the basis for sustainable growth. However, the domestic market is small and further growth can only be achieved by export promotion in external markets. Increasing the export of processed agricultural products is important in the medium-term for sustainable growth of the agricultural sector. Increasing exports requires investment in the development of the supply chain. The main exports of agricultural products and processed products are to Kazakhstan and Russia, which take 23 per cent and 45 per cent of the Republic's agricultural exports, respectively.

In the market economies, generally over 50 per cent of agricultural outputs are processed. In contrast not more than 7 per cent of Kyrgyzstan's agricultural outputs are processed. In spite of the various difficulties confronting the development of the agricultural processing industry, the agricultural processing sub-sector must become the engine of development of the agrarian sector. There are many constraints currently limiting the development of the sub-sector.

The majority of the existing processing enterprises were established in the Soviet period. They have large capacity and obsolete equipment and technologies.¹⁷ They are not able to produce competitive products for either domestic or external markets. In 2002, total capacity utilization was 40 per cent and they usually function only 5 or 6 months per year. The existing enterprises have very low equity, their technology is outdated, and their management (which in most enterprises only consists of the owner/general manager) is untrained in free market operations. The lack of equity results in enterprises being unable to access credit capital resources, because they cannot provide the collateral which credit institutions require. Management is often unable to develop profitable projects, which can be taken to a credit institution for financing.

The lack of ability to access existing credit lines is reflected in lack of working capital to procure raw materials in a sufficient quantities to maintain even the modest production capacity. A major problem for processing enterprises is lack of capital for investment in equipment to upgrade product quality and packaging as well as to reduce processing costs. Existing credit suppliers only provide short- and mid term loans, which do not meet the need for financing of capital equipment, which typically requires a longer period before pay-back is achieved. Because of the inability to access working capital, processing enterprises are not able to buy raw materials in the necessary volumes for processing. It is frequently necessary to purchase the materials during harvesting and store in warehouses for extended periods. As the banks are reluctant to provide credit for this purpose

¹⁶ As a result of the limited technical and technological capacities, small enterprises are not able to conduct waste-less processing of cattle and ensure ecological safety of the environment. The same situation exists in the processing of secondary raw materials: blood, intestines, bones and etc.

¹⁷ More than 70 per cent of equipment in the processing enterprises is obsolete.

and for the long-term, a considerable quantity of seasonal agricultural production remains unsold and deteriorates due to poor storage conditions.

Agro-processing is also constrained by high tax rates and high social fund payments. There are allegations of corruption in the taxation and other regulatory bodies, which provides incentives for the development of illegal double book-keeping and shadow economy activities. Entrepreneurs face significant difficulties in collecting the return of VAT on exports. Also, the zero VAT paid during import of equipment and materials are not applied.

2.2.2 Marketing¹⁸

Introduction. Market channels are only in an incipient stage of development. There are no effective production chains, linking farm production, processing enterprises and consumer markets. Transport and trade costs present major problems for small and medium farms in marketing their production. Generally, they sell their production to intermediaries at low prices during harvesting when supply exceeds demand. Farmers who do not sell to intermediaries face various barriers such as controls on roads and markets, custom problems and payment of various illegal fees. As a result, they often cannot cover the costs of production.

Constraints on market development. Currently, agricultural marketing in rural areas is not developed. There is a lack of the necessary marketing network, as well as marketing services for products of rural commodity producers. Private wholesale companies face difficulties of incorporation. Production systems that should include all necessary operations of processing, supply, services, and sale are only in the process of being formulated.

An important constraint on market development is the inadequacy of physical infrastructure, which has public good characteristics and requires support from Government. Degraded physical infrastructure (roads and bridges, water, telecom, electricity) is a constraint on investment in local marketing and processing facilities.

A major problem in the organization of effective markets for agricultural products in the Republic is linked to the small size of peasant farms and relatively small volumes of products for sale. This presents a significant constraint on increasing the marketability of agriculture products and better integration to the national economy. The lack of information on markets and lack of financial resources do not permit farms to carry out elementary market functions, such as storage, sorting, or transportation to the consumer. There are more complicated functions such as identification of prospective markets, consumer requirements and negotiating with large consumers, which make small farmers vulnerable to formal and informal market intermediaries¹⁹.

¹⁸ There are number of State agencies involved in agricultural marketing, such as MAWRPI, the Ministry of Industry, Trade and Tourism, the National Institute on Standards and Metrology, as well as various donor organizations.

¹⁹ In order to support agricultural commodity producers, the following legislative instruments have been approved:

- Presidential Decree of KR No. 261 dated of July 4, 2005 "On Measures to improve the situation in the sphere of procurement, processing and sales of agricultural product". The Decree recommends Government bodies to solve the existing problems in procurement, processing and transportation of agriculture products.
- Law "On State Purchase of Agricultural Products" dated of 2004. In accordance with the Law of GKR is to determine the State orders for State purchase of agricultural products on the base of tender and annually it should foresee resources in the Republic budget for State purchase of agricultural products.
- A new Law On Cooperatives dated of June 11, 2004 provides the basis for functioning cooperatives in the business activity in the agrarian sector. The Law provides for different types of agricultural cooperatives as production, processing, marketing and service cooperatives. The peculiarity of the new law is that the land shares of

The MAWRPI has undertaken a series of measures to support the development of agriculture marketing. The Ministry's Directorate on Marketing and Market Opportunities Forecast was established to solve problems of access to information among rural commodity producers and processors on forecasts of production volume of agricultural products and prices. The Directorate assists in avoiding overproduction and in the establishment of priorities for agricultural exports.

2.2.3 Market Information Services

Introduction. Inadequate information is a major problem at all levels in the agricultural sector. The Kyrgyz Agricultural Marketing Information System (KAMIS) and the Rural Advisory Service (RAS) have been established. KAMIS has been established to provide market information and RAS to provide information and advisory services to farmers on management and production matters.

Operational Instruments. The RAS is the only nation-wide network of agricultural advisors. The network consists of 7 independent organizations, covering all oblasts²⁰. The vision for the network is to be "owned" principally by the farmers. Farmers and village representatives are involved in the decision making in the organization councils. About 200 advisors work for RAS. They service about 50 per cent of all villages and about 6 per cent of all rural households. The goal is to achieve coverage of 10 per cent of all households, as regarded as average by international standards. The number of permanent clients increased from 22,000 to 26,000 in 2004/05. The coverage of RAS needs to be improved. Many farmers are still not aware of the available services. In many regions, the link between advisory services and market information services is missing. There are also complaints concerning the low level of agrochemical services and laboratories for the assessment of soil fertility. Continued Government and donor support of RAS, and its possible scaling-up will be essential for any technology transfer to be effective.

The KAMIS is a private organization, which maintains a network on data collection and processing and information distribution at the Republic level. The KAMIS has a central office in Bishkek and two representatives in each oblast. It collects prices on all major agricultural products, some agricultural inputs (e.g. gasoline), and also a range of processed food products on the relevant regional markets. The KAMIS also collects prices and exchange rates on important international markets (central Asia, world markets) through a network of international partner organizations. Prices are published on a website and in a bi-weekly newspaper "Bazar". The newspaper also contains other news items and in-depth analysis of markets and production aspects. Under a contract with Ministry of Agriculture, 1000 copies of the newspaper are distributed free of charge to a specified list of recipients in the Ministry, Regional Offices and NGOs. A further 300 copies are paid for by subscribers. The financial basis of the KAMIS is weak, as there is a general reluctance to pay for market information. Even though "Bazar" is available at the rayon level, this does not ensure that local farmers have access to it.

agricultural production cooperatives' members, will be given to the cooperative only as lease contract. This provision was introduced in order to protect land-owners-cooperative members.

- Government Resolution No. 662 dated of September 2, 2004 "On Marketing Strategy in Development of a System for Procurement, Processing and Sales of Agricultural Products". The Resolution has been issued to concentrate and coordinate the efforts of all stakeholders in developing the system of purchase, processing and sale of agricultural products through the attraction of direct domestic and foreign investments into the agrarian sector.

20 The RAS network is coordinated from the center in Bishkek, which also hosts the Agricultural Training Center (ATC). The ATC provides training for the advisors who then work with farmers in the villages. All regional RAS offices are legally independent public organizations. They are primarily funded by international organizations. Farmer contributions account for about 5 per cent of the total budget.

Market Information Constraints. Coverage, at the local level is deficient and has to be improved, possibly through a closer cooperation with the RAS advisors. There is also a need for more market analysis and forecasting, which is not well covered by any institution.

Continuous Government support is required for broadening the distribution of the available market information at the village level and enhancing the use of information for market research and forecasts. International experience shows that increasing the level of information cost recovery through subscription fees can only be introduced slowly over time, as farmers improve their financial situation and appreciate the value of the information.

2.3 Land Market Development

The Land Redistribution Fund. The overall supply of land for land market development in 2006, included a total agricultural land area of 10,780,300 ha, of which arable land accounted for approximately 12 per cent. The land of the Land Redistribution Fund (LRF) totaled 298,800 ha of which 243,600 is arable land (about 19 per cent of all arable land). The lands of the LRF are the main source of land for leasing and one of the main revenue items of aiyl okmotus' budget. The LRF is administered by the Ail Okmotu. The lands are provided for short-term lease (from 5 to 7 years), and medium-term lease (up to 10 years). Irrigated arable land is provided only for short-term lease.

In terms of effective management and use of the lands of the Land Redistribution Fund there is a USAID funded Project on Land Market Development (October 2005-October 2008) being implemented by Chemonics International. The objective is to stimulate the sustainable development of agricultural land and city land markets.

Table 2 Land Fund by Agricultural Land Categories (January 1, 2006)

	Categories of agricultural land	(000's ha)
1	Arable land	1213.9
2	Perennials, including:	36.8
3	Fallow land	35.4
4	Hay fields	172.2
5	Pastures	9189.1
6	Homestead land (out of which 67.2 is arable land)	126.1
7	Collective gardens	3.6
8	Collective vegetable-gardens (mainly arable land)	3.2
	Total agricultural land:	10780.3

Source: NatStatKom

Pasturelands. Pasturelands cover 9,189,100 hectares²¹. They are classified according to their location and distance from settlements: (i) village pastures (located near villages), which include lands that have been cultivated, hayfields, orchards and forests; (ii) inten-

²¹ There are also pastures that are classified as part of the Forestry Fund not covered by forests and actually serve as pastures.

sive pasture (pasture under intensive use) (iii) remote pasture. Pasturelands are exclusively State-owned and can only be leased²².

Table 3: Utilization of the land of the LRF (1 January 2006).

	Thousand ha	Per cent
Total Land Redistribution Fund	298.8	100.0
Lands used by State Breeding Farms	3.6	1.2
Lands used by State Seeding Farms	19.2	6.4
Lands used by Agricultural Research Institutions	0.7	0.2
Lands used by other land users	4.2	1.4
Lands under the jurisdiction of <i>aiyl okmotus</i>	24.4	8.2
Undistributed land of the LRF	75.5	25.3
Lands under lease	171.2	57.3

Source: NatStatKom

Currently, all near village pastures are fully utilized. However, as Table 4 shows, formal agreements were made for only 255,289 ha of village pastures which is only 10.8 per cent of the total area of village pastures.

Table 4: Area and Types of Leased Pastures (April 2006)

	Total	Village pastures	Intensive pastures	Remote pastures
Total area by pastures, (thous. ha)	9361,3*	2359,7	3125,8	3697,2
Total pastures leased, (ha)	931 436	255 289	429 826	246 321
Per cent of total pastures	10	10.8	13.75	6.7
Lease agreements concluded (thous. som)	14247,7	4889,0	7312,0	2046,7
Per cent of concluded agreements	100	34.3	51.3	14.4
Actually received (thous. som)	2910,0	n/a	n/a	n/a

Source: State Register. *The figure includes pastures - 9189,1 and hay land – 172,2

While lease agreements have been concluded for a value of 14,247,000 Som, the actual payments received so far from leases amounted to 2,910,000 Som representing only 20.4 per cent of the payments due. The payment for pastureland use combines both land tax and lease payment. Of the payment, 90 per cent goes to the budget of the administration that provided the lease, and 10 per cent goes to the State Register to cover surveying costs²³. Lease payments for pasture use vary by region.

Rent payments for pastures are insignificant sources of revenue for the *aiyl okmotu*, rayon and oblast administrations. There are few formal leases, and even in these cases payment is often in kind. Payments in cash are not registered in the formal collection system as budgetary revenue. As these revenues are so insignificant, oblast administrations routinely delegate their collection to the *rayons*, and in many cases the *rayons* shift this

²² Regulations on the Procedure for Providing Pastures for Lease and Use approved by Government Resolution #360 of June 4, 2002 and amended on September 2004.

²³ Revenue distribution is different for pastures overseen by the State Agency for Environmental Protection and Forestry where 25 per cent goes to the administration provided the lease, 70 per cent to the Agency and 5 per cent to Gosregister.

task down to the *aiyl okmotus*. Unofficial agreements are common and they reduce public income and provide no security for the farmer. The number of pastureland tenants is small in comparison with the number of small farmers. Most small farmers, having only few cattle and poultry, use only nearest village pastures without concluding fixed lease agreements or they make arrangements with some herdsmen for summer grazing. Most of the applications for pastureland use are for long-term lease of pastures including existing infrastructure of sheds and sheepfolds. Farmers with large commercial cattle stocks prefer long-term pasture leases.

The intensity of usage of village pastures is high in comparison with the distant pastures that are underutilized. As a result, there is increasing degradation and decline in pasture productivity. The underutilisation of the distant pastures appears to be due to both ineffective management by oblast and rayon authorities and insufficient knowledge on the part of farmers. Not all *oblast*, *rayon* and *aiyl okmotu* authorities have comprehensive plans for redistribution, usage and pastures protection²⁴.

Monitoring of agricultural lands is carried out by the Project Institute “*Kyrgyzgiprozem*” of the State Register. The monitoring of agricultural land is subdivided into (i) monitoring of arable land soils and (ii) monitoring of natural forage-crops (pastures and haymaking).

Table 5: Trends in Agricultural Land Degradation (1985-2002) (in thousand ha).

Land Categories	1985	1990	2000	2002
Salinized	666.3	1170.3	1180.8	1180.8
Solonized (high salt content)	243.4	469.3	471.2	471.2
Water-logged	28.9	89.2	90.9	118.6
Rocky	2397.4	3808.8	4021.2	4021.2
Wind-eroded	616.2	5475.3	5689.8	5689.8
Water-eroded	725.7	4544.8	5626.8	5626.8

Source: National Report on Environmental Climate in the Kyrgyz Republic 2001-2003.

Legal Framework. Significant legal instruments that affect land use development are (i) The Law on Agricultural Land Management and (ii) Land Code of the Kyrgyz Republic. The primary legislation governing the institutional framework and procedures for management of pastures is The Regulations on the Procedure for Providing Pastures for Lease and Use (Government Resolution No. 360 of 4 June 2002).

Law on Introduction of Changes and Amendments into the Law on Agricultural Land Management came into force on 1 August 2006. The Law clarifies the definitions of “agricultural land”, “land plot” and “land parcel”. According to the amendments, land plots can be exchanged for different land plots throughout the Republic not only within the same village as previously. Land shares can be sold to Kyrgyz citizens who meet the requirements of Article 6 of the Law on Agricultural Land Management²⁵ not only to other land share owners of that agricultural land. In addition, the law makes provision for selling by the owner of the whole land parcel as well as its shares by splitting it into separate land parcels.

²⁴ In addition, commercial competitions are not popular. The over exploited village pastures and the distant pastures are not considered a single complex within the rayon or oblast. As a result, difficulties are created when rationalization and long-term planning of demand for exploitation of pasture lands is conducted.

²⁵ Only citizens of the Kyrgyz republic who permanently reside in rural location for at least two years have ownership right to land of agricultural purpose.

Banks and specialized agricultural institutions have the right to impose penalties on the subject of a mortgage in accordance with the legislation. Moreover, the temporary limitation when selling the passed pledge for not fulfilling commitments has been prolonged from 3 months up to 1 year. In addition, according to the recent amendments, provision is made for farmland plots and parcels to be bequeathed to not only one heir but to several and also the right of their donation.

The recently introduced amendments do not address the interest of potential categories of owners. According to amendments all “rural citizens of remote *rayons*” not only rural citizens who live within the same *aiyl okmotu* can be owners of the agricultural land. However, as before, only the State and rural citizens can be the owners of the land. Other citizens, i.e. urban citizens, legal entities, foreign citizens and foreign legal entities are not allowed own agricultural land.

State control over land usage and adherence to land legislation requirements by legal entities and natural persons is carried out by representative bodies of local government and by specially authorized Government entities²⁶.

2.4 Water Resources Management

Introduction. Irrigated agriculture is the basis of agricultural production in Kyrgyzstan. It is concentrated mainly in the basins of the Naryn, Chu, Talas, Ak-Bura, Yassy rivers and others. Due to the mountainous relief and the arid climate (average annual precipitation, is 533 mm per year) crops need to be irrigated. About 80 per cent of all crop production is from irrigated agriculture providing the population with food, animal farming with forage and industry with raw materials. In 2005, irrigated agriculture produced 35 per cent of the national GDP.

There are some 3,500 rivers of which 30 are considered the most important in terms of their size and economic importance. Waters from melting of glaciers or snowfields form many rivers. All rivers flow into the river basins of neighboring countries located downstream. There are no inflows from other countries.

The total annual surface runoff in Kyrgyzstan is estimated at 47.23 km³, of which, under existing international agreements the Republic can only use a maximum of 11.89 km³ with the remainder flowing to neighboring states: Uzbekistan, Kazakhstan and Tajikistan. According to the National Statistical Committee, the total arable area is about 1.4 million hectares, of which some 1.1 million hectares are irrigated (80 per cent of total arable land) using annually about 5 billion km³ of irrigation water.

Irrigation water is delivered to water users through irrigation infrastructure consisting of off-farm and on-farm networks. In the former Soviet system, the overall irrigation infrastructure including its management, operation and maintenance was the responsibility of the State. With the transition to a market economy, the responsibility for large off-farm irrigation infrastructure remained with the State, but the responsibility for the on-farm network has been shifted to local authorities, WUAs and other entities.

Two irrigation methods are employed in the Kyrgyz Republic, namely (i) ground surface irrigation (97 per cent) and (ii) sprinkle irrigation (3 per cent). The share of sprinkle irrigation is declining due to the lack of spare parts for water-sprinklers and the high electric-

26 Specially authorized Government entities are: (i) MAWRPI; (ii) State Agency on Registration of Rights on Immovable Property under the Government of the Kyrgyz Republic and its Branches; (iii) Project Institute “Kyrgyzgiprozem” of the State Register; (iv) Kyrgyz Scientific Research Institute of Livestock Breeding, Veterinary Science and Pastures; (v) Ministry of Environment and Emergency Situation and its branches; (vi) Ministry of Healthcare (entities and institutions of state sanitation and epidemiological services); and (vii) State Agency for Environment and Forests

ity costs. In many cases, irrigation water is delivered from rivers and canals (80 per cent), about 13 per cent of irrigation water is obtained delivered from reservoirs and the remaining 7 per cent are taken from underground and other sources.

Financing. The Department of Water Resources (DWR) has two funding sources, namely (i) the central budget and (ii) funds collected from the provision of irrigation services. Since 1999, the European Commission, under its Food Security Program has been supporting the agricultural sector including with an annual subvention to the DWR. In 2005, of the DWR funding, budgetary funding was 286.1 million som. Fees from water users were 83.3 million som (of which only 51.4 per cent was paid in-cash). For comparison, in 2003, the budgetary funding was 263.2 million som which was used only for operation and maintenance activities.

Tariffs. An irrigation service fee was introduced in 1995 and initially set at 1.5 tyin per m³. Until 2005, the irrigation service fee was set by Parliament. According to the new Water Code, this function was transferred to the Government in order to set tariffs based on changing economic situation conditions. Presently, in accordance with the Law on Irrigation Water Service Fee adopted in 1999, the following scale of tariffs is applied:

Table 6: Irrigation Water Services: Scale of Tariffs (Som/m³)

Years	Nonvegetation period		Vegetation period		Average	Note
	Usual raions	Raions with unfavourable conditions	Usual raions	Raions with unfavourable conditions		
1999-2006	0.01	0.002	0.03	0.01	0.03	Vegetation period starts April 1 to October 1
1995	0.005	0.001	0.015	0.005	0.015	

Note: These tariffs are applied to water delivered through large State off-farm irrigations systems. As for the on-farm irrigation systems, other tariffs at 0.04 som per m³ of irrigation water can be applied.

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Arrangements for payments vary, but usually take the form of a mix of cash and in-kind payments. Until recently farmers in most cases made payment in-kind. Now farmers pay more in-cash. The share of cash payments in 2005, amounted to 51.4 per cent of total payments. For comparison, the share of cash payments in 2003 accounted for only 31.1 per cent. Because of the high transaction costs involved, payments in-kind add substantially to the cost of operations of either DWR or WUA.

Establishing of WUAs. An important step in the structural and institutional reform of the water sector is the establishment of Water User Associations, in which users (farmers) are responsible for operation and maintenance of irrigation networks. Kyrgyzstan is the pioneer among the Central Asian countries to create WUAs and involve them into the process of water resources management. As of the beginning of 2006, there were 419 formally registered WUAs in the country. These WUAs command an area of over 681,000 ha (approximately 68 per cent of all arable land). Currently, the transfer of ownership of the irrigation network to WUAs is being conducted. About 323 WUAs have taken over ownership of the irrigation infrastructure completely.

Donor assistance. Considerable financial assistance for the rehabilitation of the off-farm and on-farm irrigation and drainage systems is being provided by donor organizations.

Since 1998, the Asian Development Bank and the World Bank have implemented and are implementing a number of projects including four large irrigation projects. These include the Irrigation Rehabilitation Project (\$37,2 million), the Flood Emergency Rehabilitation Project (\$10 million), and the On-Farm Irrigation Project (\$20 million). Under the Irrigation Rehabilitation Project completed in May 2006, 21 irrigation networks had been rehabilitated covering some 294,000 ha and improved the safety of four major dams improved allowing reliable and sustainable water delivery on 414,800 ha. Under the completed Flood Emergency Rehabilitation Project, 27.4 km of check dams were constructed and 8 irrigation structures rehabilitated. These activities enabled improved delivery of the water to 35,000 ha and protected 20 villages from floods. The on-going On-Farm Irrigation Project is focused on the rehabilitation and modernization of on-farm irrigation and drainage networks covering about 160,000 ha and the establishment, development and strengthening of WUAs. In addition, under the ADB funded Agricultural Area Development Project, work to rehabilitate the irrigation and drainage system covering an estimated 55,000 ha is are underway. During the past ten years, as a result of these projects, approximately 30 percent of all irrigation systems have been reconstructed.

Legal Framework. In 1994, the Parliament adopted the first post Soviet Law on Water. It includes a legal framework for water resources management and monitoring of the quantity and quality of water used and the principle of fee payment. However, in the light of changes that have occurred in the country, the law needed revision. In July 2001, the Law on Interstate Use of Water Objects, Water Resources and Water Facilities of the Republic was adopted. The Law ratified the Kyrgyz-Kazakh intergovernmental agreement on Interstate utilization of the water facilities on the Chu and Talas Rivers. In February 2002, the Law on Water User Association was adopted. In early 2005, a new Water Code was signed into law. The new Code is a comprehensive and modern piece of legislation that reflects best practices and international experience. It includes basic principles such as: integrated management of water resources; the recognition of the economic value of water resources; the consolidation of water resources stewardship functions under a new, single apex Government water administration, supervised by a high-level council of senior Government officials providing policy direction; the organization of water resources management along river basin lines; the polluter pays principle; and the participation of users in decision-making.

Currently, there are a number of agencies mandated by the Government for the management of water resources. These include, the Department of Water Resources under MAWRPI, Selvodzashita under the Ministry of Emergency Situations; Ministry of Health, including Sanitary Epidemic Service; the State Agency on Environment Protection and Forestry including HydroMeteorology Service; the State Agency on Geology and Mineral Resources, including HydroGeological Expedition.

The functions of these numerous agencies have not been assigned in the relevant legislation but are determined by Government's resolutions in their operational regulations. These functions have been allocated among the institutions ineffectively and are often duplicated, and can be easily changed, and transferred from one to another institution. Therefore, there are numerous Governmental institutions involved in the management of water resources with their own regulations, rules and instructions. The DWR is the leading State agency of water resources management, which establishes the limits of water taking from surface and underground water for all sectors of economy, including irrigation, industry, drinking water supply, hydro and heating energy, fishing, and others.

The structure of the DWR is based on the country's administrative structure and includes three levels of management – central, basin and rayon. It is composed of seven Regional (Basin) and 40 Rayon Departments.

The current water resources management system has several negative factors, including (i) duplication of assigned functions with unjustified expenses from the State budget; (ii) lack of effective coordination of water management institutions located under different agencies; (iii) lack of human and technical resources of some institutions to perform the assigned functions, and (iv) currently DWR cannot effectively perform the tasks allocated to it both on water policy formulation, and at the same time the operation and maintenance of irrigation networks. These shortages require the reform of the current water resources management system within the next few years.

The new institutional structure will remove duplication of functions performed previously by a number of ministries and departments, and ensure centralized strategic planning. It will also provide for the organizing and monitoring of the implementation of measures to regulate water policy, and the condition and use of water resources and water-related activities.

Non-governmental institutions in regions involved in management of the on-farm irrigation network include Water Users Associations. By their initiative, the establishment of the public Water Councils with participation of representatives of WUAs, Rayon DWRs and Ayl Okmotus is underway. Water Councils will deal with conflict situations arising from the distribution, coordination of water delivery schedule, and solving issues of operation and maintenance of canals. Currently there are 29 Water Councils. In addition WUAs are forming their federations to jointly operate and maintain off-farm canals located in the area of their responsibility. There are already five federations. One of these, Ak-Suu WU-As Federation, located in Kara-Suu Rayon is successfully working having transferred off-farm irrigation system into own ownership. The established Union of Kyrgyzstan WUAs is in the process of legal registration.

2.5 Training, Research and Development (R&D)

Education. The training of personnel for the agricultural sector plays an important and strategic role in Kyrgyzstan. The Kyrgyz Agrarian University is responsible for agricultural higher education. It contains seven Institutes and twenty-seven specializations. The physical infrastructure and teaching staff of the University was formed on the basis of Soviet standards and criteria.

The University provides not only traditional higher education, awarding specialist qualifications, but it also trains bachelors degree students. An International Master's course has been commenced. The International Master course trains graduates for the international exchange program and practice in Germany. This centre also arranges workshops and conferences and cooperates with foreign partner universities in the field of education and science. The University has introduced a system of management and quality control of the education process that meet the requirements of international standards. There are 3 secondary specialized schools of the University. They are: Hydroengineering School, Bishkek Agricultural College and Tokmok Technical College of Mechanization and Electrification of Farms. There is an urgent need for the renewal of equipment and apparatus of the laboratories.

Vocational schools mainly attract students who did not pass entrance tests to institutes or universities. The vocational courses are largely unattractive to youth due to their outdated curricula, few job perspectives and very poor equipment and material for practical lessons, as well as deteriorated infrastructure. There is no strategy to approach the problems of financing and to resolve the lack of relevance of the content of training to meet the requirements of a market economy. The system and the vocational schools as providers of education are financially struggling to fulfill their functions to provide the agricultural sector with the required professional labor force. The mentioned problems lead to

the decreasing reputation of the vocational education schools and to decreasing student numbers.

Research and Development (R&D). The main scientific development potential of the agrarian sector is concentrated in the scientific research institutes (SRI), such as: the Crop Institute, Institute on Livestock, Veterinary and Pastures, and Irrigation Research Institution. The Center on Agrarian Sciences and Advisory Services under the Ministry of Agriculture has been recently reorganized. It is now a Directorate of Science and Innovation Technologies as a functional part of the Ministry.

As a result of the long-term research conducted by SRI, productive varieties of wheat, barley, cotton, sugar beet, soya, hybrid of maize and other crops; breeds of cattle, sheep, goats and poultry; effective veterinary medications, new technologies in crop production, irrigation have been developed and introduced into production.

All the SRI are supported from the national budget and the reduction of State investment into science, including agrarian sciences, has resulted in a significant reduction in the volume of scientific-technical development. Low salaries of scientists and research grants for post-graduate studies have resulted in the loss of prestige and the influx to science of gifted youth. The age structure of scientists has reached a critical level and currently the average age of doctors of sciences is 66, and 55 for candidates of sciences.

There are no linkages between science and production in the agrarian sector, and the real interests of rural commodity producers are not fully considered. The physical infrastructure of the scientific laboratories has become obsolete. The same situation is also characteristic of the experimental base.

Currently, the following organizations provide extension services in the Republic: Rural Advisory Services (RAS), TES-Centre, Agroschool "Arsten", programs like "Farmer-to-farmer", NGO (for example "Shoola" and "Alga"), associations. The RAS is the biggest and most widespread advisory service in the Republic. From the RAS, farmers and peasants learn farm efficiently to process agricultural products, draw up various documents, and set up and develop marketing groups and cooperatives. The main directions of the extension services include: crop production, animal husbandry, marketing, processing, economy, legal issues, representation in courts, farm management, mechanization, and also consultations in profitable activities of rural citizens. Nevertheless, rural commodity producers lack of knowledge in the application of new agrotechnologies and economic and marketing issues. The number of trained staff in rural extension services is insufficient because of the lack of consultant training and retraining in all categories and at all levels.

The Country Development Strategy (CDS) sent a clear message regarding cooperative development. The CDS states that the Government will support cooperation and cooperative development. The cooperatives could provide a range of services that will help farmers to generate more income. Unfortunately, the level of knowledge about the principles and functions of the modern cooperatives are still limited and, most of rural people have no agricultural and managerial education. As a result, farmers tend to distrust cooperatives. A GTZ program of four years duration did much valuable work in cooperative development to assist Kyrgyz authorities and farmers in understanding cooperative development in a market system. There is still the need for additional support, mostly in training and expanding new knowledge among the farmers on cooperatives.

Training, Research and Development (R&D) Relevant Legislation. A Government Resolution *on State Program on Scientific Provision of Agro-Industrial System up to 2010* was issued on July 28, 2004. The objective of the document is the establishment of the economic and legal conditions to ensure rapid development of new competitive products based on modern ecologically and resource saving technologies, as the basis for the de-

velopment of the agrarian sector. It provides descriptions of the main activities for the better functioning of scientific research institutes. Much attention has been paid to scientific-innovative activities, as well as the information technologies and international cooperation required. This is to enable completion of scientific research work within the framework of priority directions, and the integration of the results into agricultural production. The program presents a policy in which State support plays an important role.

The legal basis on livestock breeding is presented in the *Laws on Livestock Breeding and On Legal Protection of Selection Achievements*. The *Law on Livestock Breeding* contains the only article of general character devoted to selection in livestock. The current Law does not contain regulations on genetic resources conservation, or specific mechanisms for livestock breeding development and others. The *Law On Legal Protection of Selection Achievements* dated of June 13, 1998 combines animal and plant varieties in the same text, an unusual approach that is not recommended.

2.6 Trade and Tax Policies²⁷

Introduction. The Republic records limited levels of traded agricultural production. Data for 2004, shows that, of the total agricultural production, only 59 per cent was marketed. The residual 41 per cent was produced for own-account. Therefore, there remains considerable progress still to be made in the development of the market-oriented agriculture sector and in the receipt of benefits that it will confer in terms of productivity, income generation and employment creation.

In terms of tax policy, the agricultural production sector receives favorable treatment. Farmers and their associations in which land is the main source of income are exempt from personal income tax (PIT) and from corporate income tax (CIT). Value added tax (VAT) is not levied on own products, products by agricultural producers that are derived from land, and processed own agricultural products. However, agro-processing enterprises are subject to VAT, to CIT and to other national and local taxes.

Legislation Governing Trade. The major legislation governing trade procedures are:

- The Customs Code for the external trade, which provides requirements for customs declaration documents, certificate of origin document and customs value certification. It outlines basic requirements and procedures for customs clearance.
- The Customs Tariffs Law by the Parliament of the Kyrgyz Republic specifies customs tariffs. The law is developed annually and the tariffs are being progressively approximated to the WTO requirements.
- Licensing Law (3 March 1997, <12) identifies licensing requirements for some export/import goods²⁸.

²⁷ There are number of agencies involved in the trade and tax issues. These are: (i) The Tax Inspectorate. The inspectorate collects tax from farmers and agro-processing enterprises via local tax authorities; (ii) Chamber of Commerce. The Chamber of Commerce provides certificates of origin for the export products from Kyrgyzstan; (iii) National Institute of Standardization and Metrology (NISM). The NISM issues the certificate of conformity for exported goods and certifies the adequacy of the imported product in approximating declared standards; (iv) Sanitary and Epidemiological Service. Foreign traders require Sanitary and Epidemiological Certificates for either exported or imported of products; (v) State Department of Veterinary Service and State Inspection of Plants Quarantine. Depending on the type of the product, the above-cited agencies issue veterinary or phytosanitary certificates; (vi) Environmental Protection Department. The department provides certification that imported products do not contain elements that harm the ozone and ecology; and (vii) Customs Inspectorate. The inspectorate provides clearance for imported/exported products and checks the conformity of the traded goods with the declared ones.

²⁸ These categories of goods include goods that can negatively affect the health of citizens, that may have negative effect on the environment, national security, arts, historical values, archeological findings, goods that maintain a part of national wealth and exhaustible natural resources.

- Decree of the Parliament of the Kyrgyz Republic <1100-1 (8 June 1998) that defines the order of and procedures for licenses issuance of carry on import-export operations and defines a list of licensed goods;
- Decree of the Government of the Kyrgyz Republic <709 (29 October 1998), that provides a list of Government Agencies responsible for licensing of export and import of licensed goods;
- Decree of the Government <334 (21 June 1999) that specifies the payment for licenses to conduct export and import of licensed goods;
- International Agreements related to the implementation of WTO requirements, including fulfillment of agreements on administrative barriers, technical regulations, sanitary and phyto-sanitary requirements, level playing field for imported and domestic goods, trade with intellectual property rights etc;
- Government Resolution No. 474 dated of October 10, 2005 *On Creation of Wholesale Service-Trade Market Complexes*. The Resolution stipulates that heads of State administrations of oblasts and rayons jointly with MAWRPI and with local state administrations of neighboring regions of Kazakhstan, Uzbekistan, Tajikistan are to develop and implement practical measures on creation of wholesale service - trade complexes in oblasts of KR on near boundary areas.

Agricultural Exports. Agricultural exports account for between 15 to 18 per cent of total exports. The current structure of agricultural exports consist of approximately 2 per cent livestock products, an average of 8 per cent of total crop products and an average of 7 per cent of total agricultural processing industry products. The structure of agricultural exports is provided in the Table 7, below²⁹.

Table 7: Agricultural Exports 2003-2005

	2003	2004	2005
Export Total, (mln. USD*)	582	719	882
Export Rate of Growth (%)	20	24	23
Agricultural Exports, (mln. USD)	106	132	130
Rate of growth (%)		25	-2
Share of agricultural exports (%)	18	18	15

Source: MAWRPI, *NatsStatCom

Several border markets for agricultural products have developed spontaneously. However, they are, in most cases, in poor sanitary condition. In the south of the Republic for example, there is a market located at the border with Uzbekistan that is situated on land with no buildings, no water supply or other necessary infrastructure.

²⁹ The net Export items include Vegetables and Fruits, Dairy Products, Sugar, Tobacco, and Cattle and Sheep Skins. According to the 2002 export data, the destination of the export items is as follows: 50 per cent of Dairy Products are exported to Kazakstan, 10 per cent of Vegetables and Fruits are exported to Russia, 25 per cent of Vegetables and Fruits are exported to Turkey, Tobacco is mainly exported to Russia, while the majority of Cattle and Sheep Skins are exported to China.

Table 8: Composition of Agricultural Exports 2003-2004

Export items as a % of total agricultural Exports	2003	2004
Wheat	0.5	0.2
Flour	0.6	0.1
Dairy Products	8.8	8.0
Vegetables and fruits	13.7	16.4
Sugar	6.3	16.5
Wool	1.8	1.9
Cotton	40.6	32.1
Tobacco	12.0	8.7
Cattle and sheep skins	7.5	4.5
Mineral and other non-alcoholic drinks	0.6	3.2

Source: NatsStatCom

The Government is instituting measures for the establishment of more organized wholesale markets at the border with Kazakhstan. According to officials of the Ministry of Agriculture, two wholesale markets on the borders will be established. The financing for the establishment of the markets has been allocated. One of the markets is to be established in the Talas Oblast (Aisha-Bebe) and the other in the Chui Oblast (Yssyk-Ata Rayon).

Competition and Export promotion. Kyrgyzstan is facing increasing competitive challenges in the markets for its agricultural outputs. In Kyrgyzstan's traditional CIS export markets, and particularly in the case of Russia, trade links in agricultural products are being built with China, Europe, and other countries. Consumer quality requirements in these traditional markets have risen significantly since the 1980's. Obstacles to increased penetration of these markets by Kyrgyz suppliers include the inability of Kyrgyz suppliers to meet the market requirements for lot size, quality consistency and periodicity of delivery. In the area of export promotion there are a number of donor-funded projects currently in operation addressing the issue of administrative procedural barriers, export strategy for food processing sector and organic cotton production and promotion.

Internal Trade. The major part of the Republic's agricultural production is marketed in domestic markets. The average prices in the domestic markets are generally lower than those obtaining in the major external markets, such as the Kazakh or Russian markets. Domestic urban areas generally provide higher prices and better marketing conditions, especially ones near Bishkek city. The newly established supermarkets in Bishkek currently provide sustainable markets for selected farm products. Most of the farmers that are not in the Bishkek-area, market their products locally, either at the local bazaars or to local processing enterprises.

The conflicting pricing interests of farmers and some processing enterprises result in a vicious circle of reduced profitability for the processing enterprises and in lower incomes for the farmers. The farmers seek higher prices for their products, while the processing entities seek lower prices. As a result of low prices, most farmers decide not to grow the product in the subsequent year with the result that the limited supply of the input material for the processing enterprises increases their input prices. Processing entities are therefore, in a trap of basic-cost-recovery production, while farmers are in a trap of unsustainable income sources. "Quick-money" intermediaries tend to aggravate the situation. Intermediaries buy the product on the field almost at cost, transport it to the processing enterprises and sell it at twice to three times of the purchase price. Lack of marketing initia-

tives and cooperation between farmers makes them more vulnerable to exploitation by intermediaries.

Taxation. Currently, the agricultural production sector receives favorable tax treatment. The farmers, and their associations in which land is the main source of income, are exempt from paying PIT and CIT. Land is the main source of income if the income from land is over and above 75 per cent of total income. Excise tax is paid according to the legislation relating to the specified product. Supplies of own products, supplies of products related to land produced by the agricultural producers, and processed own agricultural products are exempted from VAT. However, agro-processing enterprises are subject to VAT, income tax and other national and local taxes. The following three legislative instruments are the principal legal measures governing taxation in the agricultural sector. These are: (i) Tax Code specifies the rates of taxes on corporate and personal incomes, excise, VAT and other taxes; (ii) Law on land Tax Rates, Parliament approves annually, and (iii) Instructions on calculation of taxes of the Ministry of Economy and Finance.

Customs and Smuggling. Under current legislation, customs duties are charged at 0.15 per cent of the customs value. Customs value is the purchase price plus transportation cost of the imported/exported goods. According to the legislation, VAT is paid on principles of destination country, thus all import of goods must pay VAT at the border to customs. However, technological equipment is taxed at zero VAT rate. While the agricultural exports get relatively easy clearance at the origin border, they receive more complicated treatment at the neighboring borders where VAT is liable to be paid. A significant part of the agricultural imports to Kyrgyzstan is contraband, as well as significant part of Kyrgyz exports to Kazakhstan. The importers, for example, pay to clear at the Kyrgyz customs informally 2-2.2 Som per kilogram of the imported good independent of the customs value of the imported goods.

In this way the importers of the agricultural products obtain several benefits namely, (i) time efficiency -clearance within an hour, (ii) cost efficiency via VAT tax evasion. The case is the same at the Kazakh border, with Kyrgyz exports to Kazakhstan. In many cases, the individual interests of customs officials of both countries outweigh the benefits to the budget of the Republic from VAT collection. According to the IFDC Report, only 5 per cent of agro-input supplies are imported legally.³⁰

Border markets. Several border markets, that have developed spontaneously, have no communications and other infrastructure. These bazaars have no water, no sanitation, and no electricity.

2.7 Rural Finance

Introduction. At the time of independence the Kyrgyz financial infrastructure was not adequate to meet the needs of a market-oriented economy. The new commercial banking sector had no representation in the rural areas or incentive to finance the agriculture sector. The biggest agricultural bank with a regional network, closed down in 1994 due to the poor quality of its assets. The Government, in accordance with its market and land reforms, had to create financial institutions for the agricultural sector.

In the last decade, the Kyrgyz authorities have succeeded in developing new credit financial institutions to serve the credit needs of small private farms. The attitude of the commercial banks is explainable in terms of the unjustified high risk, the small size and unwarranted credit requirement and the lack of collateral. As a result, the Government was

30 Carlos Baanante, The Comparative Advantage of Agricultural Production in Southern Kyrgyzstan, Dilshod Abdulhamidov

forced to apply to international donor organizations (ADB and WB) to launch new institutions such as the Kyrgyz Agricultural Financial Corporation (KAFC) and the Financial Company to Support the Development of Credit Unions (FCSDCU). If the Government had not taken this step, the whole process of land privatization would have collapsed. The Government also supported the operations of FINCA, MercyCorp and other similar international NGOs.

The National Bank of Kyrgyz Republic (NBKR) and the Ministry of Economy and Finance are the main institutions responsible for developing the agricultural credit system. Rural finance services are provided by three types of organizations:

- **Formal institutions:** The formal institutions are officially registered and are regulated and supervised by the Central Bank. They include commercial banks, the KAFC, and the FCDSCU;
- **Semiformal institutions:** These are those institutions with official registration, but are not regulated and supervised. Most of them present only minimum statistical data to the relevant Government agencies. They include the FINCA, Bai-tushum, Companion, registered as Microcredit Company (MCC), the Fund for Development under the responsibility of the Ministry of Economy and Finance, more than 300 Credit Unions, and more than 150 MFIs, and
- **Informal institutions:** These institutions in many cases have no legal registration and do not present statistical data. They are NGO's, Commercial or Professional Associations, Self-Help Groups, local lenders etc.

Institutional Development. During the last four years, there has been active growth of microcredit agencies and microcredit companies. They serve the niche in which the commercial banks do not participate. The Law on Microfinance adopted in 2002, facilitates the start up of these companies. Currently, in terms of size of credit portfolio and number of clients, the microfinance institutions can compete with such big organization as the KAFC.

In addition to these institutions, it is necessary to have the financial level infrastructure, called mezo-level for providing a range of quality financial services. Audit companies, rating companies, credit bureaus and others are considered mezo-level institutions. The profile of Kyrgyz institutions is provided in Table 9.

Table 9: Number of Kyrgyz Financial Institutions (2003 to mid 2006).

Types of institution	2003	2004	2005	mid 2006
Commercial banks	21	20	19	20
KAFC, FCDSCU	2	2	2	2
MCC & MCA*	72	104	136	149
Credit Unions	303	305	320	314

*MCC stands for Microcredit Companies, MCA stands for Microcredit Agencies.

Source: National bank bulletin³¹

31 The microfinance institutions are subdivided into Microcredit Agencies (MCA) and Microcredit Companies (MCC). There are over 150 MFIs with total loan portfolio of USD 25 million of which 4 MFIs (FINCA, Companion, Bai-Tushum, Frontiers) hold 90 per cent of the total portfolio of the microfinance organizations. Of these four MFIs, the "Frontiers" is the only wholesale microfinance institution for the Central Asia region. The Frontiers has 5,567 subborrowers and current credit portfolio of approximately USD 1.3 million. The Frontiers has a concise business plan for growth over the next few years. To implement its plans, Frontiers is looking for both types of funding: external debt funding and equity financing. For the mid year of 2006 the MFIs had total credit portfolios of KGS 1.5 billion (about USD 37.5 million) and 56,517 active clients.

Table 9 shows that the MCAs and the MCC are growing faster than the other financial institutions. The commercial banks will stay out of agricultural lending, and KAFC and FCDCU are under preparation for privatization. The SSC is starting to develop rural credit capacity. The Government has provided assistance to the SSC to obtain from the Chinese Government a USD 10-15 million as a credit line for providing agriculture credits.

Cumulative credit disbursements exceeded KGS 6.6 billion (about USD 167 million) constituting credits to 279,578 people. Some MFIs have formed an Association of Microfinance Organizations (AMFO). From information provided by AMFO, 70 per cent of MCA and 50 per cent of MCC are located in rural areas and they could be a good channel for delivering agricultural credit. About 60 per cent of MFIs are viable and have the chance of being sustainable.

The role of credit unions is also important in agricultural finance. Credit unions are suitable for small clients because they are located directly in the village, and the lending procedures are rapid. Credit unions are in the process of growing and the best ones are united in regional associations to lobby the interests of the credit unions. A detailed strategy of development for the next 5 years has been designed and adopted by the credit unions.

Table 10 shows the growth of agricultural lending from commercial banks and the volume of rural credit from alternative sources.

Table 10: Agricultural Sector Loans (2003-2005)

Agricultural lending	2003	2004		2005	
	Amount (mln. Som)	Amount (mln. Som)	Growth, (per cent)	Amount (mln. Som)	Growth, (per cent)
Commercial banks	81	107	132	155	144.8
Other alternative sources *	2 154	3 001	139	4 225	140.7
Total:	2 235	3 108	139	4 380	140.9

* Other alternative sources: are non-bank institutions-KAFC, FCSDCU, microcredit institutions and credit unions;

Source data - bulletin of NBKR

With the assistance of international development institutions and bilateral projects and programs, the Government created the alternative rural credit system providing micro-credit loans. Rural finance constitutes an effective instrument for poverty alleviation and for increasing the incomes and efficiency of small farms. As a result of the lack of commercial banking in the rural areas, a new rapidly emerging micro-finance sector has developed to service the rural areas. The International Financial Institutions consider the Kyrgyz microfinance system as the most advanced and dynamic in Central Asia. The Kyrgyz micro-finance market records an annual growth of between 30-40 per cent. However, a comprehensive and integrated financial system in rural areas has yet to be developed.

Limited Participation of the Commercial Banks. Table 5 demonstrates the limited importance of commercial banks in agricultural finance. Most banks do not serve the rural poor and low-income households because of the perceived high risk, and high unit costs involved in small transactions, the low relative profitability and the inability of the poor to provide collateral. Also, the commercial banks have inadequate skills to appraise medium-term and long-term agricultural loans, or assess agricultural lending risks. They maintain a very limited branch network in rural areas. In 2004, the NBKR and the Gov-

ernment approved a concept paper for development of the banking sector. The strategy for the banking sector is drafted, but not finalized. The banking concept paper and strategy does not contain measures for supporting and further increasing agricultural lending. It is not feasible to expect expansion of banking credit to small farmers in the near future.³²

Lending by Non-Bank Institutions. Lending by non-bank financial institutions to the agro-processing sector is substantial, and has an approximate annual growth of 40 per cent. More than 60 per cent of the funds are loaned directly to agriculture and agro-processing. The other 40 per cent of the funds are also closely related to agriculture involving credit for trading in agriculture products and provision of agricultural services. The aggregate credit portfolio of non-bank finance is provided by: KAFC (45 per cent), microcredit organizations (39 per cent), credit unions (16 per cent).

Credit unions. Currently, the total loan portfolio of the credit unions is KGS 573 million (about USD 14.3 million). The number of member borrowers is about 23,000. Agricultural loans are over 70 per cent of total clients and account over 50 per cent of the total credit portfolio. The average loan for the credit union borrower is KGS 24,913 or USD 623. Experts estimate that about 30 per cent of credit unions are viable. On a "pilot" basis the NBKR issued temporary deposit licenses for the 10 best credit unions. Their experience indicated good perspectives for the deposit attraction by credit unions. However, in April 2006 a new Decree on licensing and Rules of Credit Unions Supervision were adopted. According to these new legal documents, Credit Unions can attract deposits after obtaining a relevant license. Also the license requirements have been simplified.

The Regional Structure of Agricultural Credit. A regional breakdown of total agricultural loans is not available from official statistics. However, from different data sources, it is estimated that the major part of agricultural credit is provided in the Chui, Osh, Jalal-Abad and Issyk-Kul oblasts. The information paper of the Central Bank identifies the regional breakdown of the credit portfolio from non-bank sources for the first 9 months of 2005 as follows: Osh 25.7 per cent, Jalal-Abad 17.3 per cent, Chui 13.8 per cent, Issyk-Kul 11.6 per cent, Talas 8.5 per cent, Naryn 6.0 per cent and Batken 5.6 per cent.

Inadequate Supply of the Credit. Even though total lending is increasing rapidly, it still does not meet total demand. Estimates of the demand for agricultural credit have been made by different experts of the Government and international institutions. They indicate that the potential demand for agricultural credit is between 15 and 20 bln. Som. The current level of lending covers not more than 10 per cent to 15 per cent of that potential demand. Currently, about 100,000 households of a total of 1.1 million, have obtained credit.

Collateral Registration. In the last three years, amendments adopted by Parliament have improved the laws on collateral. Collateral registration procedures are now more-or-less acceptable for citizens. The rural population, however, still has a difficulty with collateral registration. The main difficulty is that no State Register or Collateral Register offices exists at the village level. The collateral registration process is complicated and expensive for rural people. Also, it is not possible to complete the registration of movable and immovable property even at the rayon level. These rules exclude farmers from quick and simple access to medium and long-term credits.

The Deposit system has only recently become a priority of Government policy. Now the commercial banks and Settlement Savings Company (SSC) branches are providing deposit services in rural areas. However, they are not located at the village level, and they

32 The NBKR and Government approved a medium-term strategy for the microfinance sector in 2005. The microfinance strategy has the objective of doubling the lending in rural areas, and providing more than 200,000 households with a credit portfolio of KGS 6-7 billion by 2010. The strategy adopts three criteria for implementation: targeting, institutional development, and sustainability of services.

therefore, have limited market penetration. The non-banking financial institutions are not licensed for deposit services. For microfinance institutions, deposit taking could be a key to financial sustainability. The Central Bank drafted the Law on "Deposit Insurance". This draft makes provision for the deposits, collected by banks, but there is no provision for deposits by microfinance institutions. Taking into account that savings will become an increasingly important source of investment, the authorities must identify the deposit system as a development priority. In the newly drafted Country Development Strategy, (CDS), the Government position is that it is necessary to maintain the reforms, which help to make internal savings become a main source for credit expansion. In pursuit of this objective, the Government proposes to adopt the Law "Deposit Insurance" and, starting from 2008, to introduce the deposit insurance system.

Insurance Services. There are 11 companies with a turnover of funds of about 0.13 per cent of GDP that constitute the Kyrgyz insurance system. The insurance business is conducted mostly in Bishkek and is not developed in rural areas at all. The circumstances, unwillingness of insurance companies and the mentality of population do not support the introduction of suitable insurance schemes. According to the CDS, the Government is also planning to activate the insurance system by several preparatory steps: elaboration of concept paper, acceptance of appropriate laws and regulations, launching the institutions in 2011-2012.

Payment Transfers. Payment transfers have increased significantly as a result of the high level of migration among the rural population. There are no official data on the volume of payment transfers. Recent estimates of Ministry of Economy and Finance vary from USD 520 mln. up to USD 750 mln. per annum, with the average size of transfers being between USD 1,400 and USD 1,500.

Leasing. Despite Government efforts and significant assistance from the IFC and other donors, there has been no appreciable success in the development of the leasing system. The main constraint is double taxation and double State duties. Three or four commercial banks and two or three leasing companies operate leasing. There are no precise data and official statistics on leasing operations. It is estimated that more than 80 per cent of agricultural machinery has deteriorated. About 350 private technical service stations have poor technical capacity. The preliminary estimate of an IFC program in 2003, showed that 70 per cent of all leasing operations is the leasing of agricultural equipment (36 per cent for agro-processing, 34 per cent for agricultural machinery). Leasing is similar to credit operations and could be implemented either by banks or non-bank financial institutions, or by specialized leasing companies. The IFC is ready to provide USD 30 mln. to develop leasing in Central Asia. Currently, the IFC and the Ministry of Economy and Finance are negotiating issues of taxation and the Ministry has assured its readiness to reconsider leasing taxation.

2.8 Rural Development

Introduction. Active programs in rural development are important for both social stability and national economic growth. There are significant disparities between urban and rural populations in terms of incomes, quality of health care and education, and in the adequate provision of road and communication infrastructure. These issues have been reflected in the National Strategy of Comprehensive Rural Development up to 2010. The National Strategy outlines the majority of the problems and issues of rural development including the social, infrastructure, economic and institutional constraints.

The Institutional structure involved in rural development includes the following agencies: at the national level there is the Local Self Governance Agency that is mainly responsible for rural development issues and problems, at the regional level there are oblast, rayon

administrations and local self-governments. There is also the Agency for the Development of and Investment in Communities (ARIS) that is focused on development investment that contributes to the alleviation of rural poverty. ARIS is currently implementing a number of the Development Partner Projects including those relevant to the Village Investment Project. The ARIS provides assistance to *Ayil Okmotus* in infrastructure development, business development, alternative infrastructure use and training. In addition, each of the sector Ministries implements National Policy at the sub-national level. However, due to the lack of funds, neither the social or infrastructure ministries have the capacity to substantially contribute to the development of infrastructure and social services in the rural areas.

Donor Interventions. The Development Partners are providing a significant level of assistance in infrastructure and rural development. It includes: Village Investment Project (World Bank and KfW), Small Town Infrastructure (WB and SECO) and Capacity Building, Rural Water Supply and Sanitation (WB), Community Based Infrastructure (ADB), Rural Livelihood Development (ADB via JF for PR), Sustainable Livelihoods for Livestock Producing Communities (DFID), and others.

Regional disparities. At the regional level, neither the technical capacity of the staff nor the financial resources of the sub-national governments enable them to undertake evaluation, design and implementation of rural development programs effectively.

The lack of attention to rural development has resulted in increasing discrepancies in the level of infrastructure development and in greater rural poverty. This is illustrated by the indicators for 2004 in the table 11.

Table 11: Infrastructure and Utilities of some of the Oblasts*

	Issykkul	Jalalabad	Osh	Batken	Chui	Naryn	Talas	Republican****
Drinking Water supply, (% of coverage)	86.0	46.0	n/a	66.5	n/a	n/a	n/a	70.3.0
Electricity, % of demand met	95.0	95.0	n/a	90.0	36.0	n/a	n/a	n/a
Telephone, telephone number per 1000 inhabitants**	76	30	16	26	75	31	29	86
Total Roads	29,777	16,122	6,118	3,000	3,071			
Local Roads, km	1,160			730				8,985
Status of the roads	84.5 per cent of the local roads are in bad to very bad condition (IRI above 6)***							

*these estimates are provided by local area specialists in the specified field for the year 2005.

**Source: NSC. As a benchmark the level of telephonization in Bishkek is 179, while in Osh city 132

***Source: Ministry of Transport and Communication

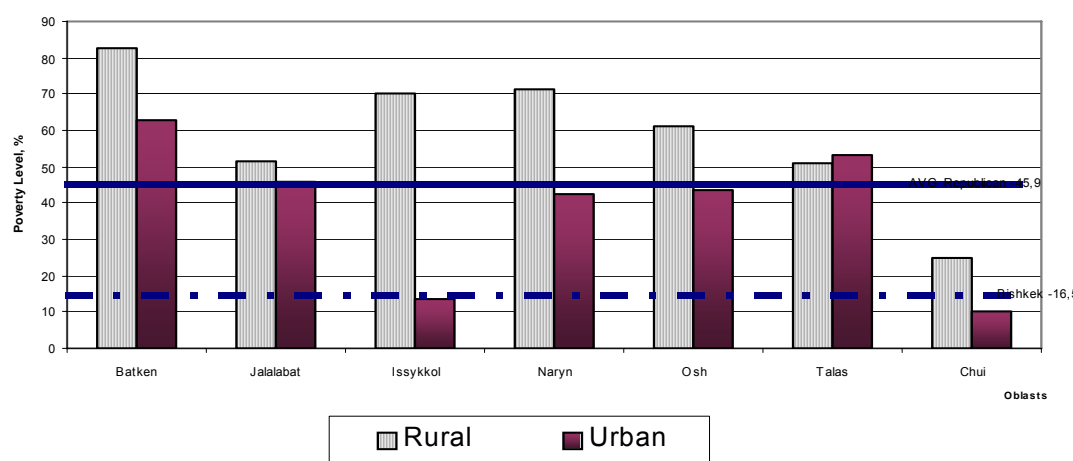
****Source: National Strategy of Comprehensive Rural Development up to 2010

The Ministry of Transportation and Communication is responsible for the maintenance of international roads and some inter-Oblast roads. Most of the rural roads have not been repaired for 10-15 years. At least 40-50 per cent of the local roads require investment for their renovation. According to the plans of the Ministry of, Transport and Communications, about 50 per cent of the international and State roads will be repaired and upgraded by 2010. The major issue that remains is, therefore, the upgrading of the local roads.

Drinking water supply remains a significant problem for many rural settlements. In most of the rural areas, the only source of drinking water for the population is from non-sanitized ditches. Hence, there is significant potential for the incidence of infectious diseases to increase.

Social Infrastructure. The Republic's Social Infrastructure, particularly in the rural areas, is in a poor condition. Approximately 80 per cent of all rural schools and hospitals require renovation. There is also a problem of human resources (doctors, medical staff, teachers etc) prevalent in the rural social sector. Social sector institutions lack adequate teaching staff and doctors necessary to maintain minimum efficiency of operations. According to the National Strategy of Comprehensive Rural Development the number of doctors has been reduced by 19 per cent in 2003 compared with 1991 and rural school attendance was reduced by 14 per cent in 2003.

Graph 2: Rural and Urban Poverty Levels by Oblasts (year 2004)



Source: National Statistic Committee

The social sector plays an important role in the generation of rural household income. Social services and public administration are the major sources of wage incomes in the rural areas and constitute 16 per cent of all rural income. They provide for about 38 per cent of all nonagricultural employment, and 53 per cent of all wage income. However, approximately 84 per cent of the rural population is engaged in farming activities and receive the income from agriculture. The rural and urban poverty levels are given by Oblasts in Graph for year 2004.

Political instability, administrative barriers and the high costs of conducting business has resulted in a stagnant business environment and the lack of liquidity in rural areas. This has, in turn, limited job opportunities largely to household and family agricultural production or in the few commercial agricultural production entities. The lack of sustainable incomes in terms of stable long-term employment and wages has resulted in higher levels of poverty. High poverty levels in the rural areas is resulting in increased migration from the regions to the cities (Bishkek and abroad) in search for employment opportunities and income generating activities.

Table 12: Unemployment in and Migration from the Regions by Oblasts (2005 - 2003)

	Issykkul	Jalalabad	Osh*	Batken	Chui**	Naryn	Talas
Unemployment (thousand persons, as of 2005) ***	14	31,5	18,4	21,6	33,7	12,7	5,7
Unemployment level (as of 2005)	8.4	8.7	4.5	13	10.6	11.8	6.5
Migration Balance (thousand persons, as of 2003) ****	-1.1	-1.4	-1.1	-0.8	2.6	-1.0	-0.7

*excluding Osh city

**excluding Bishkek City

Source: ***Ministry of Labor and Social Protection, ****Kyrgyzstan in Figures 2005

The agricultural sector, by engaging 84 per cent of the total rural population in farming activities have assisted in the reduction of poverty. According to the CDS, a one per cent increase in agricultural value-added reduces rural poverty by 1.06 percentage points. In 2004, 55.5 per cent of the rural population was recorded as living at the poverty level (NSC data).

Legal Framework. There is a considerable range of primary and secondary legislation impacting rural development. The legislation directly designed for rural development includes:

- **National Comprehensive Rural Development Strategy (CRD) up to 2010.** The National Strategy outlines comprehensive requirements for rural development, including social infrastructure, development of sectors important for rural areas, development of roads and other.
- **Decree on Implementation of Measures for Decentralization of Public Administration and local Self-governance Development up to 2010.** This Decree was issued before the preparation of State budget for 2006. The revenue and expenditure sharing for budget year 2006 was based on the previous years model, while the decentralization concept implied the delegation of fiscal authorities to local administrations. The Ministry of Economy and Finance is initiating greater delegation of tax authority to local governments. However, all the local taxes are defined and approved by the national Parliament.
- **Government Resolution “On Program for Development of Industry, Trade and Production activities and consumer services in rural areas up to 2010”.** The policy established in the program will assist in the development of business activity of population in rural areas. This decree was developed to implement a Presidential speech, but the sources of financing were not defined.
- **Government Resolution “Improvement of Structure and Activity of Local Self-Government in 2005 –2010”.** The main objective of the resolution is the improvement of local self-government system, their structures and activity, and the increase in their institutional capacity. During the last three years, the Government has had under consideration the restructuring of local administrations. In particular, there was a Government commission established to investigate the possibility of unification of some *oblasts* and *rayons*.

3. Regional Dimension of the Strategy

Introduction. The regions are heavily dependent on agriculture and in the majority of the Oblasts this dependency is in the form of subsistence agricultural production.

Agro-processing is relatively developed in the Chui and Issyk-Kul Oblasts. However, even in these Oblasts, agro-processing production makes only a small contribution to the regional GDP. Almost all the Oblast Agrarian Departments stressed the need for agricultural processing enterprises development as a mechanism for regional development.

According to the reports of the regional agricultural administrations, a major problem that restricts development of agricultural processing is the lack of financial sector development in the regions. The financial institutions have limited incentives to conduct operations in the rural areas. The use of physical capital as collateral, and the provision of insurance are not yet operational in rural areas. With greater development of the financial sector, farmers and processing enterprises will have access to better quality input supplies (seeds, pedigree breeds, fertilizers, raw materials for processing), to capital investment (machinery, equipment, etc) and other operational needs.

Agriculture Regional Administration. The limited attention that has been devoted to the regional dimension of economic development of the Republic, has resulted in increasing regional disparities in socio-economic development. It also accounts for the prevalence of subsistence agriculture and the high incidence of poverty at the regional level. The limited financial and institutional capacity of the Oblasts administrations has resulted in the local governments being unable to address the urgent local development requirements of the regional economy. Taking into account that agricultural sector is mainly represented in regions and employs major part of regional labor force, the role of the regional economy and local governments in development of the agricultural sector is crucial. Unfortunately, the local governments have both limited budgetary and institutional capacity to implement sector development initiatives.

- **Centralized decision-making.** Currently, while the reforms are mainly being proposed in the central Government, the implementation of many elements of the reforms is required from the regional governments. Although the regional governments support most of the reforms, they do not always see the end result or the macroeconomic rationale for the measures they are required to implement. The lack of required administrative instruments restricts the capacity of the regional administrations to design, implement and monitor the regional or the centrally prescribed policy measures. As a result, the often-valuable knowledge of the regional agencies is used mainly for statistical data collection and current situation analysis with little or no socioeconomic decision-making.
- **Fiscal Restrictions.** The principal constraint facing the regional agencies is the lack of necessary budgetary funding. According to the data provided by the Oblast Agrarian Departments, the agricultural sector financing from the local budgets varies from 0.1 per cent to 0.3 per cent of the total Oblast's budget. There have also been discussions on the reduction of the budget support for the agricultural sector. In terms of capital investment, the PIP financing is being directly implemented by the Ministry of Agriculture. The sector generates almost half of the local budget revenues from land tax, while the sector financing is at about 0.2 per cent of the local budget. In addition, the sector employs, in most of the oblasts, 60 per cent of the labor force and contributes between 40 to 60 per cent of the Regional GDP. As the sector is large and important in the Oblasts, the budgetary funding of the sector, including its administration, need to be increased in such a way to enable the regional agencies to address the agricultural sector priority issues and problems in their local areas.
- **Institutional Instability.** For the last several years the Minister of Agriculture has been frequently changed. There have also been frequent changes in the structure of the regional sector administration: establishing, abolishing and re-establishing again. In such an environment, there is limited institutional memory, and limited understanding of the sector reforms and policies. The instability results in the lack of sustainabil-

ity of reforms and weak implementation of policy measures. It therefore, constitutes an overall constraint on the development of the agricultural sector. There is a need to strengthen regional agricultural sector administration as the sector is mainly represented in regions.

- **Regional Sector Administration Technical Capacity.** The limited involvement of the regional administrations in policy formulation is restricted by lack of understanding of the Government role in the provision of agricultural public services. Dominant among local civil servants, is the conception that the State must provide all agricultural sector requirements. There is therefore an urgent need for clear demarcation of the functions of the public sector with a special emphasis on roles and functions of the local government sector agencies. There must also be training provided on the functions of Government in a market-oriented economy. The Ministry of Finance has already started to work in this direction.

4. The Legal Environment

Introduction. The relevant problems of inadequate legal provisions constraining the development of the agriculture sector are reviewed in each of the strategy components. Legislation is a necessary and a powerful instrument for implementing policy. This overview of the agriculture legislation is designed to assist in the successful implementation of the agriculture development strategy. For the last several years the agricultural legislation has been considerably improved, but still there are shortcomings and gaps in the main legislative instruments.

Agro-Processing and Marketing. The existing taxation system constitutes a major barrier to the development of cooperatives. Farmers and entrepreneurs are generally dismantling cooperatives and enterprises and taking refuge in the informal economy. The present taxation system must be replaced by a system giving preferential treatment to marketing and processing cooperatives of farmers, and for the export of processed and unprocessed agricultural products. The Tax Code should be reviewed and amended. There is also the need to develop new legislative instruments for export development such as, for example, "On Border Trade", and "On Electronic Trade".

Trade and Taxation. Amendments to the Customs Code are required for the establishment of one-stop-shop operations for foreign trade facilitation. According to the Customs Code, only Customs points can be located at the border posts. To facilitate foreign trade, there is a need for the necessary amendments to permit the establishment of One-Stop-Shop units at the border posts.

Technical Rules need to be developed for agricultural products. The objective of the Technical Rules is to increase the transparency in supervision over agricultural producers' licensing and product quality. It is assumed that development of the Technical Rules for agricultural products will simplify licensing procedures for, and certification of, the products and activities. They will also contribute to increased product safety.

Amendments to the Tax Code and to the Law on Land Tax Rates are required to provide incentives to agricultural and non-agricultural SME development in rural areas. The incentives could be compensated by the budgetary flows that result from the greater differentiation of land tax rates, which requires changes in the Law on Land Tax Rates.

Rural Finance. With the *Law on Mortgage* coming into force there it is necessary to introduce appropriate changes and amendments to the Civil Code, Land Code, *Law on Agricultural Land Management*, and other legislative documents in order to establish reliable and clear legislation conducive to the development of mortgage lending.

There is also a need for formulation of a clear concept of State agricultural credit policy to establish the appropriate conditions for the provision of agricultural land mortgage. The current provisions in this area are inadequate. Further, there is need for the development of a Law "On Insurance".

Rural Development. A vast amount of legislation exists governing rural development. Therefore, there is a need for review of legislation and identification of duplications, overlaps and contradictions in numerous Government legal documents. Most of the legislation that needs to be implemented at the local level is not funded from the budget or the sources of funding are not identified. This leads to difficulties for local government executives.

In the case of the Republican Road Fund, the maintenance of local roads is currently insufficiently funded. There is a need to make amendments in the Republican Road Fund to allocate 15-20 per cent of the fund for Rural Roads Fund to support the maintenance of the rural road infrastructure.

Land Market Development. In spite of the recent amendments (2006) to the Law on Agricultural Land Management, it still restricts land transactions. Foreigners, legal entities and non-rural residents do not have the right to buy or to own agricultural land.

Legislation on Land Redistribution Fund (LRF) is not clear in land allocation priorities and contains contradictory regulations. Auction procedures related to land from the LRF, established by legislation, and are too complicated. Seed and breeding farm legislation is conflicting and confusing. There is a need to clarify the policy of allocating land from the LRF to seed growing and pedigree farms, and to publicize this policy. For example, Government Resolution No. 364 (2001) provides privileges to State seed farms, but the Standard Regulation on lease of the LRF land approved by the Legislative Assembly of Parliament (2002) does not provide for the privileged treatment of pedigree and seed-growing farms.

Legislation regulating pasture management, fragments the authority of management and monitoring and contains procedures that are difficult to implement. The Land Code contains only general provisions in application to pasture land. The Resolution of GoK No. 360 establishes regulations for pasture management. The resolution establishes a complex arrangement among five different Government entities responsible for elements of allocation of pastures. It mandates impractical competitive allocation procedures as well as registration requirements. A separate Law on Pastures, under the framework of the Land Code, is desirable.

Water Resources Management. There is need for the harmonization of the existing legislative instruments with the Water Code (2005). There is also a need to develop a legislative document on the division of functions and responsibilities between WUAs and Department on Water Resources, as the latter is responsible for water management on the national, oblast and rayon levels and regulates construction and exploitation of all irrigation infrastructure.

Training and Research and Development (R&D). In order to establish a favorable environment for training and research development it is proposed to divide the *Law on Legal Protection of Selection Achievements* in two parts, and even better to develop new *Law on Legal Protection of New Plant Varieties Rights* and *Law on Author Rights in Livestock breeding* recognizing the differences between plants and animals.

In accordance with legislation regulating protection of selection achievements, the duty for registration of licensed agreement (patent) is too high and is a constraint on the development of seed production (Government Resolution No. 259 "On duties for patenting of selection achievements" 14/05/1999).

Currently, only the farmer who has 20 ha of sown area may use seeds from the current yield for sowing them next year for his own needs (Government Resolution No.170 "On approval of botanic and zoological types of plants and animals" 24/03/1999. This norm infringes upon breeders' rights.

The legal base for breeding livestock is presented by the *Law on Breeding Livestock* (1992) which contains the only Article 5 of general character devoted to selection achievements in livestock. The current Law does not contain such needed regulations as regulations on genetic resources conservation, no specific mechanisms for livestock breeding development and others. There is need to review the *Law On breeding livestock*.

Public Services Provision. The recently approved Law (12/04/2005) *on Veterinary* still contains gaps requiring its further improvement. In the *Law on Foundations on Technical Regulation* there are contradictions in relation to standards, supervision and control. The Law "On Veterinary" contains norms on obligatory certification, but there are no rules on development of documents on procedures of conformance evaluation of products, and interrelation with other controlling bodies.

The lack of new approaches in State supervision and uncertain responsibility (Criminal Code, Administrative Code) between parties participating in technical regulation, results in a vacuum in legislative provisions.

With the aim of implementing the *Law on Basis of Technical Regulation* it is necessary to start the development of general and special regulations to continue the harmonization and adaptation of national standards to international requirements set out in the Codex Alimentarius.

On the basis of an FAO initiative, a draft *Law on plant quarantine* has been developed. The draft law harmonized with the requirements of the International Convention on Plant Protection and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). It is necessary to approve this draft *Law on Plant Quarantine*, by the Parliament of the Kyrgyz Republic.

The *Law on Chemicalization and Plant Protection* (1999) must be reviewed (a) in order to improve its technical provisions, (b) in view of the integration of the Department on Chemicalization and the State Service on Plant Quarantine, and (c) the structural reorganization based on the Government Resolution No. 607 *On Optimization of State Bodies Structure*.

III. POLICY OBJECTIVES AND STRATEGY MODALITIES³³

1. Introduction

The ADS reflects and supports Government policy for the agricultural sector as specified in several multi-sector policy documents currently extant. It reflects and supports the policy objectives for the agriculture sector contained in the Country Development Strategy (CDS). The CDS includes the following policy directions, which were also stressed in the President's Annual Address to the Nation on September 28, 2006. These are:

- **Expansion of the Agro-Processing sub-sector.** This sector is critical for overall agricultural development and the economic development of the Republic. The major direct economic impacts of expansion of the agro-processing sub-sector are in employment, income generation and the level of national exports.
- **Investment Promotion.** There is a critical need to raise the overall level of investment in the agricultural sector. It is investment that is the main determinant of the rate of expansion of agro-processing and the overall development of the agricultural sector. It is investment that will raise *per capita* productivity in the agricultural sector. Thus, it will raise agricultural incomes and make a major contribution to poverty alleviation in rural areas.

The CDS also emphasizes the need to achieve the national and sector policy objectives by implementation of initiatives in the following areas: (i) agro-processing, (ii) marketing and exports, (iii) rural finance and (iv) food security. In the case of food security, major emphasis is placed on the maintenance of animal health through upgrading veterinary services and also in the area of phyto-sanitary services. In all cases cited in the Country Development Strategy, the Agricultural Strategy contains specific projects that will contribute to the achievement of the policy objectives.

2. Agriculture Sector Policy Objectives

The ADS is designed to achieve the overall policy objectives inherent in the agreed Vision for agriculture. As previously stated, the vision for the agriculture sector consists of two essentially synergistic elements namely, the realization of:

- a diversified and profitable market-oriented agricultural system, and
- a well-developed rural sector of the economy consisting of prosperous rural communities.

The realization of these broad policy objectives will necessitate the transformation of the Republic's agricultural sector away from its current primary orientation on food self-sufficiency towards an orientation on the expansion of diversified and profitable market-driven agricultural production. The increased market-driven focus is designed *inter alia*, to accelerate income generation in rural areas. The realization of these policy objectives will also necessitate the promotion of growth and development of the agriculture sector by

³³ The terms policy and strategy used here are based on United Nations definitions and usage. A development policy or particular objective is used to describe a specific direction to be adopted and pursued by Government. If the objective is quantified it becomes a target. The term strategy is reserved for describing the specific means by which the Government policy will be implemented and its objective achieved. Policy therefore, focuses on a chosen development direction and desirable end-situation, while the strategy specifies the means by which the policy will be implemented. Therefore, as an implementing instrument, a strategy must contain concrete programs and projects. If a strategy does not contain programs and projects it remains a policy document, not a strategy. Reference: UN/INT/88/R02, United Nations Secretariat, New York, 1993.

radically increasing agricultural productivity. The resulting employment and income generation will necessarily become the main source of poverty alleviation within the rural communities.

The Republic has limited scope for the expansion of the agricultural area. Therefore, the principal source of sector growth and development must become growth in agriculture factor productivity. To achieve this, the sector must initiate a paradigm shift away from the current resource and input-based growth to productivity growth as the dominant source of growth. This will involve the enhancement of factor productivity in the agriculture sector through the increased application of agricultural innovations and science-based technologies. It will involve the application of innovative operational and management techniques that are currently practiced in modern market-oriented agriculture sectors.

The central feature of the agricultural development strategy is therefore to assist in the initiation of such a paradigm shift. The strategy must therefore make provisions for continuous flows of knowledge and innovations into the production entities and the administrative agencies of the agriculture sector. The donor community, through the provision of technical assistance, has been instrumental in ensuring the continuous flows of knowledge and innovations required to enhance agriculture sector productivity. The continued provision of innovative best practices in agriculture production through the technical assistance provided by donors will be decisive for the success of the strategy.

3. Policy Objectives by Strategy Component

The work of strategy formulation required that the two elements of the vision be analyzed in terms of the eight components comprising the strategy. This was necessary in order to ensure that development initiatives in each of the eight components reflected in detail the overall policy objectives for the sector. It was also necessary to ensure that the projects and programs formulated in each of the eight components could be designed to address the overall sector policy objectives and the objectives for the component.

Public Sector Services. The overall policy objective of the public services component of the strategy is to ensure sector productivity growth through the upgrading of the public services provided to the agricultural sector. This will be achieved through training of civil servants in administrative innovation in the areas of (i) agricultural policy formulation, (ii) modern agricultural sector management methods, and (iii) in specialized agricultural sector technical areas. This upgrading of the human resources will be implemented at the central, regional and local levels.

The policy objective of the recent restructuring is to increase agricultural productivity in the livestock sector and progressively increase the role of the private veterinary providers. The greatest scope for establishment of private veterinary services is at the regional level and measures are being initiated for the formulation of a restructuring plan for regional veterinary services. This will also strengthen the capacity of the State Veterinary Department to undertake strategic planning for the development of market-based, competitive veterinary services.

As a result of inadequate funds, farm operatives cannot generate the effective demand for pedigree animals. This lack of demand prohibits the breeding plants from being able to achieve even cost-recovery, as the purchase prices of pedigree stock are insufficient to cover production costs. The absence of a State subsidy scheme for pedigree enterprises precludes the possibility of establishing either efficient State or profitable and sustainable private pedigree enterprises. It is widely maintained in Government that the supply of pedigree stock is an essential factor input if increased productivity is to be achieved.

Agro-Processing and Marketing. Expansion of the agro-processing industry is one of the Republic's priority economic development policy objectives. In order to establish coordination in raw materials provision and marketing of products, it is necessary to establish effective intrabranch cooperation, which involves effective production chains, that link farm production, processing enterprises and consumer's markets. Solving this problem will increase production of agricultural raw materials and processed products. The issue of laboratory accreditation in international organizations and harmonization of local standards, as well as development of technical regulations for increased product quality will assist in greater marketing of the product³⁴. It is also important to provide incentives to the processing enterprises and to support the sustainable development of marketing-information and advisory services. In order to avoid legal disputes and conflict situations, there is a need for legal information and legal support for rural commodity producers and marketing centers.

Land Market Development. The overall policy objective of the land market development component of the strategy is to increase sector productivity by the improvement of agricultural land management, including pasturelands, and the lands of the Land Redistribution Fund (LRF). The objective includes the development of the Kyrgyz Land Information System and the cadastral database as necessary conditions for the Republic's agricultural land sector development. As an efficient and accessible information center on land records and information, the Kyrgyz Land Information System will be available to all clients and thus assist in promoting land market development as well as agriculture sector productivity.

Water Resources Management. The overall policy objective of the Water Resources Management component of the strategy is to ensure agricultural sector productivity growth through improved water supply of irrigated lands. The priority areas of development of the water sector and the overall objectives are (i) restoration of irrigation systems, (ii) corporate management of irrigation systems, (iii) decentralization of management with transfer of economic functions to basin, territorial, and municipal agencies and the private sector; (iv) enhancing the water legislation, (v) use of market mechanisms for water tariffs and modification of tax policies for WUAs.

Training, Research and Development (R&D). An efficiency principle in agricultural development is the integration of agricultural education and training with advances in agricultural science and technology and their pragmatic application to farming practices. This is a central policy objective of the Training, Research and Development Component. The necessary condition for achieving sustained agricultural growth is the provision to farm entities of training and productivity increasing technological innovations. The policy objective for the Training, Research and Development Component of the Strategy is to ensure continuous supplies of skilled administration staff, scientific researchers, technicians and consultants to meet the needs of a modern market-oriented agriculture sector. The agricultural training and research system urgently needs assistance to reorient its training and research agenda to address these needs including the priority services required by private farms operating in competitive markets. There is an urgent need for the renewal of equipment and apparatus of the laboratories of the Kyrgyz Agrarian University.

Trade and Tax Policy. The overall objective of the tax policy is to create favorable conditions for agricultural processing and SME development in rural areas. It is envisaged that tax incentives in the medium to long-run will contribute to the expansion of the tax-base and thus fiscal benefits will accrue in the longer term. The overall objective of trade policy is to increase the sales of agricultural market production both on internal and external

³⁴ The issue on National accreditation body of laboratories has been addressed in the Government Resolution No.795 "On Accreditation of the Conformity Assessment Bodies in the Kyrgyz Republic", dated of November 16, 2006.

markets with long-term emphasis on greater value-added agricultural products. The introduction of a commodity distribution network with the help of exchange mechanisms in trade will expand exports. The establishment of wholesale and storage centers and border agricultural service and wholesale markets, will assist in the facilitation of trade and increase the quality of agricultural products.

- **Transit.** There is a need to strengthen the implementation of bi-lateral and multi-lateral transit and trade agreements with partner-countries, which are not implemented, and to participate actively in the negotiations of Russia and Kazakhstan in joining WTO. Although there are no official barriers to transit and foreign trade with other countries, the malfeasance of both domestic and neighboring country civil servants and the lack of knowledge by trade operators of their rights and liabilities, lead to illegal payments when obtaining clearance and transiting border crossings. Studies have suggested that the extra cost from non-tariff barriers on Kyrgyz fruit exports to Kazakhstan is equivalent to a 140 per cent tax. The removal of these transit problems would contribute far more quickly to improving incomes in the agricultural sector, than other longer-term reforms within the sector itself. For its part, the Kyrgyz Government has to introduce effective measures to reduce the barriers to international trade.
- **Transport Infrastructure.** The improvement of transport infrastructure is a necessary condition for efficient access to the external markets for agriculture products, among which is China. However, this issue is not in the functional portfolio of the Ministry of Agriculture. The productivity of agriculture is none-the-less dependent on the level of transport infrastructure development in the regions. Transportation costs increase significantly with poor transportation infrastructure. Currently, most agriculture exports are transported by road. However, while it is rail transportation is often more cost effective than road, especially for bulk shipments, the scale of agriculture exports is too small to warrant rail transportation. In addition, the Republic's rail infrastructure and services are currently of poor quality. The development of agricultural marketing cooperatives and wholesale produce markets will assist in increasing the scale of agriculture export operations.
- **Supply Conditions for Agricultural Products.** A problem faced by export brokers is the lack of understanding by farmers of the standard requirements demanded for the agricultural products. Farmers have limited understanding of the specific requirements of market demand in terms of quality and lot size. Agriculture exports to neighboring countries face strict marketing requirements in terms of lot size and the periodicity of supply. Farmers can meet neither the quality requirements, nor the lot size requirements due to the significant fragmentation of the small-scale Kyrgyz agricultural producers. There is no well-established institute for wholesale marketing and best farming practices for specified quality products.

To solve issues on the sale of agricultural production and processing in external markets the MAWRPI will establish direct connections with business associations of Kazakhstan and Russia, which are the main Kyrgyz export markets. Insufficient volumes of production and stable supply are obstacles for export expansion. The MAWRPI intends to establish, at least two storehouses (in the South and the North) for Kyrgyz agricultural and processed products for the supply of commodity lots to the Russia.

In 2005, by initiative of the MAWRPI, several institutions were established. They included the Republic Universal Agro-industrial Exchange, the Interregional Commodity Distribution System "Bishkek Contracts" and the Kyrgyz Republic Agro-industrial Corporation. These were established to assist rural commodity producers in marketing their products.

Rural Finance. Micro-finance can play a critical role in sustainable poverty reduction. Therefore, the overall policy objective in rural agricultural finance is to generate impacts on poverty alleviation among the poor small-farm households via aggressive expansion of financial services: credit, leasing, insurance, deposits and payment transfers. Targeting the small farms, providing a wide outreach to the rural poor and the sustainability of financial services, are the criteria for judging the effectiveness of the rural financial system. The strategy focuses on (i) creating financial and legal policy environment conducive to micro-finance, (ii) developing financial infrastructure (mezo-level credit institutions), (iii) supporting development of viable micro-credit and micro-finance institutions, and (iv) supporting innovative programs and new financial technologies.

Rural Development. The overall policy objective of the Rural Development Component of the Strategy is to raise the productivity of economic activities in rural areas and thus contribute to their sustainable development by, (i) the improvement of infrastructure in the rural areas and, in the longer-run, to introduce innovative technologies for infrastructure development (including utilities provision) that are environmentally friendly, and (ii) the promotion of greater fiscal independence of local self-governments in developing their local economies. The improvement of infrastructure has direct impacts on raising factor productivity by reducing transactions costs and raising the marginal productivity of capital investment. It will therefore have positive impacts for the development of agro-processing.

4. Strategy Modalities³⁵

The following 11 modalities will constitute important elements in strategy implementation. They have been designed on the basis of best international practices employed in agriculture and they constitute modern agricultural sector development modalities.

4.1. Facilitating continuous flows of scientific and knowledge-based innovation must be provided to the three main components of the agricultural sector production framework.

- **Agricultural production technology:** This involves the agricultural technologies that govern sector production. Innovations on the input and output sides of agricultural production constitute important elements in the strategy design. In terms of the output side of production by small-scale farms, the organization, establishment and development of cooperative marketing will be employed as an innovative instrument in the reformed market-oriented sector. In terms of the input side of small scale farms, cost-effective technologies must be introduced that can service more farmers in comparison with traditional equipment that most farmers are currently dependent upon. This will be assisted through the organization of farmer groups. The strategy focuses on the selection of agro-processing technologies that give priority to processed products that maximize the value-added over and above farm-gate-prices.
- **Agricultural institutional structures and instruments:**³⁶ This element of the strategy involves the institutional structures and instruments governing sector administration and development. There is inadequate understanding of the economic and administrative conditions necessary for the successful operations of a market-oriented agricultural sector. There is also inadequate understanding of the functions of the Government in a market oriented economy and the conditions necessary for the de-

³⁵ The term "strategy modalities" is used here to denote the particular arrangements or techniques employed in the strategy to achieve the overall strategy objectives.

³⁶ The role of Government Administration in determining agricultural performance and growth is well documented in the international literature. Good governance contributes to agricultural productivity by encouraging investment, reducing transaction costs, providing goods and services and developing sound economic policies. See, *Governance and Agricultural Productivity: A Cross-national Analysis*. Institute for Economic Research, Taipei, Taiwan. 2004

velopment of the most efficient relations of Government with the agriculture private sector. The primary role and the objective of the agriculture sector administration are generally accepted to be the regulation and control of the sector, rather than the promotion of its growth and development. Regulation and control must be used only as mechanisms to assist in the growth and development of the sector.

This knowledge and broad understanding of the role of government, as well as the efficient operation of a market-oriented agricultural sector, are the prerequisites for the provision of high quality public sector agricultural services. Therefore, the strategy places significant emphasis on upgrading of the professional knowledge and expertise of the staff of the MAWRPI. There is a need for public agricultural research and extension closely linked with training. The enhancement of agriculture sector productivity dependent, *inter alia*, on the establishment of a modern and efficient public administration.

- **Agricultural policy formulation:** It is the capacity for sector policy formulation that governs the direction and pace of innovation in the sector and therefore the rate of growth in productivity. The capacity necessary for crucial agricultural policy formulation is very limited. There is also limited knowledge of, and therefore the application of, modern public sector management methods necessary for development of the agriculture sector. Both agricultural policy and sector management still retain vestiges of the former policy stance of the command economy. Donors, NGOs and the private sector have recognized this deficiency in the capacity of agricultural public sector and the retarding effects it is having on the development and provision of efficient agricultural public services.

Ensuring complementary and balanced development of the agricultural public and private sectors. This modality requires simultaneous measures for (a) enhancing the productivity growth in the agricultural private sector and (b) enhancing the capacity, and efficiency of the agricultural public sector.

Increasing productivity by accelerating collaboration among the agriculture sector entities. This modality involves increasing the collaboration among the public sector agencies, research and training organizations, farmers, the private sector and other stakeholders developing and utilizing agricultural innovations.

Enhancing the diffusion of technological innovations that address the needs of small scale farms. This modality includes not only the introduction of advanced farming techniques but also the provision of the conditions to meet the economic requirements necessary for the emergence of profitable small-scale private farms.

Accelerating rural development and rural diversification. This will be achieved through the provision of support for the establishment of non-agricultural rural services and agricultural processing operations in the rural communities.

Expanding the capacity for agricultural Training, Research and Development (R&D). The strategy focuses on the Republic's capacity for agriculture training and R&D as a critical factor in increasing the pace of innovation and agricultural sector productivity.

Public-Private-Partnerships. The modality of formulating public-private-partnerships in the agricultural sector will represent a major innovation for stimulating the cooperation of government and private sectors. It is necessary to specify a clear and permanent demarcation between those areas of agricultural activity reserved for the private sector and those areas retained by the public sector. The joint and coordinated activities undertaken by public and private sector entities in the form of public-private-partnership arrangements, including management by concession etc. will constitute an important instrument for the development of a modern agricultural sector. The capacity to formulate agricultural sector applications of this modality and the selection of most effective types of arrange-

ment must be built into the Ministry's policy formulation and managerial capacity through modern agricultural management training.

Privatization and Sustainability of Services. The policy direction is for the agriculture public administration to specialize on a limited range of essential public services provision, and to conduct the privatization of those services best provided by the private sector. However, in order for the privatized services to be sustainable they must be economically viable at the time of privatization or, if not economically viable, then they must be subsidized under private ownership until they become viable, when the subsidization can be discontinued. The policy prescription for privatization of stock-breeding, seed farming and fish farming will depend on these services being rendered economically viable. Therefore, the first phase of the agricultural development strategy will require the implementation of projects for strengthening and upgrading these services and their rationalization to service the needs of small-scale farms.

Public Sector Investment. It is important that the principle guiding the future deployment and implementation of PIP funded projects in the agricultural sector employs the technique of investment leveraging. PIP funds should only be deployed in those areas that result in or induce further investment either by the local self-government, domestic private sector, foreign private investment or follow-up donor investment. Further, that a project that would induce greater follow-up investment (i.e. has a higher leveraging ratio) would be selected over one that would induce a lower level of follow-up investment.

Two things have been identified by donor agencies during the strategy formulation to guide future public sector investment funded under the PIP. These are: (i) financing rural development programs and (ii) financing programs and projects that increase agricultural productivity, marketing and trade. The first of these areas has major impacts on the profitability of agricultural and rural non-agricultural investment by raising the marginal efficiency of capital investment in the related rural areas. It therefore attracts additional investment and thus will have positive investment-leveraging ratios. The second theme has similar positive investment-leveraging effects and is focused directly on agricultural sector profitability.

Private Sector Investment. It is important that the pace of private sector investment in the agricultural sector be significantly increased. In this regard, a valuable step forward will be the establishment in the Ministry of Agriculture of the capacity for the attraction and programming of private sector investment, both foreign investment in the form of FDI and domestic private investment.

Powerful complementarities can be developed between the Ministry's responsibilities for public investment in the sector (PIP) and private investment. The responsibility for enhancing private investment in the agricultural sector could be transferred from or shared with the Ministry of Industry, Trade and Tourism. It is important that the Ministry of Agriculture be directly involved in the promotion and programming of private investment in the agricultural sector.

Using the Agriculture Strategy Document as an Instrument for Investment Generation. There is a significant volume of evidence throughout the international community that the publication and circulation of a well designed, clear and easily understood public sector strategy document has a wide range of positive developmental impacts, over and above the projects and measures that it contains. When the private sector obtains a clear understanding of the direction and types of measures to be undertaken by the public sector, the document tends to mobilize additional private sector investment in order to benefit from the complementary economic effects and externalities that accrue from the public sector initiatives. The strategy document not only tends to mobilize additional resources, it also acts as a strong coordinating instrument raising the productivity of subordinated agencies and the regional and local administrations.

IV. STRATEGY MANAGEMENT INSTRUMENTS

1. Introduction

The two instruments for strategy formulation and implementation namely, the Program-Based Approach (PBA) and the Monitoring and Evaluation (M&E) system are mutually reinforcing strategy management instruments. They engender strong synergistic relationships in the process of strategy implementation. Both modalities act as coordinating mechanisms, both require Government ownership for successful operation, both require the development of participatory approaches. They constitute complementary instruments for strategy implementation.

The PBA has been established and is operational. The PBA process was extensively used throughout the strategy formulation process. Section 2 (below) describes the framework of the PBA and how it will be applied and progressively developed during the strategy implementation. The M&E system cannot be operationalized until strategy implementation is commenced. Therefore, in Section 2 (below) a framework guidelines and checklist for the development of the operational system are provided. The MAWRPI might be supported by donors in building the capacity for efficient implementation of the strategy in the form of the M&E system framework specified.

To ensure follow-through on capacity building commitments, it is necessary to specify the details of the M&E capacity building strategy. These details include (i) who is the beneficiary of the capacity building; (ii) what are the identified weaknesses; (iii) how will the capacity building be provided; (iv) what particular topics will be delivered; (v) where will the capacity building take place; (vi) how often will capacity building interventions take place; and (vii) who will be responsible for the success of the capacity building. These will be further elaborated in detail by the Project 1.3. identified in Annex II. Project Profiles by Components.

2. The Program-Based Approach

The PBA emphasizes the efficiencies that accrue from the application of comprehensive planning in the sector. It comprises an instrument to support locally owned programs of development and places the leadership initiative in the hands of the Government, while being closely supported by donor agencies. The agriculture strategy formulation provided both the need and opportunity for the design and implementation of a program-based approach for the development of the Republic's agriculture sector.

The PBA is defined as, a development cooperation modality based on the principle of co-ordinated support for a locally-owned program of development. The program of development is the agriculture development strategy and the PBA currently includes four key elements namely;

- leadership provided by a government organization,
- a single program and budget framework,
- established donor coordination and harmonization procedures,
- measures to progressively increase local mechanisms for program design and implementation, and monitoring and evaluation.

Government leadership. In terms of government leadership, the strategy is the government's strategy for the development of the Republic's agricultural sector. It is specified by the MAWRPI in line with other relevant agricultural policy documents of the Government,

such as the section on agriculture development in the CDS. It is the MAWRPI that constitutes the lead agency responsible for the design and implementation of the agriculture development strategy. It is important that the MAWRPI can effectively undertake this role³⁷.

Single Program and budget framework. The strategy constitutes a single integrated program of development interventions in the agriculture sector. The budgetary framework for the ADS, consists of the financial component of the Action Plan which is specified for the first medium-term phase of the strategy. The strategy is funded principally from three sources namely, (i) by multiple donor assistance initiatives, (ii) the public investment program (PIP) and (iii) in-kind contributions by Central, regional and local Government. The first three-year medium-term budgetary framework is fully specified in the ADS. The budgetary frameworks for the two subsequent medium-term phases of the strategy will be specified during the last year of the preceding medium-term phase within the mechanism of the “strategy cycle”.

Donor coordination and harmonization procedures. Although the principal responsibility for strategy design and implementation rests with the Government, the successful operation of a PBA places heavy reliance on donor coordination and harmonization procedures. During the formulation of the Government’s agriculture development strategy, close coordination was maintained between all donor agencies and Government. This coordination was maintained through a series of operating modalities including;

- Conduct of formal Workshops and National Conferences,
- Proceedings of the Steering Committee and Development Partners Council and
- Detailed and multiple individual consultations with all donors on their respective assistance orientations and priorities.

The information derived from these coordination procedures were discussed with the relevant departments and agencies under the MAWRPI and integrated into the Government’s priorities for the agricultural sector and into the logistical framework of the agricultural strategy.

Local mechanisms for implementation, and monitoring and evaluation. As a result of the application of the above-cited procedures, the Government has successfully formulated a sound agriculture development strategy. The question remains as to whether the public sector administration has the requisite management capacity to implement and to monitor the implementation of the strategy. Currently, there is a relatively limited institutional capacity to plan, manage and monitor the implementation of the strategy. Cognizant of these limitations that are critical for the successful implementation of the strategy, the strategy makes clear provisions for increasing the management capacity of the relevant public sector institutions³⁸.

It is important to observe that the PBA is both evolutionary and is itself constitutes a training modality. Therefore, the decision to institute the PBA is not so much a function of the

³⁷ International experience indicates that a significantly higher level of efficiency is achieved when the responsibility for the PBA is provided by a single government agency rather than by multiple agencies or ministries.

³⁸ Two projects which directly address this issue are included in the strategy. These are, (i) the Institutional Strengthening of the Agricultural Sector Public Administration and (ii) Strategic Planning, Monitoring and Evaluation for the Agricultural Sector. In addition, as stressed by the USAID, almost all of USAID project interventions include a training component in the project design. Also, while USAID assistance measures are largely focused on the private sector, the agency is not averse to the provision of training for public sector officials involved in the implementation of the agricultural development strategy. Therefore, the strategy includes appropriate capacity building initiatives in the form of two specifically designed projects as well as training provided under a wide range of other projects. These training initiatives will raise the overall effectiveness of the agricultural sector management as well as develop specific management technologies and expertise such as strategy planning and monitoring and evaluation.

existing management capabilities as the introduction of an assistance mechanism to upgrade the existing management capabilities. International agencies have identified six major components necessary for the operation of a donor-supported PBA with specific reference to sector programs. These components are a useful checklist for the continued development of the PBA framework.

- **The existence of a clear sector policy and strategy, (such as the agriculture development strategy).** The agriculture sector policy is clearly enunciated in major national policy documents that include the Comprehensive Development Framework (CDF), the National Strategy for Poverty Reduction (NSPR) and the recently published Country Development Strategy (2006-2010) (CDS). The policy prescriptions contained in these documents are reflected in the long-range agriculture development strategy. In addition, the agriculture development strategy introduces innovative measures to achieve those national and sector policy objectives.
- **A medium-term expenditure program.** A medium-term expenditure program has been specified for the first phase of the strategy within the framework of the Action Plan. Provision has been made for repeating medium-term expenditure programs for the second two phases of the strategy within the framework of the “strategy cycle”.
- **A formalized process of donor coordination.** The participation with the Government agencies of the multi-lateral and bi-lateral donor agencies in the formulation and implementation of the agriculture strategy renders the strategy an important instrument of donor coordination. Specific instruments include the strategy implementation modalities in the form of the PBA and the M&E framework. Coordination mechanisms include the Development Partners Council and the Steering Committee.
- **A performance monitoring system.** The strategy monitoring and evaluation system (M&E) is a two tier system containing an Executive Body and a Technical Operating System. To monitor the implementation of the long-range agriculture development strategy, the M&E framework is designed to operate within a repeating “strategy cycle”.
- **A systematic mechanism for consultation with clients and beneficiaries.** This component will be provided for within the framework of the M&E system. The participatory provision in the M&E system will facilitate and ensure systematic consultation with clients and beneficiaries throughout the entire duration of the long-range agriculture development strategy. This will be accomplished under the provisions of the “strategy cycle” both in the design of strategy phases and in the implementation of each phase of the strategy.
- **Significant donor movement towards the adoption of common approaches to implementation and management.** A decisive step forward in achieving this component has been the donor support for and participation in the strategy formulation process, strategy funding and participation in the provisions for strategy monitoring and evaluation.

3. Monitoring and Evaluation

Strategy formulation is an important development planning function and the monitoring and evaluation of the strategy is an equally important and closely associated planning function. The establishment and operation of the M&E system requires, among other

things, specialized training of officials from the agriculture sector in strategy formulation, monitoring and evaluation³⁹.

The Project on Strategic Planning, Monitoring and Evaluation for the Agriculture Sector is an important measure to be introduced under the strategy. Its importance derives from the fact that the long-range strategy is necessarily divided into three medium-term (three years) phases with the first three-year phase translated into an associated Action Plan. The planning required for the specification of the subsequent second Action Plan, that implements the second three-year phase of the strategy, will necessarily be based on three sets of information. These are (i) the policy changes and priorities that evolve during the implementation of the first phase and (ii) the information derived from the monitoring and evaluation of the implementation of the first phase of the strategy and (iii) changes in the macroeconomic environment that require sector adjustments to be introduced. The above information is critical for the detailed specification of the second phase of the strategy. The process will be repeated for the third phase of the strategy within the framework of the overall "strategy cycle".

Problems of Strategy Monitoring. There are several problems of strategy monitoring that tend to be acute in the economies in transition.

- **Problem 1.** The first problem is that there are no strategy monitoring instruments or techniques per se developed by the international organizations⁴⁰. The M&E systems applied to the monitoring of strategy implementation are therefore designed to monitor the strategy's constituent programs and projects. The summary of the progress of implementation of each of the programs and projects contained in the strategy is therefore the indicator of the progress made in the implementation of the strategy. As a consequence of this we propose to use our specially designed M&E framework for strategy monitoring based on the regular techniques of project monitoring.
- **Problem 2.** The second problem is the misunderstanding of what has to be monitored in a market-oriented economy where mandatory physical target outputs do not exist⁴¹. Monitoring is undertaken on the input side and the output side. In the case of the agricultural development strategy, the monitoring is largely done on the implementation of projects. In terms of the strategy as a whole, we have identified strategic macroeconomic variables with national accounts base-line magnitudes as of 2006. Other output variables are monitored at the project level.
- **Problem 3.** Monitoring of the Private Sector and Government Sector. The third problem is closely associated with the second problem. The monitoring of output targets for a sector in which the production entities are dominantly private sector is not efficient. Private sector outputs are determined by the relative prices of different agricultural outputs via the market mechanism. These prices are continuously changing and in order to maximize their returns, farmers must produce what the market requires as indicated by relative prices. Mandatory output targets, which are a feature of central

39 It is proposed to provide specialized training within the framework of one of the projects included in the strategy. Furthermore, the Project, Strategic Planning, Monitoring and Evaluation for the Agriculture Sector, could be implemented in the (M&E) during the first phase of the strategy implementation. This would support the proper implementation of the strategy.

40 Various attempts have been made to develop strategy-monitoring techniques similar to the project monitoring techniques that are well defined and widely used. The attempts that have been made include the adaptation of Project Evaluation Review Techniques, (PERT diagrams) and the development of Strategy Audit Techniques (SAT) techniques associated with the PERT applications.

41 This problem is related to the legacy of the Material Product System (MPS) of national accounts (in which physical outputs are specified as mandatory targets) practiced under Soviet planning. The transition to the internationally adopted System of National Accounts (SNA) developed by the United Nations is based on output values rather than physical product magnitudes. This requires a major conceptual change by government officials in regard to monitoring agriculture outputs under a private sector agricultural structure and output values rather than physical magnitudes.

planning via *Gosplan*, can be monitored for the Government sector operations, such as in the education sector. In the agriculture sector with production entities dominantly private sector entities, such monitoring can only be applied to government services for which projects are specified in the strategy.

The Executive of the Strategy Monitoring and Evaluation System. The agricultural development strategy involves the enhancement of factor productivity in the agriculture sector through the increased application of agricultural innovations and science-based technologies. In order to achieve this, the strategy must make the necessary provisions to ensure continuous flows of knowledge and innovations to the production entities and administration agencies of the Republic's agricultural sector.

The M&E system must therefore utilize staff with the requisite technical expertise in the areas being monitored. Such technical expertise is largely limited in availability to the staff of the MAWRPI and the faculty members of such institutions as the Agrarian University.

A basic principle of M&E systems is that an agency or individual can hardly monitor and evaluate themselves. Therefore, the M&E system specified for the implementation of the agriculture development strategy proposes, (i) an executive body and (ii) a technical operational system. The technical system is outlined in the next section namely, the Monitoring and Evaluation Framework.

The M&E system Executive should consist of policy and decision level representatives that have been directly involved with the formulation of the agriculture development strategy and have a direct interest in the efficient implementation of the strategy. They will be members of either of the two policy level bodies established for the development of the agriculture strategy namely, (a) the Development Partners Council (DPC) and (b) the Steering Committee.

- **The Development Partners Council (DPC)** was established to achieve agreement on policy priorities in the agriculture sector provided by the Government Steering Committee (SC). The DPC also agreed with the Government on the need for cooperation between the Government and Development Partners in the design and implementation of the agricultural development strategy.

The DPC had an overall responsibility of ensuring agreement on major Donor support for the financing of selected programs and projects included in the agriculture development strategy.

- **The Steering Committee (SC)**, under the chairmanship of the Minister of MAWRPI the SC includes representatives from relevant Government ministries and agencies and key private sector institutions. The main purpose of the Steering Committee is to facilitate the work involved in the agriculture strategy formulation and to deliberate on the progress made and on the strategy components. The Steering Committee's findings provided invaluable guidance during the work of strategy formulation⁴².

The Technical Component of the Monitoring and Evaluation System. The monitoring and evaluation technical operation system will be ideally headquartered in the Main Directorate of Agrarian Policy and Investments of the MAWRPI. It is in this Directorate that the Technical Assistance Project, Strategic Planning, Monitoring and Evaluation for the Agriculture Sector, will be located⁴³.

⁴² Both the Development Partners Council and the Steering Committee made valuable contributions to the work on the agricultural development strategy through their deliberations and discussions in strategy formulation workshops and committee meetings. Their continued involvement in the implementation of the strategy through oversight of the monitoring and evaluation process is both efficient and essential for the success of the strategy.

⁴³ The Monitoring and Evaluation framework presented here is based on a draft of an Australian Government M&E Good Practice Guide to which a series of modifications have been introduced. This Good Practice Guide, drafted by AusAID

The *monitoring process* will involve the systematic collection and analysis of data on specified project indicators in order to provide information on the extent of progress made in the achievement of the objectives of the agriculture development strategy. The *evaluation process* is a performance assessment that will provide a continuous evaluation of the effectiveness of ongoing and planned activities of the agriculture strategy enabling the determination of the efficacy or significance of the activities, projects or programs being implemented in the strategy.

The *M&E framework* provides the base-line data plan of the agriculture strategy against which the M&E system will measure the progress of strategy implementation. The Framework specifies the various instruments and procedures of the M&E system including the reporting schedule and formats and implementation schedule etc. During implementation, these elements of the M&E framework can be supplemented with various reports, processes and structures such as Annual Plans, supervisory missions, and Activity Implementation Reviews.

M&E Framework Principles. The preparation of a high quality monitoring and evaluation (M&E) framework for strategy implementation requires that the M&E principles be specified and the underlying detailed 'standards' for each of the principles of the M&E framework⁴⁴.

- **M&E Participatory System.** In the design and application of the M&E framework, good practices require that appropriate consultations be undertaken with stakeholders directly affected by the agriculture development strategy. An objective of these consultations is to foster continued participation and ownership of the M&E framework. This is a basic principle of the Program-Based Approach (PBA) that is being instituted in parallel with the M&E system and with which there are positive synergies. Stakeholders must be actively engaged in the development of the M&E arrangements. The following four types of activities will therefore be undertaken in the early stage of the strategy implementation.
 - Conduct consultations with those who will contribute to and benefit from the agriculture sector M&E arrangements. This will include beneficiaries such as private sector farmers and entrepreneurs, donor agencies, government agencies at the central and local levels, NGOs and civil society.
 - Assemble evidence that all relevant stakeholders participate in and have ownership of the M&E arrangements with the technical assistance.
 - Document how the M&E arrangements relate to other sector policy developments or national policy frameworks.
 - Ensure that all relevant parties are advised of and provided with adequate guidance on the requirements of the M&E framework.
- **Ensuring that M&E capacity exists.** During the strategy formulation it was established that the MAWRPI currently had limited capacity for monitoring strategy imple-

(Exposure Draft: March 17, 2006), was partially developed from the World Bank's "Ten Steps to a Results Based Monitoring and Evaluation System" (2004) and the DAC's "Managing for Development Results Principles in Action: Sourcebook on Emerging Good Practice" (2005) and AusAID studies of eight M&E frameworks. The AusAID guide is considered to be an accessible and up-to-date example of best international practices. It can be used to develop an effective M&E system in the MAWRPI for the monitoring and evaluation of the agriculture development strategy.

⁴⁴ The M&E framework can be applied at different levels of detail. For instance, the six principles, specified below may be used as a checklist by an individual donor when approving a project for inclusion in the strategy. The detailed standards may be used in the specification of activities designed for inclusion in an individual project or in monitoring project implementation. The standards may not all be relevant in every situation. Also, they do not need to be always applied at the same level of detail.

mentation. This will have to be revisited at the start of the establishment of the M&E system.

- Preparation of a detailed needs assessment for the preparation of the detailed M&E framework.
- Articulate a clear strategy for building sustainable M&E capacity within the MAWRPI and partner agencies to achieve the necessary capacity.
- Verify the capability of the MAWRPI to implement the M&E arrangements.
- Ensure that the MAWRPI and partner agencies have adequate resources, including staff time and computer equipment, to fulfill their defined M&E responsibilities.
- **Specification of the M&E system arrangements.** The specification of the M&E system arrangements will be completed at an early stage in the agricultural strategy implementation and the start-up capacity established in the MAWRPI.
 - Ensure that the implementing agencies are not given scope for specifying their own responsibilities for M&E and for conducting own performance assessments.
 - Ensure that M&E arrangements are coherent in the design logic and the appropriateness of the indicators and the means of verification.
 - Ensure that M&E arrangements at the strategy, program and sub-program levels are comprehensive, coherent and inter-related.
 - Verify that M&E arrangements are proportional to the activity complexity, and are based on pragmatic and economical data requirements.
 - Assess and address the information needs of all relevant stakeholders.
- **Definition of information requirements.** Detailed definition of the variables to be monitored will be specified at the start-up of the M&E system data-base.
 - Verify that data will be collected at all levels and at stages of change.
 - Specify what information is to be collected and frequency of collection.
 - Consider baseline information needs, and make provision for its collection.
 - Define methods to detect perceptions of change of target groups and beneficiaries.
 - Define indicators in terms of quality, quantity and timing variables.
 - Employ an appropriate mix of short-term and medium-term change indicators (not only the indicators to be measured at the end of the intervention).
 - When possible, use existing sources of information at the goal and purpose levels (i.e., the impacts and the outcomes expected).
 - Provide for monitoring key cross-cutting issues (e.g., gender, environment, and poverty reduction).
- **Allocation of M&E responsibilities and resources.** The agriculture M&E system will necessarily employ a structural-functional approach to the allocation of responsibilities for operation of the system. This means that those directorates and units of the MAWRPI and linked agencies that specialize in individual components of the agriculture strategy will be responsible for monitoring the relevant technical areas.
 - Define who is responsible for the collection, storage, analysis, dissemination and utilization of each data set.

- Ensure that the resources necessary for the provision of monitoring and evaluation activities are identified.
- Develop specifications for the role of the Executive body in the M&E arrangements.
- Ensure that implementers have not been given inappropriate scope to define the success of their own performance or how it will be assessed.
- Mainstream M&E responsibilities as a MAWRPI management function.
- **Ensure M&E arrangements accommodate the need for lesson learning and accountability.** The M&E system must be flexible to enable continuous upgrading and development. Therefore it must have built in capacity for change based on lessons learned.
 - Verify that the M&E system will enable informed decision-making by the implementing agency or unit.
 - Ensure that all relevant stakeholders can contribute lessons learned for improvement.
 - Define the frequency, content, purpose and recipients of reports and reporting.
 - Plan to subject the M&E system to periodic review to promote ongoing improvements.
 - Establish an appropriate degree of public transparency within the M&E arrangements.

M&E System Instruments

- **M&E Operations Plan.** The M&E Operations Plan provides an overview of the operational elements of the M&E framework. It specifies the mechanics of how the M&E system will work. It should provide a clear picture of intervention performance; how the various stakeholders interact so that information is efficiently transferred and provide a basis for timely management of the whole system.
- **Reporting Schedule.** A Schedule of Reports provides a summary of how the data collected are ultimately used. Routine internal reports should feed into periodic comprehensive reports, such as the Annual Report, or Activity Completion Report.
- **Implementation Schedule.** An implementation schedule is a visual representation of how key tasks are to be implemented throughout the particular phase of the strategy cycle. As such, it is an instrument to ensure that each Output is delivered on time and to the required standard. The implementation schedules can be cross-referenced with cost schedules to verify that sufficient resources have been allocated to ensure quality results and that M&E tasks are adequately funded.

4. Macroeconomic Monitoring

Measuring the impacts of the agricultural strategy on the national economy and the agriculture sector in aggregate requires that provisions are made for macroeconomic level monitoring. Therefore, in addition to the monitoring and evaluation of the projects that constitute the strategy implementation instruments, the M&E system that is designed for the agriculture development strategy includes provisions for strategy monitoring at the macroeconomic level. This level of monitoring is outside of, and additional to the Project M&E framework specified.

The objective of the strategy is to promote growth and development of the agriculture sector by radically increasing factor productivity. This is to be achieved by the increased application of science-based technologies and the application of innovative operational and management techniques that are currently practiced in modern market-oriented agriculture sectors.

The economic variables that should be monitored to measure the impacts that result from the implementation of the agriculture strategy include the following check list.

- The rate of change in the agriculture sector value-added,
- The rates of change in agricultural sector inputs (capital, labor, land),
- Estimates of the sector capital-output ratios,
- Budgetary impacts of strategy implementation (fiscal benefits),
- Sector employment levels and composition,
- Estimates of the rates of growth in total factor productivity (growth resulting from technological change).⁴⁵

Deriving these macroeconomic magnitudes does not require major data collection activity for macroeconomic monitoring of the impacts of the agriculture strategy. The agriculture sector M&E system can derive the major part of these economic variables from standard national accounts data regularly produced by NatStatCom.⁴⁶

The following checklist could be used for the strategy monitoring at the macro level. However, the monitoring of projects included in the strategy should follow rules and principles outlined in the preceding section.

⁴⁵ Total factor productivity in the agriculture sector is defined in footnote 5 p. 9

⁴⁶ In addition to measuring the productivity changes induced by the agricultural development strategy, the Country Development Strategy (CDS) requires several other sector indices to be monitored. These indices constitute targets for the agricultural sector and include the following variables in the checklist: (i) Growth of agricultural processing per cent per annum, (as specified by the CDS); (ii) Increase of the agro-processing share of the agricultural production; (iii) Increase of exports of the processed products; (iv) Increase in employment in the agricultural processing sector by 2010:

The indices cited by the Country Development Strategy that will have to be monitored by macroeconomic level monitoring of agricultural sector performance include (v) Increases in the number of SMEs, (vi) Increases in private investment; (vii) Establishment in each Rayon of marketing and consulting centers, and (viii) Increases in tax revenues from agro-processing sector

Monitoring Checklist

1.	Rate of growth of Value Added in the sector	Sector efficiency and efficiency of policy formulation and implementation
2.	Rate of Growth of Gross Investments to the sector	Capital inflows to the sector
3.	Rate of Growth of Private Investment to the sector (foreign and domestic)	Degree of attractiveness of the sector and the efficiency in creating a favourable investment environment
4.	Capital-output -ratio	Return on capital in terms of output produced
5.	Rate of Growth of employment in the sector separately for processing and agricultural primary production	Degree of labour intensity of the sector and indications for the shift towards higher value added
6.	Share of arable lands and rate of change in lands for agricultural use	Indicates the degree of terrain intensive agriculture and degree of irrigation efficiency
7.	Land productivity (quintal per hectare)	Indicates efficiency of land use
8.	The degree of processing of the agricultural products	Indicates a shift from low value added to higher value added production in the sector
9.	Rate of growth and structure of exports in terms of processed and non processed produce	Indicates the efficiency of external marketing and presence of trade barriers
10.	Number of operational cooperatives	Indicates the achievement of economies of scale in marketing/production
11.	Rural incomes	Rural incomes as an indirect indicator of the productivity of the agricultural sector
12.	Budgetary revenues from the sector	The extent to what budget support to the sector results in greater fiscal revenues from the sector
13.	Number of credit institutions in the rural areas and their credit portfolio	The degree of financial sector development in rural areas

V. ACTION PLAN

1. Introduction

The projects in the Action Plan have been identified by the agriculture public sector administration and are strongly supported by the MAWRPI and other relevant Government agencies. They have also been discussed with donor agency representatives, NGOs and private sector representatives. The Action Plan covers the first three years of the agricultural development strategy. The additional two three year phases comprising the long-range nine year strategy will be specified together with the associated Action Plans, within the “strategy cycle” modality and the M&E capacity development. Provisions for the up-dating mechanism and the monitoring and evaluation of the strategy implementation by the MAWRPI are contained in the Project, Strategic Planning, Monitoring and Evaluation, to be implemented at the beginning of the first phase of the strategy.

The funding sources for the strategy are basically of three types. These are, Government funding dominantly in the form of the PIP, Donor funding in the form of technical assistance, budgetary support and investment projects, and Government funding, in the form of in-kind contributions to project implementation⁴⁷. A potentially major source of funding for the agriculture sector has yet to be developed in Kyrgyzstan. It is the agriculture investment and agriculture related investment undertaken by local and regional Governments. This is the dominant source of agriculture related investment in most of the market economies. It is made possible by their fiscal decentralization measures.

While our local governments have inadequate funds to contribute to the financing of the agriculture development strategy, they have made important contributions to the Strategy in the form of the Oblasts regional agricultural strategy documents.

2. Aggregate Funding Allocations of the Strategy

The leading components in terms of aggregate allocations made in the Strategy are the Water Resources Management component and the Rural Development component. In the case of Water Resources Management, this has received the major allocation of agricultural investment over the past several years, largely devoted to the renovation of irrigation infrastructure. The importance of the component derives from the contribution irrigation makes to total agricultural factor productivity.

In the case of the Rural Development Component, this is a newly emergent development area, the importance of which has been stressed by donor agencies. It impacts all components of the agricultural sector and is vital in terms of its capacity for raising overall factor productivity in rural areas. It is thus a potent instrument for poverty alleviation.

In the case of Marketing and Agro-Processing, this is also an emergent subsector. The US\$22.77 million allocated to it in the first phase of the strategy, reflects the priority importance placed on the subsector by the CDS and ADS. The importance of agro-processing to the national economy was also stressed by the President of the Republic in his Annual Address to the Nation, on September 28, 2006. The Rural Finance Component is also an emergent subsector with an allocation of US\$7 million. It is also a priority according to the draft Country Development Strategy. In the case of the Public Sector Services Component, it ranks third in total funding allocations. This amount largely reflects the EU Food Security budgetary support that, at approximately US\$8 million per year, accounts

⁴⁷ Government funding of the PIP is financed principally by Government debt acquired primarily through concessional loans from the donor agencies.

for US\$16 million ear-marked for the first two years of Phase 1 of the Strategy. This budgetary support does not directly finance agriculture public sector services.

Table 13: First Phase Strategy Aggregate Funding Allocations by Component*

Component	Phase I	
	Amount, mln. USD	Share, %
Public Sector Services	81,86	32,7
Marketing & Agro-Processing	17,87	7,1
Land Market Development	20,75	8,3
Irrigation and Water Resources	71,65	28,6
Training and Research	2,69	1,1
Trade, Incomes and Tax Policy	3,14	1,3
Rural Finance	16,39	6,5
Rural Development	36,34	14,5
Total	250,69	100,0

* This figure includes on-going projects that commenced implementation before the Agriculture Development Strategy was formulated but extend into first phase of the Strategy as well as programmed projects. In Annex IV more specific information on intended donor funding is provided.

3. The Public Investment Program (PIP)

The main donors implementing the Public Investment Program in the agriculture sector are the Asian Development Bank and the World Bank. They implement the PIP projects through, and in association with, the MAWRPI. Currently, there are eight on-going projects in the agriculture sector. Five of these projects commenced implementation several years ago and three have only recently commenced implementation (2005 and 2006). In addition, there is one planned project due to commence in 2007, and one project under negotiation due to commence in 2008. The eight on-going PIP projects total US\$175.1 mln. The planned project has an estimated cost of US\$22.5 mln. and the project under negotiation has an estimated cost of US\$24 mln. Therefore, the total investment in the agricultural sector being implemented under the PIP, including on-going, planned and projects under negotiation, is currently US\$221.6 mln.

- On-farm Irrigation Project (US\$20 mln.) WB is establishing Water User Associations (WUAs). The WUAs are designed to take responsibility for management and maintenance of on-farm irrigation infrastructure, including drainage and rehabilitation. These are innovative institutional agricultural structures for Kyrgyzstan.
- Community Based Infrastructure Services (US\$36 mln.) ADB commenced implementation in September 2000 and is designed to restore water supply and sewerage system in rural areas.
- Rural Water Supply Project (US\$15 mln.) WB commenced implementation in April 2002. This project is also designed to restore water supply and sewerage system in rural areas.
- Agricultural Area Development Project (US\$36 mln.) ADB commenced implementation in September 2000. This is an integrated area development project

- Agricultural Services Support Project (US\$20.9 mln). WB commenced implementation in September 1998. This project is also an integrated agricultural project.

The above-cited PIP projects have been on-going for several years. Three of the following ongoing projects have only recently commenced implementation and two are awaiting start-up:

- Agro Business and Marketing Project (US\$12.7 mln). WB commenced implementation in 2005 and is being jointly implemented by the World Bank, Ministry of Agriculture and Ministry of Industry, Trade and Tourism.
- Water Management Improvement Project (US\$28.1 mln. WB)) commenced implementation in June 2006. The major part of these funds will be devoted to renovation of irrigation infrastructure and the establishment of WUAs' federations.
- Avian Flue Control Project (US\$6.4 mln). WB commenced implementation in September 2006 and the project has been jointly implemented by the World Bank, Ministry of Agriculture and Ministry of Health.
- Southern Agricultural Area Development Project (US\$22.5 mln. ADB is planned to commence implementation in 2007. It has a duration of six years and will be completed in 2012.
- Land Improvement Project (US\$24 mln.) grant funded by ADB US\$15 mln. with a five mln. loan and funding by the Government of US\$4 mln.

Detailed tables containing the Action Plan are presented in the following chapter.

VI. PROBLEMS, MEASURES AND PROJECTS BY STRATEGY COMPONENT

STRATEGY IMPACTS AND OUTCOME	
Outcomes	Verifiable indicators if available
<p>The outcomes of the Strategy are</p> <ul style="list-style-type: none"> ➤ reduced poverty level in rural areas, ➤ increased productivity of the agriculture sector, ➤ increased rural incomes, ➤ increased innovations by approximation of science and production, ➤ increased levels of private and foreign investment in the agriculture sector. 	<ul style="list-style-type: none"> ➤ Reduction in poverty levels in rural areas ➤ Increase in sectoral GDP ➤ Rural per capita income approximating national average ➤ Expansion in the level of sectoral R & D ➤ Increased level of investment in agriculture sector
Impacts	
	An environment established conducive to the adoption of innovations in the agriculture sector, from the policy formulation level to the farm-gate level, to achieve the vision, namely, (i) productive market-oriented agricultural system and (ii) prosperous rural communities

1. PUBLIC SERVICES SECTOR			
Outcome		Verifiable indicators if available	
Outcomes of the strategy in the Public Sector Component: <ul style="list-style-type: none">➤ strengthened institutional capacity of the sector governing agency (MAWRPI),➤ improved legal base governing agricultural production and investment,➤ trained cadre of the ministry in planning, policy formulation, strategy implementation, monitoring and evaluation,➤ increased ability of the Ministry in provision of public goods with their clear specification.		<ul style="list-style-type: none">➤ Increased number of trained civil servants➤ Number of new and upgraded legislative instruments.➤ Established capacity for sector planning and M&E.➤ Increase in quality and volume of public services	
Impacts			
	Increased efficiency of policy formulation and public goods provision in the agriculture sector		
Problems		Measures	Projects
1.1.	No HRD programs to provide regular and periodic training for Ministry staff	Establishment of Training and re-training programmes	1.1. Institutional Strengthening of the Agricultural Sector Public Administration

1. PUBLIC SERVICES SECTOR			
1.2.	Duplication of responsibilities at different levels of Government	Progressive restructuring of the Agricultural Sector Administration	
1.3.	Strong centralization of State functions - lack of devolved responsibility	Functional Decentralization is dependent upon fiscal decentralization	
1.4.	Absence of policy formulation capacity for agriculture	Training in policy formulation for senior Ministry officials	
1.5.	Limited NGO initiatives, and State agencies do not permit civil involvement in decision-making	Agricultural Strategy envisages PBA approach	
1.6.	Old-style management leading to ineffective and inadequate services provision	Training the Ministry staff in modern management methods	1.1. Institutional Strengthening of the Agricultural Sector Public Administration
1.7.	No budget decentralization - local government highly dependent on centralized grants	Ministry of Economy and Finance is in the process of fiscal decentralization	
1.8.	Inappropriate implementation of existing laws	Development of the MAWRPI's Legal Unit and training in legal provisions	1.6. Strengthening the Legal Office of the Ministry of Agriculture
1.9.	Limited finance for agricultural sector development	The Strategy develops Rural Finance system	7.1. Institutional Strengthening of Microfinance Institutions and Credit Unions
1.10.	Lack of favourable investment environment - macro issue	The Strategy provides for investment promotion by the MAWRPI	1.2. Agricultural Sector Investment Promotion and Programming
1.11.	Ineffective control systems for implementation of Government programs	The Strategy provides development of M&E system as a control mechanism	1.3. Development of the Capacity for Agriculture Sector Strategic Planning, Monitoring and Evaluation
1.12.	Low level of veterinary and sanitary expertise	Training of Veterinary and Sanitary Services staff	1.5. Improvement of Veterinary Services
1.13.	No proper legal provisions for private veterinary services	Introduction of legislative requirements for private veterinary services	1.5. Improvement of Veterinary Services & 1.6. Strengthening the Legal Office of the Ministry of Agriculture
1.14.	Weak quarantine control system (border and internal)	Strengthening quarantine control system	1.7. Strengthen Veterinary Border Controls, 1.4. Strengthening Phyto-Sanitary Management

1. PUBLIC SERVICES SECTOR			
1.15.	Poor quality of medicines and treatment and lack of control on their use	Provisions for laboratories and training of their staff	1.4. Strengthening Phyto-Sanitary Management 1.5. Improvement of Veterinary Services
1.16.	Limited epidemiology control and preventive measures	Provisions for laboratories and training of their staff	1.7. Strengthen Veterinary Border Controls, 1.8. Reduction and Prevention of Echinococcosis, 1.9. Removal and Prevention of Brucellosis
1.17.	Insufficient control over animal diseases, disinfectants	Provisions for laboratories and training of their staff	1.7. Strengthen the Veterinary Border Controls, 1.8. Reduction and Prevention of Echinococcosis, 1.9. Removal and Prevention of Brucellosis
1.18.	Pest, disease and weed controls are inadequate at border points and internally	Strengthening of Border Control posts	1.7. Strengthen the Veterinary Border Controls
1.19.	Insufficient control over storage and use of agro-chemicals	Training in the use of chemical fertilizers and up-grading storage	1.4. Strengthening Phyto-Sanitary Management
1.20.	Stocks of prohibited pesticides still exist and are in use	Phyto-sanitary regulation and control	1.4. Strengthening Phyto-Sanitary Management
1.21.	Shortage of phyto-sanitary staff and low level of technical skills	Training of phyto-sanitary staff	1.4. Strengthening Phyto-Sanitary Management
1.22.	Duplication of functions (MAWRPI, Ministry of Health, State Agency on Environment Protection and Forestry, National Institute on Standards and Metrology)	Legal proposals by MAWRPI, legislation is required at the national level	1.6. Strengthening the legal office of the Ministry of Agriculture
1.23.	Non-compliance with international standards (Codex Alimentarius, FAO/WHO, WTO)	Development of technical regulations and product safety requirements approximated to international standards	2.1. Technical Regulation for Agricultural Products and 2.3. Agricultural Product Safety Management
1.24.	Insufficient control over imported goods	Strengthening of the customs control. Initiatives of the Ministry of Economics and Finance	
1.25.	Lack of well-equipped laboratories and lack of specialists	Re-equipping laboratories and training of specialists	2.5. Establishment of a Laboratory for Food Product Quality Assessment

1. PUBLIC SERVICES SECTOR			
1.26.	Insufficient quality control over raw materials, food supplements, of drinking water, processing hygiene	Establishment of Routine Technology Laboratory to ensure compliance with food safety standards	2.5. Establishment of a Laboratory for Food Product Quality Assessment
1.27.	Lack of production standards and manufacturing control	Development of technical regulations and product safety requirements approximated to international standards	2.1. Technical Regulation for Agricultural Products and 2.3. Agricultural Product Safety Management

2. AGRO-PROCESSING, MARKETING AND INFORMATION			
Outcome			Verifiable indicators if available
The major outcomes in this specific area of the Strategy are <ul style="list-style-type: none">➤ Approximation to the international product safety and quality requirements to increase marketing of the agricultural products,➤ Established Coordinating Council to improve exports of the agricultural products and assist the processing enterprises,➤ Improved provision of extension services to the farmers.			<ul style="list-style-type: none">➤ Development of Technical Regulations for agricultural products➤ Operational Coordinating Council is established➤ Increase availability of Extension Services
Impacts			
	Increased farmers incomes via increased level of processing and marketing of the agricultural produce		
	Problems	Measures	Projects
2.1.	Inadequate market links for efficient market functioning	Wholesale market development	6.1. and 6.2. Pilot Wholesale Market Establishment
2.2.	Product quality is not reflected in prices	Development of technical regulations and product safety requirements approximated to international standards	2.1. Technical Regulation for Agricultural Products and 2.3. Agricultural Product Safety Management
2.3.	Inadequate competition in parts of marketing chain for inputs and outputs	Wholesale market development	6.1. and 6.2. Pilot Wholesale Market Establishment
2.4.	Missing market functions (grading, storing, and bulking)	Development of cooperation	6.4. Establishment and development of cooperatives
2.5.	Farmers limited awareness of existing ser-	Extend the coverage of rural commodity producers by Rural Advisory Services	2.6.Support to the development of the Rural Extension service in the KR. 2.2.Strengthening the capacity for Mar-

2. AGRO-PROCESSING, MARKETING AND INFORMATION			
	vice providers and marketing information	and Market-Information Services	keting-Information Service
2.6.	Limited knowledge of the rural population about their legal rights	Provide rural population, entrepreneurs, acting in agrobusiness with an access to legal services	2.7.Legal support of entrepreneurs, acting in agrobusiness, particularly in processing and marketing
2.7.	Limited market information and marketing analyses	Improve the activity of Market-Information Service	2.2. Strengthening the capacity for Marketing-Information Service
2.8.	Current information services not financially sustainable	Continued Government and donor support to RAS and Market-Information Services	2.6.Support to the development of the Rural Extension service in the KR. 2.2.Strengthening the capacity for Marketing-Information Service
2.9.	Lack of legal basis for leasing and limited knowledge of leasing arrangements	Revise tax treatment for leases, to reduce the constraints on private machinery leasing	2.7 Legal support of entrepreneurs, acting in agrobusiness, particularly in processing and agrobusiness
2.10.	Small farm size and low level of cooperation among farmers	Development of cooperation	6.4. Establishment and development of cooperatives
2.11.	Lack of repair stations and service enterprises	Training courses in maintenance of agricultural machinery	5.2. Establishment of Refresher courses in agriculture for public and private sector representatives
2.12.	Limited management and repair skills	Training courses in maintenance of agricultural machinery	5.2. Establishment of Refresher courses in agriculture for public and private sector representatives
2.13.	Outdated equipment	Revision of leasing taxation	7.1. Institutional Strengthening of Microfinance Institutions and Credit Unions
2.14.	Small number of agro-chemical and fertilizer supply installations	To improve the level of agrochemical and fertilizer services	1.4. Strengthening Phyto-Sanitary Management
2.15.	Insufficient laboratory capacity for soil, agro-chemical and fertilizer analyses	Provisions for laboratories and training of their staff	1.4. Strengthening Phyto-Sanitary Management
2.16.	Inefficient distribution systems and storage technology and facilities	Training in the use of chemical fertilizers and up-grading storage	1.4. Strengthening Phyto-Sanitary Management
2.17.	Inadequate stockbreeding services	To draft Law "On livestock breeding"	1.5. Improvement of Veterinary Services
2.18.	No long-range strategy for livestock improvements	To restructure veterinary services	1.5. Improvement of Veterinary Services

2. AGRO-PROCESSING, MARKETING AND INFORMATION

2.19.	Insufficient quality controls	Strengthening quality control system	1.4. Strengthening Phyto-Sanitary Management 1.5. Improvement of Veterinary Services 2.1. Technical Regulation for Agricultural Products and 2.3. Agricultural Product Safety Management 2.5. Establishment of a Laboratory for Food Product Quality Assessment
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3. LAND MARKET DEVELOPMENT

Outcomes		Verifiable indicators if available	
Outcomes of this area of the Strategy are: <ul style="list-style-type: none">➤ Registration of all types of agricultural lands and development of the land information system,➤ Rational use of agricultural land, and➤ Prevention of land degradation		<ul style="list-style-type: none">➤ Cadastral Survey conducted➤ KLIS established and operational➤ Land productivity increase➤ Reduction in land degradation	
Impacts			
	Land is fully registered and land market developed		
Problems		Measures	Projects
3.1.	Land valuation for taxation purposes does not reflect market value	Investment measures: Develop new methods of cadastral valuation of agricultural land and conduct evaluation work of agricultural land	3.2. Cadastral Valuation of Agricultural Land
3.2.	Boundaries between public and privately used land not clear	Investment measures: Conduct the survey and mapping of borders of agricultural land plots	3.1. Conduct of the Cadastral Survey of Agricultural Land
3.3.	The procedure on registration of land rights is not completed	Registration of land rights will be completed by December 2007 with the assistance of the WB Project, Land and Real Estate Registration Project	World Bank
3.4.	Limited legal literacy of the population, Government and local administration	The activity of public associations LARC and Aiyl Demilgechi for raising of legal literacy in rural areas	On-going Project

3. LAND MARKET DEVELOPMENT			
3.5.	Family, not individual, "ownership" creates problems as individuals die, leave, marry etc.	Legal measures: Development of Law on Real Property Formation. Currently, the Swedesurvey Project, Strengthening Land Administration in Kyrgyzstan is developing this Law	On-going Project
3.6.	Actual area belonging to family/individual not always defined (only the share size of a field)	Investment measures: Conduct the survey and mapping of borders of agricultural land plots	3.1. Conduct of the Cadastral Survey of Agricultural Land
3.7.	Weak lease law discourages development of rental market	Legal Measures: Introduce amendments into the Law on Agricultural Land Management (USAID/Chemonics Project)	3.8. Development of Kyrgyz Land Information System
3.8.	Restriction on land ownership and transfer limits land market development		
3.9.	Market information on land prices or rental costs is inadequate	Conduct the survey	3.2. Cadastral Valuation of Agricultural Land
3.10.	No long term credit available for land purchase	Problem addressed in Rural Finance Component	7.1. Institutional strengthening of micro-finance institutions and credit unions
3.11.	Insufficient understanding by rural citizens on their rights in pasture rental	Legal Measures: Development of Law on Pastures Management (USAID/Chemonics Project)	On-going Project
3.12.	Insufficient involvement of local communities and institutes in pastures management	It is necessary to review measures for establishment of the pastureland users association.	3.7. Monitoring of leased pastures
3.13.	Low productivity from inefficient management	Capacity Building Measures: (I) Formulation of Pastures Development Concept (Chemonics project/USAID) (ii) Training in establishment of pastureland users associations, in conducting farmers' monitoring of pastures condition	3.4. Upgrading the Management and Rational Use of Pasturelands
			3.7. Monitoring of leased pastures

3. LAND MARKET DEVELOPMENT			
3.14.	Inefficient land management and allocation of the LRF lands	Investment measures: (I) Inventory of the lands of the Land Redistribution Fund (ii) Zoning of the lands of the LRF (iii) Development of future plans of use of the lands of the LRF	3.1. Conduct of the Cadastral Survey of Agricultural Land
		Legal measures: Adoption and Implementation of new Regulations on Management of the LRF lands / (USAID/Chemonics Project)	3.3. Strengthening Management and Use of the Land of the Land Redistribution Fund
3.15.	Privatization of state land not completed	Capacity Building: (i) Development and Approval of the Concept of Future Use of the LRF Lands (Chemonics Project/USAID) (ii) extend the competence of aiyl keneshs in management of the lands of the LRF	On-going Project
3.16.	Lack of knowledge and understanding of relevant laws by farmers and officials	Measures to upgrade legal literacy	3.3. Strengthening Management and Use of the Land of the Land Redistribution Fund
3.17.	Arable land degradation	It is necessary to decrease the degradation processes by (i) application of modern technologies of irrigation and tillage and by (ii) improvement of erosion-preventive and water-saving techniques on irrigated crop lands by (iii) application of improved crop rotation schemes	3.6. Application of Irrigation and Tillage Technologies for Decreasing Degradation Processes
			3.6. Methods of irrigation and water-distribution for prevention of irrigation erosion in mountain zones
3.18.	Pasturelands degradation	It is necessary (i) to conduct the inventory of pasturelands (ii) to undertake renovation of important pastures infrastructure (iii) to allocate the primary responsibility for pasture management to pastureland users, rural communities on long-term lease conditions.	3.1. Conduct of the Cadastral Survey of Agricultural Land
			3.4. Upgrading the Management and Rational Use of Pasturelands

4. WATER RESOURCES MANAGEMENT			
Outcome			Verifiable indicators if available
The outcomes of the strategy in the area of water resources management are : <ul style="list-style-type: none">➤ Up-graded irrigation infrastructure,➤ Increased efficiency and responsibility of the WUAs,➤ Improved basin management,➤ Trained cadre and farmers in efficient and non-gratis use of water and irrigation infrastructure.			<ul style="list-style-type: none">➤ Measure of irrigation infrastructure renovated➤ Fee collections of the WUAs and expenses coverage➤ Measure of land salinization➤ Number of trained staff and farmers
Impacts			
	Increased efficiency of water resources use		
Problems		Measures	Projects
4.1.	Poor condition of irrigation infrastructure	Renovate and modernize irrigation infrastructure at on-farm and off-farm levels.	4.1.Second Irrigation Rehabilitation Project, 4.3.Second On-farm Irrigation Project
4.2.	Increase of arable lands affected by water logging and soil salinity	Rehabilitate and construct new drainage systems	4.4.Land Reclamation Project
4.3.	Limited capacity of the public sector organizations and the WUAs in terms of their financial and human resources	Strengthen the institutional capacity of public and private sector water institutions by providing necessary support including trainings.	4.3. Second On-farm Irrigation Project
4.4.	Existing tariffs do not cover the water supply costs (ISF)	Increase Irrigation Service Fee using phased approach	Project 4.3. Second On-Farm Irrigation Project and Project 4.5. Water User Associations Capacity Strengthening Project
4.5.	Lack of regulations on division of functions and responsibilities between Department of Water Resources and Water User Associations.	Clear division of responsibilities and functions between DWRs and WUAs	Project 4.5. Water User Associations Capacity Strengthening Project

5. TRAINING, RESEARCH AND DEVELOPMENT (R&D)				
Outcome			Verifiable indicators if available	
The outcomes of of the Strategy are <ul style="list-style-type: none">➤ Strengthened capacity of the Agrarian Academy and agriculture training institutions in delivering market-oriented cadre,➤ Close coordination of the policy formulation and cadre development, i.e. MAWPI and Agrarian Academy,➤ Regular training courses in innovative technologies of agricultural production and processing.			<ul style="list-style-type: none">➤ Coordinated policy and cadre development➤ Curricula approximated to market requirements➤ Regular training accessible to all levels of agricultural workers	
Impacts				
Science and R&D outputs adapted for practical utilization				
Problems		Measures		Projects
5.1.	Agricultural graduates not getting jobs in their specialization	Capacity building 1. Develop clear demarcation of functions between educational institutions vocational, higher education and scientific research institutions 2. Laboratories to be appropriately equipped and teaching staff competent and high skilled Policy measures: MAWRPI to form a unified policy in agricultural education jointly with the Ministry of Education and Science. Adequate training, financing and staffing for effective functioning; strengthening of the integration between SRI and international institutes. Government and donor support for RAS and KAMIS. Legal measures:		5.4. Capacity Building of the KAU
5.2.	Poor quality of teachers and trainers in higher and vocational education system			5.3. Development of Vocational Education (on the pilot base of Talas Agricultural Technical School)
5.3.	Weak financial basis of higher education and research			5.1. Establishment of a school for agribusiness
5.4.	No retraining programs for specialists/advisors			
5.5.	Lack of integration between science, education and production			5.4. Capacity Building of the KAU
5.6.	Limited knowledge of farmers on farming practices-lack of training opportunities for farmers			5.2.Center for refresher courses in agriculture
5.7.	Limited use of recommended varieties			
5.8.	Lack of relations between information services (KAMIS) and rural advisory services			2.6.Support to the development of the Rural Extension service in the KR.
5.9.	Limited coverage of rural population by advisory services			2.2.Strengthening the capacity for Marketing-Information Service

5. TRAINING, RESEARCH AND DEVELOPMENT (R&D)			
5.10.	Weak competition on market for advisory services	Review the <i>Law on Breeding Livestock</i> Review the <i>Law On Legal Protection of Selection Achievements</i> to develop a new Law on <i>Legal Protection of New Plant Varieties Rights</i> and <i>Law On Author Rights in Livestock Breeding</i>	2.6.Support to the development of the Rural Extension service in the KR.
5.11.	No adaptation of scientific research to the needs of small farms		5.2.Center for refresher courses in agriculture
5.12.	Poor genetic potential of varieties of cereals, industrial crops and animals		2.6.Support to the development of the Rural Extension service in the KR.
5.13.	Violation of rules in seed production and selection - lower quality outputs		SIDA project
5.14.	Lack of strategic research programs and management		5.4. Capacity Building of the KAU
5.15.	Weak development of primary seed production		2.6.Support to the development of the Rural Extension service in the KR.
5.16.	Quality of education and research inadequate		5.4. Capacity Building of the KAU

6. TRADE AND TAX POLICY			
Outcome		Verifiable indicators if available	
The Strategy will produce the following outcomes: <ul style="list-style-type: none">➤ Establishment of two wholesale markets in two regions of the Republic,➤ Establishment of border markets and one-stop-shop to increase sales of agriculture produce with limited cross-border procedures,➤ Increase awareness of the farmers in development of greater value added production, such as organic agriculture.		<ul style="list-style-type: none">➤ Two wholesale markets established➤ Border markets established➤ Organic agriculture is in the process of development	
Impacts			
	Elimination of barriers to trade in agricultural produce and establishment of tax environment conducive for processing agricultural produce and increase marketing farm products and farmers incomes.		
Problems		Measures	Projects
6.1.	Foreign unofficial discriminatory treatment of Kyrgyz	Policy Measures	2.4. Coordination Council for Agro-

6. TRADE AND TAX POLICY			
	exports during transit	1. Improve Implementation of International Agreements with assistance of Coordination Council	business and Export
		Legal Measures	
6.2.	Limited customs revenues resulting from transit corruption on exports	2. Amendments to the Customs Code on location of other services at the border points	2.4. Coordination Council for Agrobusiness and Export
6.3.	Periodic levies during transit on agricultural exports lowers farm incomes	3. Simplify Foreign Trade Procedures and Anti-corruption Measures	6.5. One-Stop-Shop Project
6.4.	Smuggling of imports into the country	Capacity Building Measures	
		4. Wholesale market development	6.1. and 6.2. Pilot Wholesale Market Establishment
		5. Border Market Development	6.6. Project on Agricultural Border Market
	Suppressed potential internal demand for agricultural products	Legal Measures:	2.4. Coordination Council for Agrobusiness and Export
		1. Develop proposals to the Tax Code on tax incentives for processing enterprises	
		2. Develop proposals on compensatory fiscal revenues from the sector	
6.5.	Limitation of both capital and collateral for development of cooperatives	(addressed in Rural Finance Component)	7.1. Institutional Strengthening of Microfinance Institutions and Credit Unions
6.6.	Insufficient information among farmers on available services of financial institutions	(addressed in Rural Finance and Marketing Components)	7.1. Institutional Strengthening of Microfinance Institutions and Credit Unions and 2.2. Strengthening of Marketing and Information Services Capabilities
6.7.	Lack of trust in the role of cooperative system for farm development	Legal Measures	6.4. Establishment and Development of Cooperatives
6.8.	Excessive Government interference in cooperative development	1. Make amendments to the Tax legislation on non-taxation of cooperatives	
6.9.	Farmers lack of knowledge of activities and potential benefits of cooperatives	Capacity Building Measures	

6. TRADE AND TAX POLICY		
	Inability of farmers to market their products	2. Promote establishment of marketing cooperatives
	Farmers pricing is vulnerable to influence of intermediaries	3. Conduct Training and sensitisation on benefit of cooperatives
6.10.	Lack of management skills by heads of cooperatives and lack of economic, legal and tax knowledge	

7. RURAL FINANCE			
Outcome		Verifiable indicators if available	
The strategy will produce the following outcomes: <ul style="list-style-type: none">➤ Legal base of the microlending improved,➤ Institutional capacity for rural lending increased,➤ Environment conducive for development of agricultural insurance is established		<ul style="list-style-type: none">➤ Number of rural lending institutions increase➤ Employees of CUs and MFIs are trained➤ Agricultural insurance companies are established	
Impacts			
	Increased access to credit and insurance in rural areas		
Problems		Measures	Projects
7.1.	Insufficient number of credit institutions serving agriculture	Legal measures:	7.1.Institutional strengthening of micro-finance institutions and credit unions
7.2.	High interest rates and lack of competition	Amendments to Microfinance Law, credit union Law, law on collateral, law on mortgage	
7.3.	Insufficient credit relative to demand		
7.4.	No medium or long term credit - land cannot be used as collateral	Capacity building measures Assist to Microfinance institutions with training, innovative programs, new technologies and TA	
7.5.	No development of insurance mechanisms	Legal measures:	7.2. Developing the insurance system for agricultural development
		Creation of legal framework	

7. RURAL FINANCE			
		Capacity building measures:	
		Strengthening of insurance companies	
		Integration with microfinance system	

8. RURAL DEVELOPMENT			
Outcome			Verifiable indicators if available
The Strategy will produce the following outcomes: <ul style="list-style-type: none">➤ Improved rural infrastructure including rural water supply and rural roads infrastructure,➤ Increased capacity for non agricultural incomes via development of supportive activities and other SMEs			<ul style="list-style-type: none">➤ Safe water supply infrastructure in rural areas➤ Rural roads repair➤ Non-agricultural SMEs established➤ Non-agricultural employment increasing
5			
Improved rural infrastructure and non-agricultural incomes of rural population			
Problems		Measures	Projects
8.1.	Lack of access to sanitary water supplies	Improve access and infrastructure of water supply	8.3. Rural Water Supply Project
8.2.	High level of unemployment in rural economy	Incentives for the creation of jobs in non-agricultural activities and establishment of SMEs	8.1. Rural Development Project
8.3.	Inadequate infrastructure and utilities restricts economic development	Rural Infrastructure development	8.1. Rural Development Project
8.4.	Inadequate social provisions (schools, hospitals etc)	Infrastructure development by the MoH and MoE	8.1. Rural Development Project
8.5.	High level of rural to urban migration results in ageing rural populations	Incentives for the creation of jobs in non-agricultural activities and establishment of SMEs	8.4. Rural SME Development
8.6.	Wide spread of erosion, soil degradation	to be addressed in the Land Market Development Component	6.3. Organic Agriculture Development

8. RURAL DEVELOPMENT			
8.7.	No capacity for waste recycling	Develop Rural Infrastructure and Fiscal Decentralization	8.1. Rural Development Project
8.8.	Deforestation	Institute measures to reduce deforestation	to be addressed by Ministry of Environment
8.9.	Illegal hunting	Institute measures to reduce illegal hunting	to be addressed by Ministry of Environment
8.10.	Uncontrolled application of pesticides	Improve Land Management and Farm Practices	3.3. Strengthening Management and Use of the Land of the Land Redistribution Fund, 3.4. Upgrading the Management and Rational Use of Pasturelands, 3.5. Application of Irrigation and Tillage Technologies for Decreasing Degradation Processes
8.11.	Access to information and low level of management skills	Training and Information provision measures	2.2. Strengthening of Marketing and Information Services Capabilities
8.12.	Lack of motivation to problem-solving by decision makers	Fiscal Decentralization measures	Fiscal Decentralization conducted by the Ministry of Economics and Finance
8.13.	State regulations are not implemented	Revision of the Legal Base, and Development of Recommendations	1.6. Strengthening the Legal Office of the Ministry of Agriculture
8.14.	The expertise and technical capabilities of staff are inadequate	Fiscal Decentralization measures	Fiscal Decentralization conducted by the Ministry of Economics and Finance
8.15.	Insufficient cooperation between ministries, departments and communities in monitoring land, water resources and biodiversity	Cross-cutting issues, as addressed in 1.6. of the Strategy, including ecological problems, and measures for them must be addressed in a comprehensive manner by all Government agencies	to be addressed by Ministry of Environment in consultation with the government bodies
8.16.	Insufficient public involvement in decision-making process on ecological problems		
8.17.	There is no eco-monitoring system with appropriate indicators	Institute measures for eco-monitoring	to be addressed by Ministry of Environment in consultation with the government bodies
8.18.	The legal and enforceable protection for natural ecosystems is lacking	Legal strengthening of the ecology protection	to be addressed by Ministry of Environment in consultation with the government bodies

ANNEX I: PROJECT PROFILES BY COMPONENTS

1. PUBLIC SECTOR SERVICES

Projects identified for financing:	
1.1	Institutional Strengthening of the Public Administration
1.2	Agricultural Sector Investment Promotion and Programming
1.3	Development of the Capacity for Agriculture Sector Strategic Planning, Monitoring and Evaluation
1.4	Strengthening Phyto-Sanitary Management
1.5	Capacity building of the Veterinary Service of the Kyrgyz Republic
1.6	Strengthening the Legal Office of the Ministry of Agriculture
1.7	Strengthening the Veterinary Border Controls
1.8	Reduction and Prevention of Echinococcosis
1.9	Removal and Prevention of Brucellosis

Project 1.1	
Project Title	Institutional Strengthening of the Public Administration
Implementing Agency	The MAWRPI and the regional and local level agricultural administrations.
Project Outcome	This project requires donor support and intervention. It will increase the quality and efficiency of agricultural public services by enhancing the efficiency and effectiveness of agriculture sector administrations through a comprehensive program of technical assistance training interventions.
Project Impacts	<p>The Project will directly address the priority policy directions for agricultural sector development specified in the Country Development Strategy (2006-2010) and in the Agriculture Development Strategy. The Project will have 3 major outputs.</p> <ul style="list-style-type: none"> • Needs assessments completed at the three levels of the agriculture sector Public Administration; • HRD programs consisting of two elements namely, training programs and career development system specifications. • Specification and development of the Agriculture Public Sector Management System. This involves studies of best International Practices for the progressive development of the Kyrgyz agricultural administration system.
Project Activities	<ul style="list-style-type: none"> • Conduct training needs assessments • Develop specifications of training programs (domestic training through the Agrarian University; foreign training, study missions and attachments) • Design a career development system specifications (HRD) • Complete studies of best International Practices in agriculture sector administration • Develop specifications for the Kyrgyz system and the agenda for its phased implementation.
Duration and Timing	Three years duration, (2007-2009)
Estimated Budget	US\$ 1.5 mln.

Project 1.2	
Project Title:	Agricultural Sector Investment Promotion and Programming
Implementing Agency	The MAWRPI (principally the Main Directorate of Agrarian Policy and Investments) and the Oblast and Rayon Administrations. Beneficiaries will include other relevant official bodies, Business Associations, civil society organizations, foreign and domestic investors and international organizations.
Project Outcome	Established capacity in the MAWR for investment promotion as well as in the official bodies that are concerned with agricultural investment promotion and programming.
Project Impacts	Established capacity in the MAWR for: <ul style="list-style-type: none"> • Investment promotion in the agricultural and agro-processing sector • Investment programming at the central and regional levels, thus contributing to regional development and poverty alleviation in the Republic • Achievement of the objectives specified for the agro-processing sub-sector contained in the Country Development Strategy (CDS) and in the Agricultural Development Strategy (ADS).
Project Activities	<ul style="list-style-type: none"> • Analysis of the relevant international practices and new approaches in agricultural investment promotion and programming at the Central and Regional Government levels; • Assist in the preparation of agricultural investment promotion and programs at the central and regional levels. • Develop training materials and programs and train relevant officials in investment programming (formulation, implementation and monitoring) and cultural requirements for investment attraction. Training will also include Study Missions for senior officials on foreign investment mobilization.
Duration and timing	18 months (June 2007-Dec 2008)
Estimated Budget	US\$ 750,000

Project 1.3	
Project Title	Development of the Capacity for Agriculture Sector Strategic Planning, Monitoring and Evaluation
Implementing Agency	The MAWPR and the Oblast and Rayon agricultural administrations. Beneficiaries will include other relevant official bodies, business associations, civil society organizations, and other private sector agencies that participate in strategy formulation and implementation.
Project Outcome	Established capacity for strategic planning, monitoring and evaluation linked with the implementation of the Agricultural Development Strategy within the Framework of the "Strategy Cycle" methodology.
Project Impacts	<p>The Government has initiated the formulation of a sound long-range agriculture development strategy. The strategy constitutes an effective coordinating instrument for the initiatives directed to agriculture sector development. There are two main project outputs;</p> <ul style="list-style-type: none"> • Established of the capacity to develop and operate a strategy monitoring and evaluation system, and • The capacity to up-date the development strategy so that it becomes an increasingly effective instrument for agriculture strategic planning.
Project Activities	<ul style="list-style-type: none"> • Establish the Office for M&E • Develop training materials and conduct training for M&E staff and regional officials • Disseminate information and conduct PR on the agricultural strategy • Link regional development initiatives with agricultural development, • Link local agricultural sector planning with local self-government rural infrastructure development planning • Link small-scale commercial agricultural development initiatives with agricultural sector-wide initiatives • Provide mechanisms and procedures for the development of a participatory strategy planning process, • Identify specific agricultural operations amenable to the development of public-private-partnerships for inclusion in the strategy.
Duration and timing	Two years, (2007-2009)
Estimated Budget	US\$ 750,000

Project 1.4	
Project Title*:	Strengthening Phyto-Sanitary Management**
Implementing Agency	MAWRPI
Project Outcome	Effective systems for phytosanitary control
Project impacts	<ul style="list-style-type: none"> • Modernised legal frameworks for phytosanitary control • Operation manuals consistent with International Standards and with measures to facilitate trade • Surveillance system for the economically important tradable commodities in order to support pest risk analyses and to fulfil pest reporting obligations to the IPPC and trading partners • Strengthened post entry quarantine and pest diagnostic capabilities of phytosanitary facilities in strategically important locations • Phytosanitary Capacity Evaluation identifying weaknesses to be addressed and to provide the basis for a strategic plan
Project Activities	<ul style="list-style-type: none"> • Cooperate with the proposed project for Strengthening the Legal Office of Ministry of Agriculture • Revise manuals and legal instruments for phytosanitary control and international standards • Propose measures to strengthen surveillance systems, post entry control, pest diagnosis and pest risk analysis • Conduct training needs assessment for all areas of the phytosanitary systems and conduct training for officers and assistants at all levels
Duration and timing	18 months (June 2007 – December 2008)
Estimated Budget	US\$ 600,000

* This Project is developed from the ToR of an FAO Project that was not implemented.

** The absence of adequate phyto-sanitary systems hampers the development of exports to traditional trading partners and market access to other potential partners as well as allowing the entrance of pests and diseases which have lead to reduced production and the rejection of produce intended for export. Also, as a recent member of the International and European Plant Protection organisations, checking and revision of relevant national regulations will be part of the Project Activities.

Project 1.5	
Project Title:	Capacity Building of the Veterinary Service of the Kyrgyz Republic*
Implementing Agency	MAWRPI
Project Outcome	Strengthened public, private and community veterinary systems and more effective partnerships between them.
Project Impacts	<ul style="list-style-type: none"> • Improved management of the Public Veterinary Service to enable it to focus on its new functions of regulation, monitoring, border and quality control, • Enhanced capacity of the private veterinarians to provide quality services to livestock owners. • Improved animal health situation through the facilitation of high-quality drugs and vaccines
Project Activities	<ul style="list-style-type: none"> • Elaborate the Strategy for Veterinary Services in Kyrgyzstan • Elaborate the Law on Veterinary in cooperation with the stakeholders, both state and private. • Clarify the responsibilities of public and private sector and reflect it in "Law on Veterinary" • Issue and to approve the list of services provided by the public and private veterinarians • Define an educational programme which in line with the Strategy of the SVD • Provide support to the private veterinary association it to provide services to its members and training programmes for upgrading skills • Assess the needs for provision of necessary equipment, high quality drugs and vaccines • Prepare an appropriate awareness campaign, in cooperation with media and stakeholders, for the livestock owners and rural population on prevention and spread of infectious diseases
Duration and timing	18 months (June 2007-December 2008)
Estimated Budget	US\$ 750,000

*This project includes the State Veterinary Department, Republican Veterinary Laboratory staff. The project is wide ranging and it is recommended that it be divided to subprojects or components

Project 1.6	
Project Title	Strengthening the Legal Office of the MAWRPI
Implementing Agency	Office of the Permanent Secretary of the MAWRPI
Project Outcome	Established capacity in the Legal Office of the MAWRPI to provide the legal services necessary for the administration of a modern agriculture sector through training and operational support, including access to computerized legal databases.
Project Outputs	<p>The Project has two main outputs:</p> <ul style="list-style-type: none"> • Well-trained lawyers and staff of the MAWRPI. • Increased capacity of the Legal Office of the MAWRPI.
Project Activities	<ul style="list-style-type: none"> • Conduct training in topics for legislative intervention in the agricultural sector and in drafting implementing legislation. • Conduct basic training on hierarchy of legal norms, the Constitution (separation of powers and exercise of executive versus legislative powers), the Civil and Land Codes, and administrative law, including the role of the Administration as a supervisory and regulatory body in a market economy. • Provide international technical assistance including training on particular legal issues, such as water or food law. • Identify a staff member from each technical service within the MAWRPI for training in legal concepts to improve the quality of legislation drafted by the Ministry's technical services.
Operational Support	<ul style="list-style-type: none"> • Draft legislation (draft and vet MAWRPI legislation and work with other Ministries and agencies which draft legislation affecting agriculture); • Collect, update and issue MAWRPI legislation in a systematic manner; • Collect, update and disseminate other relevant Kyrgyz legislation which affects agriculture; • Collect, update and disseminate all international agreements to which the Kyrgyz Republic is a party in the agricultural field; and • Maintain access to a library of agricultural legislation and relevant international references.
Duration and Timing	Two years, (2007-2008)
Estimated Budget	US\$ 600,000

Project 1.7	
Project Title	Strengthening the Veterinary Border Controls
Implementing Agency	MAWRPI, Department of State Veterinary, Border Veterinary Control Point
Project Outcome	Improved protection against livestock diseases passing across the national borders
Project Impacts	<ul style="list-style-type: none"> • Improved veterinary control points and their approximation to international standards. • Trained staff of border control check points to international standards using the OIE's PVS instruments and WTO requirements
Project Activities	<ul style="list-style-type: none"> • Analysis of veterinary border controls using published analyses (including, of the Veterinary Militia provided in the Functional Review of the State Department of Veterinary, Republican Central Veterinary Laboratory and Department of Boundary Veterinary Quarantine Militia Operations for the MAWRPI, produced by the TACIS project "Support to the Civil Service Reform", December, 2005) and investigate changes that may have occurred. • Assess the needs for renovation of buildings and development of infrastructure for veterinary sanitary services at specific border points • Create mini-laboratories for rapid analyses • Create a database to enable each border veterinary point to enter diseases that are identified • Prepare Training Needs Analysis for all levels of the Department, prepare training materials and select appropriate members of the Department to undergo training as trainers for the whole Department
Duration and Timing	18 months (June 2007 – December 2008)
Estimated Budget	US\$ 600,000

Project 1.8	
Project Title	Reduction and Prevention of Echinococcosis
Implementing Agency	State Veterinary Department of the MAWRPI
Project Outcome	Reduction in the incidence of Echinococcosis in humans and animals.
Project Outputs	<ul style="list-style-type: none"> • Reduction in the cases of Echinococcosis disease in animals and humans. • Improved system of epizootic control of Echinococcosis.
Project Activities	<ul style="list-style-type: none"> • Evaluate the current epizootic situation of Echinococcosis of animals. • Develop a comprehensive plan of staged animal sanitation from Echinococcosis from 2007 to 2010 with the inclusion of private veterinary entities. • Ensure effective laboratory testing of Echinococcosis in populated areas, farms and individual households based on epizootic and epidemiological data. • Ensure comprehensive registration of animals in urban and rural areas by issuing identifying documentation. • Removal of intestinal worms against Echinococcosis. • Training of veterinary specialists, farmers and animal owners in organization of measures against Echinococcosis at the field and social mobilization of the population.
Duration and Timing	5 years, 2007-2011
Estimated Budget	US\$ 1.9 mln.

Project 1.9	
Project Title	Removal and Prevention of Brucellosis*
Implementing Agency	State Veterinary Department of the MAWRPI
Project Outcome	Reduction in the cases of brucellosis in animals and humans and development of preventive care against infection from animal products.
Project Impacts	<ul style="list-style-type: none"> • Reduction in the incidence of brucellosis in animals and humans • Strengthened system of prevention of infection from animal products
Project Activities	<ul style="list-style-type: none"> • Evaluate the epizootic situation of brucellosis in animals under private, State and collective ownership. • Develop a comprehensive plan (2007-2010) of staged sanitation for animal brucellosis with private veterinary entities. • Ensure full laboratory testing for brucellosis in carnivores in populated areas, farms and individual households based on epizootic and epidemiological data. • Ensure programmed insemination and lambing of sheep in the fields to create conditions for programmed vaccination. • Effective preventive immunization of sheep against brucellosis. • Training of veterinary specialists, farmers and animal owners in the organization of measures against brucellosis.
Duration and Timing	5 years, 2007-2011
Estimated Budget	US\$ 4.2 mln.

* The Kyrgyz Republic is in an increasingly dangerous situation from the number of cases of brucellosis in animals and humans and as a result of the poor epizootic situation, animal brucellosis continues to increase

2. AGRO-PROCESSING AND MARKETING

List of on-going Projects

In the area of agro-processing and marketing development there are number of on-going donor initiatives, including:

1. **Agro-Business and Marketing Project** (WB). The Project aims to develop competitive products and the internal market.
2. **Development of Trade and Services Cooperatives**, (GTZ). Project aimed at marketing products via cooperatives.
3. **Foundation of Raiffeisen Cooperatives** (GTZ) aimed at the development of the co-operation movement in general.
4. **Cooperatives Development in the South of the Country** (AFD).
5. **Trade Promotion in the Kyrgyz Republic** (SECO funded Project) aims is to strengthen the sustainable expansion and diversification of SME exports.
6. **Kyrgyz Agro-input Enterprise Development Project** (USAID). The project aims to develop inputs supply market sector in the South.
7. **Farmer to Farmer Program** (USAID). The Project aims to improve agro-production, processing, storage and marketing on farm management tools and new technologies.
8. **Agricultural Area Development Project in Chui Oblast** (ADB) The project aim is to increase farm productivity and rural incomes of Chui Oblast.
9. **The Study on Effective Management of Agriculture and Processing Industry in the Kyrgyz Republic** (JICA). The Project is to study effective management of agriculture and processing industry with the aim of increasing income of farmers and enterprises
10. **Organic Cotton Production and Trade Promotion Project (BioCotton)** (SECO, Hivos) The Project aims to develop and support production of organic cotton and other products both for domestic and international markets.
11. **Legal Assistance to Rural Citizens (Public Association “LARC”)**. The main objective is to render legal services for socially vulnerable groups of the population, acting in agrobusiness, particularly in processing and marketing.

List of Projects that Requiring Financing:	
2.1	Technical Regulation for Agricultural Products
2.2	Strengthening the Capacity for Marketing Information Services
2.3	Agricultural Product Safety Management
2.4	Establishment of the Coordination Council for Agro-Business and Marketing (in the framework of on-going Agro-Business and Marketing Project)
2.5	Establishment of a Laboratory for Food Product Quality Assessment
2.6	Support to the Development of the Rural Extension Service
2.7	Legal support of entrepreneurs, acting in agrobusiness particularly in processing and marketing

Project 2.1	
Project Title	Technical Regulation for Agricultural Products
Beneficiary Agency	MAWRPI , Ministry of Industry, Trade and Tourism, other licensing agencies
Project Outcome	Increased competitiveness of Kyrgyz agricultural products through the reduction of administrative barriers and the development of a single document for licensed agricultural products.
Project Impacts	<ul style="list-style-type: none"> • A legal framework and monitoring mechanism for implementation of simplified licensing, permits and elimination of administrative barriers; • Established institutional capacity, including restructuring of institutions for technical regulation
Project Activities	<ul style="list-style-type: none"> • Develop Technical Rules for the agricultural products, including input supplies; • Define roles and institutional responsibilities of all relevant agencies and eliminate duplication of functions and conflicts of interest; • Develop a program for progressive conversion to Technical Regulations requirements.
Duration and Timing	5 years (2007-2011)
Estimated Cost	US\$ 2.2 mln.

Project 2.2	
Project Title	Strengthening the Capacity for Marketing Information Services
Implementing Agency	KAMIS
Project Outcome	Establishment sustainable services in the provision of marketing information
Project Impacts	<ul style="list-style-type: none"> • Marketing information services coverage to a greater number of rural commodity producers • Strengthened marketing services through optimal functioning of analytical units (price, demand and supply forecasting)
Project Activities	<ul style="list-style-type: none"> • Introduce measures to improve the efficiency and effectiveness of the marketing information services • Provide training on market information analysis
Duration and Timing:	3 years (2007-2009)
Estimated Budget	US\$ 300,000

Project 2.3	
Project Title	Agricultural Product Safety Management
Implementing Agency	MAWRPI, Ministry of Industry, Trade and Tourism
Project Outcome	Increased safety of Kyrgyz agricultural products and increased export market demand.
Project Impacts	<ul style="list-style-type: none"> • Increased export potential through the increased safety of the agricultural products; • Established technical capacity to ensure product safety; • Effective capacity of laboratories to check product safety on a routine basis
Project Activities	<ul style="list-style-type: none"> • Assist the National Accreditation Center* to obtain ILAC membership** • Improve the technical and physical capacity of specified laboratories; • Conduct training on product safety, HACCP, and other specified standards of the private and public sector***.
Duration and Timing	4 years (timing to be determined)
Estimated Cost	US\$ 2.7 mln.

* The issue on National body of accreditation has been solved in accordance with the Government Resolution No. 795 "On Accreditation of the Conformity Assessment Bodies in the Kyrgyz Republic", dated of November 16, 2006

** This important activities will be implemented in the medium-term perspective by SECO "Trade Promotion in the Kyrgyz Republic" project run by International Trade center.

*** SECO "Trade Promotion in the Kyrgyz Republic" will assist implementation of HACCP systems at selected fruit and vegetable processing enterprises.

Project 2.4	
Project Title*	Establishment of the Coordination Council for Agro-Business and Marketing (in the framework of on-going Agro-Business and Marketing Project)
Implementing Agency	ABCC, MAWRPI, Ministry of Industry, Trade and Tourism, Ministry of Finance, Customs and Tax Inspectorate, Antimonopoly, Local governments
Project Outcome	Established system of incentives for the development of agricultural processing enterprises and increased access to external markets
Project Impacts⁴⁸	<ul style="list-style-type: none"> Proposals on tax incentives for the processing enterprises and identifying compensatory measures for the loss of budget revenues (eg. differentiated land tax); Recommendations on and implementation of deregulation measures for processing enterprises and agricultural exports; A package of incentives for establishment and development of small-scale processing enterprises.
Project Activities	<ul style="list-style-type: none"> Conduct analysis of tax incentives and budget revenues; Analyse measures for deregulation; Establishment of the Coordination Council in the ABCC for export promotion measures; Monitor efficient implementation of the measures cited in the package
Duration and Timing	4 years (2007-2010)
Estimated Cost	This initiative could be part of on-going projects (it requires approval by the Donors involved)

* This Project is designed to become part of the on-going donor initiatives in export promotion and agro-business development, including: GTZ Support to Regional Economic Cooperation, World Bank Agro-business and Marketing Project, ITC UNCTAD/WTO trade Promotion Project and others.

48 The Project will design and implement a set of requirements necessary for the development of agricultural processing enterprises, including tax incentives, removal of administrative barriers, and provision of other incentives, stimulating small and medium-scale processing enterprises both at the central and local Government levels, as well as conducting export promotion measures.

Project 2.5	
Project Title	Establishment of a Laboratory for Food Product Quality Assessment*
Implementing Agency	MAWRPI
Project Outcome	Capacity for the provision of food security services
Project Impacts	<ul style="list-style-type: none"> • Publicity for high quality products • Promotion and assessment of food technologies • Training in the principles of food security and hygienic processing; • Introduction of new technologies • Increase in the product quality and export potential of food products
Project Activities	<ul style="list-style-type: none"> • Organization of training seminars with the help of foreign specialists • Accreditation of the laboratory
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 700,000

* The project has been identified and strongly supported by the MAWRPI

Project 2.6	
Project Title	Support to the Development of the Rural Extension Service
Implementing Agency	MAWRPI
Project Outcome	Provision of rural extension services to agricultural producers and rural population which cover all agricultural zones.
Project Impacts	<ul style="list-style-type: none"> • Agricultural producers and rural population able to manage profitable businesses in a market economy; • Increased level of knowledge and practical skills of agricultural producers and rural population through training, demonstrations and provision of technical and market information; • Advisory Services to agricultural producers and rural population on marketing, management and modern technologies; • Agrarian science capacity oriented to applied practical research according to the needs of agricultural producers and rural population; • Improved implementation of State policy in rural areas and communities.
Project Activities	<ul style="list-style-type: none"> • Establish inter-relations and networking of all organisations, institutions and enterprises involved with support advice to agricultural producers. • Establish a legal status for the National Rural Extension Service. • Establish a Supervisory Board to coordinate activities of extension services on all levels, agree upon the interests and involve all the stakeholders on national and regional levels into the process. • Investigate funding options and sources for sustainability of extension services. • Develop strategic orientation and areas of activities of the extension service. • Improve the level of knowledge and practical skills of agricultural producers and rural population through appropriate training, demonstrations and other activities. • Integration of knowledge and information from various sources, targeting agrarian science to conduct applied practical research on behalf of agricultural producers
Duration and timing	5 years (June 2007 – June 2012)
Estimated Budget	US\$ 4.0 mln.*

* The estimated budget covers the attainment of the goal – 10% coverage by farmers and the above Project Outcomes.

Project 2.7	
Project Title	Legal support to entrepreneurs, acting in agrobusiness particularly in processing and marketing
Implementing Agency	LARC Public Association
Project Outcome	Legal services available to citizens acting in agrobusiness, particularly, processing and marketing
Project Impacts	<ul style="list-style-type: none"> • Legal support to rural citizens and entrepreneurs acting in the agrarian sector • Law leadership through the distribution of legal knowledge and legal information
Project Activities	<ul style="list-style-type: none"> • Provide individual legal services to citizens, entrepreneurs and organizations acting in the agrarian sector • Provide legal knowledge for targeted groups to increase their potential in using regulations of legislation • Assist in improving and guaranteeing the rights of rural citizens and entrepreneurs through the attraction of decision makers • Identify gaps and contradictions in current legislation and its improvement.
Duration and timing	3 years (2007-2009)
Estimated Budget	To be identified

3. LAND MARKET DEVELOPMENT

List of on-going Projects

1. **Land and Real Estate Registration Project** (World Bank). The main objective is to ensure protection of property rights of legal and natural persons on immovable property.
2. **Land Reform and Land Market Development Project** (USAID). The objective is to stimulate the sustainable development of farmland and city land markets.
3. **Enabling Sustainable Dryland Management Through Mobile Pastoral Custodianship Project** (UNDP) (Kyrgyzstan, Argentina, Benin, Burkina Faso, Iran, Mali, Morocco)
4. **Community-Based Rangeland Management in Temir Village Project** (CIDA/GM/UNDP)
5. **Strengthening Land Administration Project** (Swedesurvey financed in cooperation with SIDA). The objective is to assist the Government in achieving sustainable economic development and securing property rights that will contribute to poverty reduction, improved environmental management and more transparent governance.
6. **Agricultural Support Services Project** (World Bank) (1998-2007), The objective is to improve agriculture production, profitability and sustainability with assistance of agrarian reform and development of land market, training on legal issues of agrarian and land reform, development of seed industry and crop protection and quarantine, institutional development of MAWRPI, monitoring of reforms and legal basis improvement.
7. **Legal Assistance to Rural Citizens, Phase IV Public Association LARC** (July 2006 –December 2007) financed by SDC. The Project is to establish agriculture legal services, protect citizens' rights and solve disputes.

List of Projects Under Negotiation:

1. **Improvement Land Resources Management** (ADB). It is envisaged that the Project will start in 2008.
2. **Agricultural Support Services Project, Phase II** (World Bank), Project will cover livestock sector development, including improvement of pastureland management).
3. **Development of Land Information System, Cadastral Mapping and Database** (World Bank), 2008-2010)

List of Projects Requiring Financing:	
3.1	Conduct of the Cadastral Survey of Agricultural Land
3.2	Cadastral Valuation of Agricultural Land
3.3	Strengthening Management and Use of the Land of the Land Redistribution Fund
3.4	Upgrading the Management and Rational Use of Pasturelands
3.5	Monitoring the condition of Leased Pastures
3.6	Decreasing Degradation Processes by Irrigation and Tillage Technologies
3.7	Methods of Irrigation and Water-distribution for Prevention of Irrigation Erosion in Mountain Zones
3.8	Development of Kyrgyz Land Information System (KLIS)

Project 3.1	
Project Title	Conduct of the Cadastral Survey of Agricultural Land
Implementing Agency	Project Institute “Kyrgyzgiprozem” of the State Register
Project Impacts	Completed survey and mapping of borders of agricultural plots and establishment of a cadastral database, based on of GIS technology
Project Impacts	<ul style="list-style-type: none"> • Integrated system of automated land cadastre containing reliable cadastral data on each agricultural land plot. • Cadastral database containing geographical data on each cadastral unit in the unified coordinate system. • Capacity to input regional changes in the database by each regional cadastral office • Staff of cadastral offices with skills of cadastral survey using modern technologies (GPS, total stations) and digital processing of surveying data on computers with further mapping
Project Activities	<ul style="list-style-type: none"> • Training specialists in methods of cadastral survey with application of GPS technologies. • Acquisition of GPS stations and GPS receivers and associated equipment and software. • Acquisition of computer programmes for geographical data processing and training staff (ArcGIS) • Conduct of field survey work • In office digital processing of survey data • Development of cadastral database on agricultural land plots including pasturelands and lands of the LRF
Duration and Timing:	4 years (2007-2010)
Estimated Budget	US\$ 5.0 mln.

Project 3.2	
Project Title	Cadastral Valuation of Agricultural Land
Implementing Agency	<i>Kyrgyzgiprozem</i> Project Institute of the State Register
Project Outcome	New methods of cadastral valuation of agricultural land and the capacity to conduct evaluation of agricultural land plots under all types of ownership
Project Impacts	<ul style="list-style-type: none"> • Cadastral valuation recorded in the integrated cadastral database on each agricultural land plot • Provision of access to information by relevant parties on agricultural land values from the integrated cadastral database • Official confirmation of data on cadastral value of land plots for the owners of the agricultural land for use as collateral and for other transactions • Provision of the basis for Government to implement equitable taxation on agricultural land
Project Activities	<ul style="list-style-type: none"> • Develop new methods of cadastral valuation of agricultural lands based on market indicators • Training specialists in new methods of agricultural land evaluation • Conducting work on cadastral valuation of agricultural land • Data entry into the cadastral database on assessed value of agricultural lands
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 2.8 mln.

Project 3.3	
Project Title	Strengthening Management and Use of the Land of the Land Redistribution Fund
Implementing Agency	MAWRPI
Project Outcome	Improvement of the management and the order of use of the Land Redistribution Fund lands
Project Impacts	<ul style="list-style-type: none"> • The lands of the LRF zoned in terms of economic value • Plans for the use of lands of the LRF developed for each aiyl okmotu • Aiyl okmotu specialist trained in application of new principles of land management of LRF lands • Estimates of investment needs for improvement of lands of the LRF
Project Activities	<ul style="list-style-type: none"> • Zoning of lands of the LRF • Identification of volume of investments needed for improvement of lands of the LRF • Develop procedures for conducting auctions on lease of lands of the LRF • Training of aiyl okmotu staff involved in management of the LRF
Duration and Timing	2 years, 2008-2009 (As follow-up to Project 1)
Estimated Budget	US\$ 1.0 mln

Project 3.4	
Project Title	Upgrading the Management and Rational Use of Pasturelands
Implementing Agency	Department of Pastures, MAWRPI
Project Outcome	Increased agricultural livestock productivity through the improvement of pasturelands management and their rational use
Project Impacts	<ul style="list-style-type: none"> • Recommendations on the rational use, improvement and conservation of pasturelands • Recommendations on the organization of pastureland management (provide rationale) and pastureland lease • Draft Law on Pastures developed and existing legislation improved • Infrastructure renovated in areas of important pastures
Project Activities	<ul style="list-style-type: none"> • Analysis of current situation and use of pastureland (study of monitoring materials, identification of pastureland areas subjected to degradation processes, etc) • Identification of needs in renovation of pastures infrastructure and conduct of renovation • Development of good practices in pastureland lease • Capacity Building (training and dissemination of materials) • Development of the draft law on pastures and introduction of amendments into existing legislation
Duration and Timing:	3 years, (2007-2010)
Estimated Budget:	US\$ 1.5 mln.

Project 3.5	
Project Title	Monitoring the Condition of Leased Pastures
Implementing Agency	Project Institute “Kyrgyzgiprozem”
Project Outcome	Establishment of the conditions of leased pastures for the efficient and rational management of pasturelands
Project Outputs	<ul style="list-style-type: none"> • A single monitoring system of pastures being used by farmers • A database on condition of the leased pastures (productivity, grazing capacity) • Maps of leased pastures • Integrated database information for relevant agencies, interested persons and legal entities on pasture lease • Capacity at the level of farmers and business entities to monitor the condition of pastures • Database information for tracking receipts of lease and tax payments
Project Activities	<ul style="list-style-type: none"> • Improve methods of monitoring of leased pastures • Train specialists in the new methods of monitoring • Conduct field surveys • Laboratory analysis of the quality of forage herbs in pastures • In-office processing of field observation data • Develop of cartographic materials • Develop of database on leased pasturelands
Duration and timing	3 years (2007-2009)
Estimated budget	US\$ 500,000

Project 3.6	
Project Title	Decreasing Degradation Processes by Irrigation and Tillage Technologies
Implementing Agency	Directorate of Science and Innovation Technology under the MAWRPI and the ICARDA (International Center on Agricultural Research in Drought Areas)
Project Outcome	Decreased degradation of agricultural land by dissemination of modern technologies of irrigation and tillage.
Project Impacts	<ul style="list-style-type: none"> • Established demonstrational plots • Prevention of degradation processes on hillside lands of the Chui Valley by dissemination of effective technologies; • Demonstration of methods improving condition of Chui Valley agricultural lands by water and soil resources management;
Project Activities	<ul style="list-style-type: none"> • Research and dissemination of best crop rotation technologies with diversification of high-yield crops. • Training farmers and land-users in the application of modern technologies
Duration and Timing:	5 years, (2007-2012)
Estimated Budget	US\$ 720,000

Project 3.7	
Project Title	Methods of irrigation and water-distribution for prevention of irrigation erosion in mountain zones
Implementing Agency	Kyrgyz Research Institute of Irrigation, MAWRPI
Project Outcome:	Improved erosion-preventive and water-saving techniques on irrigated crop lands in a south foothill zone to decrease degradation of irrigated land
Project Impacts	<ul style="list-style-type: none"> • Creation of demonstration plots in the foothill zone. • Application of resource saving methods, and techniques of irrigation • Experimental operation of irrigated plots • Analysis of project results
Duration and Timing	2 years, (2007-2008)
Estimated Budget	US\$ 700,000

Project 3.8	
Project Title	Development of Kyrgyz Land Information System (KLIS)
Implementing Agency	State Register
Project Outcome	An accessible and efficient centralized KLIS information center on land information, available to clients involved in economic development activities
Project Impacts	<ul style="list-style-type: none"> • The KLIS linked by cable and internet to users of land information, both commercial and private customers • A financially sound KLIS with an efficient contract system and customer administration • The KLIS records of all local movements on the real estate property market in the country, with legal, technical and financial data • The KLIS has, in addition to the Real Property Registration System nationwide databases such as the Real Property Sales Database with equal access and customer orientation • The KLIS has an established reputation of contributing information for investment and financial decisions, including mortgage loans
Project Activities	<ul style="list-style-type: none"> • Build-on the first establishment of KLIS under the Project Strengthening Land Administration in Kyrgyzstan (2006–2009) • Develop the customer linkages including long-term agreements with the major land data users, including tax administration and banks • Finalize the hardware, software and other technical development measures for providing nationwide and low-cost access • Make the KLIS a cost-recovering State operation
Duration and Timing:	2 years (2010-2011) Second Phase of Agricultural Strategy
Estimated Budget	US\$ 1.0 mln.

4. WATER RESOURCES MANAGEMENT

List of On-going Projects:

There are externally funded projects currently on-going in the area of irrigation. These include the following:

1. **Water Management Improvement Project** (IDA). The Project focuses on improvement of water management, rehabilitation of irrigation infrastructure. Transformation of DWR, creation of Water administration, support to development of WUAs. Project implementation is anticipated to take five years (2007-2011).
2. **On-farm Irrigation Project** (IDA). The Project focuses on the rehabilitation and modernization of about 121,000 ha of on-farm irrigation and drainage infrastructure and the formation, development and strengthening of WUAs, for which a countrywide network of WUA Support Units has been established. The project is expected to be completed in 2008;
3. **Chui Area Agricultural Development Project** (ADB). The Project includes a component for the rehabilitation of irrigation and drainage systems commanding an estimated 50,000 ha. It also focuses on farm development and improvements in agro-processing. It is expected to be completed in 2008;
4. **WUA Support Project** (USAID). The Project is designed to support the strengthening of WUAs, training of farmers in modern management systems, technical assistance, rehabilitation of irrigation infrastructure. It is expected to be completed in 2007.
5. **Natural Resources and Infrastructure Management Program** (SDC). The project is aimed at improvement of irrigation infrastructure management and support to the development of WUAs.

List of Projects Requiring Financing:
4.1 Second Irrigation Rehabilitation Project
4.2 New Lands Development Project
4.3 Second On-Farm Irrigation Project
4.4 Land Reclamation Improvement Project
4.5 Capacity Building of Water User Associations
4.6 Integrated Basin Management of Land and Water Resources in the Kara-Balta River
4.7 Irrigation Systems Management at the Water User Association level

Project 4.1	
Project Title	Second Irrigation Rehabilitation Project
Implementing Agency	Central and Regional Departments of Water Resources under the MAWRPI.
Project Outcome	Increased efficiency of agricultural production by ensuring the safety of dams and reliable water supply by off-farm irrigation systems on about 150,000 ha of arable lands across the seven oblasts. The Second Irrigation Rehabilitation Project will build upon the work carried out under the first Irrigation Rehabilitation Project.
Project Impacts	<p>The project will be focused mainly at restoration and modernization of off-farm irrigation systems and safety of dams in the area of 150.000 ha. The project will rehabilitate and upgrade 30 irrigation systems across the seven Oblasts including;</p> <ul style="list-style-type: none"> • Batken Oblast: Main canal of Tort-Kul reservoir, Isfara Headworks, Too-Jailoo Irrigation System; • Jalal-Abad Oblast: Zernovoi Kugart Canal, Konur-Oguz Canal, Pravaya Vetka Canal, Maili-Sai Headworks, Pravoberezhny Main Canal, Levoberezhny Main Canal, Aflatun Canal, Kara-Dariya Canal; • Osh Oblast: Headworks and Savai Canal, Headworks and Uch-Chat Canal, Kungei Canal, Kum Canal, Taldyk Canal, Jany Canal, Altyndara Canal; • Naryn Oblast: Headworks of Omuke Canal, Kulanak Canal; • Issyk-Kul Oblast: Ak-Kochkor Canal, Tyup Canal, Cheke-Chavar Canal; • Talas Oblast: Kadyrali Canal, Bordo Canal, Kyzyl-Jar Canal; • Chui Oblast: Kara-Goo Canal, Shamsi Headworks, Chumysh Headworks, Jantai Canal. <p>In addition the project will rehabilitate, upgrade and ensure safe operation of 8 reservoirs: Tort-Kul reservoir in Batken Oblast, Bazarkorgon, Chanach-Sai (Jalal-Abad Oblast), Sokuluk, Stepninskoe, Ruslovoe Ala-Archa (Chui Oblast), Tort-Kul (Issyk-Kul Oblast), Naiman (Osh Oblast).</p>
Duration and Timing	Project implementation is anticipated to take six years (2007-2012).
Estimated Budget	US\$ 46.0 mln.

Project 4.2	
Project Title	New Lands Development Project
Implementing Agency:	Central and Regional Departments of Water Resources under MAWRPI
Project Outcome	Increased crop production in the project area, through (i) improved dam safety and sustainable water delivery on about 19,000 ha of new arable lands across the three oblasts, (ii) improved water supply in an area of 8,339 ha, and (iii) comprehensive reconstruction of lands on an area of 598 ha. The beneficiaries will include farmers – Water Users Associations across the seven oblasts.
Project Impacts	<p>The project will focus on the development of new irrigated lands, restoration of design capacity, modernization of off-farm irrigation systems and dam safety in an area of 28.271 ha. The project will rehabilitate and upgrade 13 irrigation systems (facilities) including:</p> <ul style="list-style-type: none"> • Batken Oblast: Irrigation of lands in Burgondu massive, construction of Maksat aqueduct, comprehensive reconstruction of irrigated lands of Batken raion, irrigation of lands in Kara-Bulak massive, development of Burgondu massive. • Jalal-Abad Oblast: Completion of construction of Daily Regulation Basin on Chanach-Sai River, construction of canal to irrigate the Renjit valley, construction of pump stations to deliver water to Besh-Batman Canal. • Osh Oblast: Construction of Kok-Jar Canal, construction of headworks and Mogol supply canal, completion of construction of Kara-Guz Canal. <p>Issyk-Kul Oblast: Completion of construction of Daily Regulation Basin in Sary-Kamysh village.</p>
Duration and Timing:	Project implementation is anticipated to take six years (2007-2012).
Estimated Budget:	US\$ 50.0 mln.

Project 4.3	
Project Title	Second On-Farm Irrigation Project
Implementing Agency	Department of Water Resources under MAWRPI.
Project Outcome	The Project will (i) stop the continuous reduction of agricultural output due to deterioration of on-farm irrigation infrastructure and (ii) increase crop production in the project area through reliable and sustainable water distribution on about 200,000 ha of arable land across the seven oblasts of the country. In order to produce the project outcome, it is required to develop and strengthen approximately 180 Water User Associations (WUAs) and rehabilitate on-farm irrigation systems in an area of 200.000 ha.
Project Impacts	<p>Currently the on-farm irrigation network in an irrigated area of 400.000 ha needs rehabilitation, of which 200.000 ha needs urgent rehabilitation. The cost of rehabilitation works is \$33 million on the basis of \$165 per hectare.</p> <ul style="list-style-type: none"> • Rehabilitation of about 200.000 ha of irrigated lands of WUAs; • Providing WUAs with office equipment; • Institutional development; • Increase in overall crop production capacity by improvement of water delivery and water distribution;
Duration and Timing	Project implementation is anticipated to take six years (2007-2012).
Estimated Budget	US\$ 33.0 mln.

Project 4.4	
Project Title	Land Reclamation Improvement Project
Implementing Agency	Central and Regional Departments of MAWRPI.
Project Outcome	Increased crop production in the project area through the reclamation of about 100,000 ha of irrigated lands across the seven oblasts.
Project Impacts	<ul style="list-style-type: none"> • Restoration and modernization of drainage networks over 100,000 ha or 10 per cent of the Republic's total arable land. • Increased living standards in rural area through increasing agricultural output and improvement of land-reclamation of irrigated lands in an area of over 100,000 ha across the seven oblasts.
Duration and Timing	4 years (2007 – 2010)
Estimated Budget	US\$ 18.0 mln.

Project 4.5	
Project Title	Capacity Building of Water User Associations (WUAs)
Implementing Agency	Department of Water Resources under MAWRPI.
Project Outcome	Increased institutional capacity of WUAs in rural areas.
Project Impacts	<ul style="list-style-type: none"> • Increased WUAs' capacity to manage local irrigation systems • Capacity increase in WUAs' implementation of institutional and technical improvements. • An improved legal and regulatory environment to support the development of WUAs and their long-term sustainability. • Established unions (federations) of WUAs
Project Activities	<ul style="list-style-type: none"> • Technical support and operation of irrigation systems; • Procurement of water measuring equipment, devices and construction of hydroposts; • Enhancing the measurement of water volume for irrigation; • Fixing the irrigation services fee; • Achievement of one hundred per cent of fee collection by WUA members; • Use of sound business practices, and adoption of democratic principles in its management. • Improvement of land treatment; • Study agricultural marketing • Introduction of changes and additions to the Law on WUA;
Duration and Timing	Three years (2007-2009)
Estimated Budget	US\$ 5.0 mln.

Project 4.6	
Project Title	Integrated Basin Management of Land and Water Resources in the Kara-Balta River
Implementing Agency	Kyrgyz Scientific Irrigation Institute
Project Outcome	Amelioration of problems affecting the quality and quantity of water resources in catchment areas, sub-mountain and lowlands.
Project Impacts	<p>The project has the following eight main outputs:</p> <ul style="list-style-type: none"> • Training of population living in catchment area. • Plans for sowing structure and selection of soil cultivation techniques in sub-mountain area. • Combat of the outwash • Combat of the water logging and soil salinity of irrigated lands; • Quality assessment of water in sub-mountain and lowland areas; • Marketing service for sale of agricultural produce established; • Strengthened potential of local communities; • Established consulting and demonstration centres.
Duration and Timing	5 years (2007-2011)
Estimated Budget	US\$ 1.5 mln.

Project 4.7	
Project Title	Irrigation Systems Management at the Water User Association level
Implementing Agency	Kyrgyz Scientific Irrigation Institute
Project Outcome	Established water allocation systems based on Irrigation and Drainage System software.
Project Impacts	<ul style="list-style-type: none"> • Capacity of management systems to improve water allocation and irrigation techniques at WUAs level based on FAO software. • Training and practical lessons provided for farmers/WUA members.
Duration and Timing	2007-2010
Estimated Budget	US\$ 2.5 mln.

5. TRAINING, RESEARCH AND DEVELOPMENT (R&D)

List of On-going Projects

In the area of training and research in agriculture there are three on-going projects:

1. **Agricultural Vocational Education Project** (Helvetas, GTZ). The Project Outcome is adaption of the agricultural vocational education system to the conditions of the private market economy.
2. **Rural Advisory Services** (Helvetas). The Project outcome is improvement the rural livelihoods, reduction of poverty and general rural development through training services, information spreading, experience sharing to reduce costs and increase incomes
3. **TES Centre Osh, Agricultural Training and Extension**. The Project outcome is the increase in incomes from farming with the help of qualitative training and advisory work.

List of Projects Requiring Financing:

These project implementations are closely linked with projects identified under the Public Sector Services Component.

5.1 Establishment of an Agrobusiness School

5.2 Establishment of Refresher Courses in Agriculture for Public and Private Sector Representatives

5.3 Strengthening the Capacity of the Talas Agricultural Technical School

5.4 Capacity Building of the Agrarian University

5.5 Establishment of Biotechnology Centre

Project 5.1	
Project Title	Establishment of an Agrobusiness School
Implementing Agency	Center on Competitiveness of Agrobusiness, the MAWRPI, the Agrarian University
Project Outcome	An educational institution established for raising the level of skills among managers in the agro-industrial system and retraining.
Project Impacts	<ul style="list-style-type: none"> • Training in areas of agricultural specializations based on the experience of best business schools of CIS; • Training materials designed and issued
Project Activities	<ul style="list-style-type: none"> • In-line with international standards produce high quality managers in the Agro-industrial System; • Increase the number of well-educated and qualified managers of high and medium level in the Agro-industrial System;
Duration and Timing	5 years (2007-2012)
Estimated Budget	US\$ 2.0 mln.

Project 5.2	
Project Title	Establishment of Refresher Courses in Agriculture for Public and Private Sector Representatives
Implementing Agency	The Kyrgyz Agrarian University
Project Outcome	A system of regular upgrading of qualifications and skills for public and private sector representatives
Project Impacts	<p>The capacity for organization and conduct of the following types of training:</p> <ul style="list-style-type: none"> • Short-term courses on cooperative management for farmers, representatives of aiyl okmotu, rayon and oblast administrations; • Short-term courses for specialists of advisory services with the aim to transfer modern knowledge and increase the level of skills of rural commodity producers; • Short-term courses for veterinarians, farmers and representatives of aiyl okmotu on veterinary issues; • Short-term courses for specialists on maintenance of agricultural machinery; • Short-term courses for technologists, managers and specialists of food processing enterprises; • Short-term courses for farmers and WUA on modern methods of water use and irrigation.
Project Activities	<ul style="list-style-type: none"> • Develop all necessary training materials • Design and issue of methodological materials
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 300,000

Project 5.3	
Project Title	Strengthening the Capacity of the Talas Agricultural Technical School
Implementing Agency	Talas Agricultural Technical School
Project Outcome	Increased farmer skills to manage private farms, and raise farm incomes.
Project Impacts	<ul style="list-style-type: none"> • Participatory new vocational education system established, and curriculum and development of training materials; • Increased capacity of teaching staff and technical school administration
Project Activities	<ul style="list-style-type: none"> • Assessment and development of effective and sustainable training program; • Provision with necessary training materials; • Opening new faculty of Farm Management; • Setting up of language laboratory and provision with appropriate equipment; • Setting up of computer class
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 60,000

Project 5.4	
Project Title	Capacity Building of the Agrarian University
Implementing Agency	The Agrarian University. The beneficiaries will include the entire agricultural sector, farmers and rural communities
Project Outcome	Increased capacity of teaching staff and strengthened physical infrastructure and quality of agricultural education provided by the University
Project Impacts	<ul style="list-style-type: none"> • Increased integration of the education, research and agricultural production system • Reformed agricultural training system
Project Activities	<ul style="list-style-type: none"> • Revision of the old-style study programs • Renewal of the library with modern textbooks and creation of electronic library in the University • Installment of modern scientific equipment in laboratories • Development of training programs for training specialists in line with modern requirements
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 1.0 mln.

Project 5.5	
Project Title	Establishment of Biotechnology Centre
Implementing Agency	The Kyrgyz Agrarian University (KAU) named after Skryabin
Project Outcome	A Biotechnology Center with capacity to conduct gene-biological monitoring and certification of plant varieties and livestock breeds; carry out an early diagnostics of infectious diseases among animals and plants; identify genetically modified foodstuffs, veterinary medicines and fodder. Prepared by the Center specialists on use of methods and techniques of biotechnology for intensification the production of livestock-and- plant origin products
Project Impacts	<ul style="list-style-type: none"> • Increased efficiency in livestock production • Improved breeds of livestock • Increased productivity of agricultural crops
Project Activities	<ul style="list-style-type: none"> • Install the Biotechnology Centre with modern scientific equipment • Conduct gene-biological monitoring and certification of plant varieties and livestock breeds • Carry out an early diagnostics of infectious diseases among animals and plants • Identify genetically modified foodstuffs, veterinary medicines and fodder • Train specialists for scientific, educational institutions where methods of modern biotechnology are required (biotechnology laboratories, diagnostic centres, biotechnology departments in Institutes of Higher Education, customs and etc.)
Duration and Timing	5 years (2009-2013)
Estimated Budget	US\$ 500,000

6. TRADE AND TAX POLICY

List of On-going Projects

In the area of internal markets development, donor initiatives include:

1. **Development of Local Markets in Three Oblasts and Two Sub-sectors of Agriculture** (Helvetas). A major part of the Project is technical advice and consultations.
2. **Agro Business and Marketing Project** (World Bank). The Project focuses on the development of competitive products and the internal market.
3. Development of Trade and Service Cooperatives (GTZ), aimed at marketing products via cooperatives.
4. **Foundation of Raiffeisen Cooperatives** (GTZ) aimed at the development of the co-operation movement;
5. **Cooperatives Development Project** (AFD) in the South of the Country.

In the area of export promotion:

1. Identifying administrative procedures and barriers for the external trade in Central Asian Region, including Kyrgyzstan, Tadjikistan, Uzbekistan and Kazakhstan (GTZ).
2. Trade Promotion in the Kyrgyz Republic Project (SECO). The Project's primary focus is on the fruit and vegetable-processing sector.
3. The World Bank and Japanese Government funded Project cited above, also provides support to the Center for Competitiveness and Agro-business (ABCC),
4. Organic Cotton Production and Promotion Project (Swiss Department for Cooperation and Development).

List of Projects Requiring Financing:
6.1 Development of the Kara-Suu Agricultural Wholesale and Storage Market
6.2 Development of the North Agricultural Wholesale and Storage Market
6.3 Development and Promotion of Organic Agricultural Products
6.4 Establishment of Cooperatives
6.5 One-Stop-Shop for Exports
6.6 Agricultural Wholesale Markets for Cross-Border Trade
6.7 Introduction of an Agricultural Commodity Trading Exchange

Project 6.1	
Project Title*	Development of the Kara-Suu Agricultural Wholesale and Storage Market
Implementing Agency	The market will be based on existing infrastructure of Osh subsidiary of "KyrgyzAyilKomok" (former Selhoztehnika),
Project Outcome	A modern and efficient market established at the regional level
Project Impacts	<ul style="list-style-type: none"> • Increased export of agricultural products • The advantages of cooperatives development demonstrated • Training in wholesale market operations conducted
Project Activities	<ul style="list-style-type: none"> • Develop a model design for the wholesale agricultural market • Registration of the operational company (including private and Government ownership) • Up-grade the existing infrastructure and establish new infrastructural requirements, including storage facilities, trading accommodation, etc. • Design and implementation of a training program in wholesale market operation
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 300,000

*This project has strong support by Prime-Minster and the Governor of Osh Oblast

Project 6.2	
Project Title**	Development of the North Agricultural Wholesale and Storage Market
Implementing Agency:	MAWRPI, Directorate on Marketing
Project Outcome	Modern wholesale and storage market in the Northern region established
Project Impacts	<ul style="list-style-type: none"> • Increased export of agricultural products • The advantages of cooperatives demonstrated • Training in wholesale market operation conducted
Project Activities	<ul style="list-style-type: none"> • Develop a model design for the wholesale agricultural market • Up-grade existing infrastructure and establishment of new infrastructural requirements including storage facilities, trading accommodation, etc. • Design and implementation of training a program in efficient wholesale market operation
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 1.0 mln.

** This project has a strong support by the Prime-Minister

Project 6.3	
Project Title	Development and Promotion of Organic Agricultural Products
Implementing Agency	MAWRPI, NISM, NGOs, private farms
Project Outcome	Introduction of organic agricultural farming for increasing competitiveness of domestic produce and limiting land degradation
Project Impacts	<ul style="list-style-type: none"> • Promotion of organic agriculture for both export promotion and to limit environmental degradation; • Increased awareness and technical capacity of private and public sector agricultural entities; • An environment conducive to the development of organic agriculture
Project Activities	<ul style="list-style-type: none"> • Develop criteria for and introduce organic product certification • Study and enhance export potentials for organic products • Review requirements for membership in International Federation of Organic Agricultural Movement (IFOAM) • Improve the legal framework impacting organic agriculture • Training and knowledge transfer on organic farming • Institutional Capacity building for development of organic agriculture • Conduct pilot projects on organic farming
Duration and Timing	3 years (2008-2010)
Estimated Cost	US\$ 1.4 mln.

Project 6.4	
Project Title*	Establishment of Cooperatives
Implementing Agency	MAWRPI, local governments.
Project Outcome	Increased agricultural producer incomes by the operation of marketing cooperatives
Project Impacts	<ul style="list-style-type: none"> • Increased marketing of the agricultural products via establishment of marketing cooperatives • Increased farming efficiency by cost sharing and knowledge transfer from use of cooperatives
Project Activities	<ul style="list-style-type: none"> • Conduct training of farmers and provide information on advantages of marketing cooperatives, • Establish pilot demonstration cooperatives; • Develop and distribute leaflets to farmers on mechanisms and techniques of marketing cooperation.
Duration and Timing	3 years (2007-2009)
Estimated Cost	n.a.

* This important activity is being implemented and planned for implementation in the medium-term perspective by GTZ Project on Cooperatives

Project 6.5	
Project Title	One-Stop-Shop for Export
Implementing Agency	Ministry of Trade, MAWRPI, Ministry of Economy and Finance
Project Outcome:	Strengthened export promotion of the agricultural products
Project Impacts	<ul style="list-style-type: none"> • Establishment of pilot one-stop-shop for clearance to export produce from Kyrgyzstan necessary for the participants in foreign trade
Project Activities	<ul style="list-style-type: none"> • Make amendments to the Customs code on location of such entities at the bordering points; • Select two pilot customs points, • Establish two pilot collegial one-stop-shops in two customs points • Develop methods for export expansion.
Duration and Timing:	2 years (2008-2009)
Estimated Budget	US\$ 140,000

Project 6.6	
Project Title*	Agricultural Wholesale Markets for Cross-Border Trade
Implementing Agency	MAWRPI, Directorate on Marketing
Project Outcome	Enhanced economic activity of rural commodity producers by increasing cross-border trade
Project Output	<ul style="list-style-type: none"> • Boundary agricultural service and trade wholesale markets in Chui, Talas, Issyk-Kul, Batken, Osh Oblasts
Project Activities	<ul style="list-style-type: none"> • Develop methods for export expansion • Establishment of sustainable links with consumers and service companies of CIS
Duration and Timing	3 years (2007-2009)
Estimated Budget	US\$ 1.5 mln.

* This project is strongly supported of the Government

Project 6.7	
Project Title	Introduction of an Agricultural Commodity Trading Exchange
Implementing Agency	Agricultural Commodity Exchange
Project Outcome	An interregional commodity distribution system (electronic exchange trade site with database for analysis and forecasting the demand for agricultural products)
Project Impacts	<ul style="list-style-type: none"> • An exchange trading system which helps commodity producers to sell their products without middlemen; • Distribution centers for agricultural products (exchange store-houses), purchased in advance through forward contracts;
Project Activities	<ul style="list-style-type: none"> • Conduct training on marketing and possibilities for and advantages of exchange trade • Ensure functioning of electronic exchange trading site • Establish sustainable links with markets of CIS and foreign countries through exchange mechanisms
Duration and Timing	4 years (2008-2011)
Estimated Budget	US\$ 450,000

7. RURAL FINANCE

List of On-going Projects

1. Rural Finance Institutions Project (ADB)
2. Central Asian Microfinance Alliance (USAID) (2002-2009)
3. Micro and Small Finance Facility (USAID/EBRD) (2002-2007)

List of Projects Requiring Financing:
7.1 Institutional Strengthening of Microfinance Institutions and Credit Unions
7.2 Development of Insurance System

Project 7.1	
Project Title	Institutional Strengthening of Microfinance Institutions and Credit Unions
Implementing Agency	The National Bank, Association of Microfinance Institutions, Alliance of Credit Unions. Beneficiaries will include Microfinance Institutions and Credit Unions
Project Outcome	Poverty alleviation among the poor households via expansion of agricultural and non-agricultural lending and other financial services.
Project Impacts	<ul style="list-style-type: none"> • Sustainable and viable institutional capacity of Microfinance organizations and Credit Unions • A financial and legal environment and conditions for Microfinance Institutions and Credit Unions for further development and use of wholesale credits • Microfinance Institutions and Credit Unions linked with Wholesale Institutions and International commercial sources • Establishment of innovative programs, new financial technologies and best international practices • A favorable environment for women to be active in the various credit schemes.
Project Activities	<ul style="list-style-type: none"> • Organize allocation fund scheme and on-lending scheme to Microfinance Institutions and Credit Unions in order to enhance the rural credit portfolio • Design the Technical Assistance program for selected potential microfinance institutions, which include introduction of training (credit and finance analyses, risk management, governance, accounting), consideration of new financial products (savings, leasing, payment transfers), improvement of supervision, the legal and financial environment, helping with MIS and standardized accounting and other procedures • Organize allocation fund scheme and on-lending scheme to Microfinance Institutions and Credit Unions in order to enhance the rural credit portfolio • Create or support the emerging apex institutions
Duration and Timing	4 years, (2007-2010)
Estimated Budget	US\$10.0 mln.

Project 7.2	
Project Title	Development of Insurance System
Implementing / Beneficiaries Agencies	Ministry of Economy and Finance. The beneficiaries will be the Insurance Companies and the insured
Project Outcome	A Commercial Services Insurance System in rural areas established
Project Impacts	
Duration and Timing	Second three year medium –term phases (2009 – 2012)
Estimated Budget	US\$ 5.0 mln.

8. RURAL DEVELOPMENT AND POVERTY ALLEVIATION

List of On-going Projects

The Development Partners are currently providing significant assistance in rural infrastructure and development. This includes:

1. Village Investment Project (World Bank and KfW) implemented by ARIS,
2. Small Town Infrastructure and Capacity Building (WB and SECO),
3. Rural Water Supply and Sanitation (WB),
4. Community Based Infrastructure (ADB),
5. Rural Livelihood Development (ADB via JF for PR),
6. Sustainable Livelihoods for Livestock Producing Communities (DFID),
7. Long-term strategy for the Rural Water Supply and Sanitation (DFID and others).

List of Projects Requiring Financing
8.1 Continuation of Rural Development
8.2 Rural Roads Development
8.3 Rural Water Supply
8.4 Environment Conducive to the Expansion of SMEs in Rural Areas and Rural Development

Project 8.1	
Project Title	Continuation of Rural Development
Implementing Agency	Agency for Development and Investment into Rural Communities (ARIS)
Project Outcome	Further development of rural areas by continuation of the initiatives under the Village Investment Projects (VIP)
Project Description	<p>The VIP I and II will have achieved significant progress in the design, implementation and monitoring of village investment. This work will be continued and consist of two major components, namely (a) village infrastructure development and (b) SME development in rural areas.</p> <p>Component 1. Village Infrastructure Development. The Project impacts under this component include:</p> <ul style="list-style-type: none"> • Priority infrastructure items to be upgraded for the development of agriculture and rural areas identified: (a) Roads and Telecommunication with the Ministry of Transportation; (b) Social Infrastructure with the Ministries of Education and Health; (c) Sustainable Electricity Supply (metering with Distribution companies and/or renewable energy sources); (d) Innovative technologies for farming, infrastructure, etc. • Investment to communities using participatory approach; • Monitoring and evaluation capacity. <p>Component 2. SME Development in Rural Areas</p> <p>Technical part of the Component will include:</p> <ul style="list-style-type: none"> • Develop measures with the Ministry of Finance for the provision of tax incentives to SMEs in the rural areas; • Develop measures with local governments on other incentives for non-agricultural SMEs; • Continue the implementation of the fiscal decentralization program <p>Investment part of the Component will include:</p> <ul style="list-style-type: none"> • Selection of investment projects in rural areas • Development of co-financing mechanism • Provision of training and assistance in project implementation • Monitoring the project implementation
Duration and Timing	6 years (2010-2015)
Estimated Cost	US\$ 27.0 mln.

Project 8.2	
Project Title	Rural Roads Development
Implementing Agency	Local Self-Governments (LSG), MCTC, MoF
Project Outcome	Development of rural roads infrastructure by establishment of the Rural Roads Fund separately from the Republican Roads Fund
Project Impact	<ul style="list-style-type: none"> • Development of financing mechanisms for maintenance and construction of rural roads by LSGs.
Project Activities	<ul style="list-style-type: none"> • Government agencies, namely, MoF, MTC and LSGs to work out a scheme of allocating part of the Republican Road Funds (15-20 per cent) to Rural Roads Funds. • The Rural Roads Fund to be allocated to the LSGs on a competitive basis for the maintenance and construction of rural roads.
Duration and Timing	2 years, 2007-2008
Estimated Cost	<p>Some Advisory TA in the framework of USAID Fiscal Reform Project is required.</p> <p>Budgetary funding of the rural roads reconstruction is estimated at US\$ 2.0 mln. annually</p>

Project 8.3	
Project Title	Rural Water Supply
Implementing Agency	Local Self-Governments (LSG), MAWRPI
Project Outcomes	Development of safe and sustainable rural water supply
Project Impact	<ul style="list-style-type: none"> • Implementation of the Rural Water Supply Strategy developed by the MAWRPI in association with DFID Project.
Project Activities	<ul style="list-style-type: none"> • Upgrade and build rural water supply network. • Maintenance of the water supply network. • Development and implementation of hygienic measures. • Project management and technical assistance for the Rural Water Supply Strategy implementation.
Duration and Timing	(10 years) 2008-2017
Estimated Cost	US\$ 24.8 mln. per annum

Project 8.4	
Project Title	Environment Conducive to the Expansion SMEs in Rural Areas and Rural Development
Implementing Agency	Local Self-Governments (LSG)
Project Outcome	A business environment conducive to the growth of SMEs
Project Impacts	<ul style="list-style-type: none"> • Expansion of SMEs in rural areas.
Project Activities	<ul style="list-style-type: none"> • Provide assistance to SMEs in establishment and running • Legal consultations to SMEs and development of recommendations for the changes in legislation • Provide training in feasibility analysis
Duration and Timing	(5 years) 2007-2011
Estimated Cost	US\$ 6.0 mln., (it is assumed that a third of the funds will be implemented in the rural areas)

ANNEX II PROJECT IMPLEMENTATION SCHEDULE AND BUDGET

Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
I. Public Sector Services									
Projects Identified for Agriculture Strategy			3,66	0,30	1,33	2,03	6,45	1,00	11,11
1.1.	Institutional Strengthening of the Agricultural Sector Public Administration	*Government Identified (ADS)	0,80	0,00	0,20	0,60	0,70	0,00	1,50
1.2.	Agricultural Investment Promotion and Programming	**Government Identified (CDS)	0,40	0,00	0,10	0,30	0,35	0,00	0,75
1.3.	Development of the Capacity for Agriculture Sector Strategic Planning, Monitoring and Evaluation	Government Identified (ADS)	0,75	0,30	0,45	0,00	0,00	0,00	0,75
1.4.	Strengthening Phyto-Sanitary Management.	Government Identified (ADS)	0,60	0,00	0,20	0,40	0,00	0,00	0,60
1.5.	Veterinary Services Improvement	Government Identified (ADS)	0,65	0,00	0,25	0,40	0,10	0,00	0,75
1.6.	Strengthening the Legal Office of the Ministry of Agriculture	Government Identified/CDS	0,40	0,00	0,10	0,30	0,20	0,00	0,60
1.7.	Capacity Building of Border Veterinary Control	Government Identified/CDS	0,06	0,00	0,03	0,03	0,00	0,00	0,06
1.8.	Liquidation and Preventive care for Echinococcosis	Government Identified/CDS	0,00				1,90	0,00	1,90
1.9.	Liquidation and Preventive care for Brucellosis	Government Identified/CDS	0,00				3,20	1,00	4,20

⁴⁹ Government Identified- identified by the Government as a priority but source of financing is not identified,
Government Identified/CDS- identified by the Government as a priority, included into Country Development Strategy *CDS(and some funding is envisaged in CDS
WB- programmed or funded by the World Bank (WB)
ADB- programmed or funded by Asian Development Bank (ADB)
GTZ-programmed or funded by German Technical Assistance (GTZ)
EU –programmed or funded by European Union
USAID - programmed or funded by United States Agency for International Development (USAID).

Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
Projects Funded or Programmed in the Component, incl:			78,20	32,57	20,91	24,71	2,74	0,00	80,94
1.10	Avian Influenza	WB	2,74	0,91	0,91	0,91	2,74		5,49
1.11	Food Security	EU	10,08	10,08					10,08
1.12	Policy Support Project	Helvetas	0,02	0,02					0,02
1.13	Agriculture Support Services Project	WB/IFAD/DFID	1,56	1,56					1,56
1.14	Agriculture Machinery Modernization	Government Identified (CDS)	63,80	20,00	20,00	23,8			63,80
Sub Total			81,86	32,87	22,24	26,74	9,19	1,00	92,05
II. Marketing & Agro-Processing									
Projects Identified for Agriculture Strategy			10,57	2,60	4,03	3,94	3,98	0,73	15,28
2.1.	Technical Regulation	Government Identified (ADS)	0,75	0,00	0,20	0,55	1,45		2,20
2.2.	Project on Strengthening of Marketing and Information Services Capabilities	WB/SDC on-going and Government Identified (ADS)	0,30	0,10	0,10	0,10	0,00	0,00	0,30
2.3.	Product Safety Management	Government Identified (ADS)	1,17	0,00	0,50	0,67	0,80	0,73	2,70
2.4.	Coordination Council for Agro-business and Export	WB, GTZ, SECO	5,39	2,00	2,00	1,39	0,00	0,00	5,40
2.5.	Technological laboratory on food Products' Quality Assessment	Government Identified (ADS)	0,46	0,00	0,23	0,23	0,23	0,00	0,69
2.6.	Support to the development of RAS	Swiss Gov/WB	2,50	0,50	1,00	1,00	1,50	0,00	4,00
Projects Funded or Programmed in the Component, incl:			7,30	3,31	2,37	1,62	1,62	0,00	8,92
2.7.	Trade and Services Cooperatives	GTZ	0,40	0,40					0,40
2.8.	Agro-Input Enterprise Development (from 2001 to 2008 for the total budget of US\$3.99mln)	USAID	1,50	0,75	0,75				1,50

Name of Component/Project	Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
			2007	2008	2009			
2.9.	AFD/HIVOS/GermAgroAction	AFD/HIVOS	0,04	0,04				0,04
2.10	Agro-bussines and marketing /Access to Credit	WB	4,86	1,62	1,62	1,62		6,48
2.11	AgFin+ (total budget \$1.85million, duraiton 2004-2007)	USAID	0,50	0,50				0,50
	Sub Total		17,87	5,91	6,40	5,56	5,60	24,20
III. Land Market Development								
Projects Identified for Agriculture Strategy			8,59	2,20	3,00	3,40	4,60	13,22
3.1.	Conduct of the Cadastral Survey of Agricultural Land	Government Identified (CDS)	4,00	2,00	1,00	1,00	1,00	5,00
3.2.	Cadastral Valuation of Agricultural Land	Government Identified (CDS)	1,80	0,00	0,80	1,00	1,00	2,80
3.3.	Strengthening Management and Use of the Land of the Land Redistribution Fund	Government Identified (ADS)	1,00	0,00	0,50	0,50	0,00	1,00
3.4.	Upgrading the Management and Rational Use of Pasturelands	Government Identified (ADS)	0,60	0,00	0,30	0,30	0,90	1,50
3.5.	Monitoring the condition of the Leased Pastures	Government Identified (ADS)	0,50	0,15	0,20	0,15	0,00	0,50
3.6.	Decreasing Degradation Processes by Irrigation and Tillage Technologies	Government Identified (ADS)	0,24	0,00	0,12	0,12	0,48	0,72
3.7.	Methods of irrigation and water-distribution for prevention of irrigation erosion in mountain zones	Government Identified (ADS)	0,50	0,00	0,10	0,35	0,25	0,70
3.8.	Further Development of Kyrgyz Land Information System (KLIS)	Government Identified (CDS)	0,00	0,00	0,00	0,00	1,00	1,00

Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
Projects Funded or Programmed in the Component, incl:			12,20	6,15	3,76	2,25	0,00	0,00	12,20
3.9.	Agricultural Support Services Project	WB (1998-2007)	0,00						0,00
3.10	Land and Real Estate Registration Project (June 2000 - December 2007)	WB - 9.42mln Gov - 2.41 mln	1,60	1,57					1,60
3.11	Land Reform and Land Market Development, Chemonics Int. (Oct 2005 - Oct 2008, total budget \$3.03mln)	USAID	1,60	0,80	0,80				1,60
3.12	Enabling Sustainable Dryland Management Through Mobile Pastoral Custodianship Project (2005-2008)	US\$2.875 GEF/UNDP	1,40	0,71	0,71				1,40
3.13	Community-based Rangeland Management in Temir Village Project (2005-2007)	US\$0.213 CIDA/GM/UNDP	0,10	0,07					0,10
3.14	Strengthening Land Administration Project (April 2006-December 2009)	US\$9 mln Swedesurvey/SIDA	6,80	2,25	2,25	2,25			6,80
3.15	Public Association Legal Assistance to Rural Citizens, Phase IV	US\$750.0/SDC Jun 2006-Dec 2007	0,80	0,75					0,80
3.16	Land Resources Improvement Project	US\$24.0 mln. ADB, GOK, will start in 2008	0,00						0,00
3.17	Agricultural Support Services Project, Phase II	US\$10.0 mln/ WB	0,00						0,00
3.18	Development of Land Information System, Cadastral Mapping and Database	KGS228.0 mln/WB, 2008-2010	0,00						0,00
Sub Total			20,75	8,30	6,78	5,67	4,63	0,00	25,38
IV. Irrigation and Water Resources									
Projects Identified for Agriculture Strategy			22,96	0,00	5,10	17,80	79,30	53,10	155,38
4.1.	Second Irrigation Rehabilitation Project	Government Identified (ADS)	8,60	0,00	1,00	7,60	22,80	14,20	36,00

Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
4.2.	New Lands Development Project	Government Identified (ADS)	0,00	0,00	0,00	0,00	24,90	25,00	50,00
4.3.	Second On-Farm Irrigation Project	Government Identified (ADS)	7,50	0,00	2,00	5,50	16,50	9,00	33,00
4.4.	Land Reclamation Improvement Project	Government Identified (ADS)	4,00	0,00	1,00	3,00	9,00	5,00	18,00
4.5.	WUAs Capacity Building Project	Government Identified (ADS)	1,66	0,00	0,83	0,83	3,32	0,00	5,00
4.6.	Integrated basin management of land and water resources in the Kara-Balta River	Government Identified (ADS)	0,60	0,00	0,30	0,30	0,90	0,00	1,50
4.7.	Irrigation Systems Management at Water User Association level	Government Identified (ADS)	0,60	0,00	0,00	0,60	1,90	0,00	2,50
Projects Funded or Programmed in the Component, incl:			48,69	24,64	14,90	9,15	24,65	1,40	74,70
4.8.	Second Agricultural Area Development Project	ADB	9,10	1,50	3,60	4,00	12,00	1,40	22,50
4.9.	Water Management Improvement Projects	WB	10,50	3,50	3,50	3,50	8,50		19,00
		Japan Gov	2,40	0,80	0,80	0,80	2,00		4,40
		GOK	2,55	0,85	0,85	0,85	2,15		4,70
4.10	On-Farm Irrigation Project	WB	7,24	7,24					7,20
4.11	Agriculture Area Development Project	ADB	7,50	7,50					7,50
4.12	SDC Resources Management (WUA)	SDC	6,50	3,25	3,25				6,50
4.13	WUA Support (2004-2009, total budget US\$4.73 mln)	USAID	2,90		2,90				2,90
Sub Total			71,70	24,64	20,03	26,98	103,97	54,50	230,12

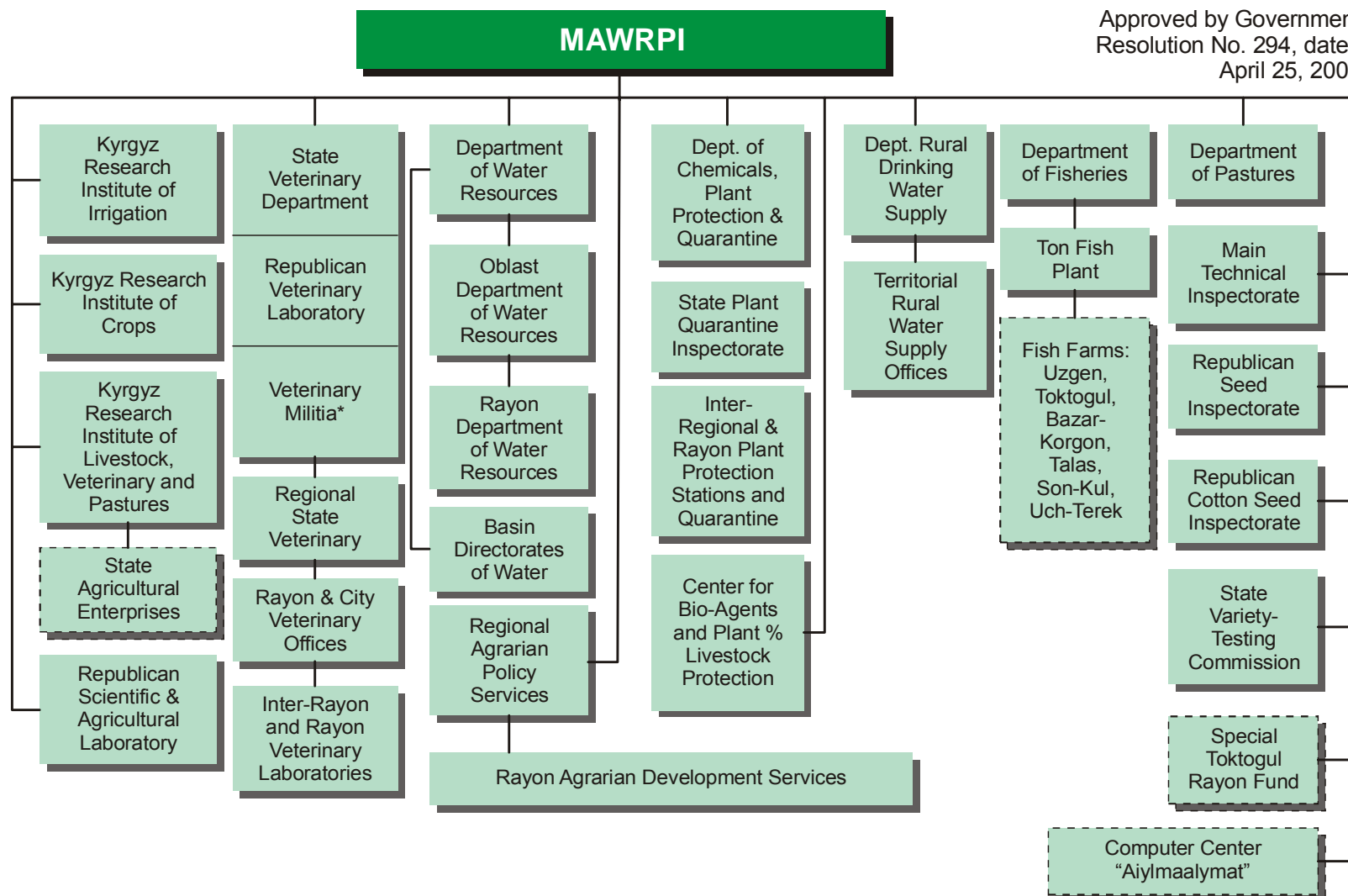
Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
V. Training and Research									
Projects Identified for Agriculture Strategy			1,63	0,30	0,50	0,80	1,70	0,50	3,86
5.1.	Project on Agribusiness School – “Center on retraining and raising the level of skills among managers of Agroindustrial System.	Government Identified (ADS)	0,60	0,00	0,20	0,40	1,40	0,00	2,00
5.2.	Project on Center for Refreshment Courses in Agriculture	Government Identified (ADS)	0,00	0,00	0,00	0,00	0,30	0,00	0,30
5.3.	Regional Project on Vocational Education (Strengthening of Talas Agricultural Technical School)	Government Identified (ADS)	0,00	0,00	0,01	0,02	0,03	0,00	0,06
5.4.	Capacity Building of the Agrarian University	Government Identified (ADS)	1,00	0,30	0,30	0,40	0,00	0,00	1,00
5.5.	Establishment of Buiotechnology Center	Government Identified (ADS)	0,00					0,50	0,50
Projects Funded or Programmed in the Component, incl:			1,06	0,64	0,42	0,00	0,00	0,00	1,06
5.5.	Vocational Training	GTZ&Helvetas	0,82	0,40	0,42				0,82
5.6.	Effective Agriculture and Processing Management	JICA	0,24	0,24					0,24
	Sub Total		2,69	0,94	0,93	0,82	1,73	0,50	4,92
VI. Trade, Incomes and Tax Policy									
Projects Identified for Agriculture Strategy			2,24	0,40	0,90	1,00	2,11	0,50	4,79
6.1.	Pilot Project for the South on Wholesale-Purchase& Storage Company	Government Identified (CDS)	0,10			0,10	0,20	0,00	0,30
6.2.	Pilot Project for the North Wholesale - Purchase&storage Company	Government Identified (CDS)	1,00	0,10	0,50	0,40	0,00	0,00	1,00

Name of Component/Project		Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
				2007	2008	2009			
6.3.	Organic Agricultural Products Development and Promotion	Government Identified (ADS)	0,00	0,00	0,00	0,00	0,90	0,50	1,40
6.4.	Establishment and Development of Cooperatives	GTZ	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.5.	One-Stop-Shop	Government Identified (ADS)	0,14		0,05	0,09			0,14
6.6.	Project on Agricultural Border Market	Government Identified (CDS)	1,00	0,25	0,35	0,40	0,50	0,00	1,50
6.7.	Introduction of management system in production and sale of agricultural products through exchange mechanisms and electronic technologies	Government Identified (CDS)	0,00	0,00	0,00	0,00	0,45	0,00	0,45
Projects Funded or Programmed in the Component, incl:			0,90	0,30	0,30	0,30	0,30	0,00	1,20
6.8.	Organic Cotton Production and Trade	Helvetas	0,90	0,30	0,30	0,30	0,30	0,00	1,20
	Sub Total		3,14	0,70	1,20	1,30	2,40	0,50	5,99
VII. Rural Finance									
Projects Identified for Agriculture Strategy			7,00	1,00	3,00	3,00	8,00	0,00	15,00
7.1.	Institutional Strengthening of Microfinance Institutions and Credit Unions	Government Identified (CDS)	7,00	1,00	3,00	3,00	3,00	0,00	10,0
7.2.	Development of Insurance System	Government Identified (ADS)	0,00	0,00	0,00	0,00	4,00	0,00	5,00
Projects Funded or Programmed in the Component, incl:			9,39	5,60	1,90	1,90	0,00	0,00	9,39
7.3.	GTZ Rural Finance System	GTZ	0,13	0,13					
7.4.	Central Asian Microfinance Alliance (2002-2009, budget \$5,61 mln)	USAID	5,60	1,90	1,90	1,90			

Name of Component/Project	Status of Project ⁴⁹	Required Budget for the I phase (in \$ mln)	Phase I			Phase II	Phase III	Total Re-quired
			2007	2008	2009			
7.5. Micro and Small Finance Facility (2002-2007) USAID/EBRD	USAID contribution	3,70	3,70					
7.6. KAFC Reorganization	Government Identified (CDS)	0,00						
Sub Total		16,40	6,65	4,87	4,87	8,00	0,00	24,39
VIII. Rural Development and Environment								
Projects Identified for Agriculture Strategy		28,14	3,00	7,20	17,90	108,00	115,10	251,24
8.1. Continuation of Rural Development, including SME Development	WB	6,04	1,00	2,00	3,04	15,00	12,00	33,04
8.2. Rural Roads Development	Government Budget Road Fund	6,60	2,00	2,20	2,40	6,60	6,60	19,80
8.3. Rural Water Supply	WB/DFID/Government Identified (ADS)	19,00	3,54	3,00	12,50	86,40	96,50	201,94
Projects Funded or Programmed in the Component, incl:		8,20	6,69	0,80	0,76	0,76	0,00	8,96
8.4. SDC/SECO Forestry Project	SDC/SECO		1,25					0,00
8.5. WB Tailing Dump Maili-Suu	WB		0,71					0,00
8.6. GTZ Batken Capacity Building	GTZ		0,43					0,00
8.7. UNDP Poverty Reduction Project	UNDP		0,758	0,758	0,758	0,758		0,76
Sub Total		36,30	9,70	8,00	18,70	108,80	115,10	260,20
Total by Components		250,69	89,65	70,41	90,63	244,23	172,33	667,25
Projects Identified Requiring Finance		84,79	9,70	25,12	49,97	214,16	170,93	469,88
Projects Funded or Programmed in the Component		165,90	79,95	45,29	40,66	30,07	1,40	197,37

ANNEX III: ORGANIGRAMS

Organigram III.1. Agricultural Public Administration, MAWRPI



Organigram III.2. MAWRPI Functional Structural Organization

Approved by MAWRPI order No. 103,
dated May 4, 2006

