

ANNEX B. STRATEGY OF SUSTAINABLE DEVELOPMENT OF AGRICULTURE AND FOOD SECURITY

Strategic objectives

The Republic of Moldova has pledged itself to the establishment of an economy based on market principles and its integration into the world economy. Reform of agriculture and the food sector is considered a crucial part of the country's transition from an agrarian one, providing employment and incomes for more than half of the population, towards a modern European country. Consistent with this objective, the main strategic objectives of agricultural policy are:

- to promote efficient production, processing and marketing of agricultural and food products in a way that improves incomes and the welfare of farmers,
- to ensure the competitiveness of Moldovan agricultural and food products on world markets,
- to contribute to the economic growth of the Moldovan economy through foreign exchange earnings and an increase in productivity and the mobility of labor to more productive activities,
- to protect the natural resource base of Moldova and to provide national food security and the availability of food at minimum cost.

To achieve these objectives a series of important constraints impeding the sector's ability to realize its substantial potential should be removed and major restructuring efforts need to be continued. This strategy on the market mechanism relies on producing agricultural and food products at world market prices, considering export/import parity price for Moldova and encouraging production patterns to reflect Moldova's comparative advantages. Government policy should be economically neutral, not protecting but also not taxing agriculture and the food sector. This export-market led strategy also requires public sector support for effective export market expansion and the restructuring of agricultural support services, while careful selection of priorities is needed in social policy for more efficient poverty alleviation measures.

Current constraints to development

The development of agriculture and the food sector is constrained by both internal and external factors.

Internal constraints

Internal constraints are directly related to the agricultural sector, its reform process and institutional setting, and to agricultural policy:

- Non transparent property rights on land due to delays of land titling and land registration and limits imposed on land market and land tenure as well as lack of alternative mechanisms and opportunities for potential land owners to make a free decision about what to do with the right of land title.

- Insufficient incentives for large-scale, former state and collective farms to adapt to market requirements; uncertainty of farm structures (i.e. the extent to which a variety of farm sizes and management systems will be allowed to develop), with concomitant delays in adjustment to the new market-based economy.
- High variability in the volume of agricultural production due to the high sensitivity of agriculture to adverse weather conditions (dry spells, downpours, floods, hailstones, early frosts).
- The absence of cost-efficient irrigation systems and other drought mitigating measures reduces competitiveness, in particular of the fruit and vegetable sector. There are also considerable environmental problems and water pollution.
- Transition from high to reduced market prices (see tables A1, A2 and figure A1 in the Appendixes) and direct budgetary support has caused severe problems to Moldovan agriculture and the food sector as they were developed by state involvement and with guaranteed demand irrespective of product quality and the consumer preferences. Moreover, the inflexibility of pricing policy which limits the ability to adjust to market shocks such as the loss of traditional former Soviet Union (FSU) markets.
- Incomplete de-monopolization, commercialization and inefficiencies in the marketing chain to reduce costs and maintain international competitiveness.
- Regulations for veterinary and plant health standards and food control are outdated in comparison with the requirements of international markets.
- Lack of incentive to conclude bilateral and multilateral free trade agreements which would encourage reciprocal trading arrangements and access to agricultural and food products on certain foreign markets with preferential conditions.
- A lack of coherent bankruptcy procedures to prevent deepening and widening of the inter-enterprise indebtedness and liquidity problems in agriculture and in the food sector.
- State support (e.g. subsidies to the dairy and grain sectors), debt release and credit subsidies are limited, de facto, to large-scale agri-industrial complexes and to large scale farms and enterprises.
- Lack of special credit lines for agriculture and the high cost of credit for agricultural production, investment in the setting-up of private farms, marketing, storage, and processing. This has reduced the use of agricultural inputs, brought capital replacement virtually to a halt, and increased difficulties in processing, marketing and exporting agricultural and food products.
- Lack of agricultural insurance and risk management schemes for crops, harvest and the livestock herd.
- Regulatory functions of the state, particularly the Ministry of Agriculture and Food (MAF), are not well developed and are inappropriate for a market economy.
- Domination of public and semi-public research, extension, marketing and information services with output not adapted to the needs of agriculture in an open, competitive economy and their inappropriate financing for a market economy.
- Lack of a reliable market information system and statistics with which to develop agricultural policy analysis and decision making.
- Slow process of privatization of state-owned food processing enterprises preserving internal ownership and management control over outdated food processing and packaging facilities.
- A lack of new ideas, practices and management expertise.
- Incomplete de-monopolization and privatization of machinery and other services provided to farmers by former collective and state farms.
- A lack of appropriate food security measures for vulnerable population groups caused by a rise in prices of food at the retail level and a decline in real incomes.

External constraints

External constraints are related to a broader institutional, political and macroeconomic environment:

- The complex economic situation of Moldova characterized by a substantial collapse of the industrial sector, low economic growth leading to a worsening of the fiscal deficit and increasing foreign debt, and the slowness in abandoning old central planning ways of conducting business. Delays in the successful completion of restructuring of the economy have impeded growth. Consequently, the consumption of agricultural and food products decreased due to a decline in real incomes, a reduction of consumer subsidies and a rise in prices at retail level.
- Developed disproportion between production based on FSU central planning and real economic demand. Worsening terms of trade with FSU markets due to a price reduction in trade for agricultural and food products and by price increases for oil and energy as an implication of moving FSU countries to international prices in trade.
- The breakup of FSU markets has resulted in the loss of major traditional export markets for agricultural and food products. Several trade and transit-tax barriers and different methods of payments have made traditional trade more difficult and risky. Export demand has also faced increased competition on traditional export markets, partly due to a lack of quality competitiveness caused by outdated food processing and packaging facilities.
- Insufficient political support to pursue the reform and restructuring process. Unfavorable climate for private sector development, the entry limits into the business and lack of transparency of markets connected to rent-seeking practices.
- Reluctance of the foreign direct investments (FDIs) to bring in new fresh capital, expertise and markets.
- The lack of opportunities for off-farm employment and widespread hidden unemployment.

National resources and social-economic potentials for future development

Despite these constraints, the national resources and social-economic potentials of Moldova's agriculture and the food sector are very strong. Most of the country's identified resources are still engaged in agriculture. The potential for future development is indicated by the following factors:

- Very good natural factor endowments, particularly its highly fertile soil, which is one of the best in the world. A very high share of agricultural land in total land and very high quality of agricultural land will enhance Moldova's comparative advantage in agriculture, processing, marketing and exporting of agricultural and food products.
- The potential to create more viable and economically more efficient farm, company and management structures to contribute to overall economic efficiency and the mobility of labor to more productive activities.

- The potential for more productive use of agricultural land, to increase yields and to reduce their variability through improved incentives for the application of new advanced production techniques and technologies for yield management.
- The potential for diversification of production, products and markets, and for improvement in the quality of products.
- The potential for increased productivity and efficiency in agriculture, processing, marketing and exports of agricultural and food products as the most challenging issue for the success of the reform. The capacity for better utilization of Moldova's comparative advantage in high value-labor intensive products.
- The availability of labor in agriculture, potential for an increase in labor productivity and farm incomes through increased productivity and efficiency in farm production and from off-farm employment in rural areas.
- The potential for the diversification of the rural economy through the diversification of farm employment and the diversification of farm incomes from off-farm employment.

Strategy options

In choosing the basis of Moldova's strategy for agricultural development and food security, two general approaches were considered:

(i) to continue with existing ad hoc policies, including the unclear role of the state in the economy and the inconsistent reform process in areas of privatization and liberalization of the economy with a considerable absence of strategy for future development; or

(ii) to introduce an export-market led strategy, promoting efficiency and international competitiveness, consistent with the long-term sustainable development and integration of Moldova into the world economy and world market principles.

A political consensus in Moldova, on the main constraints impeding sector' and overall economic development, has not been fully achieved. There is only partial agreement that changes of current policies are necessary. The reform process, aimed at transforming and restructuring agriculture and the food sector, has been implemented relatively slowly in comparison with central European and Baltic states in the absence of a clear political consensus and government guidelines about the path of the reform. A status quo is not likely to be a good decision regarding long-term development as it creates an unclear environment and uncertainty for economic agents. The country will also lose its already achieved advantages in international trade and face more severe competition from more advanced transition economies.

A long-term strategy is needed to facilitate the consistent environment and policies fostering efficiency and an increase in competitiveness of production, processing and marketing of agricultural and food products, and thus contributing to the economic growth of the economy, but at the same time considering the protection of the natural resource base. On the basis of these considerations, the preferred solution for Moldova is a composite strategy which involves the objective of long-term sustainable development, the integration of Moldova into the regional economy and into the world economy, the adoption of international product standards and the negotiation of membership of the General Agreement on Tariffs and Trade / World Trade Organization (GATT)/(WTO).

The basic elements of such a strategy would be:

- (i) to speed-up and to complete the process of land reform, privatization and farm restructuring; to establish individual exit rights and to allow increased flexibility in farm restructuring options; to clarify land ownership rights and lease provisions; to speed-up the registration of land-titles and land transactions, as an initial step for the land market and land tenure development towards a more viable and economically efficient farm structure; to restructure and rationalize drainage and irrigation systems;
- (ii) to improve price-competitiveness, product quality, packaging and marketing of agricultural and food products to achieve comparative advantage in international trade, maintain low import tariffs and adequate exchange rate policy; to review, revise and enforce veterinary and plant health standards and controls, consistent with the requirements of international markets;
- (iii) to improve financial discipline and to expand market-based financing of rural activities, including working capital and investment funds for both farmers (seasonal requirements for inputs and on-farm investments) and agri-business (e.g. for input suppliers, product trading, storage and processing);
- (iv) to complete the reorganization of MAF, with its a facilitating role in human and policy-analysis, capacity building and to introduce a proper legal framework, encouraging improvement of market institutions, farm and company management and performance;
- (v) to remove restrictions on carrying out private business and entrepreneurship activities and to encourage domestic and foreign competition in up-stream and down-stream activities, dominated by both state and private monopolistic market structures;
- (vi) to abolish the current system of direct support to de facto large scale farms from the state budget and to reallocate funds to measures that enhance economic efficiency, encourage education and training of marketing skills and improve the quality of life in rural areas; to introduce improved varieties of seeds and plants adjusted to agri-climatic conditions, and improved production, harvesting, storage, processing and marketing techniques adapted to the needs of emerging private operators;
- (vii) to rationalize, prioritize and reorganize the public sector agricultural research system, especially the development of private sector funding, the deepening and widening of private sector participation in agricultural research, in providing market information and other services;
- (viii) to implement the proposed strategy in a manner that encourages the integration of Moldova into the regional and the world economy and complies with the requirements for possible GATT/WTO membership.

Strategic priorities

Consistent with the identified combination of constraints, potential and strategic options, Moldova's strategy for agricultural development and for food security will focus on the following:

- (i) land tenure and the structure of agriculture;
- (ii) trade, price, marketing and competition policy;
- (iii) rural finance;
- (iv) institutional and human capacity building;
- (v) food processing and foreign direct investments;
- (vi) farm support services and diversification of the rural economy;
- (vii) socio-economic aspects of agriculture

Land tenure and the structure of agriculture

Large-scale former state and collective farms dominate in the farm structure of Moldova (see table A3 in the Appendix). As they were often only formally transformed, they restrict farm efficiency, efficient management of farms and marketing of agricultural products. Emerging private farmers are unable to use modern management practices effectively due to legal, technical and economic reasons impeding their performance, while ex-state and collective farms still use their resources in a non-optimal and unprofitable manner and exert monopsonistic influences over input and output marketing. There is a need to support farm restructuring towards more viable private farming units which will be the best able to contain costs and respond flexibly to changes in market opportunities (see table A4 in the Appendix).

Policy objectives

To transform the current persistent and bankrupt large-scale farm structure of Moldovan agriculture towards a more viable farm structure based on a multi-pattern farm structure development, according to the (operational) farm size and the management organization. Land ownership structure will be more fragmented than the operational structure of farms enabling operating according to competitive principles. Large scale farms tend to be more capital intensive. The former collective and state farms will be privatized and restructured towards independent family-based private farms, private farms associations, and business entities subject to strict financial discipline. The privatization and restructuring should be undertaken by:

- Accelerating land reform, privatization and the transformation of the former state and collective farms which are involved in agricultural operations and the production of agricultural inputs and services.
- Allowing the development of private entrepreneurship and the emergence of a variety of farm sizes and management systems.
- Establishing alternative mechanisms and opportunities for farm transformation and farm restructuring through land distribution, land compensation, the land market and land tenure.
- Establishing transparent property rights on land and on other farm assets by measures to reduce delays in land titling and land and farm registration.
- Increasing yields and reducing their variability through imports, the appropriate technologies and improving efficiency in use of irrigation techniques considering the cost for imported appropriate technologies and introduction of water charges for operation and maintenance from beneficiary farmers.

Short-term policy actions

- Establishment of alternative mechanisms and opportunities for free decisions with the right to the land: to keep the land within the existing farm, to take land out of the farm and to start independent farming, to establish an association with other farmers, and to offer the opportunity for exchange of the right on the land for other properties (e.g. to buy a flat, to buy land somewhere else) and not necessarily to invest in land in particular districts (e.g. the Hungarian voucher system and Estonian land reform).
- Repeal limits on the implementation of land reform and farm restructuring, impeded by high transaction costs on exit from former collective farms to establish private farms (e.g. imposed by a high minimum size of land required to allow land to be taken from a collective farm and a requirement to first pay a share of the debts of the old farm).

- Repeal limits on land transactions and very high administrative minimum prices for land.
- Facilitating conditions and necessary financial resources for the efficient work of the Agency for Restructuring of Agriculture to speed-up and complete land reform, privatization of non-land farm assets, and to promote viable farm restructuring.
- Clarification of land ownership rights and lease provisions.
- Establishment of cadastre system, registration services for land-titles and land-transfers.
- Rationalize irrigation schemes, restructure water supply system and improve water resources management.

Medium and long-term policy actions

- After completing the initial land reform and privatization of agriculture, review the outcome and modify the existing policy to achieve the objective of restructuring.
- Complete land titling and land registration process and create the integrated parcel based land registration system consisting of an owners index, designate a unique reference number and computerize registration procedures.
- Prepare methods and measures for land market and land consolidation and long-term leasing arrangements consistent with market economy.
- Introduce Water User Associations to operate and maintain the common irrigation infrastructure following land reform and farm restructuring.

Trade, price, marketing and competition policy

Competition of agricultural and food products is very strong on international markets. Moldovan companies are facing a lack of marketing skills and capacities to compete on international markets. The recovery of agricultural production, through export-led growth, requires a more favorable institutional environment and competitive economic conditions for private business. Since local markets can absorb only a part of potential agricultural output, and hence agricultural sector recovery and growth will depend on the success of developing export markets with higher quality requirements than on the traditional FSU markets. Moldova should be ready to compete for its market share on both open domestic markets and on competitive international markets. Alternative marketing channels and business opportunities for private economic agents are still being impeded. Deregulation of large-scale monopolistic structures will be pursued by anti-monopoly, de-monopolization and competition policy.

The strategy is based on deregulation of direct governmental involvement in trade of agricultural and food products and price liberalization with complete removal of different impediments to trade and private business. Protection of agriculture will postpone the necessary process of agricultural and food restructuring towards the requirements of international markets due to isolation of domestic markets from world market signals, while taxation of agriculture and the food sector will generate negative incentive to the sector to utilize the most widely available resources in the country. The strategy will require a neutral economic policy and the implementation of competition policy with deregulation and removal of monopolistic and monopsonistic practices in the economy.

Policy objectives

To initiate and sustain agricultural-export led growth to reflect Moldova's main comparative advantages, providing domestic food security at minimum cost and generating foreign exchange earnings and hence contributing to the economic growth of the Moldovan economy. The agricultural sector, like other sectors of the economy, will rely on its own comparative advantages to sustain a permanent increase in productivity and improve efficiency and hence will contribute to increased competitiveness, higher farmers' incomes and the economic growth of the country.

The diversification of trade should be one of the most important objectives, encouraging the restructuring of agriculture and the food sector and its adjustment to the highest international standards. Consistent with this objective, world market prices considering export and import basis margins by commodities will be the basis for future price formation.

Short-term policy actions

Moldova will follow a liberal approach to agricultural policy formulation, based on the comparative advantage of agriculture, which will sustain a mix of production for the domestic market and for export-led growth, with the indirect role of the state to create a transparency of the legal and institutional environment for the functioning of competitive markets and a system for selective export promotion:

- 7 improve competitiveness of the agricultural sector and diversify production, trade and export to new markets;
 - liberalize foreign trade policies via the abolishment of trade quotas, maintaining low import tariffs and an adequate exchange rate policy for sustainable growth of food exports and simplify the conditions to reduce the costs of obtaining a foreign trade license;
 - abolish monopoly control over input and output marketing, encouraging alternative marketing channels for farmers.
 - liberalize prices of agricultural and food products and follow non-discriminated price and tax policies for the agricultural sector and reduce the costs of public administration;
 - create a proper legal and regulatory framework for the functioning of the markets and to foster competition among economic agents;
 - abolish state and semi-private monopolies in international trade;
 - prepare the negotiating position for accession to GATT/WTO;
 - negotiate free-trade agreements with the neighboring and other countries to ensure the trade and export of agricultural and food products at preferential conditions;
 - support farmers' marketing associations programs for key export products;
 - develop public sector support (e.g. extensive market research) and selective export market promotion (e.g. for wine), promote education and training in management and international marketing;
 - allow market forces to select a product mix and products specialization towards competitive international markets.

Medium and long-term actions

Moldova is a member of the Commonwealth of Independent States (CIS) and the Black Sea Free Trade Area, and signed the cooperation agreement with the European Union (EU) and is negotiating conditions to become a GATT/WTO member. Western markets are currently protected

and preferential free trade agreements will open new opportunities for the diversification of exports and imports:

- negotiate free trade agreements with the Central European Free Trade Agreement (CEFTA) countries and an agreement on accession to CEFTA;
- negotiate free trade agreements with other countries which improve market access for agricultural and food products;
- negotiate an Association Agreement with the EU;
- strengthen the capacity for trade and international competitiveness;
- improve competition, introduce competition policy and anti-monopoly commission;
- develop future markets, wholesale markets, market information systems, commodity exchanges, and export promotion agencies.

Rural finance

Both large-scale farms and food-processors are heavily in debt. Persistence of debt moratorium, government guarantees and concessions for large scale farms postponed farm restructuring and did not provide incentives for better farm performance. De-monetization of the rural economy (e.g. payment of wages in kind) and a wide use of barter trade among enterprises and farms create additional costs for the monitoring of such activities and contribute to difficulties in marketing agricultural inputs and outputs. The previous system is no longer functioning, but nothing better has emerged, as there are constraints which have been impeding successful companies in further developing their business and investment activities. Policy of subsidization of losses of large-scale farms, traders and processors redistributes incomes from more successful farms and enterprises to loss making ones. Inter-enterprise indebtedness and liquidity problems, in an absence of bankruptcy procedures, has become a major constraint to the agricultural sector. To address this constraint there is a need for actions which strengthen financial discipline in the economy, the supply of credit to agriculture and the banking system. The lack of financial resources is a serious constraint to the agricultural sector.

Policy objectives

Implement financial discipline and bankruptcy procedures to loss-making farms and enterprises, along with their simultaneous restructuring and transformation. Develop a system of viable financial, credit and insurance institutions towards the needs of the agricultural sector for short, medium and long-term credit, with particular emphasis on the credit and insurance requirements of the newly emerging private farms. To create a healthy economic and financial environment, to boost incentives for establishing the rules of the market economy, and to satisfy this objective the following basic principles will be applied to the agricultural sector and to rural financial institutions:

- Strict financial discipline and bankruptcy procedures for loss-making farms and enterprises and incentives for their transformation and restructuring.
- Abolishment of preferential credits and subsidies to large farms, ex-state processors and trading companies. Review the public expenditure program and ensure that transactions in agriculture and in the food sector are transparent and at the minimum cost.

- Development of non-subsidized credit and the rural financial system towards the needs of a rapidly expanding client base of newly emerging private agriculture and non-state marketing and market services.
- Loan terms at commercial (market) rates and subject to the provision of collateral (mortgage) and/or effective guarantees.
- Effective sanctions will be enforced on the borrower if a loan is not repaid.
- The system should encourage rural savings.

Short-term policy actions

Improve financial discipline, eliminate subsidies to former large scale farms and ex-state monopolies, and increase commercial bank lending to the newly emerging private farms:

- review and strengthen the legislation and regulatory procedures for bankruptcy;
- enforcement of the bankruptcy law and bankruptcy procedures;
- abolishing debt moratoria, government guarantees and credit concessions to the bankrupted farms, processors and trading companies;
- encourage understanding of bankruptcy vs. liquidation, and other options of transformation, restructuring and selling of bankrupt farms and enterprises;
- providing selected commercial banks with designated, externally funded lines of credit;
- defining loan terms and conditions, strengthening the capital structure of banks, without restricting loan demand from farmers;
- develop commercial bank capacity for loan appraisal and loan supervision, and develop understanding of the collateral and commodity market;
- support financing of economically viable projects and farms in agriculture, processing and trade through domestic and international lines of credits;
- develop other receipt mechanisms and establish credit cooperative services to complement commercial banking credit channels to support emerging private farmers, small and medium-scale rural entrepreneurs, and providers of agricultural machinery and machinery services;
- develop the rural insurance system of the harvest, livestock and farm properties.

Medium and long-term actions

- Increase financial discipline and promote economic incentives through competition.
- Encourage expansion of the network of commercial banks in rural areas as a means to improve access to commercial credit by allocating externally funded lines of credit to selected banks and assisting in the training of local credit officers to appraise loans for emerging private farmers.
 - Increase understanding of the credit needs of the different kinds of emerging farmers for economically viable programs.
 - Improve the legislative framework for agricultural collateral including land, crop and other agricultural farm's receivable.
 - Develop village level savings, credit and insurance programs.

Institutional and human capacity building

Although the Moldovan Government has made efforts to withdraw from its central planning role to direct and finance production, to reduce the costs of its administration and is moving towards a facilitating role, the actual progress has remained limited. The agricultural sector is administered by MAF, through its regional and district offices. MAF has partly reduced its staff, but it has largely retained its departmental structure, technical and research institutes and organization in common with a centrally planned economy. Considerable institutional reorientation and human capacity building are needed to adapt the institutional and human capacity culture to the role of facilitating the development of a market economy based on competitiveness, entrepreneurship and private farming, monitoring rather than dictating sector' and farm progress, and leading sector' policy formulation.

Policy objectives

Strengthen the Government, particularly the institutional structure and the human capacity of MAF, at the organizational, technical and technological level, for effective implementation of the proposed Strategy for the Sustainable Development of Agriculture and for Food Security. Restructure and rationalize agricultural research, extension, market information and market infrastructure.

Short-term policy actions

- Creation of a favorable or enhancing environment for general agricultural and the private business development at a low transaction cost.
- Withdraw MAF from direct production businesses and the international trade activities, and complete the reorganization of MAF.
- Ensure training and human capacity building of MAF's staff appropriate to a market economy.
- Improve market information and the data base and develop MAF's capacity to monitor agricultural policy consistent with the country's economic policy.
- Restructure agricultural research, extension and development (R&D) potentials to be less costly but more efficient and achieve consensus about the social costs of the over-employment with the restructuring of R&D activities. Develop private sector funding and participation in agricultural R&D activities.
- Review, revise and enforce the legal and regulatory framework on environment protection and the food quality standards and veterinary and health plant controls consistent with the requirements of the developed international markets.
- Establish inspection and certification system in agriculture.

Medium and long-term policy actions

- Strengthen the regulatory and facilitating role of MAF within the Government Structure.
- Review and revise the allocation of tasks between the reformed MAF and government agencies and bodies.

Food processing and foreign direct investments (FDIs)

The role of the state on the main food markets has been large (e.g. in the grain and dairy sector). Former state monopolies have often been transferred to private ones. The privatization of the food processing sector almost did not bring in fresh capital, new expertise and products. The outdated and excess processing capacities, outdated technologies, and the problem of corporate governance and company mismanagement have remained. There is a substantial lack of finance for necessary investments. There are great possibilities to improve the quality of products and to increase the efficiency of agriculture and the food sector towards the needs of competitive domestic and international markets by improved marketing with agricultural and food products and through potential gains from FDIs.

Policy objectives

To establish a competitive food processing and marketing system, oriented towards improving the efficiency of food processing and marketing on both domestic and international markets by efficient use of domestic potentials and attracting FDIs. Create new opportunities for farmers to sell products through a variety of processed products and diversified domestic products for consumers at reasonable prices.

Short-term policy actions

- Complete the privatization process in the food processing sector.
- Improve corporate governance and restructure the enterprises.
- Promote the capital market and secondary market of shares.
- Create an attractive legal environment and a favorable climate for FDIs as a means of diversifying production and markets, and to reduce investment risk in the country.
- Increase administrative capacities of anti-monopoly boards.

Medium and long-term actions

- Diversify production and encourage export-led growth.
- Review and revise the legal and institutional framework for companies and investments to improve efficiency of corporate governance and company performance.

Farm support services and diversification of the rural economy

Similar to developed countries, the role of agriculture in the economy will decline with economic growth due to the more rapid growth of non-agricultural and particularly service activities. Agriculture and the food sector will lead the recovery of the economy through export driven growth (e.g. horticultural and viticultural products) in the short term, while such development will be supplemented with diversified development of other activities promoting export-led development. The role of agriculture and the food sector will remain important in Moldova's economy, such as e.g. in New Zealand, the Netherlands, Canada and Australia, but it is necessary to achieve substantial improvements in agricultural efficiency, especially efficiency in the food processing sector. Farm services were supplied mainly by collective farms, including marketing services, purchase of inputs, mechanization, agricultural extension and credit services. The service sector, particularly in rural areas, is underdeveloped. The Strategy proposes the

creation of special support for advisory assistance in the formation and operation of service business and cooperatives. Transfer of labor from agriculture to more productive non-agricultural and service activities is desirable. The demand for labor in agriculture will depend on farm productivity caused by land reform and farm restructuring and hence production technology on the newly emerging farms.

Policy objectives

To promote sustainable development of rural areas by means of increased productivity and efficiency in agriculture, the formation of farm support services, quality improvements in up-stream and down-stream activities towards the requirements of emerging domestic and international markets. Diversification of the rural economy through job and income creation in non-agricultural and service activities.

Short-term policy actions

- Promote farmers' groups and associations, and support formation of rural service cooperatives and business towards the needs of newly emerging private farmers. Improve access to input supply and other rural services, processing, marketing and exporting agricultural and food products.
- Support farm and rural business services and encourage access to finance with low-cost loans for creation of new off-farm employment opportunities. Support new viable investment projects in rural off-farm job creation and promote rural self-job creation through favorable government investment and tax policy.
- Support education and training activities independently of former collective farms to encourage increased mobility, flexibility and efficiency of the labor force in rural areas.

Medium and long-term actions

- Review and provide advisory assistance in the formation and operation of service business and cooperatives; support rural extension network, consulting assistance and aid agencies.
- Review and provide agricultural and rural education in the responsibility of ministries responsible for education and culture.
- Investment and tax policy encouraging the development of small and medium-sized business in rural areas.

Socio-economic aspects of agriculture

The major burden of reform in Moldova has been taken over by agriculture and the food sector. Moldova has experienced a decrease in food consumption due to the decline in households real incomes and the rise in food prices at retail level. However, most rural families reduce food costs through their own production of food. There was a policy misunderstanding of relations between market and social measures with implications for long-term efficiency and international competitiveness. The role of the state in the economy instead of being deregulated has persisted, causing delays in restructuring and structural changes in the economy and particularly in agriculture. Near or below the poverty line there are rural unemployed and small-scale farmers without other sources of income.

Policy objectives

Select priorities in social policy for more efficient poverty alleviation measures and create opportunities for generation of additional incomes in rural areas. A clear distinction should be made between the role of social and agricultural policy. The agricultural policy will promote development of smaller scale farming ventures (family and limited partnership) to provide expanding production and exports of high value horticulture and viticulture products and generate additional incomes in rural areas. This will require the development of a range of support services in order to improve the viability of small scale farms. Social policy measures will become the responsibility of ministries responsible for social welfare.

Short-term policy actions

- Implement selective and targeted cash compensations and poverty alleviation measures for the least privileged segments of the rural population.
- Encourage measures aimed at improving the functioning of labor markets (e.g. job-related training), support self-job creation and assist in marketing, farm and rural business management.

Medium and long-term actions

- Monitoring measures on vulnerable groups.
- Poverty alleviation through growth and income generation.

Table A1. Production costs / Producer price ratio for Moldovan agriculture (*)

	1994	1995	1996
Wheat**	-61	-50	-23
Maize**	41	24	-15
Sunflowers	-44	-36	-13
Sugar beet	41	-19	-9
Potatoes	-24	41	163
Grapes	-9	-0	-9
Milk	38	66	64
Beef	73	175	183
Pork	25	41	31
Sheep meat	58	99	188
Poultry	-4	6	-9
Eggs	8	14	3

* Where minus (-) means for how many percentage points the production costs are lower from the domestic price, and vice versa for plus (+). The following conversion factors were used to convert the per unit prices in live weight to carcass weight: 0.56 for beef, 0.72 for pig meat, 0.74 for poultry meat and 0.6 for sheep meat.

** The grain price is used as a domestic price.

Source: Author's calculations based on data taken from "Anuarul Statistic Al Republicii Moldova 1996", Departamentul Statisticii al Republicii Moldova, Chi'inău, 1997.

POLICY MATRIX: Strategy for development of agrarian sector

<i>Policy issue</i>	<i>Policy objective</i>	<i>Short term actions</i>	<i>Medium- and long-term actions</i>
Land tenure and the structure of agriculture	Complete privatization of state and collective land and non-land assets.	<ul style="list-style-type: none"> • Allow exit from former state and collective farms. • Establish transparent property rights on land and non-land assets. • Create a legal framework for rural land tenure and land market. • Promote farm restructuring towards more viable farm structures. • Improve water resources management. 	<ul style="list-style-type: none"> • Complete privatization of agricultural land and non land-assets of ex-collective and state farms. • Maintain land cadastre. • Prepare methods for land consolidation. • Encourage non-discriminatory policies between different kind of farms. • Introduce Water User Associations to operate and maintain the common irrigation infrastructure following land reform and farm restructuring.
Trade, price, marketing and competition policy	<p>Negotiate conditions for membership of GATT/WTO as a basis for future trade and price policy.</p> <p>Sustain competitiveness of exports of agricultural and food products to reflect main comparative advantages.</p>	<ul style="list-style-type: none"> • Maintain low import duties and adequate exchange rate policy. • Encourage alternative marketing channels for farmers. • Review provisions of legal and regulatory infrastructure for the functioning of the markets and to foster competition (e.g. competition law, contract enforcement). • Develop a system of export and marketing promotion measures for agricultural and food products. 	<ul style="list-style-type: none"> • Encourage integration with the global economy. • Strengthen the market information system, the price and trade policy analysis capacity of the MAF. • Encourage an export/import, world market prices as the basis for price formation. • Conclude an Association Agreement with EU.
Rural finance	Create a healthy economic and financial environment and hence improve financial discipline in the rural areas and develop a system of viable financial, credit and insurance institutions towards the needs of the agricultural sector for short, medium and long-term credit.	<ul style="list-style-type: none"> • Enforcement of the bankruptcy law and bankruptcy procedures. • Create the non-distorted rural financial system on a way to deliver non-subsidized lending to farmers, food processors and traders. • Assure availability of credit by means of collateral to secure lower cost credit for agriculture. 	<ul style="list-style-type: none"> • Assure financial discipline. • Encourage expansion of the network of commercial banks in rural areas. • Improve the legislative framework for agricultural collateral including land, crop and other agricultural farm's receivable. • Develop village level savings, credit and insurance programs.

ANNEX B. STRATEGY OF SUSTAINABLE DEVELOPMENT OF AGRICULTURE AND FOOD SECURITY

		<ul style="list-style-type: none"> • Expansion of market-based financing for farmers (for working capital and on-farm investments) and agri-business (e.g. for input suppliers, product trading, storage, and processing). • Enhance bank's skills to mobilize savings and provide loans to commercially viable rural producers, processors and traders. • Ensure the provision of collateral (mortgage) and of effective guarantees for loans. • Develop the rural insurance system. 	<ul style="list-style-type: none"> • Facilitate entry of foreign banks.
Institutional and human capacity building	Strengthen the Government capacity towards a facilitating role and rationalize agricultural research, extension, market information and market infrastructure.	<ul style="list-style-type: none"> • Withdraw MAF from direct production business and trade activities. • Ensure training and human capacity building of MAF's staff appropriate to a market economy. • Improve market information system and develop MAF's capacity to monitor agricultural policy. • Create an enhancing environment for trade and the private business development. • Restructure agricultural research and extension services. • Strengthen environment protection, the food quality standards, certification system in agriculture and establish veterinary and health plant controls and inspection. 	<ul style="list-style-type: none"> • Strengthen the regulatory and facilitating role of the MAF. • Rationalize the allocation of tasks between the reformed MAF and government agencies and bodies.
Food processing and foreign direct investments	Establish a competitive food processing and marketing system on both domestic and international markets.	<ul style="list-style-type: none"> • Complete the privatization process in the food processing sector. • Promote the capital market and secondary market of shares. • Improve corporate governance and restructure the enterprises. • Attract FDIs as a means to bring in fresh 	<ul style="list-style-type: none"> • Diversify production, improve quality, increase international competitiveness and encourage export-led growth. • Create a favorable legal and institutional framework for companies and investments to improve efficiency of corporate governance and company

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		<p>capital, expertise and markets.</p> <ul style="list-style-type: none"> • Increase administrative capacities of anti-monopoly boards. 	<p>performance.</p>
<p>Farm support services and diversification of the rural economy</p>	<p>Promote sustainable development of rural areas by means of increased productivity and efficiency in agriculture, the formation of farm support services, and the diversification of the rural economy.</p>	<ul style="list-style-type: none"> • Promote farmers' groups and associations. • Support formation of rural service cooperatives and business towards the needs of newly emerging private farmers. • Support new viable investment projects in rural off-farm employment creation. • Promote rural self-job creation through favorable government investment and tax policy. • Support education and training activities to encourage increased mobility, flexibility and efficiency of the labor force in rural areas. 	<ul style="list-style-type: none"> • Provide rural extension network, consulting assistance and aid agencies. • Provide rural and agricultural education. • Encourage favorable investment and tax policy for the development of small and medium-sized business in rural areas.
<p>Socio-economic aspects of agriculture</p>	<p>Select priorities for poverty alleviation and create opportunities for generation of additional incomes in rural areas.</p>	<ul style="list-style-type: none"> • Implement selective and targeted cash compensation and poverty alleviation measures for the least privileged segments of the rural population. • Encourage measures aimed at improving the functioning of the labor markets. • Support self-job creation and assist in marketing, farm and rural business management development. 	<ul style="list-style-type: none"> • Monitoring measures on vulnerable groups. • Poverty alleviation through growth and income generation.

- The following observations can be made on the basis of the results presented in table A1:
- Except for wheat, sunflowers, grapes and partly for sugar beet and poultry, the production costs in agriculture were found higher than the domestic producer prices.
- The costs of beef production are more than twice higher than the domestic producer prices. Moreover, the costs of milk, pork, eggs and especially sheep meat production are much higher than the domestic producer prices.
- The production costs are comparatively lower for labor-intensive products (e.g. grapes) and higher for products based either on more extensive use of chemicals (e.g. potatoes) or on extensive use of energy and feed concentrates as this is the case for livestock production.
- The producer prices for milk and meats were depressed because domestic consumption as well as export demands sharply declined.

Table A2. Export f.o.b. parity prices for Moldovan agriculture (+)

	1994	1995	1996
Wheat**	-64*	-43	-31
Maize**	-76*	-58*	-65
Sunflowers	-49	-51	-47
Sugar	-59	-30	-31
Milk	-91	-47	-41
Beef	-44	-55	-56
Pork	-42	-39	-33
Sheep meat	-33	-56	-46
Poultry	-73	-40	-33
Eggs	-4	-27	-6

+ Where minus (-) means for how many percentage points the domestic price was lower from the export f.o.b. price, and vice versa for plus (+).

* Import c.i.f. parity prices.

** The grain price is used as a domestic price.

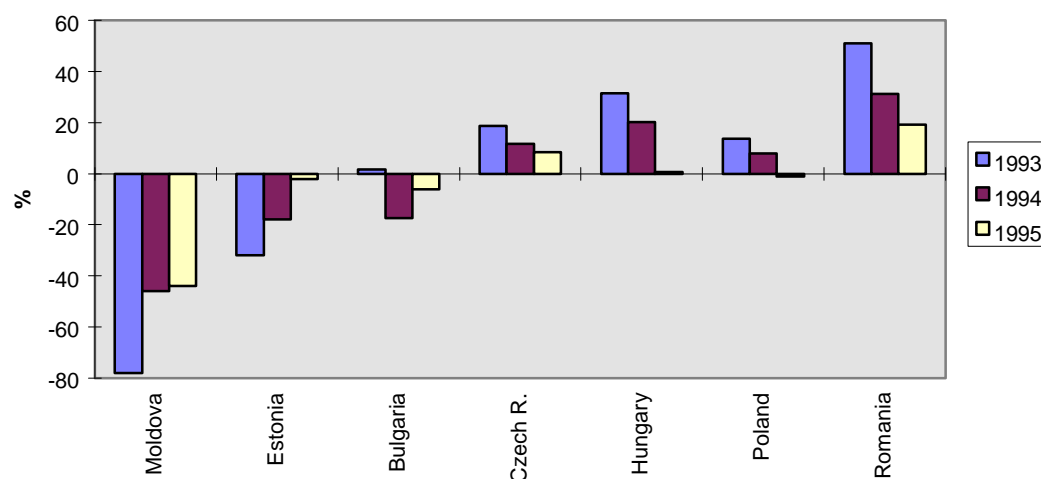
Source: Author's calculations based on data taken from "Anuarul Statistic al Republicii Moldova 1996", Chişinău (1997) and "Anuar Statistic de Comerţ Exterior 1995 and 1996", Departamentul Statisticii al Republicii Moldova, Chişinău (1996, 1997).

The results indicate the following conclusions:

- For most analyzed agricultural and food products Moldova is a net-exporter and hence the export f.o.b. prices were relevant reference point for comparisons with domestic prices.
- Agricultural producers prices collapsed during the initial stage of transition, e.g., in 1994 they reached only about a half of the export f.o.b. prices, while in some cases (e.g. for milk, maize and poultry), they were formed at the level at least 73 percentage points below of the achieved Moldovan export f.o.b. prices.
- There are observed a huge post-harvest, transport, handling and marketing costs as well as large profit margins in post-harvest and exporting activities. If so, Moldova could develop comparative advantage in exporting of agricultural and products, but the success will depend on both the improving efficiency in farming on one side and on the scope and speed in the improving of quality, packing and prompt delivery as a result of food processing, marketing and transport activities on the other.

- The agricultural producer share in the export f.o.b. prices has gradually increased since 1994, but it differs by commodities. However, on average it remains at least 30 percentage points below of the export f.o.b. prices.
- More detail analysis would be required to define the export/import parity prices for Moldovan agriculture. Hence, a special section dealing with agricultural market, trade and price information system is recommended at the MAF to provide policy makers with most recent market, trade and price developments on the domestic and international markets.

Figure A1. Average nominal protection rates (*)



Weighted average of nine commodities: wheat, maize, barley, rapeseed/sunflowerseed, sugar beet, milk, beef and veal, pig meat and poultry meat.

(*) Sources: Author's calculations and Bojnec and Swinnen (1997) "The Pattern of Agricultural Price Distortions in Central and Eastern Europe", *Food Policy*, 22(4):289-306.

Figure A1 indicates the following:

- Agricultural producer prices in Moldova are much lower than the world market prices for the EU (taken as a single reference/border price in calculations).
- Moldovan agricultural producer prices considerably collapsed in the 1990s; in 1993, they were almost 80 percentage points below the EU border prices.
- The collapse in agricultural producer prices in Moldova was stronger than in any other central and east European country.
- Agricultural producer prices have slightly recovered since 1993.
- Agricultural price differential between Moldova and other central and east European countries might be caused by the quality differences, especially for livestock products. However, the main reason for collapse in agricultural producer prices in Moldova could be possible to find in declined both domestic and export demands.
- Hence, quality improvements and demonopolization in the economy can best serve to improve Moldovan agricultural and food competitiveness on the international markets.

Table A3. Structure of agricultural land in Moldova by ownership (% of agricultural land).

	Land ownership			
	1990		1996	
	000 ha	%	000 ha	%
State agricultural enterprises	692.9	27.0	26.4	1.0
Other state organizations	136.0	5.3	67.9	2.7
Reserve fund	0	0	347.7	13.6
Kolkhozes	1,524.2	59.4	590.7	23.1
New corporate forms	0	0	993.3	38.9
Associations of peasant farms	0	0	70.9	2.8
Peasants farms	0	0	121.5	4.8
Private subsidiary plots	212.9	8.3	337.1	13.2
Total	2,566.0	100.0	2,555.5	100.0

Source: Agency for Restructuring Agriculture.

Efforts have been made to reform property relations in Moldova (table A3). As a result, the land owned by state agricultural enterprises and ex-collective farms (kolkhozes) has declined, while the land owned by private entities and individuals has increased.

The number of agricultural enterprises and individual farms has increased since 1994, while the number of state and ex-collective farms has decreased.

Most of agricultural land was only formally transferred in private ownership without real individual control of land. Many former state and ex-collective farms have only changed the name, but without substantial farm restructuring, change in corporate governance and change in the farm performance. However, about 18 percent of land is cultivated by individuals such as peasants farms and private household plots.

Private farms are more productive than the former state and ex-collective farms. Hence, the share of private farms in production is higher than their share in land ownership and land operation.

Private farms have been more important in labor-intensive grains, legume, potatoes and vegetables production than in industrial crops and fodder plants production (table A4).

Table A4. Structure of cultivated land by different types of farms in 1996

	Grains and legume		Industrial crops		Potatoes and vegetables		Fodder plants		Total cultivated land	
	000 ha	%	000 ha	%	000 ha	%	000 ha	%	000 ha	%
Agricultural enterprises	653.8	71.8	311.8	93.3	48.3	34.2	337.5	96.1	1,351.4	77.8
Population's farms	185.2	20.3	2.5	0.7	89.0	63.0	10.4	3.0	287.1	16.5
Peasants farms	72.0	7.9	20.0	6.0	3.9	2.8	3.2	0.9	99.1	5.7
Total	911.0	100.0	334.3	100.0	141.2	100.0	351.1	100.0	1,737.6	100.0

Source: Agency for Restructuring Agriculture.