



**ISLAMIC REPUBLIC OF AFGHANISTAN
MINISTRY OF AGRICULTURE AND IRRIGATION**

**AGRICULTURE STRATEGY
FOR
THE AFGHANISTAN NATIONAL DEVELOPMENT STRATEGY
(WITH FOCUS ON PRIORITIZATION)**

(DRAFT)

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PILLAR-SUB-PILLAR- ECTOR AND SUB-SECTOR	PILLAR III-ECONOMIC AND SOCIAL DEVELOPMENT SECTOR VI-AGRICULTURE AND RURAL DEVELOPMENT SUB SECTOR – AGRICULTURE
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SECTION ONE: OVERALL SECTOR GOALS AND RESULTS

1.1 Goals

To restore Afghanistan's licit agricultural economy by assuring food security and reducing poverty throughout Afghanistan; to assist farmers to increase production and productivity and to manage and protect Afghanistan's natural resource base for sustainable growth; to improve rural physical infrastructure and irrigation systems; to expand markets and develop human resource capacity.

1.2 Expected Results

The Agriculture Master Plan has been converted into seven National Programmes which will form the strategy frame work for achieving the overall objectives over the coming 5 years. For each of these programmes, this strategy paper highlights the context and prioritizes strategic options for the achievement of the expected results identified below. In relation to the Overall Goal the following targets are expected to have been achieved:

- It is estimated that public sector investment in agriculture will have increased by 30% by 2010.
- Realistic strategies for the resolution of land titling issues, especially those related to farm ownership and access to grazing, will have been developed and will be being implemented by 2010.
- It is expected that each of the programmes detailed in this strategy paper will, in one way or another, contribute towards a gradual reduction in poppy cultivation.
- The licit Agriculture sector contribution to GDP will increase from 2010 onwards

Detailed project and programme outlines are provided in the Log frame Matrices in Section 7.

1.3 Priority Expected Results

Programme 1 Assure food security for all:

Food security is defined as access to sufficient safe and nutritious food to lead a healthy and active life.

Wheat is the most important staple food for almost all Afghan people. Currently wheat production averages 2 tons/hectare, whilst in neighboring countries yields of 4 tons/hectare are achieved. A doubling of wheat productivity through more efficient distribution of quality seeds and fertilizer and making use of the rehabilitation of existing, and the expansion of new, irrigation systems will not only reduce wheat imports, it will release land for production of higher value horticultural crops. Achieving food security also requires giving the means to Afghan households to diversify their food and income sources. As such food security is not only a program, but a cross-cutting objective of the agriculture sector strategy.

- Achieve an annual growth rate of four per cent in cereals and double productivity of wheat production on a declining area by 2010.
- Assure an adequate supply of safe and nutritional food to vulnerable farmers and rural households through higher levels of production, better employment opportunities and increased incomes.
- Integrate crop and pest management to minimize post-harvest, transportation, processing, storage and handling losses from the current level of 15 % of total production to 3 %.
- Establish household and privately financed community-based grain storage silos and food storage facilities for vulnerable farmers to sell their products collectively through community based farmer associations and to maintain a strategic reserve.

- Diversify production notably through horticulture, animal production, poultry production and other agricultural products
- a national land use policy allocates appropriate share of irrigated land for cereal production;

Programme 2 Promote Horticulture for Export:

Afghanistan was traditionally a major exporter of fresh fruits, dried fruits and nuts and enjoyed a comparative advantage over regional competitors. A major impact is foreseen through the expansion of irrigation systems and planting of fruit and nut trees. Donors and government are working in partnership with the NGO community to expand perennial horticulture throughout Afghanistan through the formation of community organizations for the production and distribution of fruit tree seedlings and the eventual marketing of produce. The expected results will start to accrue as these trees reach fruit bearing age. It is expected that by 2015 there will be an annual growth rate of perennial horticulture crops of around 8%.

- For perennial horticulture, both area under cultivation and production will steadily increase by 2010
- Increased horticulture exports from current \$127 million to \$ 250 million and double sedentary farmers' income by 2015.

Programme 3 Expand livestock production and productivity

It has been estimated that 60-70% of the beef slaughtered in Kabul is imported. A smaller, but significant percentage of small ruminants also come from Pakistan to be slaughtered on the local market. Almost 90% of poultry meat, eggs and processed milk are imported. Although there is sufficient land available for increasing cattle and small ruminant production there is a need for farmers to diversify their production systems to provide more home grown fodder and forage, especially for more intensive dairy production. There is also the need for investment in the animal feed industries, especially for supplementary feeding of dairy animals and for poultry feeds. The existing private sector animal health and production services are gradually being strengthened and expanded to reach more farmers in outlying areas through the training and deployment of para-veterinary service providers. Alongside the private sector delivery network the government is reorganizing itself to create a public/private partnership, whereby many public functions at the District level and below will be performed by private veterinarians working under contract to the state veterinary service. Investment in value chains will help farmers and traders to maximize their income from livestock and its by-products (wool, hides & skins, casings, etc.).

- Increased livestock production and productivity through improved nutrition and management,
- By 2010, a significant level of import substitution for meat, poultry, and dairy products will have started to take place.
- most livestock keepers will have access to a privatized animal health and production service by 2010
- the state veterinary service will be performing most of its core functions, including the enforcement of rules and regulations provided under new and revised legislation by 2010

Programme 4 Manage and protect the Natural Resource base:

Afghanistan's natural resource base has suffered from enormous stress over the past two decades of internal conflict. Large areas of forest cover have been cut for fuel and building materials with little or no replacement. The government has developed strategic plans for an integrated approach towards the management of natural resources through the formulation and enactment of appropriate legislation and the development of community-based management plans. A major component of these plans is watershed management which will go hand in hand with reforestation, controlled use of forest resources, and rangeland management programmes in collaboration with nomadic pastoralists. In

some more remote areas wildlife conservation and conservation area management plans are being drawn up for the protection and sustainable use of Afghanistan's most precious natural heritage.

- Watershed resources survey for targeting watershed management projects completed by 2010;
- Community-based forest and rangeland management plans being put into practice by the end of 2010;
- Biodiversity of wildlife resources will be under the protection of local communities in partnership with public institutions.

Programme 5 Improve Rural Infrastructure and Irrigation systems

Afghanistan once boasted an extensive hand built irrigation system which harnessed much of the mountain snow melt water, during spring and summer months. However as a direct result of damage caused by war and due to a lack of maintenance much of the traditional irrigation systems have fallen into neglect. There is now an urgent need to repair old irrigation systems and to introduce new technologies (e.g. drip irrigation systems) for a more efficient utilization of water resources. The MAI&L has identified a series of programmes which will repair existing irrigation systems, expand irrigation into new areas and facilitate the development of a decentralized approach towards management of investments. Furthermore a number of projects seek to address water management problems through the formation of local user associations.

As well as water, the basic needs of an agricultural economy to grow are energy, communications, roads, and transportation, storage and marketing facilities. The MAIL, in collaboration with the Agriculture, Roads, Trade and Irrigation programme (ARTI) will promote investments in infrastructure which will benefit farmers by bringing them closer to both domestic and international markets.

- Lessons learnt from ongoing pilot watershed management projects are being used to develop new programmes by 2010
- Watershed management being controlled through a partnership between local communities and public sector institutions by 2010;
- Rural infrastructures will have been repaired and expanded in line with availability of funding and capacity to manage investments.

Programme 6 Increase production for expanding markets

When asked what are the main constraints to increasing agricultural production most farmers will say "water, credit and markets". Improving access to rural credit is seen as a crucial component of the MAIL's strategy for assisting farmers to accelerate growth in the agriculture sector. This is especially true for those farmers whose crop is produced on a seasonal basis or the product takes several years to reach maturity (livestock for meat). The MAIL is assisting a number of banks and other credit institutions to explore modalities for making credit available in the agriculture sector, not only to rural producers but also to investors with an interest in developing the market chains "from farm to the plate".

Alongside the establishment of credit mechanisms comes a series of institutional reforms which will enable producers to develop their enterprises more effectively and to encourage the adoption and achievement of standards necessary for international trade (SPS Agreement). The institutional reforms will include the formulation of appropriate legislation, rules and regulations, the establishment of needs based research closely linked to innovative approaches to extension services and communications. Most importantly, many of the projects and programmes in which the MAIL and donors are investing place a strong emphasis on the development of organizational relationships such as farmers' associations and cooperatives which will help producers benefit not only through better

access to information, services and inputs, but also through gaining more control over marketing chains.

- By 2010, enabling environment (e.g. laws, regulations and organization etc) to support commercial agriculture and livestock development will have been in place.
- The Private Sector Department will have been restructured in order to shift the emphasis from its regulatory role towards providing needs-based services to its agricultural clientele and to promote domestic and international investment in agriculture.
- One regional agricultural service center in each of the seven eco-zones with integrated research, extension, and training programs targeted on the principal clientele (farmers, producers, processors, traders and sellers) will have been developed.
- Cooperatives Law enacted and Cooperative Department strengthened to create enabling environment for medium and small size farmers, to develop their competitiveness and create their foundations.
- Access to credit for small and medium agricultural enterprises will have been expanded.

Programme 7 Develop human capacity for sustained growth

Although numerically the last of our seven programmes, the MAIL recognizes that above all else there is an urgent need to improve its capacity to manage the process of social and economic development. In the agriculture sector it is essential that there are sufficient numbers of professionally qualified personnel to provide the expertise required to fulfill the core public functions as well as to transfer knowledge and technology down to the farming community. The MAI&L also recognizes the extremely important role of women in agriculture and is actively promoting the training of women in order that they can participate more effectively in decision making processes. In collaboration with USAID, DFID, ADB, JICA and the EC the MAIL is investing in a process of reform through the establishment of a Reform and Management Unit (RIMU) alongside this strategy which reports directly to the Afghanistan National Development Strategy benchmarks.

- Capacity in MAIL to undertake objective-oriented agriculture programming, planning, implementation, evaluation and monitoring of MAIL programs, private investments and donor projects, as appropriate, will have been created by 2010.
- Capacity in MAIL to enact necessary institutional, regulatory and incentive frameworks to increase agriculture production and productivity will have been developed by 2010.
- Provincial and district agricultural departments will have been reformed so they are more closely coordinated with the provincial Faculties of Agriculture, and capable of managing demand-oriented and adaptive research and extension programs in partnership with private sector and NGOs.

SECTION TWO: CONTEXTUAL ANALYSIS

2.1 Analysis of the current state of the sector.

2.1.1 Sector Profile. Afghanistan's agriculture sector is the largest production sector in the country, with about 85% of the Afghan population either directly or indirectly dependent on agriculture as the basis of their livelihoods. Afghanistan is facing growing environmental pressures, the result of unsustainable resource management practices, warfare and demographic change. MAIL and FAO in 2003 conducted a survey with these major findings:

- Estimated national farming population is 12.1 million while the non farming rural population is 2.5 million. Mean household size is 11.4 members. Approximately 6% of total rural populations are returnees.

- Farm sizes are often very small. The estimated area of land under irrigation is 3 million hectares while rain fed agriculture occupies an estimated at 3.5 million hectares. Up to a third of irrigated land is not currently planted due to water constraints.
- Power asymmetries have led to water rights infringements at the head of irrigation systems often leading to abandonment of villages lower down.
- Mechanized ploughing covers half of all land, and only 50% of irrigated cereal crops are fertilized.
- At the time of the survey, livestock numbers were found to have been seriously depleted due to the combined effects of drought, political instability and inadequate access to quality services and inputs.

Overall the findings of the survey indicated that many farmers remain food insecure with risky livelihoods; most farmers are not self sufficient in any food type with about 61% relying on off farm incomes. At the time of survey 60% of farmers were in debt. This food insecurity is also reflected in the nutritional and health status of the population. The NRVA (2003) showed that at least 20% of households do not have enough calories to eat (energy, notably supplied by cereals), and that 57% of households had very poor diet diversity. This notably results in high rates of chronic malnutrition (50% children under five) and micronutrient deficiency diseases (e.g. around 70% of mothers and children under 5 are iron deficient, MOPH, 2005), which cripple the population's health and productivity.

2.1.2 State of the Resource Base and Agriculture. The International Journal of Sustainable Development World Ecology reported in 2001 that, "Afghanistan is composed of rugged and sparsely vegetated rocky hills valleys and desert. Only about 15% of its total area is suitable for cultivation. Until the middle of the 20th century resource users were able to sustain equilibrium between resource consumption and regeneration". However, emergent development accentuated by years of warfare has led to degradation of the environment and only 6% of cultivatable land is now productive. Causal results are as follows:

- There has been a mean annual decline of 3.5% of agricultural production since 1978, equating to a loss of 30% of agricultural land and pastures through degradation or abandonment.
- Afghan pastures are generally located in the lower valleys and steppes which have been affected by soil erosion and land mines. The loss of these pastures has severely affected Afghan nomads, causing mass migration into Mazar and Herat.
- Growing urban centers have encroached upon fertile agricultural land, and important wetlands have been drained for urban expansion.
- Owing to topography and arid climate over 80% of the land could be subject to soil erosion. Tectonic activity, irregular rainfall events and friable soils contribute to erosive processes.
- The collection of fuel woods and over utilization of vegetation increases the risk of erosion.
- In arid areas desiccation leads to loss of humus and results in sandier soils and desertification and there is evidence for a reduction in the diversity of perennial grass species.

2.1.3 Drought that led to Sector's decline. The extent and severity of the 6 year drought (1997-2004) demonstrated a negative impact on farming communities. The Government of Afghanistan and United Nations in 2004 jointly reported that the main effects of water and food shortages were:

- Poor harvest and crop failures.
- Low vegetation index and falling water table.
- Riverbank erosion and desertification.
- Refugee return (3 million) compounded population pressure on resources.
- Nangarhar, Herat, Ghazni, Badakhshan and Uruzgan were least able to meet their food needs.
- In the last 12 months, the food insecure population had grown by 18.5%.
- Up to 50% losses of livestock due to outward migration and starvation, especially affecting the more vulnerable Kuchi nomads.

- Coping strategies of the vulnerable population included diversity of incomes and use of previous savings, if any.

2.1.4 Water Shortage and Management. Other than the declines in water table and effects on hydro geochemistry (e.g. specifically increase in saline groundwater and deteriorating water quality) various TA found that traditional and community systems of water management have survived the period of civil conflict and neglect remarkably well. The structure of water management follows a basic pattern of community elected *mirabs* who are responsible for different sections of canal. Water conveyances are overseen at the canal level by elected *wakils*. In some areas this basic system has been operational for 400 years but is now facing increasing threats to sustainability to wit:

- The system is threatened by population growth, changes in the agricultural calendar and cropping patterns, urbanization and damage to infrastructure, pollution and illegal extraction.
- While there is a clear incentive and commitment to support and empower traditional community structures there is no clear consensus on how this might be accomplished.
- The poor capacity of local government departments and ambiguity in legislation are likewise not conducive to effective support for traditional water management systems.

2.1.5 Food Security and Imports. Afghanistan's food security is dependent largely upon the level of cereal production in the country. This is because a higher level of production of cereals improves the availability of food both in rural homes and in local markets. However, the cereal production fluctuates from one year to the next. Against the annual cereal demand of 6 million tones, the best production in the last decade was 5.4 million tons (2003 est.) while the worst output was 1.9 million tons (2000 est.) (FAO Statistics). These variations stem from the fact that more than 40% of cereal production is carried out on rain-fed land and is therefore prone to unreliable rainfall patterns, especially during winter months. The unpredictable nature of the wheat harvest undermines both macro-economic planning as well as the stability of household-level livelihoods. Nevertheless, it should be noted that our policy for food security is not to achieve cereal self-sufficiency at whatever cost.

There is an urgent need to formulate food security strategies at national (and at sub-national) level which take into consideration the dynamics of domestic production versus importation, especially in relation to the most important food items (e.g. cereal, vegetables, fruits, meat and dairy products) as well as to assure their quality (in terms of nutritional value and safety) and ensure sufficiency for the population of Afghanistan. Such strategies would consist of, *inter alia*:

- A land use strategy based on thorough analysis of macro economies and natural resource base with emphasis on alleviating the climatic impact to the agricultural production.
- A risk management strategy of, for example, early-warning systems, strategic reserves and emergency food delivery mechanisms and collaboration with NGOs.

Population growth is estimated at 1.92% per annum. In order to come closer to achieving self sufficiency there is a need to balance our strategy between increasing total land area under cereal production and increasing productivity through more efficient use of resources. The strategy will be to encourage and support the use productive irrigated land areas for cereal production, create a conducive environment for private investment in seed production and distribution, and promote Integrated Pest Management. The aim is to achieve an average yield of 3 tons/ha of wheat in irrigated areas. There is also a need to improve rural household food security through an increase in their farm income. Accordingly, emphasis will also be laid on the production of high value crops on non-productive land at the cost of cereals. This will not only create more income and increase food security but also create additional employment opportunities.

MAIL's Marketing, Economics and Statistics Division (Dec 2006) reports that the import requirement for cereals for 2006 is estimated at 1.3 million tons (including food aid).The commercial import of

cereal in 2005 was 440,000 million tons. The amount of commercial import requirement in 2006 will depend on the amount of food aid. In 2005, the WFP assisted Afghanistan with 188,000 tons of food which included 110,000 tons of cereal. The amount of food aid received/pledged so far suggests that commercial import requirement might exceed 1.2 million tons for the year. In June, 2006, MAIL had recommended that a quarter of the cereal deficit in 2006 be met through food aid.

Main Crops Area and Production 2006. Table below provides a summary of land utilization and production.

Index	Area (1000) hectare	Production (1000) tons
Wheat	2444	3712
Barley	362	375
Paddy	205	250
Potato	20	300
Watermelon	20	233
Melon	25	250
Fruits	116	807
Grape	57.6	387.69
Industrial Crops	73.6	--
Cotton	31.95	32

Sources: CSO and MAIL/Statistic Department (1385).

2.2 Programme context

2.2.1 Promote Horticulture for Export. Over 600,000 farmers produce horticultural products in Afghanistan. Total area under fruits is estimated at 116,000 ha, including *inter alia* 57,600 ha for grapes, 8,000 ha under apricot, 5,600 ha under mulberry and 12,000 ha under almond trees. The production of all fruits is estimated at 807,000 tons. Annual production potential of melon and water melon is 483,000 tons. The sum total of all efforts in the horticulture sector in the next five year has a potential of 8% sustained growth per annum.

High quality dried fruits and nuts have always dominated Afghanistan's exports in value terms and will continue to do so. Increased dried fruit and nut exports have potential of reaching \$ 250 million annually in ten years. Melon and water melon also have additional potential for export. Massive private and public investments are needed to realize the export potentials these products offer. A ten-year time horizon is needed to bring fruit trees into bearing. In that time period \$600 million of private investment and \$900 million of public investment as well as nearly \$500 million of working capital is needed by exporters and to provide credit to farmers. Institution building will be an additional requirement.

2.2.2 Expand Livestock Production: Over the past two decades livestock numbers have declined due to the combined effects of drought, insecurity and inadequate access to animal health services.

Table 1: Number of livestock in Afghanistan in 2003 ('000)

Province	Cattle	Sheep	Goats	Donkeys	Camels	Horses	Chicken	Ducks	Turkey
Total	3,715	8,772	7,281	1,588	175	142	12,156	423	600

Chapter 4 of the Agriculture Master Plan provides a detailed analysis of the main constraints affecting the livestock sector, the most important of which include the following:

Livestock production and productivity is generally low due to:

- Poor farming management practices, low levels of nutrition, low genetic potential, especially for dairy and poultry production.
- high levels of mortality and morbidity due to common preventable diseases
- lack of investment into commercial dairying / poultry – feed inputs;
- lack of investment in processing industries for animal products, especially wool, milk, meat and by-products;
- lack of organization and linkages of farmers with processing and marketing industries – value chains.

Livestock producers in some areas lack access to an affordable animal health and production service and good quality medicines and vaccines due to:

- the static nature of government clinics and personnel;
- bureaucratic procurement system in government leading to inefficient delivery of drugs and vaccines at the wrong times of the year;
- insufficient investment in expanding current private service delivery systems to more remote areas – lack of professional and especially paraprofessional service providers;
- lack of regulation of service providers and medicines, vaccines and other inputs.

Poor management skills in government in relation to policy and strategy formulation and implementation planning due to:

- former experience of centralized planning - low capacity of government to formulate appropriate livestock policies and develop strategies for putting policy into practice;
- lack of appropriate legislation, rules and regulations and institutions for law enforcement;
- lack of policies for the prevention and control of epidemic livestock diseases and zoonotic diseases

Insufficient numbers of appropriately trained service providers to satisfy the needs of farmers and to undertake core government functions due to:

- insufficient number of properly qualified instructors at Universities and other training institutes;
- inadequate training facilities or unavailable facilities for appropriate learning;
- lack of appropriate training and learning materials;
- inappropriate curricula being used at Universities;
- lack of appropriate regulatory framework to ensure the quality of veterinary education.

The potential for increasing livestock production and productivity –

There are five main areas of livestock production in Afghanistan where there exist potential for increasing the level of production and productivity. These include:

- Commercial dairy production mainly in peri-urban and neighboring areas which are relatively close to consumer markets – through formation of farmers’ associations, improvement of dairy cow nutrition as a result of investment in fodder crop production (especially alfalfa), utilization of crop by-products and investment in feed mills, genetic improvement, development of milk collection schemes and milk processing industry;
- Commercial poultry production – through formation of poultry producer associations and vertical as well as horizontal integration of producers and service providers / input suppliers, investment in commercial poultry feed industry, processing and marketing industries;
- Backyard poultry production – through formation of women’s groups, distribution of improved breeds, training of women extension / marketing agents;
- Extensive sheep and goat production – through formation of producer associations and strengthening of existing market chains through investment in value addition industries including:

wool processing, cashmere collection and processing, meat and meat by-product industries, e.g. casings, hides and skins;

- Research is required to examine the economics of supplementary feeding of sheep and goats for fattening at strategic times of the year to capture niche markets linked to the Muslim festival calendar.

It should be emphasized that the extensive sheep and goat production system which has been the traditional mainstay of all livestock production systems in Afghanistan is increasingly coming under pressure to change. The main factors influencing these changes are the ever decreasing areas of land available to pastoralist and semi-nomadic shepherds for WINTER grazing due to the expansion of irrigation systems and increases in the areas of rain fed land for winter wheat production. (In 1978 the carrying capacity of the range in Afghanistan, based upon an expected 10% loss of bodyweight throughout the winter months, was crudely estimated as being approximately 15 million heads of small ruminants. Today the sustainable carrying capacity of the range is probably less than this figure). Traditional grazing rights are increasingly violated as a result of changes in political influence. Any interventions which aim to increase livestock numbers must therefore be accompanied by investment to provide improved marketing opportunities to encourage higher levels of off take and promote the sustainable use of natural resources.

2.2.3 Domestic and International Markets and Market Infrastructure

There are various constraints facing the private sector as producers and processing intermediaries try to expand and develop domestic markets. In spite of these, there are tremendous opportunities to regain a foothold in the international market with high value products. However, modern machinery and equipment including infrastructure to support private sector development to expand markets are essential. General objectives to increase agriculture products export are:

- (1) To promote trade, interlinking domestic and international markets;
- (2) To establish and /or improve periodic agricultural markets in villages and towns;
- (3) To establish storage facilities for products with export potential
- (4) To facilitate and provide advisory services in marketing;
- (5) To encourage private investment in marketing of high value crops and products and agricultural input supplies;
- (6) To develop the capacity for trade promotion, negotiation and export; and
- (7) To establish and put in place an agricultural product marketing board.

2.2.4 Poppy Cultivation and Alternative Livelihoods. Opium poppy cultivation in Afghanistan has seen a significant increase in recent years particularly in 2006, which has been a record year for poppy cultivation. Poppy lands cultivation increased by 59% compared to 2005, reaching 165,000 hectares or about 3.7% of the total agriculture land. The potential production reached 6,100 metric tons, a 49% increase from 2005. The export value of opium is equivalent to 46% of the national GDP and the revenue provides livelihoods to 2.9 million Afghans or about 12.6% of the total population.

MAIL supports the Alternative Livelihoods Implementation Plan (ALIP) with the primary goal of reducing the level of dependency on the opium economy through the provision of licit economic opportunities. The plan highlights six areas of investments: agricultural development; rural infrastructure and sustainable employment; rural financing and poppy debt; economic regeneration; governance and community development; and provision of social safety nets. MAIL recognizes that there is a need to mainstream this approach into overall national development programs taking into account that the drug problem is far too big and far-reaching and cannot be tackled by small-scale specialized or localized projects but only through a sustainable long term development effort involving the whole economy.

2.3 Analysis of Key Strategic Elements and Processes in past programming that contributed to success

The USAID-funded Rebuilding Agricultural Markets Program (RAMP) provided a sizeable budget that covered improved irrigation systems that covered 300,000 hectares of farmland, rehabilitated 426 kilometers of farm to market roads and developed capacities of entrepreneurs and farmers organizations to effectively manage agriculture projects. The expected economic impacts of these initiatives include: Livestock and Poultry Production and Treatment (\$330M); Food grain production (\$250M); Vegetable Production and Processing (\$30M); Fresh and Dried Fruit Marketing (\$26M); Nut Marketing (\$17M).

FAO had provided technical inputs for Safe Safety and Control and has facilitated the creation of an inter ministerial committee on food safety with the Ministries of Public Health and Commerce to assist the government in the elaboration of food safety policies and strategies. The lessons learnt from UNDP and FAO funded(1989-2003) precursors to the current projects and programmes which aim to strengthen private animal health and production service delivery systems are still relevant today. The EU funded livestock projects have established steering committees to monitor NGO and private sector veterinary services nationwide. DFID, EU and JICA's capacity building efforts have contributed to an institutionalized MAIL – ANDS structure with the participation of the donor community specialists partnered with MAIL department heads and MAIL advisers. DFID and JICA assistance in inter-ministerial coordination with Ministries of Narcotics and MRRD has initiated joint strategy formulation under Alternative Livelihoods.

ADB's technical assistance in commercial agriculture and enterprise development will be greatly contribute to the success of the implementation plans of the Agriculture Master Plan. NGO's are providing site specific gender mainstreamed projects and alternative livelihood community based projects that form the mainstay of the Agriculture Master Plan implementation plan.

Key Strategic Elements that have contributed to best practices include:

- (i) MAIL-Donor harmonization wherein MAIL projects/programs (from core and external funds) are not isolated nor stand alone. Pre planning implementation of projects/programs must coordinate with existing and on the pipeline projects to ensure "value added" impacts of respective projects/programs in the short-, medium- and long-term.
- (ii) MAIL's initiation of inter ministerial coordination must be encouraged and functional since other sector goals (e.g. health, physical infrastructure, security, governance, etc) complement the agriculture sector expected impacts.
- (iii) Community based ownership during project conceptualization prior implementation are consistently identified as best practices when evaluating successful projects/programs.

2.4 Analysis of Constraints, Restraints and Assumptions

A. Regulatory and Governance Environment

1. Regulations and Legislation. Parliament has recently approved the transfer of the Ministry of Irrigation to MAIL. The recent enactment of the Cooperative Law provides impetus to cooperatives nationwide. Existing laws and regulations (relevant to the Master Plan) exist but are subject to review. This review includes (but not limited to) regulations on agricultural research, animal husbandry, animal health protection, veterinary services and inputs, food safety, land titling, land use, plant protection, forestry, range land, protected areas, wildlife. Once amendments are made, MAIL's new mandate will take the form of implementing guidelines and new strategies.

2. Policy and Law Implementation. MAIL observes that policy and law implementation in the agriculture sector is weak, particularly in poppy producing provinces. The volatile security situation fanned by insurgents complicate the rule of law in provinces and districts. The establishment of

MAIL's M&E system will undertake monitoring activities to measure outcomes in poppy and non poppy producing provinces/districts in partnership with sub national administration.

3. Accountability Mechanisms. MAIL's Master Plan defines its mandate in terms of technical, management and implementation tasks and responsibilities. MAIL encourages a functioning inter ministerial coordination (e.g. MRRD, Counter Narcotics, Ministry of Interior, Ministry of Public Health, Ministry of Commerce) in jointly undertaking accountability mechanisms to ensure the rule of law. MAIL's participation in each provincial development council will be the right governance forum to introduce and apply accountability.

4. Regulatory Compliance and Non Compliance. Gradual progress towards achieving compliance with international standards for trade in agricultural products (SPS Agreement) will accelerate growth in the agriculture sector. External factors (beyond regulation) for example security, market supply and demand, weather conditions and global competitiveness in agricultural products are risks which may interfere with investment plans and slow down progress towards achieving compliance with international standards.

5. Structure and Policy Reforms. PAR and PRR is currently undertaken (70% completed in central; and Stage 2 PRR proposal submitted for provincial). MAIL will establish a Reform Implementation Management Unit (RIMU) to review new tasks, competencies and responsibilities in each key department/unit needed for Master Plan implementation.

6. Mechanisms for Accountability. MAIL will establish a M&E system that is ministry driven and not donor prescribed. Though donor programs/projects have their prescribed M&E systems, MAIL will prepare its performance indicators based on Master plan M&E framework that will cover project, program and policy level analysis.

B Capacity analysis

For MAIL's goals and national programs to achieve their intended outcomes and impacts, MAIL will develop an enabling environment for institutional capacity development. Likewise, MAIL must provide legal, administrative and regulatory systems to correct market dysfunctions, facilitate efficient agriculture operations, protect the interests of the vulnerable farmers and ensure sustainable use of the natural resource base. MAIL will conduct an intensive capacity development implementation plan not only for institutional reform but in project cycle management in central, provincial and district levels. MAIL will establish the new Capacity Development Department that will provide various technical and managerial training to implement MAIL's goals in a cost efficient, demand driven and results based mode.

MAIL, in partnership with donors, private sector, academic institutions, NGOs and media, will lead capacity development programs "on the ground" through applied application of new technologies, participatory development of sector (and sub sector) strategies, policy formulation, and the development of a monitoring/evaluation system with specific cross cutting performance indicators.

A major component of National Program 7, Human Capacity for sustained growth, is a capacity needs assessment among MAIL officials/staff and agriculture stakeholders to identify capacity gaps, provide capacity needs and involve the participation of diverse disadvantaged groups (women, landless, children, etc). This demand driven capacity development is intended to enhance ownership and sustainability in the long term.

C Security situation

Since MAIL target beneficiaries are farmers in the rural areas, growth in agricultural production and productivity may be adversely affected by a worsening security situation. It is reported that since late 2005 the security situation has become more fragile over most of the country. Military operations

have been ongoing and Anti Government Elements (AGE) have been active in southern provinces. As of August 2006, the provinces of Helmand, Kandahar, Uruzgan, Daykundi, Zabul, Ghazni, Paktika, Nangarhar, Kunar and Nuristan have at least one district of “extreme risk” while the provinces of Farah, Nimroz, Khost, Paktya, Logar Wardak, Kapisa and Laghman have at least one “high risk” district.

Moreover, opium cultivation should be seriously considered in assessing security. This is not only because opium production has a direct correlation with the security situation but also because MAIL has an important mandate for providing alternative livelihoods to the poppy cultivating farm population as a part of the National Drug Control Strategy.

The 2006 season has seen a sharp increase in poppy cultivation both in areas (165,000 ha, 59% increase from 2005) and production (6,100 metric tons, 49% increase from 2005). Helmand and Badakhshan have an opium production of more than 500 metric tons while the provinces of Farah, Kandahar, Uruzgan, Zabul Daykundi, Ghor, Faryab, Sari Pul, Balkh, Baghlan, Nangarhar are reported to have produced more than 100 metric tons in 2006.

SECTION – 3: STRATEGY

Overall Strategy for Achieving Expected Results

To increase licit agriculture and livestock production and productivity through improved access to:

- land and water;
- quality assured services and inputs;
- appropriate technologies;
- communication and information services;
- credit;
- markets;

and by ensuring capacity development and institutional strengthening at all levels, as well as providing an enabling environment for increased income, poverty reduction, food security and sustainable growth.

Strategies for Positive Impacts in relation to:

1. *Sustainable poverty reduction*

- Improved knowledge and capacity to produce more and to work effectively at all levels;
- Increased income through diversification of farm enterprises leading to improved household food security;
- Improved nutritional status which contributes to health and productive performance;
- Environmental protection leading to sustainable use of natural resources.

2. *Economic growth*

- Increased public / private investment leading to rapid expansion of markets
- Promotion of value chain opportunities contributing to higher on farm prices for raw materials
- Import substitution having a positive effect on trade balance;
- Export promotion and penetration of regional and international markets – foreign exchange earnings
- Regional/international cooperation through local trade agreements based on equivalence and lowering of trade barriers.

3. ***Productivity increase***
 - Conservation and management of Biodiversity through community-based management of natural resource base;
 - Efficient and sustainable utilization of natural resources through introduction of community based management systems;
 - Adoption of appropriate technologies to improve efficiency of utilization of resources
 - Improved product quality strengthening capacity to penetrate international markets, thereby increasing demand
4. ***Employment and income generation***
 - Increase job opportunities for men and women through investment in value chains
 - Growth in agricultural industries
 - Diversification of agricultural enterprises for competitive markets
5. ***Cost efficiency and cost effectiveness***
 - Appropriate allocation of limited investment resources;
 - Increased access to rural credit;
 - Promotion of small and medium enterprise development;
 - Promotion of public / private partnership through institutional frameworks
6. ***Long-term sustainability***
 - Investment in human capital (capacity building);
 - Sustainable management of natural resources;
 - Increase licit agricultural contribution to GDP.
7. ***External and government funding***
 - Private investment encouraged through creation of a favorable regulatory environment
 - Gradual reduction of public investment as private sector confidence grows;
 - Promotion of regional and international investment

Impact on cross cutting issues

Gender: MAIL provides increased opportunities for women to participate in agricultural development processes

Environment: Appropriate land use planning, water management and agricultural inputs results in sustainable utilization of natural resources

Anti-corruption: MAIL implementation of Public Administration Reform (PAR) leading to good governance

Counter Narcotics: Identification, promotion and adoption of appropriate production enterprises as an alternative to illicit agriculture

Regional Cooperation: Trade agreements and technical cooperation established with regional partners

Overall strategy for achieving counter-narcotics benchmarks (6.3)

- Establish monitoring and evaluation system to analyze productivity of ongoing agricultural development projects in each of the 7 agro-ecological zones of Afghanistan
- On the basis of comparative advantage, assist the Directors of Provincial relations Dept, Agricultural Policy & Planning & MRRD to identify investment opportunities for licit agricultural production ;

- Identify strategic options for investment in value chains, including processing industries and marketing institutions

SECTION FOUR – PROGRAMMING

Introduction

Since the end of 2004 MAIL has gone through a steady process of institutional and organizational review enabling it to introduce required changes and build the capacity to fulfill its role in the 21st Century. Naturally the focus has been on key departments including the Directorate for Policy and Planning and the Office of the Minister. However, the MAIL has also, in collaboration with major donors, been able to attract substantial resources for two priority programmes – Expanding Livestock Production and the Promotion of Horticulture for Export. Through participatory training, learning and coaching the human capacity has been enhanced with specific emphasis on understanding, executing and maintaining processes for planning and programming. The details associated with the programming framework and support for the seven programmes is outlined below.

4.1 Programme 1 Assure Food Security for All (focusing on stable security)

The most essential role for an agricultural economy is to assure access to an adequate supply of diverse foods for the nation's people to live a healthy and active life. This is an overarching goal of all seven agricultural sector programs (esp. programs 1, 2 –horticulture- and 3 –livestock), each of which contributes to increasing the availability of and access to food, at the national level and household levels. Food security can be achieved by improving the food supply - through domestic production and productivity gains, commercial imports and donor aid – and by increasing households' ability to purchase food –through improved physical access to food and increased income.

Program 1 focuses on a major impediment to assuring food security, which is low productivity in the cereals sector, and in the production of other staples, such as potatoes and pulses. Afghanistan produces on average two tons of wheat per hectare, while its neighbors generally achieve four tons. Doubling productivity in wheat production would not only better assure a food source which is a staple in rural Afghan diets, but also free up land for higher value horticulture crops and livestock production. By 1389, the target is to achieve an overall annual growth rate in cereals of four per cent.

Several agricultural programs (see list in table, below) are currently supporting improvements in staple supply by:

- testing and introducing improved varieties for wheat, potatoes, and other staple crops
- training farmers on improved farming methods
- improving access to quality seed through development of private seed enterprises
- improved access to fertilizer
- improving storage facilities at household, community and provincial levels
- reducing crop losses due to pest and disease through integrated pest management
- restoring seed supply in emergencies through free or subsidized seed and fertilizer distributions (N.B. food aid is managed through other governmental organizations).

These activities are being implemented through a variety of partners, including MAIL, NGOs, farmer-based organizations, producer groups, and cooperatives. The MAIL is aware of the need for improved coordination of these interventions and is taking steps to create the required institutional and organizational frameworks to accomplish this.

The MAIL is working actively through the Research and Extension Departments, conducting trials of improved varieties and maintaining demonstration plots for farmers. The General Directorate of Quality Control is developing its institutional and technical capacity to ensure the quality of inputs (seeds and fertilizers), both imported and locally produced. The National Seed Committee in MAIL coordinates all

seed industry functions. Variety testing and production of breeder seed is carried out in collaboration with the Agricultural Research Institute of Afghanistan (ARIA) and with the Improved Seed Enterprise (ISE) for foundation seed production.

The success of stable production interventions is linked to close collaboration between Programmes 1, 4 (management and protection of the natural resource base) and 5 (improvement of rural infrastructure and irrigation).

Improving staple supply is not sufficient to ensure food security. Access to diverse foods is essential for health, and diversifying household income sources and livelihoods is key to strengthening their economic situation. A wide range of programs implemented by a variety of stakeholders (government, UN, donors, NGOs) are working to achieve these objectives. Projects include introduction of economic activities (bee-keeping, poultry, food processing), support to producer groups, development of employment opportunities, development of rural infrastructure to improve market access, etc.

Given the wide range of interventions working on food security, the list of programs below is not exhaustive, but highlights the main programs working to improve staple supplies and to diversify income sources in the agricultural sector.

Project Programming – Food Security Sector - 2007 onwards

Program	Main areas of intervention	Duration	Location
Special Program for Food Security, now National Program for Food Security (FAO)	farmer-based organizations for diversification of food production. (bee-keeping, poultry, grape production, etc.). framework for national planning for food security.	Sep 2003 – Dec 2007	National
Variety and Seed Industry Development (FAO / EC)	Development of new and improved crop varieties; multiplication of certified seed; adoption of seed law and national seed policy; support for commercialization of seed production and sale.	Jan 2007 – Dec 2011	National
The Development of Sustainable Agricultural Livelihoods in the Eastern Hazarajat (SALEH)FAO / UK	Development of capacity, opportunities and mechanisms to achieve sustainable livelihoods improvements (testing & introduction of wheat, potato & bean varieties); dissemination of lessons learned	June 2003 – June 2008	Eastern Hazarajat
Alternative Agricultural Livelihoods Program (AALP) - Phase I FAO / UK	Development of nationally owned alternative livelihoods strategies and action plans and on-farm and off-farm livelihoods diversification opportunities.	July 2005 – Jun 2007	National
Supporting Household Food Security, Nutrition and Livelihoods in Afghanistan FAO / Germany	Capacity-development of MAIL on household food security, nutrition and livelihoods; integration of nutrition education in agricultural projects; support to community-based food security interventions & food security policy-making	Aug 2005 – Dec 2007	National
Support to the Food, Agriculture and Animal Husbandry Information Management and Policy Unit (FAAHM) in Developing an Agricultural Statistics	Assistance to MAIL in developing an Agricultural Statistics and Market Information System, and (ii) Strengthen the institutional and technical capacity of MAAHF in: (i) providing timely and more reliable agriculture and price data, (ii) marketing studies, and (iii) doing situational and policy analysis	Jan 2006 – Aug 2009	National

and Market Information System – Phase II FAO / EC			
Support to vulnerable populations in drought affected areas. (FAO)	Provision of improved wheat seed and fertilizer to over 11,000 vulnerable rural households in selected areas of Afghanistan affected by the drought for the spring and autumn 2007 planting seasons. (implemented in partnership with NGOs)	Dec 2006 – Dec 2007	Selected Provinces
Support to Vulnerable Farming Families (FAO / Japan)	Support 2,000 vulnerable farming households participating in DDR, IDPs, Returnees and other vulnerable groups	Jan 2006 – June 2007	Kandahar, Balkh and Nangahar
National Agricultural Experiment Stations Rehabilitation Project (NARP) JICA	Improved capacity of research Appropriate varieties of wheat and vegetable identified	July 2005 – July 2010	Selected Provinces
Accelerating Sustainable Agriculture Programme (USAID) – MAIL programme	Establishment of Rural Farm Stores to provide key agricultural inputs to growers	2006-2010	Selected Provinces
NGOs: Solidarités, DACAAR, Madera, GAA, AKDN, Afghanaid, Oxfam, CRS, etc.	Integrated community-based agricultural and livelihoods projects; Introduction, testing and multiplication of improved wheat and potato seed; Construction of community warehouses for potato & wheat; Establishment of producer associations; Growing of improved wheat seed with contracted farmers; Establishment of seed banks & Demonstration plots; Emergency seed and fertilizer distribution	Ongoing, with support from various donors, and with NGO private funds	Rural locations nationwide

4.2 Programme 2 Promote Horticulture for Export

The MAIL has four project types or programmes which are contributing to the achievement of the expected results for the horticulture sector, as identified in Section 2 of this Strategy Paper (see Table below). Three of these (PHDP, HLP and ASAP) are major donor funded projects, working in close collaboration and embedded within the MAIL.

The Alternative Livelihoods Programme (ALP), funded by USAID has been working with the MAIL as well, and primarily with local MAIL offices in the field.

In addition, at least five other programmes are being implemented by NGO's, with increasing involvement of the MAIL. These are a series of NGO projects, some coordinated and others less so, often in specific geographic areas, providing different type of technical services to Afghan growers of perennial crops.

There is at present a Horticultural Steering Committee, comprised of members of donor-funded horticultural projects, which works to coordinate such activities among donors.

Project Programming – Horticulture Sector - 2007 onwards

Project / Programme	Main areas of intervention	Duration	Location
Alternative Livelihoods Project (ALP)- USAID	Orchard development and rehabilitation, demonstration orchards, product export development, market linkages.	2005 – 2009	ALP locations, north, east and south provinces
Perennial Horticulture Development Project (EC) – MAIL	Identification and propagation of valuable germplasm, nursery and tree development, MAIL capacity building.	March 2006 – Jan 2010	Central & selected provinces
Horticulture and Livestock Programme (HLP) (World Bank / DFID) MAIL programme	Orchard/vineyard development and rehabilitation, demonstration orchards/vineyards, germplasm collection and variety propagation, product export development, green raisin cluster development, pomegranate cluster development, IPM training and regulatory enhancements, capacity building in the MAIL.	September 2006 – 2009	Selected provinces
Accelerating Sustainable Agriculture Programme (ASAP) (USAID) MAIL	Strengthening and expanding value chains for horticultural products, including export development; farm store support.	December 2006 - 2009	Selected provinces
NGOs – IF Hope, Roots of Peace, Mercy Corps, GPFA, CADG, others	Nursery development, orchard/vineyard development and rehabilitation, demonstration orchards/vineyards, product export development, development of market linkages.	Ongoing since 2002	Rural locations, nationwide

4.3 Programme 3 Expand Livestock Production

The MAIL has six major projects or programmes which are contributing to the achievement of the expected results for the livestock sector which have been identified in Section 2 of this Strategy Paper (see Table below). In addition the forthcoming Human and Avian Influenza Project (World Bank / EC) is scheduled to start up early in 2007, subject to Ministry of Finance procedures.

The MAIL coordinates each of the main donor investments and to a lesser extent the NGO projects and programmes through the Donor / MAIL Joint Steering Committee (JSC) and its sub-committees. The JSC meets monthly and representatives of each programme share experiences and ideas and raise concerns which can be addressed by the Ministry or donor community as appropriate.

The MAIL has established a Monitoring and Evaluation Directorate and there is planned to be a Department specifically dedicated to the registration and coordination of NGOs in the near future. The M&E Directorate, in collaboration with RIMU and the ANDS Technical Working Groups will all collaborate to improve project planning and programming in the future. The Table below illustrates the main areas of programme intervention covered by the most important livestock projects and programmes currently under implementation:

In the NGO sector, coordination is achieved through the Agency Coordinating Body for Afghan Relief (ACBAR). The Directorate of Animal Health & Production has recently established a Department for Veterinary Field Unit Coordination, Monitoring & Evaluation (DVFUC). This Department is involved with the registration of all NGOs working in the livestock sector and is actively monitoring and evaluating service delivery. The aim of this Department is to assist the DAP&H in a process of engaging private sector service providers to perform a defined range of public

functions at the District level under a licensing and contracting scheme in the near future. The DVFUC reports to the General Director of DAH&P and indirectly to the MAIL M&E Directorate.

Although ALP has been working under the Ministry of Commerce for the past two years it is understood that the responsibility for coordination, monitoring and evaluation will be transferred to MAIL, as much of this programme's focus is directed towards the farming communities.

Furthermore it should not be forgotten that there are a very large number of small NGO implemented interventions funded through bilateral assistance and other external sources which collectively make an enormous contribution towards the development of the livestock sector. Some of the more important NGOs are listed in the Table below.

Project Programming – Livestock Sector - 2007 onwards

Project / Programme	Main areas of intervention	Duration – current phase	Location
Alternative Livelihoods Programme (ALP) USAID	Counter narcotics, small enterprise development, business development services, creating linkages to markets, value chains, Livestock health.	2005 – 2009	ALP north – Kunduz, Baghlan, Badakhshan ALP east – Kunar, Laghman, Nangahar & Nuristan ALP south – Kandahar, Helmand, Uruzgan & Nimroz
Animal Health Development Programme (AHDP) (EC)	MAIL – institutional reform, legislation, public/private partnership, livestock disease surveillance/laboratory diagnostic services/ Food safety, Animal vaccine quality assurance	March 2006 – Jan 1010	National -
Accelerating Sustainable Agriculture Programme (ASAP) (USAID)	Strengthening & expansion of private sector AH& P services network, extension services, value chains	December 2006 -	National
Horticulture and Livestock Programme (HLP) (World Bank / DFID)	Privatisation of MAIL veterinary clinics, legislation, backyard poultry distribution / marketing scheme, dairy association, milk collection / processing – Kabul environs	January 2007 – January 2010	
FAO livestock programmes:	Regional Transboundary Animal Disease Project (Rinderpest / Avian Influenza) Poultry production & distribution; Dairy production , milk collection & processing	2005 – 2008 2003 onwards	Dairy – Kabul, Mazar-e-Sharif Poultry – TADP – National
Support to the	Undergraduate training,	2005 onward	Kabul University,

Development of the Faculty of Veterinary Science, Kabul University (USAID) Ad hoc USAID veterinary training PL480	exchange programmes, post graduate programmes, curriculum development, training materials Specialised training for field diagnosis of common diseases		CVDRL, Dar-ul-Aman Private veterinary practices - nationwide
Human / Avian Influenza Project (FAO / WB / EC)	Prevention and control of Avian Influenza – Communication / awareness	April 2007 – April 2010	National
NGOs – AKN, AVA, DCA, MADERA, MC, PRB,	Support, strengthening & expansion of private sector animal health & production service delivery network	Ongoing since 1988	
NGOs – BRAC, CARE, CoAR, CRAA, DACAAR Land o' Lakes, DCA, Italian Coop.	Animal production extension, dairy development, milk collection / processing, cheese manufacture, cashmere collection / processing	Ongoing	

4.4 Programme 4 Manage and protect the natural resource base

MAIL recognizes that over the past 20 years many of Afghanistan's natural resources have declined due to uncontrolled exploitation. There is an urgent need not only to repair the damage caused by neglect but also to introduce innovative approaches towards rehabilitation, management, conservation and protection. The MAIL Natural Resource Directorate has five major investment programmes in place to achieve these goals.

Particular emphasis is being placed on developing community-based initiatives in order to create a sense of local ownership for Afghanistan's natural resources. Over the coming five years MAIL will undertake a survey of the main water catchment regions with a view to developing a programme for the repair of existing and expanding new water catchment dams.

Project Programming – Natural Resources - 2007 onwards

Project / Programme	Main areas of intervention	Duration – current phase	Location
Rehabilitation of protected pistachio forest (MAIL)	Re-forestation – establishment of guard post	April 2006 – March 2007	9 Provinces, including Badakhshan and Heart
Construction of fire control stations (MAIL core fund)	Fire control	March – October 2007	Nangahar and Laghman
Nursery development USAID / ACC	Nurseries and community-based management of irrigation systems	March – Dec 2007	6 selected provinces
Biodiversity and	Conservation area and	2006 - 2008	5 selected provinces

Conservation Programme USAID / WCS	community-based management planning – Legal framework, local institutional capacity building		
Pasture management and land use planning project ADB / Scanagri	Community-based rangeland management	June 2006 – July 2007	3 Provinces
ICIMOD	Community-based mountain rangeland management	Pipeline	Selected mountain areas
PEACE project USAID / Texas A & M	Early warning for drought – Kuchi pasture utilisation	Jan 2007 – 2009	Selected provinces
Managing Biodiversity for Sustainable Food Security and Nutrition (FAO/ Germany)	Inventory of local species; promotion of species with high nutritional or commercial value; environmental education; technical advice on policy and legislation	Jan 2007-Mar 2010	Central level and selected provinces
Support to Forestry Sector Rehabilitation in Afghanistan (Technical Cooperation Project, FAO)	Technical assistance on policy and legislation, and capacity-building of Forestry Department	Jan 2004- April 2007	

4.5 Programme 5 Improve rural infrastructure and irrigation systems

Over the last two decades many of the more important infrastructures associated with the agriculture sector in Afghanistan were destroyed. The infrastructures which are being prioritized for rehabilitation are in the fields of irrigation, storage, processing, markets, energy, communication, road and transportation. In addition the MAIL will coordinate investments into the development of new infrastructures in the same areas. These infrastructures are needed to link farmers in the rural areas to processing facilities and domestic and export market centers. There is thus a need for considerable inter-ministerial coordination and cooperation which the MAIL will achieve through the Agriculture, Roads, Trade and Irrigation programme (ARTI) and through programming private sector and donor investments.

MAIL's program focuses on creating an enabling environment for private sector investment and commercialization. Particular priority is being given to investment in processing industries which result in local value addition thus creating job opportunities for many people as well as increasing farmers' incomes. Sustainable, community-based management of irrigation systems, physical rehabilitation of infrastructures, the development of appropriate regulatory frameworks and capacity development are some of the crucial areas requiring immediate attention to improve the irrigation sector.

Investment plan

Based on the objective of doubling agriculture production, the investment plan required to rehabilitate and strengthen irrigation management systems is expected to reach around \$1.4 billion by 2010 and thereafter doubling every six years to 4.5 billion by 2023.

The major areas of investment include:

- Institutional strengthening and capacity building through establishment of an inter-ministerial infrastructure investment committee and its capacity development;

- Emergency rehabilitation programmes – short/medium term; including, rehabilitation of traditional small, medium and large irrigation schemes nationwide (WB / GOA)
- Emergency infrastructure rehabilitation reconstruction project (ADB) including: clearing & rehabilitation of seven canals in Helmand valley (GOA/WB/ADB/MAIL/MRRD/MEP)
- Long Term Rehabilitation Programmes;
- River basin management systems, including: Western basin water resources management project and Kunduz & Balkh river basin integrated water resources management projects
- Long term multipurpose water management programmes for energy and irrigation usage

The government of Afghanistan has confirmed that the mandate for “Irrigation” shall be transferred from the Ministry of Energy and Water to the Ministry of Agriculture, Irrigation and Livestock. In anticipation of this, MAIL has already established a Council of Irrigation to be headed by a deputy minister.

To facilitate the transfer for the responsibility of the Irrigation component to MAIL, the Council will engage in a strategic planning process in order to prioritise and to improve the efficiency and effectiveness of planned investments based upon MAIL objectives and ANDS benchmarks.

Projects and Programmes – 2007 onwards

Project / program	Main areas of Intervention	Duration-	Location
Accelerated Sustainable Agriculture Programme (ASAP / USAID)	Storing and processing of agriculture products, development drip irrigation.	On going	
JICA	Rehabilitation of National agriculture experimental stations	On going	Selected provinces
French Cooperation	supporting research in center, provincial and strategic regions	On going	
Bilateral funded projects: Iran, India, Italy, Germany, Canada, UN	Cold storage, western basin, water resources management	On going	Selected provinces
MAIL core budget	Ministry buildings (2)	On going	Central
CNTF (multi donor)	Horticulture and irrigation project,	On going	Nangahar
USAID	Rehabilitation of existing ministry buildings	On going	Central and selected provinces

4.6 Programme 6 Increase Production for Expanding Markets

Programme 6's impact is agribusiness growth triggered by commercialization. This program is multi dimensional – ranging from rural credit, institutional and legal reforms, institution building in strengthening farmer cooperatives, developing market value chains and increasing agriculture capacities through research, market information, extension and training. To achieve impact, Program 6 is currently embarking on institutional and policy reforms.

Limited access to formal rural credit financing heightens the difficulties in growing licit agro business crops for both the domestic and international markets. MAIL spearheads the establishment of the National Agriculture Credit Institute of Afghanistan (approved by the Cabinet's economic sub committee January, 2007 with concurrence from the Ministries of Finance and Economy) to address credit financing.

MAIL supports policy reforms through the ongoing ADB TA 4696, Commercial Agriculture Development Project that is developing a feasibility study and project design to develop competitive and sustainable agribusiness. The TA's output is to design an investment project focusing on (i) strengthening business development providers (BDS) to enhance skills throughout the agribusiness sub sector, (ii) improving access of agribusiness enterprises to BDS, (iii) expanding access to agribusiness finance, and (iv) developing institutional capacity.

Cognizant that institutional reforms are anchored on laws, MAIL assisted in the recent enactment of the Cooperatives Law and the near enactment of the Land Use Management and National Seed Laws. Ongoing legal assistance includes MAIL's participation during the deliberation of laws on forestry, pasture, quality control, plant protection, livestock, land property, veterinary services, agricultural credit, unutilized land and irrigation.

MAIL's Cooperatives Department provides training for existing farmers cooperatives nationwide. Moreover, the creation of new cooperatives now classified as primary, provincial, national and federation is encouraged.

MAIL - FAO Project Afghanistan Variety and Seed Industry Development Project's objective of *"Improving access of farmers to quality certified seeds and planting material (of major staple crops)"* is a good example of institutional reforms that will lead to seed sector commercialization. These reforms include strengthening of the Agricultural Research Institute of Afghanistan (ARIA), Improved Seed Enterprises (ISE), National Seed Board, Variety Release Committee, Seed Certification Agency, and Seed/Plant Health Inspectorate. Jumpstarting seed commercialization is conducting a comprehensive market research at farmer level followed by an ECOFIN cost benefit analysis, which are determinants to sufficient margins to sustain private seed producers. By 2009, it is expected that the ISE and the NGO enterprises will be legally converted into fully privatized entities.

The newly created Private Sector Department is working closely with USAID's Accelerating Sustainable Agriculture Programme (ASAP) in (i) identifying markets with growth potential; (2) help firms and producers identify and overcome the constraints that prohibit them from competing profitably in those markets; (3) monitor results to build on successes and make adjustments; and (4) work with government to create policies that facilitate the success of private sector enterprises.

The World Bank led Horticulture Livestock Project is supporting MAIL and the major stakeholders such as producers, traders and processors of the horticulture and livestock sectors e.g. by setting up and strengthening the National Union of Horticulture Development of Afghanistan (NUHDA) as well as the Afghanistan Veterinary Association and farmers organizations and value chains in the dairy and poultry sub-sectors.

The EU funded Support to Food Animal Husbandry Information Management Policy Unit (FAAHM) is developing an Agricultural Statistics and Market Information System. Key outputs to support long

term agriculture commercialization are the establishment of: (1) an integrated agriculture data base; (2) a cost of production data collection system; and (3) the strengthening existing market information. FAO and the Statistics and Marketing department are FAAHM implementers.

The FAO Projects summarised in the table below (3,4,5) are designed, amongst other objectives, to support the growth of the private sector through increasing sustainable agricultural production, thus contributing to the national marketed agricultural surplus. The provision of improved agricultural inputs and development of marketing chains are being addressed by these projects which work closely with MAIL both in Kabul and at provincial and district levels.

Project Programming – 2007 onwards

Project / Programme	Main areas of intervention	Duration –	Location
1. Perennial Horticulture Development Project (PHDP) EC- MAIL	Farmer assistance through NGOs Production increase, demonstration, quality improvement, post harvest handling and marketing.	2006-2011`	National
2. Animal Health Development Programme (AHDP) (EC) – MAIL	<i>Public Sector Roles:</i> Regulation of Vet. Services; Vet. Inputs; L/stock/POAO Import & Export; Veterinary Lab. Diagnostic services & Training <i>Private Sector Roles</i>	March 2006 – Jan 2010	National
3. Afghanistan Variety and Seed Industry Development Project (GCP/AFG/045/EC)- MAIL FAO-EC	Seed sector institutional reforms, Quality seed development; Farmers training; Improved Seed Enterprises Market training; NGO privatization seed sector	March 2007 – February 2012	National
4. Sustainable Agricultural Livelihoods in Project (SALEH)(DFID/FAO)	Capacity development sustainable livelihoods Livelihood improvements	June 2003 – May 2008	Eastern Hazarajat
5. Alternative Agricultural Livelihoods Programme (AALP) (DFID/FAO)	Development of nationally owned alternative livelihoods strategies & action plans On-farm & off-farm livelihoods diversification opportunities.	July 2005 – December 2007	Selected Provinces

4.7 Programme 7. Develop Human Capacity for Sustainable Growth

One of the major challenges facing the MAIL is to strengthen the capacity of its human resource base enabling it to manage the public sector responsibilities and create an enabling environment for the sector to grow.

The majority of projects and programmes supporting the MAIL include training and capacity development components often addressing the specific needs of different departments. In order to optimize and ensure maximum output of the investment into capacity development initiatives the MAIL is in the process of strengthening its capability to coordinate the inputs to the programme. A Capacity Development Department has been established under the Office of the Minister and a Training Unit has been created as an operational base for the MAIL Master Trainers. These steps will ensure that more and more, and eventually, all training and capacity development activities will be coordinated and supported from this Department.

The Ministry is fully aware of the enormous requirements and the cross cutting nature of capacity development interventions and has taken initial steps to prioritize the needs of the Ministry both through its budget preparation and through requests to donors for targeted interventions. A result of this is the WB and EU investments into the livestock and horticulture sub-sectors.

The capacity development components of the NGO activities need to be recognized and through an increased collaboration between MAIL and the NGOs these activities will be reviewed and coordinated to be in line with the priorities as outlined in the Master Plan and the seven programmes.

Project Programming – 2007 onwards

Project/Programme	Main areas of intervention	Duration – current phase	Location
Support to Strategic Planning for Sustainable Rural Livelihoods (SSPSRL) DFID	Institutional and human resource capacity development through training, learning, coaching and mentoring using the Sustainable Rural Livelihoods Framework	(Phase 1) ongoing until 31 March 2007 (Phase 2) April 2007-09	Central – MAIL
JICA Agriculture Policy Advisor	Review processes in MAIL identifying capacity development requirements	March 2006 - 2007	Central – MAIL
Capacity development component of the Animal Health Development Programme (AHDP) (EC)	Reform & restructuring of Directorate of Animal Health & Production	March 2006 – Jan 2010	Central – MAIL
Perennial Horticulture Development Project (PHDP) EC	Demonstration orchards; training MAIL horticulture staff, nurserymen & partner NGOs, in specialist / general horticulture crop subjects, ToT; Open days and demonstrations	20 May 2006-19 March 2011	
Accelerating Sustainable Agriculture Programme (ASAP) (USAID)	Strengthening MAIL's capacities in: <ul style="list-style-type: none"> • strategic planning, policy and legal reforms, • Data collection and analysis, donor coordination, • project management and monitoring (including procurement and financial management), • applied research, extension services, • regulatory enforcement (quality control for agro-chemicals). • Information-based decision-making and addressing priority constraints identified by the private sector. Development of a National Agriculture Information Database and disseminate information via Internet-based "AgNet", linking regional Ag. offices to MAIL HQ.	Dec. 2006 – March 2010	National
Horticulture and Livestock Programme (HLP) (World	Developing capacity in policy formulation, financial management and procurement,	Jan 2007 – Jan	Central, selected

Bank / DFID)	supervising, and monitoring and evaluating of developments.	2010	provinces
FAO programmes:	Capacity development components	Ongoing	Central & selected provinces
NGOs – AKN, AVA, DCA, MADERA, MC, PRB, BRAC, CARE, CoAR, CRAA, DACAAR, DCA, Italian Coop.	Capacity development initiatives	Ongoing	Rural locations, nationwide

SECTION FIVE – ROLE ANALYSIS

5.1 Stakeholder participation in policy formulation, strategic planning and institutional reform processes

MAIL's Master Plan was generated through a long, complex, highly participatory process that included large and small meetings at the national, provincial, donors, and related ministries' levels. During this process an analysis of stakeholders has revealed the existence of extremely complex inter-relationships between the most important stakeholders in the agriculture sector. The MAIL is therefore committed to continue to develop processes which allow even greater involvement of stakeholders, especially women, in developing policies and development strategies which respond to their specific needs. The success of any planning process for development will depend on achieving ownership at all levels.

The sum of the various components of the Master Plan is designed to provide a 6 percent overall growth rate in the agricultural sector which will double farm incomes in 12 years. The massive horticulture plan in particular and in combination with other elements of the Master Plan offers potential to not only replace poppy income but to go beyond that to start on the problem of reducing poverty.

5.1.1 *Inter-Ministerial relationships*

The MAIL is already involved in collaborative relationships with a number of other Ministries, the more important of which are as follows:

- Ministry of Energy and Water (Watershed management, ARTI);
- Ministry of Finance (Core project funding);
- Ministry of Commerce (Chambers of Commerce, Agricultural processing industries, International trade agreements);
- Ministry of Public Health, Food safety, Public Health, Prevention and control of Avian Influenza;
- MRRD – provincial government reform, rural development, rural credit systems, CDCs, CN.

5.1.2 *MAIL and the donor community*

Since the fall of Taliban a number of donors, international organizations, and government agencies have played central role in the rehabilitation of the agriculture sector. Before the development of the Agriculture Master Plan, 2005, donor assistance was focused mostly on emergency programs and projects. After the development of the Master Plan and the Seven National Programs donors are focusing on mid to long term project/program development and funding consistent with the Ministry priorities and programs.

The MAIL now enjoys an excellent relationship with the major donors which have shown an interest in investing in the agriculture sector. The current budget of \$42 million for the implementation of programmes and projects for 2007 comes as a result of close consultation led by the ADB in partnership with principally USAID, DFID, the EC, JICA and the French Cooperation. In addition the MAIL attracts bilateral assistance from many individual foreign embassies including the Italian Cooperation, Canada, India, Iran, Germany and the UN organizations (FAO, WFP, UNDP etc).

5.1.3 MAIL and the NGO community

The MAIL depends heavily on the NGO community as an implementing partner on the ground. Many of the ongoing major donor funded programmes and projects rely to a great extent on working through service contracts with NGOs. The NGO community has proved to be an effective means of demonstrating and transferring appropriate technology for adoption by farmers.

Increasingly, NGO assistance is moving away from the primary production level towards providing training and capacity development in secondary and tertiary institutions involved with providing direct services to producers as well as investing in processing industries adding value to primary agricultural products. Examples of such investments are milk collection and processing and cheese processing schemes based upon formation of producer's associations and Cooperatives. Future investments are planned in the areas of wool and cashmere processing, meat and animal by products and the animal feed industries. In the horticulture sector there is to be a massive investment in expansion of fruit processing and packaging and branding of Afghanistan's horticultural products.

5.1.4 MAIL and academic institutions

The government will play an important role in ensuring that human capacity continues to improve through access to better education so that people can perform their chosen roles in both the public and private sectors. In this regard the MAIL is embarking on creating a number of links with a variety of international academic institutions especially in Europe, USA, India and Japan.

5.1.5 MAIL and its changing role in the management of the agriculture sector

The MAIL is undergoing a radical change from its former role as a centrally controlled service provider. Over the coming 5 years the MAIL is embarking on a process of reform whereby it creates the necessary environment for the private sector to take over the responsibility for providing many "private good" services and inputs. The role of the government is thus changing from one of service provider to becoming one of policy and development strategy formulation, establishing a legal framework to regulate the agricultural industry in such a way that acceptable standards for the domestic market as well as international trade become established.

The MAIL ensures that cross cutting issues are addressed during the implementation of its plans through the establishment of a robust M&E system which relies upon the measurement of indicators specifically defined for this purpose. The results of the M&E analyses will feed back into improving future policy and strategic planning processes.

SECTION SIX: PRIORITIZATION OF PROJECTS FOR 1386 BUDGET

First Priority Set	Budget	Second Priority Set	Budget	Third Priority Set	Budget	Fourth Priority Set	Budget
Sub-total	42.017	Sub-total	34.595	Sub-total	3.334	Sub-total	16.992
(Horticulture) Emergency Horticulture Project	7	(Horticulture) Establishment of fruit tree nurseries at selected locations	0.895	(Natural Resources) Management of protected areas in Koll-e-Hashmat khan, Bander-Amir and Wakhan – Pamir, Ghazni, Shewa, etc..	1.25	(Natural Resources) Establishment of non-fruit nurseries and implementation of quality control measures of seedlings	2.16
(Horticulture) Establishment of green house for research in the Ministry	1	(Natural Resources) Studies and construction of check dams in the target provinces with severe water shortage	4	(Livestock) Rehabilitation of artificial insemination services in selected provinces	0.5	(Natural Resources) Rehabilitation of green belts in Kabul (in collaboration with other ministries)	0.6
(Food Security) Production and propagation of improved wheat seed	9	(Natural Resources) Rehabilitation, protection and development of pistachio in selected provinces.	1	(Infrastructure / Irrigation) Construction of cooperative training institute	0.433	(Livestock) Research in heritability of local milking animals.	0.433
(Food Security) Construction and rehabilitation of the facilities of quarantine and laboratories of disease / biological diagnosis and pesticides etc.	3	(Livestock) Establishment of 10 mobile animal health clinics for nomads	1.221	(Infrastructure / Irrigation) Construction of warehouse in MAIL	0.151	(Infrastructure / Irrigation) Emergency Fund for building and rehabilitation of irrigation infrastructures, canals, karez etc.	2.5
(Natural Resources) Establishment of Agriculture Trust / Emergency Fund	6.003	(Livestock) Establishment of national livestock research institute.	2	(Capacity building) Capacity building, broadcast of Radio, TV programs and publish of magazines etc...	1	(Infrastructure / Irrigation) Rehabilitation/Repairing of Ag. Department buildings in 11 provinces	2.072
(Natural Resources) Continuation of pistachio forests rehabilitation in Badghis province	0.2	(Infrastructure / Irrigation) Construction of 7 buildings in 7 agro-ecological zones.	7			(Infrastructure / Irrigation) Construction of typical Animal health service centers buildings in 24 provinces.	1.573
(Livestock)	3	(Infrastructure / Irrigation)	10.550			(Infrastructure / Irrigation)	2.5

Emergency Livestock Project (WB)		Irrigation) Construction and equipment of Microbiological and toxicology labs for food analysis, and identification of Medicinal plants.				Construction of new Ag. Department buildings in(Samangan, Badghis, Badakhshan, Kabul, Kundoz, Saripul, Bamyan, Paktika, Daikundi and Logar provinces)	
(Livestock) Awareness of farmers about importance and collection of Goat skin fuzz (Cashmere)	0.062	(Capacity building) Rehabilitation and equipping of research institutes in seven agro-ecological zones.	7.6			(Infrastructure / Irrigation) Rehabilitation of 134 extension units in various districts.	5.154
(Infrastructure / Irrigation) Establishment of forests Fire Control station in Nangarhar	0.8	(Capacity building) Survey of land use in Afghanistan	0.329				
(Infrastructure / Irrigation) Construction of a central building complex in MAIL.	7						
(Infrastructure / Irrigation) Construction of Bagh-e Bala Protection Fence	0.3						
(Capacity building) Continuation of Master Plan Development (ANDS, Regional cooperation, workshops, seminars, trainings, etc..)	1.5						
(Capacity building) Capacity Building of M&E Departments in 7 Agro-ecological zones.	0.652						
(Capacity building) Capacity building /	0.5						

managing component of World Bank HLP project							
(Market development) Agriculture Statistic Project	2						

SECTION SEVEN: MONITORING AND EVALUATION
Log Frame Annex: MAIL Sector Strategy LOG Framework Analysis (LFA) for 7 MAIL National Programs

Strategic Goal Agriculture Masterplan Programme 1 Food Security for All			
Objectives	Expected Results	Indicators	Risk
Program: 1. Achieve an annual growth rate of four per cent in cereals and double productivity of wheat production on a declining area by 1389. 2. Assure an adequate supply of safe and nutritional food to vulnerable farmers and rural households through higher levels of production, better employment opportunities and increased incomes. 3. Integrate crop and pest management to minimize post-harvest, transportation, processing, storage and handling losses from the current level of 15 % of total production to 3 %. 4. Establish household and privately financed community-based grain storage silos and food storage facilities for vulnerable farmers to sell their products collectively through community based farmer associations and to maintain a strategic reserve. 5. Diversify production notably through horticulture, animal production, poultry production and other agricultural products.	Impact National-level cereal production increased and stabilized Food security situation at household level improved Most rural households with direct / indirect access to safe and nutritious food Decreased post-harvest losses Improved access to the adequate storage facilities for most of the rural population Increased diversity of food produced at the national level and available and accessible at the household level	Agriculture production surveys Rural household food security surveys Food quality surveys Amount of post-harvest loss No of different types of storages and their accessibilities	Extreme natural disasters (drought, flood, outbreak of disease and pests etc) Program implementation hampered by political instability, corruption, security

<p>Ext Project 1 Special Program for Food Security in support of the government of Afghanistan FAO \$ 551,000, On-going (Sep 2003 – Dec 2007)</p>	<ol style="list-style-type: none"> 1. Improved water management at farmers' fields for increasing crop productivity and farm household profitability 2. Increased crop intensity under irrigation and rain fed conditions in the pilot areas through the introduction and dissemination of improved low cost technological packages 3. Profitable crop and livestock diversification promoted in the pilot areas in accordance with natural resources availability, climatic conditions and market potential 4. Grassroots organizations developed for self-help in the pilot areas. 5. Confirmation of the technical feasibility and economic and financial viability of intervention in the pilot areas 6. 	<p>No of hectares under irrigation Yield in the pilot areas (both at irrigated and rain fed fields) Net income at the household level No of crop and animal types adopted in the pilot areas No of grassroots organizations operational</p>	<p>No severe drought Input distribution secured in a sustainable manner Satisfactory carrying capacity of the target areas (population versus natural resources) Assured market access No internal rift among villagers Security</p>
<p>Ext Project 2 Strengthening National Seed Production Capacity in Afghanistan EU/FAO \$ 6,911,610 Terminated (Jan 2003 – Sep 2006)</p>	<ol style="list-style-type: none"> 1. Improved farmers' access to good seed of desired varieties that will enhance crop productivity and household income, and reduce rural poverty. 2. Appropriate varieties for farmers developed 3. Adequate quantities of early generation seed made available 4. Market-oriented certified seed production promoted and encouraged 5. government capacity in policy formulation, and regulatory reforms strengthened 	<p>Amount of improved seed produced at the national level Amount of improved seed distributed at the regional level Province- and district-wise list of varieties Amount of early generation seed produced and distributed to the breeders Seed certification system enacted Changes in the policy and regulations</p>	<p>Private sector and / or extension service is fully functional for distribution Quality assurance measures are fully complied by all the stakeholders</p>
<p>Ext Project 3 The Development of Sustainable Agricultural Livelihoods in the Eastern Hazarajat (SALEH) FAO US\$ 3,715,270 On-going (June 2003 – June 2007)</p>	<ol style="list-style-type: none"> 1. Capacity for community-level action to improve agricultural livelihoods and resources management developed 2. Improved food security, income generation and employment opportunities and resource utilisation through community-based action 3. Planning, information dissemination and 	<p>Income and employment opportunities at the household level (survey) Record of community-level activities No of kitchen garden established and practiced in sustainable manner No of new varieties adopted by the target beneficiaries</p>	<p>Full cooperation by the beneficiaries Security</p>

	<p>replication of lessons for improving agricultural livelihoods and natural resource management promoted and supported</p> <ol style="list-style-type: none"> 4. Kitchen garden for women set up 5. New varieties of wheat, potatoes and other vegetables introduced 6. Seed-producer groups established 	No of active seed-producer	
<p>Ext Project 4 Alternative Agricultural Livelihoods Program (AALP) - Phase I FAO US\$ 6,831,748 On-going (July 2005 – Dec 2007)</p>	<ol style="list-style-type: none"> 1. Viable alternative livelihoods options Identified 2. The institutional framework established for improved access to income generating opportunities 	No of livelihood options adopted by the target beneficiaries	Security
<p>Ext Project 5 Supporting Household Food Security, Nutrition and Livelihoods in Afghanistan FAO US\$ 1,300,000 On-going (Aug 2005 – Aug 2007)</p>	<ol style="list-style-type: none"> 1. Local year-round availability of foods ensured for a safe and balanced diet through promotion of appropriate food production, preservation and storage techniques 2. Improved access to food for vulnerable households through improving food production and income generation strategies, notably for women 3. Improved diet diversity throughout the year, by improving choice (including purchase) and use of available foods 	<p>No of food items available and at the household and market level Amount of the above items consumed at the household level Amount of income at the household level among women and men</p>	<p>Satisfactory transportation infrastructure for year-round distribution of food items Security</p>
<p>Ext Project 6 Provision of storage facilities and equipment to vulnerable households and rural communities in Afghanistan - FAO US\$ 2,406,739 Terminated (Sep 2004 – Aug 2006)</p>	<ol style="list-style-type: none"> 1. improved food security and incomes of farmers in rural communities of Afghanistan 	No of storages introduced to the target areas	Provided items are properly used by the beneficiaries
<p>Ext Project 7 Support to vulnerable populations in target areas at risk through distribution of quality wheat seed and fertilizer for the 2005 autumn, 2006 spring campaigns FAO US\$ 1,200,000 On-going (Sep 2005 – Dec 2006)</p>	<ol style="list-style-type: none"> 1. Improved food security of vulnerable target groups in areas of returns including IDPs, returnees, vulnerable resident households, widows, demobilized ex-combatants, for the autumn planting season 2005-Spring 2006 	Food security situation improved (household-level survey)	<p>Provided items are properly used Weather conditions are favourable There is no damages from disease, pests, flood, drought etc.</p>
<p>Ext Project 9</p>	<ol style="list-style-type: none"> 1. Vulnerable populations in drought- 	No of households that received seed	Quality is assured

Support to vulnerable populations in drought-affected areas through the provision of quality wheat seed and fertilizer for the 2006 autumn and 2007 spring planting seasons FAO US\$ 1,670,298 Terminated (Sep 2006 – Nov 2006)	affected areas supported through the provision of quality wheat seed and fertilizer for the 2006 autumn and 2007 spring planting seasons	and fertilizers	Provided items are properly used Weather conditions are favourable There is no damages from disease, pests, flood, drought etc.
Ext Project 10 National Agricultural Experiment Stations Rehabilitation Project (NARP) JICA US\$ 7 million (est.) On-going (Jul 2005 – Jul 2010)	1. Improved capacity of research 2. Appropriate varieties of wheat and vegetable identified	No of wheat and vegetable varieties identified for dissemination	Extension service is fully functional for dissemination
Core funding Project 1 Production and Multiplication of Improved Wheat Seed US 5,000,000	Increased production of improved wheat seed	Amount of improved seed produced	Quality is assured
Core funding Project 2 Emergency Control of Insect, Pest and Viral Diseases in Kandahar, Helmand, Kapisa, Balkh, Badakhshan, Kabul and Parwan Provinces US\$ 500,000	Decreased damage from insect, pest and viral diseases	No of hectares operated Amount of production spared	All the risk factors covered Farmers' crop management is adequate

Strategic Goal: Agriculture Masterplan Programme 2 Development of Perennial Horticulture with main focus on export markets			
Objectives	Expected Results	Indicators	Risk
1. Build capacity within existing institutions and create new institutions to manage and coordinate investments in horticulture.	1.1. MAIL with trained horticulturists 1.2. Private sector with production & marketing cooperatives for horticulture 1.3. Private sector with trade associations at provincial, district & national level	1.1. Training results 1.2. Numbers of organisations, sales values 1.3. Numbers of associations, numbers of members.	Practical training is slow process. Private sector under capitalised and insufficient financing available
2. Upgrade existing orchards and vineyards,	2.1. 90,000ha of existing orchards & vineyards with higher yields, better	2.1 Crop surveys	Time taken to produce trainers, extensionists.

	quality fruit		
3. Increase the existing area of orchards and vineyards by 75% over 10 years in seven major species.	3.1. 30,000 ha of vineyards and 37,500ha other fruit trees planted over 10 years.	3.1. Crop surveys; tree nursery production figures	High quality planting material unavailable. Lack of financing
4. Identify international markets, build post harvest infrastructure for transporting, processing, storage, packaging, and export consistent with production targets.	4.1. Marketing surveys, trade missions undertaken 4.1. 22 new raisin factories, 35 nut processing facilities built by 2015 4.3. Cold stores & packing sheds built for fresh fruit export	4.1. Reports from active projects, organisations 4.2. Business registrations, surveys 4.3. Business registrations, surveys	Lack of quality assurance systems Lack of finance for investment Uncertain investment climate
5. Establish hygiene, phytosanitary, management and certification controls satisfactory to international standards.	5.1. Standardisation of inputs 5.2. Certification of planting materials 5.3. Licensing of suppliers 5.4 Inspection services in place	5.1. Inputs legislation in place 5.2/5.3/5.4. Reports from certification & inspection agencies	Insufficient legislation No laboratories, no skilled inspectors. Lack of sufficient government salaries
6 Increase horticulture exports from current \$127 million to \$934 million by 2015. (22% growth per year)	6.1. Increased rural wealth 6.2. Increase in licit rural labour use 6.3 Increased tax revenues	6.1. Household surveys 6.2. Rural surveys 6.3. Ministry of Finance records	Farmers not getting enough from value chain. Investment in wrong crops, old technology
Perennial Horticulture Development Project (PHDP) EC funded €12.5 million 2006-2011			
Objectives	Expected Results	Indicators	Risk
1. The MAIL is structured and equipped to support the development of an expanding private sector horticulture industry.	Horticultural research and extension workers are trained and able to provide services to the private sector at central and regional level in the country within 3 years of the start of the project.	Training assessments Horticulture policy/strategy documents;	MAIL accepts restructuring and formation of new coordination bodies.
2. Demonstration Orchards are operational and have the ability to perform extension services on request of the private sector. The agronomic potential is better understood and used to formulate detailed policies and strategies.	Six MAIL research farms include functional Perennial Horticulture Centers at least three years after project start, with demonstration orchards planted and training courses given for at least 5 major crops by	Research reports; Training course materials; Attendance list training courses & visitors list (open days)	Sufficient suitable support staff can be recruited and located;

	staff of MAIL Perennial Horticulture Centers.		
3. The private sector fruit and nut tree production industry is providing sufficient and healthy plant material to meet the demand of the growing private horticulture sector.	Regulatory framework is put in action at least 3 years after start of project; Sufficient numbers of certified mother stock nurseries producing clean, healthy materials for the private sector nursery industry	Surveys of private sector tree nurseries Research reports; Sufficient = 3.3 million grape vines & 1.2 million trees per year	The private sector is essentially responsible for the whole fruit tree production chain.
4. The full range of Afghanistan's fruit and nut tree crop varieties is collected into secure locations, and is catalogued and evaluated for the benefit of the Afghanistan horticulture industry.	For most important horticulture species core germplasm collections are established by year 3 after project start. The MAIL Perennial Horticulture Centers act as sources of true to type planting materials	Annual reports of MAIL; Perennial Horticulture Center records; MAIL website databases	Major collection efforts can be completed in 3 years; evaluation of germplasm will take longer - 6 to 15 years.
5. Support to farmers is given through their organisations and with the assistance of NGOs in the field of production increase, demonstration, quality improvement, post harvest handling and marketing.	Number of farmer groups having developed a business plan and offering services to members after year 3 of start of project;	NGO reports and business plans Sample surveys;	Sufficient suitable support staff can be recruited and located;
Horticulture and Livestock Component (HLP), Horticultural Component, World Bank Funded US \$ 22 million 2006-2009			
1. Rehabilitation of 12,000 hectares of orchards and vineyards.	12,000 hectares of grapes, almonds, apricots, and pomegranates rehabilitated, using modern horticultural practices, including IPM.	Training reports, GPS coordinates of orchards rehabilitated, on-site visits/surveys.	Security.
2. Planting of 5,000 hectares of orchards and vineyards in varieties of strong, proven market interest.	5,000 hectares of grapes, almonds, apricots, and pomegranates planted, using modern horticultural practices, including IPM, and varieties of strong and proven market interest.	Training reports, GPS coordinates of orchards/vineyards planted, on-site visits/surveys.	Security.
3. IPM work regarding pesticides availability in	Strong body of work regarding	Reports, draft agricultural	Lack of information re:

Afghanistan, appropriate use of agricultural chemicals in-country, correct labelling procedures, needed regulatory and pesticides laws drafted, training to growers provided.	agrichemical horticultural best practices, legislative drafts.	chemical legislation created, assistance to Facilitating Partner providing on-site farmer training.	pesticide availability, inadequate labelling, legislative difficulties.
4. Placement of 1,000 hectares of grape trellising (cement posts and wires).	1,000 hectares of grapes trellising put in place, with farmers trained.	Photos of work completed, on-site visits/surveys.	Security.
5. Construction of 110 modern drying facilities in Kandahar, for the processing of green raisins, and farmers trained in correct drying practices.	110 modern green raisin drying facilities constructed, operating.	Photos of work completed, on-site visits/surveys, training reports.	Security.
6. Creation of National Union of Horticultural Development for Afghanistan (NUHDA)	Organization comprised of representatives of horticultural grower and trader organizations, to provide training, market development, market linkages, and other horticultural industry services.	Number of services provided, number of recipients receiving such services, market trips and reports created, number of perennial crop varieties identified to be multiplied in Afghanistan for export sales.	Sufficient suitable support staff can be recruited and located; ability to work with local growers and traders in a unified fashion.
Ext Project Accelerating Sustainable Agricultural Production (ASAP) (USAID – Dec 2006- March 2010). Budget for horticulture activities included in figure presented under Goal 6.			
Objectives	Expected Results	Indicators	Risk
Primary result of horticulture component: Increase value of agronomic and horticulture products by \$600,000,000 over the life of ASAP.	<p>i) Broad-based input supply network project 300,000 farmers purchase inputs and services from 300 Rural Farm Stores; 6 wholesale dealers trained; 15 manufacturers of quality inputs work with Afghanistan wholesalers; 2 quality control labs established</p> <p>ii) Almond value chain project Increase existing almond production by 6,000,000 kg with a market value of \$30,000,000;. establishment new almond orchards 1,722 hectares; add up to \$2,000 per year to each of 8,610</p>		

	<p>households who own 1 jerib almond orchards, totaling \$17,220,000 in new income; Increase export value of almonds to \$11,400,000 up 20% from \$9,500,000; Water management innovations promoted and demonstrated to 20,000 perennial crop growers, resulting in 10% less water consumption for those growers.</p> <p>(ii) Fresh grapes and raisin value chain project</p> <p>New trellises established on 3050 one jerib vineyards, bringing a 30% yield increase of 2,550 kgs of fruit per jerib, sold at \$400/mt with a total value of \$1000/year of new income for each household; Fresh grape export increase to India and UAE of 1500 MT worth \$600,000; Increase of value of sun dried raisins by 25% will be equivalent to a value increase of \$150/mt through improved processing and handling. This will total at least \$2,550,000 in increased market value.</p> <p>(iii) Vegetable value chain project</p> <p>Double yields in target crops on 200 on-farm vegetable technology demonstrations, with incomes increased to more than \$1000 per jerib, totaling \$200,000 increased income for key growers; Produce reaches market in good condition will increase by 25% with the introduction of improved harvesting, handling and packaging; Late season price volatility reduced for 1200 farmers who receive training in improved vegetable production, season extension and who become suppliers</p>		
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	<p>to processing plants in Herat, Charikar, or Mazar-i-Sharif; Materials for season extension and primary processing of vegetables will be available at 300 Rural Farm Stores; Drip irrigation or other improved water management innovations promoted and demonstrated to 20,000 growers (grape and vegetable growers).</p>		
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Strategic Goal: Agriculture Masterplan Programme 3 Expand Livestock Production			
Objectives	Expected Results	Indicators	Risk
<p>Program:</p> <ol style="list-style-type: none"> 1. Increase Livestock Production & Productivity 2. Improve Quality & spatial distribution of Animal Health & Production services 3. Prevention & Control of major contagious animal diseases 4. Create an enabling environment for private sector investment & growth in the livestock industry through formulation, enactment and enforcement of appropriate legislation, rules & regulations 5. Improve Veterinary Education 	<p>Impact</p> <p>Rural household incomes increased Food security situation improved Most farmers have access to affordable needs based AH&P services Sustainable AH&P service delivery network established. Improved Private sector confidence and investment in livestock production / processing enterprises Safe and improved quality products of animal origin available for consumption / export Import substitution Better trained service providers, higher quality and wider range of services available State veterinary service able to perform core functions effectively and efficiently</p>	<p>Rural household income surveys M & E exercises on VFU's and end-user survey information M&E results of VFU performance No of semi commercial dairy enterprises supplying milk via milk collection centers to processing plants No of milk / meat processing plants No of animal product processing plants Live animal & meat Import figures No and quality of veterinary and para-veterinary graduates/Diplomates No of new laws enacted No of defaulters warned / prosecuted Areas of land under poppy cultivation reduced</p>	<p>Drought, outbreaks of highly contagious animal disease, Political instability The change in the relationship between public and private tasks, required for the privatization of the government veterinary field services does not go as quickly as required and desired Failure of PRR and MoF to implement Pay and Grade University curriculum does not change quickly</p>

	Lowered dependency on poppy cultivation		enough to address the modern needs of public and private sector
Ext Project 1 Animal Health Development Program (AHDP) (EC €8.7 million) On-going due to end 01/2010)	<p>Outcomes</p> <p>1 Restructured and reformed State Veterinary Service performing core public functions; Improved sustainability of private sector AH&P service delivery network.</p> <p>2 Veterinary Laboratory Diagnostic services available and being utilised at Central, Regional and Provincial levels.</p> <p>3 Epidemio-surveillance network in place and reporting / analysing livestock disease data and producing information appropriate for all end-users.</p> <p>4 Quality assured locally produced vaccines being produced on sustainable commercial basis.</p>	<p>No. of new Departments established under Directorate of Animal Health performing core public functions.</p> <p>No of contagious disease reports /month</p> <p>No. of outbreak investigations conducted/ month</p> <p>No. of disease prevention / control interventions recommended/undertaken / month</p> <p>No of new laws formulated, drafted / enacted.</p> <p>No. of doses of locally produced independently quality assured vaccine sold and distributed</p>	<p>State Veterinary service cannot comply with the proposed level and speed of change in its tasks and roles</p> <p>Provincial vets insufficiently well paid or resourced to collect disease data / conduct outbreak investigations / follow-up laboratory diagnosis.</p> <p>Process of formulation of appropriate legislation influenced by vested interests of state employees</p> <p>Demand for paid vaccines less than predicted</p> <p>Potential external investors in the vaccine production unwilling to take risk of losses.</p>
Support to Faculty of Vet. Science – (USAID / USDA) - \$ XX million) On-going	Veterinary graduates trained to a level where they can satisfy the needs of public and private sector services functions	No and quality of veterinary graduates being produced – External examination	Modernization of curriculum and teaching methods hindered by outdated ideas among the staff of veterinary faculty, strengthened by too little inflow of “new blood” in the academic staff
Alternative Livelihoods Program (ALP) - East USAID - \$ XX million) Ongoing (DAI sub-contract)	Commercial poultry producers / processors Associations formed – Vertically integrated poultry production	No. of commercial poultry producer members of Poultry Association actively producing broilers	Possible future outbreaks of HPAI in the area would have

<p>ALP – South (Ongoing (AVA sub-contract))</p>	<p>system piloted in Nangahar Province Safety and quality assured meat available in Jalalabad city Butchers Association formed Clean slaughter / retail sales outlets available and in use Regulations for safe slaughter and processing of meat developed and in use AH&P service delivery network expanded in southern Provinces, (Zabul, Kandahar, Helmand, Oruzgan & Nimroz)</p>	<p>No. of tons of locally produced quality & safety assured Broiler meat reaching the local market No. of clean and safe Slaughter and retail outlet facilities available in Jalalabad Replication of process in other cities No of professional / paraprofessional service providers available in southern provinces Reduced mortality of livestock in areas where services become available</p>	<p>profound effects on the development of a commercial poultry sector</p>
<p>Ext Project 2 Horticulture and Livestock project (WB - \$ XX million) start-up January 2007</p>	<p>AVA & other private / public sector institutions have capacity to provide appropriate service to the livestock industry Appropriate Legislation formulated and enacted Approximately 121 govt. vet clinics transferred to private sector management State Vet. service enabled to invest scarce resources on primary core functions CPD schemes for professional and para-professionals available and being utilised Contracting system between public and private sector for surveillance and control of contagious animal diseases</p>	<p>No of VFU's which join AVA as cooperative share-holding members New legislation Gazetted No. of Govt Veterinary clinics transferred to private sector management. No of veterinarians / para-vets engaged in refresher training courses No of VFU's assisting govt to perform public functions under contract VFU Income from MAIL contracts</p>	<p>Non-availability of a conducive cooperative law, AVA unable to attract sufficient private vets to join as share-holders and build a democratic cooperative structure with members' control of the management Govt not sufficiently committed to the drastic legal reforms needed for the new public-private veterinary services delivery system Financial support for CPD cannot be found on sustainable basis Govt not able or willing to develop and use public-private service contracting schemes</p>
<p>Ext. Project 3 Avian & Human Influenza Project (WB - \$ 5.2</p>	<p>Capacity for AI disease surveillance diagnostics and control operations</p>	<p>No of trained Zonal Vet officers, No of trained Provincial Vet officers</p>	<p>Low capacity and lack of sufficient personnel to</p>

<p>million Avian component) Start-up April 2007</p>	<p>established at 8 zonal centers Improved biosecurity within the commercial and backyard poultry production systems Communication systems for innovative extension message delivery established</p>	<p>No of farmer training courses completed No of commercial poultry producers investing in bio-security systems No of radio / TV broadcasts on AI sent</p>	<p>be trained Lack of personnel willing to work in state controlled media production service if salaries do not improve</p>
<p>Ext Project 4 Accelerating Sustainable Agricultural Production (ASAP) (USAID – Dec 2006- March 2010). Budget for livestock activities included in figure presented under Goal 6.</p>	<p>VFU network expanded and strengthened to provide wider range of services Sustainability of private sector service delivery network strengthened Increased livestock production & productivity Reduced livestock mortality Result for Livestock Component: <u>Increase value of livestock products by US\$400 Million</u></p>	<p>i) Broad-based livestock health, production, and marketing project (1) Number of livestock families served: 1,900,000 per year (2) Number of vaccinations and medications made: 8,700,000 per year (3) Increase the supply of quality vaccines and medicines from 7,000,000 units per year to 10,000,000 units per year (4) Number of trained private paravets increased from 261 to 385 (5) Number of sustainable VFUs increased from 243 to 337 ii) Cashmere value chain project (1) Number of cashmere goat herders receiving extension services: 175,000 per year (2) Increase the average Afghan export price from \$14/kg to \$18/kg, (3) Increase export volumes of raw cashmere (kork) from 1,000 MT to 1,500 MT (4) Increase the export volume of processed cashmere from negligible to 400 MT. iii) Wool and carpets value chains project (1) Number of wool sheep herders receiving extension services: 225,000 per year (2) Increased volume of Afghan wool from an estimated 1,500 tons to 2,000 tons/year (3) Increased value of raw wool from an estimated \$0.60 to \$0.90/kg (4) Increased value of carpet exports from an estimated \$108 to \$125/sqm iv) Lamb pelts value chain project (1) Number of sheep herders receiving extension</p>	<p>Some farmers unable or unwilling to pay for services Outbreaks of highly contagious diseases such as PPR or FMD Political instability</p>

		<p>services: 75,000 per year (2) Increased volume of lamb pelts marketed from 650,000 to 750,000 pelts/year (3) Increased farm gate value of lamb pelts from \$10 to \$15/pelt (4) Increased value of lamb pelt exports from \$20 to \$30/pelt v) Parwan commercial poultry production project (1) Parent stock for the production of fertile hatching eggs: 16,000 (2) Number of fertile eggs produced: 3,750,000 per year (3) Feed mill production for own use and sales: 60,000 tons per year (4) Over 200 women producers working cooperatively in 50 villages (5) Over 200,000 laying hens producing 45,000,000 table eggs per year</p>	
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Strategic Goal: Agriculture Master Plan Programme 4 Manage and Protect the Natural Resource Base			
OBJECTIVES	Expected Results	Indicators	Risk
<p>Program:</p> <ol style="list-style-type: none"> 1. Forest protection 2. Management of protected area and wild life 3. Capacity building 4. Environment protection 5. Rangeland protection and sustainable utilization 	<p>Impact</p> <ul style="list-style-type: none"> • Appropriate management of forests, rangelands and protected areas resulting in: Optimum production of extensive livestock and forestry products in a sustainable manner (sustained carrying capacity) Promotion of tourisms Public health Above impacts pronounced in improved food security and / or income both at household and national level, and private sector confidence toward investment in the sector, less production of poppy 	<p>Forestry production (timber, non-timber) Forestry area Extensive livestock production Rangeland carrying capacity Distribution of medical and industrial plants Bio-diversity and wild live conservation at the protected areas (e.g. Pamir, Nawar, Band-I-Amir) Private sector investment in the sector Soil erosion data</p>	<p>Extreme natural hazards (drought, floods and diseases) Commitment of communities Commitment of government staff (incentives) Financial resources Non-compliance of the rules and regulations Security and political instability</p>

	<ul style="list-style-type: none"> Awareness raised and capacity built among: The public as the main stakeholder of the resource management The government staff as the regulator and service provider to the public 		
Program 1: Forest Protection Afforestation Nursery establishment Forest Fire Control Community based management Genetic resource management Pistachio forest rehabilitation Greening of urban area roads	Expansion of the forest area Increased number and area of nurseries (8 hectares / province with 700,000 seedling) Improved forest fire control Improved management of forest, rangeland and protected areas Bio-diversity conservation including protection of rare and endangered species Improved public awareness toward conservation their commitment to it Increased productivity of pistachio Increased green areas along the border highway	Forest area Number and area of nurseries (fruit / trees) Forest fire control facilities Bio-diversity survey results Public activities of natural resource conservation Number of public areas with poplar Number of plant genetic resource conservation center	Extreme natural hazards (drought, floods and diseases) Commitment of communities Commitment of government staff (incentives) Financial resources Non-compliance of the rules and regulations (e.g. smuggling, illegal logging) Security and political instability
Program 2: Management of Protected Area and Wild Life 2.1. Community based management program 2.2. Biodiversity protection 2.3. Protection of migrating birds 2.4. Rehabilitation and development of national dams	Sustainable food security and livelihoods through conservation of local biodiversity Protected wildlife	Biodiversity indicators Household level food security survey	Security and political instability Financial resources
Program 3: Capacity building 3.1. Human resource development 3.2. Public awareness and education	Improved technical capacity of the government staff to formulate policies, strategies and legal framework Improved awareness and practical skills of the public in terms of forest and rangeland management	Number of workshop and relevant training opportunities Assessed knowledge and skills of the government officers for the formulation of policies, strategies, laws and regulation	Financial resources Non-compliance of the rules and regulations (e.g. smuggling, illegal logging) Security and political instability

Program 4: Environment Protection 4.1. Urban area green belts rehabilitation in Kabul 4.2. Green gardens construction	Green belts rehabilitated Green gardens constructed Nurseries constructed for this purpose	Area of the green belt Number of green gardens Number of nurseries	Financial resources Security and political instability
Program 5: Rangeland protection and sustainable utilization Range management station and medical plant Watershed man. Program Desertification program	Research stations established Increased plantation for reducing landslides and controlling floods and soil erosion Improved rangeland community productivity	Number of research stations Number / areas of plantation Survey on rangeland community food security (productivity) analysis	Financial resources Extreme natural hazards (e.g drought and flood)

Strategic Goal: Agriculture Master Plan Programme 5 Improve Rural Infrastructure and Irrigation Systems			
Objectives	Expected Results	Indicators	Risk
Program 1. Rehabilitation of existing irrigation systems 2.Coordination of investment decisions by establishing an inter-ministerial infrastructure investment committee 3.Improvement in on-farm irrigation water mgt 4.Strengthening & expansion of water use associations & establishment of river basin and sub-basin councils for improved watershed 5.Establishing water sector strategies covering: regulations for surface and ground water exploitation, balance management of water supply and demand, improvement of community based water distribution systems, accelerating irrigated land titling, and development of a plan to expand hydraulic structure use for dams, canal and drainage systems 6.Decentralize government services for	Impact 50% increase irrigated crop production Increased irrigated areas for high value crop production Coordinated investment in rural infrastructure for efficient agriculture Improved water resource mgt water allocation and water-efficiency on-farm and watershed level Improved land titling on irrigated land Increased number of large, medium small dams Increased number of canals and drainage systems Decentralization improves service delivery	Crop production area under irrigation Crop-wise production area under irrigation Existence of inter-ministerial infrastructure investment committee Evaluation of resource allocation for rural infrastructure Number of cases of water disputes Water use efficiency rate at on-farm and watershed level Number of cases of disputes on irrigated land Number of dams, canals and drainage systems Evaluation of decentralization	Extreme natural hazards Commitment government and communities Financial resources Non-compliance rules regulations Security and political instability

efficient expansion of irrigation & infrastructure.			
Program 1: Rehabilitation of existing irrigation systems Rehabilitation of traditional small, medium and large irrigation schemes nationwide (World Bank / GoA) Emergency infrastructure rehabilitation reconstruction project (ADB) Cleaning and rehabilitation of seven canals in Helmand valley (GoA)	Irrigation systems rehabilitated	Number / length of irrigation systems rehabilitated	Security and political instability Financial resources Appropriate use of the irrigation system by the local communities Commitment of communities
Program 2: Coordination of investment decisions Establishing an inter-ministerial infrastructure investment committee and its capacity development	Coordinated investment in rural infrastructure for efficient rural development including agriculture	Existence of inter-ministerial infrastructure investment committee Evaluation of resource allocation for rural infrastructure	Security and political instability Transparency and accountability of the council Compliance of the line ministries to agreed decisions
Program 3: On-farm irrigation water management Western basins water resources management project (ADB) Balkh river basin integrated water resources management (ADB)	Improved on-farm water use efficiency Improved community level water allocation	Water use efficiency ratio at the farm level	Extreme natural hazards Commitment of government staff and communities Financial resources Non-compliance rules regulations Security and political instability
Program 4: Local water user associations and river basin sub-basin councils Western basins water resources management project (ADB) Balkh river basin integrated water resources management (ADB)	Improved water use efficiency at river basin / sub-river basin level Improved water allocation at river basin / sub-river basin level	Water use efficiency ratio at the river basin level Number of water user associations and river basin / sub-basin councils Number of disputes	Commitment of government and communities Financial resources Non-compliance rules and regulations Security and political instability
Accelerating Sustainable Agricultural Production (ASAP) (USAID – Dec 2006-March 2010). Budget for infrastructure component:: \$14 million.	Refer to Goals 2 and 3	Refer to Goals 2 and 3	Refer to Goals 2 and 3

Strategic Goal: Agriculture Masterplan Programme 6 Increase Production for Expanding Markets			
Objectives	Expected Results	Indicators	Risk
<p>Program:</p> <ol style="list-style-type: none"> 1. Develop one regional agricultural service center in each of the seven eco-zones with integrated research, extension and training programs targeting farmers, producers, processors, traders and sellers 2. Broaden membership of the Central Research & Extension Board to include representatives from private sector. 3. Develop public & private sector partnerships in delivering research and extension programs. Use sub-contracting to private entities to introduce proven technologies, adaptive testing of fruit and vegetable varieties and cereals lines. 4. Achieve complete coverage of the country within five years for micro-credit systems serving small farmer production needs. 5. Develop a national rural financial system to provide production loans to small and medium scale farms up to 50 hectares, and to the agro-business community (producers, processors, traders and sellers). Achieve coverage to at least 18 provinces by year two and to all 34 provinces by year five. 6. Encourage lending to farmers by fertilizer dealers and implement credit management training programs for lenders and borrowers. 7. Complete privatization of state-owned agriculture enterprises and public land as called for in the 	<p>Impact</p> <p>Agricultural production will modernise and become more market focused and taking into account the needs of consumers needs New, better adapted varieties will take into account the needs for grading and resistance to bruising. Farmers will employ better husbandry techniques. The whole agricultural value chain will be better integrated.</p> <p>The board will begin to focus more clearly on the needs of the private sector and consumers, delivering better targeted research and extension.</p> <p>New improved varieties will become available to farmers and production will increase. Wastage will decrease as produce is better suited to the logistical constraints.</p> <p>Farmers able to buy the correct quantity and quality of inputs for their crops. Production would increase due to fertilizer application.</p> <p>Agricultural production increases as farmers are able to access credit to buy inputs. Increased yields due to use of on-farm mechanization leading to increased quality of produce.</p> <p>Agricultural production will increase if input suppliers extend credit to farmers.</p> <p>Privatization will lead to greater investment in the agricultural sector, increased production and the greater utilisation of national resources.</p> <p>Association formation will give producers greater bargaining power as well as</p>	<p>Less import of produce as local varieties demanded by market. Less wastage as produce more resistance to spoilage. More use of agrochemical inputs as husbandry techniques improve. Increase in forward contracts between producers and trader/processors.</p> <p>Private sector will engage with the board as it sees benefit from doing so.</p> <p>Number of new varieties available to farmers each year. Decrease in wastage of produce on and off farm. Decrease in imports as local varieties satisfy consumer demand.</p> <p>Imports of agro-chemicals would increase. Levels of indebtedness per household increase. Increased demand in rural space for goods and services.</p> <p>Increase in purchase of farm machinery. Increase in capital investment on farm buildings. Increased demand for agro-industrial service sector.</p> <p>Increase in imports of agricultural inputs. Greater borrowing by input suppliers in order to finance credit to</p>	<p>Inertia in current system, resistant to change. Lack of capacity in Afghanistan to deliver needed impact. The eco-zone approach may not be focused regionally enough to deliver results.</p> <p>Conflict between the priorities of the public and private sectors. Lack of implementation.</p> <p>Private sector unwilling to engage in research as the returns not seen as attractive.</p> <p>Micro-credit system too expensive to implement and therefore not sustainable.</p> <p>Commercial banks not prepared to risk capital in agricultural sector. Lack of legal land tenure to secure loans.</p> <p>Input suppliers do not have the liquidity to supply farm credit or are not prepared to take the risk. Farmers not prepared to honor contracts.</p> <p>Inertia in the government will stall on privatization. The private sector is not prepared or does not have the capital to invest in the enterprises.</p> <p>There is a risk that associations will form to allow members to access credit and services rather</p>

<p>Master Plan.</p> <p>8. Organize farmers, livestock owners and agricultural laborers into associations. Provide them with appropriate technology, farm demonstrations, management and credit trainings.</p> <p>9. Orient these programs to target women at all levels - from household agro-industries to medium large private enterprises.</p> <p>10. Introduce improved food quality control mechanisms, food standards, and laws to improve food quality and competitiveness in the market place. Protect public health, and maintain national and household food security.</p> <p>11. Develop market centers and accelerate resolution of land titling issues particularly where they interfere with farm and marketing ownership and management.</p> <p>12. Provide incentives to encourage private investment in marketing of high value crops and products, and in agricultural input supply. Form regional and national farmer and agro-business associations that give groups greater power in advocating for policy reforms and accessing markets.</p> <p>13. Establish a market information system that provides farmers, associations, and processors with timely price and volume information. Assist in the formation of local cooperatives and farmer associations that can help members to better access input supplies,</p>	<p>facilitating the aggregation of produce to reduce unit handling costs to industry. It will also facilitate easier deliver of training to farmers and give farmers easier access to credit.</p> <p>General standards of hygiene in the market places will improve when standards are introduced. Introduction of certification standards would allow Afghan exports to compete on international markets. Maintaining national food security levels will stabilise market prices.</p> <p>Judicious sighting of new markets will reduce congestion in towns. Hygiene standards will improve and private sector will invest more willingly when land title is assured.</p> <p>Tax incentives and national lobbying bodies should increase investment in agriculture and also allow agribusiness entrepreneurs to take greater risks in accessing more distant markets. Lobbying should create an environment that facilitates greater investment in the sector as legislation and government policy coincides with the need of the industry.</p> <p>Market information systems will allow government to monitor and react to food shortages. MIS will allow farmers to seek better prices in markets as they are aware of current conditions.</p>	<p>farmers.</p> <p>Bank loans to agro-industry will increase as capital equipment is replaced and land is developed. Production of agricultural commodities will increase, such as nuts & raisins.</p> <p>Registration of associations. Loan disbursements to associations. Number of training courses offered to association.</p> <p>Incidence of gastro-intestinal infections will decrease along with infant mortality. Appearance of certified production units (ISO and HACCP accredited)</p> <p>Number of markets will physically increase. Investment my private sector in infrastructure will increase.</p> <p>Increase in the number of national associations geared towards advocacy.</p> <p>Accurate records of prices are kept by the relevant ministries. Regular government bulletins are published. MIS is disseminated regularly by a number of mass media outlets.</p>	<p>than for what benefits they intrinsically offer members. Associations fracture along tribal and ethnic lines. The whole process is just a paper exercise.</p> <p>The market is not ready to accept the investments needed to improve standards. The gap to accreditation standards is too great at present.</p> <p>Vested interests will stall in the issuing of land titles. The process will not be transparent. Banks will not make money available to invest in infrastructure. Services are not adequately provided.</p> <p>This is a disconnect between government and the private sector and the needs of the latter are not satisfied by the actions of the former.</p> <p>MIS information will be gathered and it will languish in a computer. The information will be inaccurate and sporadic. It will not be analysed and will not be distributed in a timely manner.</p>
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credit, and marketing services.			
Project 1: Commercial Agriculture Development Project. ADB Due to start 2008 US\$40 million	Outcome		
	A network of 6 business advisory centers set up, where agri-businesses can acquire business development support and TA	No of centers developed and number of contacts between center and agri-businesses No of TA months supplied and the impact of this TA input in terms of increased output/efficiency after 1 year	A clear delineation between these agri-business centers and the rural enterprise development centers contemplated by MRRD
	Research and Development support available to solve specific technical problems in the Afghan agri-business, building a network of capable applied researchers with the necessary contacts with the international research and development scene and modern skills and methods	The number of researchers capable to supply this client oriented contract research, the number of successful cases in which research and development has assisted agri-business in increasing its turn-over and/or profit	Young researchers are able to find their place in the existing scientific apparatus in Afghanistan to develop this client oriented applied research and development
	The percentage of investment in agri-business in Afghanistan has gone up 10 fold, whereby bank's own capital covers 80% of the credit sum New and innovative credit products, among them of Micro Finance nature, support the agri-business to increase its turn-over	Information from the participating financial institutions Information from the central bank and from the Chambers of Commerce Number of cases whereby FI's have passed credits to agro-businesses and the total quantity of such loans and leases	The government is capable to improve the legislative framework for the banking world, contracting and bankruptcy
	Strengthening of agro-business associations, their support to the sector and influence on government policies and practices	Number of associations with a clear mission statement, annual plans, budget and income sufficient to implement their plans of activities	Government is capable and willing to develop conducive laws on associations and cooperatives and allows them to serve the interests of its members
Project 2 Accelerating Sustainable Agricultural Production (ASAP) (USAID – Dec 2006- March 2010).	Refer to Goals 2 and 3	Refer to Goals 2 and 3	Refer to Goals 2 and 3

Total budget for horticulture and livestock components: US\$25,962,732.			
Project 3 Horticulture and Livestock Project (WB- DFID) January 2007-2009	Animal production increases dramatically through reduced mortality and morbidity, leading to increased marketing and processing	Numbers of animals originating in Afghanistan traded on livestock markets, reduction in import of live animals from Pakistan	The government does not turn back on the path of privatization of all veterinary field services in the country
	Through the construction of 250 milk collection centers and associations and one dairy plant the availability of locally produced and safe dairy products in the country increases to 25% of the Kabul market	Trade statistics, Output of the dairy plant	Farmers respond in a positive way to the offered market for milk and are prepared to change their cows and management, government starts some monitoring of the import of dairy products, especially milk powder. Government makes its remaining state farms and land available for commercial dairy farms, which are crucial for the supply of breeding stock and basic supply of milk for the industry

Strategic Goal: Agriculture Master Programme 7 Human Capacity for Sustained Growth			
Objectives	Expected Results	Indicators	Risk
Programs 1. MAIL capacity building to formulate necessary institutional, regulatory and incentive frameworks to increase agriculture production and productivity. 2. MAIL capacity building to undertake objective-oriented agriculture program planning, implementation, evaluation and monitoring of MAIL programs, private investments and donor projects. 3. Human Resources Dept capacities strengthened and improved in PAR-PRR and RIMU procedures in partnership with IARCSC. 4. Private Sector Department restructured	Impact New and revised laws, regulations and policies increase agriculture productivity. MAIL capacities increased in all phases of Project Cycle Management. Human Resources capable of organizing a streamlined, cost efficient and cost effective organization with functional core functions between central and provincial/district offices. Private Sector Department becomes a catalyst for private sector investments.	No of new laws enacted No of implementing guidelines MAIL Project and Budget formulation based on Master Plan goals. MAIL Implementation Plan (7 national programs) in place Human Resources prepares an HRD Manual based on Civil Service Law and MAIL memoranda Private Sector one stop shop operational.	Weather condition and natural calamities hamper productivity Delays in legislative agenda – agriculture sector Limited motivation among PRR officials/ staff Fast turnover of MAIL officials/staff to other NGOs and donor organizations

<p>with new functions to serve the agricultural clientele, promote domestic and international investment in agriculture. .</p> <p>5. MAIL provincial and district offices reorganized, closely coordinated with the provincial Faculties of Agriculture, and are capable of managing up-to-date research and extension programs in collaboration with the private sector.</p> <p>6. MAIL and agro-business community consultation conducted to increase investment in the agricultural sector, provide training and other support services.</p>	<p>MAIL provincial/district offices offer improved service delivery based on Master Plan requirements and new technologies/research.</p> <p>Faculties of agriculture and MAIL have improved curriculum for agriculture sector.</p> <p>Private sector investments programmed and increased due to enabling environment and incentives.</p>	<p>Private sector baseline and new investments portfolio established in MAIL data base.</p> <p>Agriculture clientele are satisfied with services.</p> <p>Number of MAIL- private sector consultations Increase in private sector investments.</p> <p>Rural household income surveys Food imports and food aid decrease</p>	<p>Security situation limit private sector investment</p> <p>Limited capacities of provincial/district officials in Master Plan implementation</p> <p>University curriculum does not address the needs of public and private sector</p>
<p>Project 1 Support to Strategic Planning for Sustainable Rural Livelihoods (SSPSRL) (Phase 1) ongoing until 2007 Quarter 1. DFID contract 03 4707. Phase 2 to commence 2007-2009. (GBP 2.2M) Presented here is Log Frame draft (Oct 2006)</p>	<p>Output 1 Improved institutional capacity in Ministry of Agriculture, Irrigation and Animal Husbandry (MAIL) and related agencies to plan develop and supervise implementation of programs and projects in the context of the Sustainable Rural Livelihoods framework.</p>	<p>ANDS and program documents demonstrate recognition of rural development as an ongoing and dynamic process including reference to :field evidence, consultation & targeting</p>	<p>MAIL commitment to Master Plan implementation and to the ANDS processes is supported at all levels of the Ministry</p>
	<p>Output 2 Increased capacity of Afghan Institutions and Professionals to develop, plan and manage programs effectively applying sustainable livelihoods approaches and contributing to the formulation of pro-poor rural development policies.</p>	<p>A cadre of MAIL professionals trained in program planning and implementation tools within a sustainable livelihoods framework. Forums for sharing experience and lessons learned between stakeholders and for feeding experience into policy formulation. An institutional framework providing a sustainable focus for capacity development around rural development issues established and operational</p>	<p>Multi-stakeholder support for the consultative mechanisms and processes remains strong</p> <p>Sufficiently high calibre individuals can be identified within Ministries' staff. Trained staff will remain in post after training and end –of-project</p>

<p>Project 2 JICA Agriculture Policy Advisor On-going (March 2006 - March 2007)Est \$150,000</p>	<p>Output 1</p> <p>Identify specific capacity issues of MAIL and provide practical day-to-day training to the ministry staff.</p> <p>Provide policy advice on various sub-sector issues - Analyze current government policies, strategies and activities and identify technical / institutional gaps.</p> <p>Promote dialogues between MAIL and JICA on further technical cooperation.</p> <p>Contribute to the activities of JICA and other Japanese ODA for their smooth operations.</p>	<p>Summary of technical / basic operational capacity gap</p> <p>Summary of agriculture sector problems and policies, strategies and activities</p> <p>Summary of policy advice to MAIL</p> <p>Technical Assistance Request formulated by MAIL</p>	<p>Full cooperation provided by the counterpart organization</p> <p>Security issues</p>
<p>Project 3 Accelerating Sustainable Agricultural Production (ASAP) (USAID – Dec 2006- March 2010). Budget for public sector capacity building component: US\$21,716,275</p>	<p>To be determined</p>	<p>To be determined</p>	<p>To be determined</p>