



**FAO- IRAQ**

**FROM EMERGENCY TO DEVELOPMENT**

**MEDIUM-TERM STRATEGY FOR  
FAO ASSISTANCE TO IRAQ**

**2008**

**Food and Agriculture Organization of the United Nations  
Iraq Programme, 2008**

**[www.faoiraq.org](http://www.faoiraq.org)**



***TABLE OF CONTENTS***

<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>I. INTRODUCTION</b>	<b>9</b>
<b>II. FROM EMERGENCY TO DEVELOPMENT: THE CONTEXT</b>	<b>10</b>
<b>III. FAO ASSISTANCE IN THE TRANSITION: POLICY GUIDELINES</b>	<b>12</b>
<b>IV. AREAS FOR PRIORITY FAO SUPPORT AND JUSTIFICATION</b>	<b>16</b>
<b>V. THE MEDIUM TERM PROGRAMME – DESIGN AND OPERATIONAL PROPOSALS</b>	<b>24</b>
<b>VI. CONCLUSIONS AND FOLLOW UP</b>	<b>31</b>
<b>ANNEXES:</b>	
<b>ANNEX I</b>	<b>33</b>
<b>ANNEX II</b>	<b>36</b>
<b>ANNEX III</b>	<b>42</b>
<b>ANNEX IV</b>	<b>50</b>

***ACRONYMS AND ABBREVIATIONS***

<b>ASPPU</b>	<b>Agricultural Sector Project Preparation Unit</b>
<b>COSIT</b>	<b>Central Organization for Statistics and Information Technology</b>
<b>FAO</b>	<b>Food and Agriculture Organisation</b>
<b>FFS</b>	<b>Farmers Field Schools</b>
<b>GIS</b>	<b>Geographic Information System</b>
<b>GoI</b>	<b>Government of Iraq</b>
<b>ICI</b>	<b>International Compact with Iraq</b>
<b>IDPs</b>	<b>Internally Displaced Persons</b>
<b>IMF</b>	<b>International Monetary Fund</b>
<b>IPM</b>	<b>Integrated Pest Management</b>
<b>IRFFI</b>	<b>International Reconstruction Fund Facility for Iraq</b>
<b>ITF</b>	<b>Iraq Trust Fund</b>
<b>MoA</b>	<b>Ministry of Agriculture</b>
<b>MoP</b>	<b>Ministry of Planning</b>
<b>MoWR</b>	<b>Ministry of Water Resources</b>
<b>NDS</b>	<b>National Development Strategy</b>
<b>OSRO</b>	<b>Office for Special Relief Operations</b>
<b>TCP</b>	<b>Technical Cooperation Programme</b>
<b>UN</b>	<b>United Nations</b>
<b>UNDP</b>	<b>United Nations Development Programme</b>
<b>UNEP</b>	<b>United Nations Environmental Organisation</b>
<b>UNESCO</b>	<b>United Nations Scientific and Cultural Organisation</b>
<b>UNIDO</b>	<b>United Nations Industrial Development Organisation</b>
<b>UNDG</b>	<b>United Nations Development Group</b>
<b>UNOPS</b>	<b>United Nations Office for Project Services</b>
<b>WFP</b>	<b>World Food Programme</b>
<b>WTO</b>	<b>World Trade Organisation</b>
<b>WUA</b>	<b>Water Users' Association</b>

**FOREWORD**

*FAO is the mandated UN agency for Agricultural and Food Sector. FAO brings with it technical experience and updated technology in the mandated areas. FAO has been involved in the implementation of the Iraq programme since the early 1990s.*

*Keeping with the principles of FAO to work in partnership with UN member countries, Strategy Validation Workshop was held in Amman on 8<sup>th</sup> & 9<sup>th</sup> of April, 2008, to determine the way forward for Iraq in the Agricultural and Food Sector.*

*The formulation of strategy in vision for the Agricultural and Food Sector 2008 onwards was an initiative personally supported by the chief of TCES Mr. Christian Miczaika. Key technical staff Mr. Paulo Lucani an established economist of international repute along with the senior planning officer Ms. Suzanne Raswant were deputed for formulation for this Iraq Agriculture Strategic paper. Necessary support was also obtained from the DRSB Mr. David Shearer for this initiative.*

*I'm pleased to advise that his Excellency the Minister of Agriculture Professor Ali Hussain Al Bahadli approved the Iraq Agriculture Strategy along with a high level delegation of the Iraqi team comprising also of the Ministry of Water Resources and representatives from the Kurdistan Regional Government.*

*This strategy document I'm sure will provide the road map for future Agricultural Development in Iraq. I also take this opportunity to thank all involved who have contributed to the process of making this document reality.*

**Fadel El Zubi**  
Officer-in-Charge  
Food and Agriculture Organization - Iraq

## EXECUTIVE SUMMARY

i) *This report<sup>1</sup> proposes a medium term FAO strategy for assisting the Iraqi agricultural sector in the transition from emergency to development. The report in its draft version was presented and discussed at a “Validation Workshop” organized by FAO in Amman on 8 and 9 April 2008 with the participation of Iraqi authorities, UN and FAO representatives. The report findings and conclusions have been broadly endorsed by all participants and agreed in preliminary Memorandum of Understanding dated 8 April 2008.*

ii) *The FAO assistance strategy is based on: i) the agricultural sector priorities highlighted in various policy documents including the International Compact with Iraq, the National Development Strategy, the Ministry of Agriculture (MoA) and the Ministry of Water Resources (MoWR) sector strategies (including MoWR and MoA of Kurdistan) and the Prime Minister’s Initiative; and ii) technical considerations concerning priorities for agricultural development, FAO comparative advantage and lessons of experience from the implementation of FAO assisted emergency programmes.*

iii) *The ongoing FAO emergency field projects, have been conceived and implemented along sub-sector lines (rehabilitation of water supply systems, of livestock and veterinary services, cottage industries, food safety and processing capacity, fisheries, rehabilitation of the seed industry and rehabilitation of the date palms sub sector). Such an approach has been operationally effective for emergency relief purposes. However, sustainable development of the agriculture sector requires a different strategy, based on an integrated, holistic effort aimed at improving farming systems through transfer of technology, promoting participatory community projects for agricultural development, the introduction of value chains for adding value to local production, a strategy to empower local farmers’ groups creating the conditions for building up social capital and, last but not least, continuing the ongoing efforts for capacity building of Government institutions to promote their substantive involvement in the development of the agricultural sector, respond to the expectations of rural stakeholders and enhance the skills of Iraqi professionals for effective sector planning and project formulation.*

iv) *In line with the United Nations Development Group (UNDG) policy and advice, the contribution of FAO to the agricultural development of Iraq would be realized in full coordination and cooperation with partner agencies and donors. Working on specific projects, FAO assistance would facilitate investments in infrastructure and services (extension, input supply, etc.), to be financed by the International Reconstruction Fund Facility for Iraq (IRFFI)/UNDG or by new arrangements to be set in place by government and/or donors. An innovation would be a significant share of counterpart funding from the Government of Iraq. These investments will have to proceed in parallel to the capacity*

---

<sup>1</sup> This report “From Emergency to Development – Proposed Strategy for FAO Assistance” has been prepared by an FAO headquarters team after intensive consultations with the FAO field staff in Amman, a number of Iraqi Government staff that could be contacted in Amman and FAO headquarters staff.



*building effort. In most cases FAO support will be developed through farmers' groups based initiatives in pilot projects carried out to introduce and test innovations in crop or livestock production generated by research. Pilot projects would be instrumental in providing the necessary evidence and justification for larger scale investment projects and as feedback to test the effectiveness of Government agricultural sector policy initiatives.*

*v) There are a number of technical fields where FAO has a substantive comparative advantage which could be used to address agricultural sector issues and assist government in paving the way to sustainable agricultural sector development: water management and introduction of water efficient irrigation systems, improved and more efficient methodologies for extension services, efficient use of inputs and improved seeds, support to improved farming systems including dryland and irrigated crops and livestock, control of zoonotic and transboundary diseases, integrated plant and pest management, improvements in post-harvest technologies, fisheries, natural resources management, the setting up of modern food safety and quality control procedures, food security monitoring systems and formulation of policies for food security, agricultural sector plans, investment projects preparation. Capacity building and technology transfer would be cross cutting components that would characterize all development initiatives.*

*vi) Using as guiding principles the GoI policy priorities and the FAO technical strengths and comparative advantage, a number of criteria have been developed for selecting projects for FAO assistance. These criteria take into account inter alia: i) objectives of food security, employment creation and poverty reduction, ii) the contribution to the development of policy initiatives at the forefront of government and donors' programmes, iii) the focus on transfer of technology, improved productivity and production of crops, livestock, fisheries, iv) natural resources and environmental management, v) the presence of a substantial component of capacity building, vi) the consistency with the ongoing activities under the FAO emergency programme, vii) the technical fields of FAO comparative advantage, viii) built in sustainability through the use of participatory processes, x) gender equality/equity, xi) participation of national institutions and farmers and other stakeholders in the preparation, financing and execution of the projects, and xii) interventions that are of direct interest to government and donors for follow-up investments in agricultural and rural development, and resulting in a multiplier effect on resources mobilization.*

*vii) In operational terms, for the design of the 2009-2014 programme it is proposed to: i) plan the medium term FAO assistance to the Government of Iraq on a "rolling" basis. A fairly well identified programme of work has already been agreed with GoI for the first two years of the programming cycle (2009/2010): projects for implementation in the subsequent years that meet the selection criteria, would be included in the pipeline as they come and following already set procedures; and ii) call the attention of the agricultural sector institutions to the urgency to build up the project formulation capacity of the MoA and of the MoWR which is now very weak. Capacity to formulate integrated projects with beneficiaries' participation will be of key importance for the implementation of the new strategy. The profile for such a project called Agricultural Sector Project Preparation Unit (ASPPU) has been discussed at the Workshop.*

viii) *Projects to be included in the first two years of the programme would build on the ongoing FAO projects and on the priorities put forward by the MoA and the MoWR. The programme would focus, on pilot demonstration projects with farmers' groups of a large enough scale to ensure an immediate impact on productivity and production of crops in small farm areas. As these types of projects will require activities with substantive field work it is proposed to concentrate efforts in the first two years, on a reduced number of projects in representative geographical locations to be selected by government.*

ix) *Based on the above concepts, a number of preliminary profiles has been discussed at the Workshop including, besides the ASPPU: an agricultural statistical survey, irrigation rehabilitation schemes, an integrated pest management programme, on-farm irrigation, citrus and fruit crops development, modernization and development of the dairy cattle sector, organization of the small ruminant sector and development of breeding strategies, infrastructure and normative improvements for food safety, saltwater fisheries, strengthening seed production services, including vegetables and potatoes, date palm production and marketing and cottage industries.*

x) *Both the strategy and the profiles are proposals which need to be prepared and finally validated by government. Financing sources still need to be identified.*

xi) *Besides the overarching issue of security - minimum security conditions will be essential for the realization of the proposed strategy - much of the success of the suggested approach will rely on government's capacity to initiate a substantive work programme with farmers and other stakeholders (the private sector business and local authorities) on the basis of integrated projects identified and prepared using a fully participatory process. The progressive restoration of a favourable climate for private sector investment and of measures designed to introduce a market economy including modifications of the subsidies and incentive systems to support faster, more efficient and private sector led economic growth will be of paramount importance.*





## I. INTRODUCTION

1. The report “From Emergency to Development – Medium Term Strategy for FAO Assistance” has been prepared by an FAO headquarters team after intensive consultations with the FAO field staff in Amman, a number of Iraqi Government staff available in Amman and FAO headquarters staff. Its purpose is to take stock of ongoing policy, economic and social developments, review the emergency work done so far by FAO to help in the rehabilitation of the agricultural sector of Iraq and design a flexible medium term strategy for FAO assistance to the Iraqi agricultural sector in the difficult transition from emergency to development.
2. The proposed strategy draws its guidelines from the International Compact with Iraq and government’s policy statements as summarized in various documents such as the National Development Strategy, the Ministry of Agriculture (MoA) and the Ministry of Water Resources (MoWR) sector strategies (including MoWR and MoA of Kurdistan (KRG) and the Prime Minister’s recent initiative (Chapters II and III). It then defines and justifies areas for priority FAO support based on FAO comparative advantages and it highlights the criteria which would be followed for prioritizing FAO supported initiatives (Chapter IV).
3. Chapter V describes the conceptual approach behind the proposed medium term (2009-2014) programme and the preliminary profile of projects which would be included in the first two years. The final Chapter VI highlights conclusions and follow up.
4. The report in its draft version was presented and discussed at a “Validation Workshop” held in Amman on 8 and 9 April 2008 with the participation of Iraqi authorities, UN and FAO representatives. Its conclusions and recommendations for follow up have been broadly endorsed and agreed in a preliminary Memorandum of Understanding dated 8 April 2008 (Annex I).



## II. FROM EMERGENCY TO DEVELOPMENT: THE CONTEXT<sup>1</sup>

5. Iraq has a rich and diverse resource base which can pave the way to robust and sustainable economic growth. A programme of structural reforms from a state-dominated to a growth-oriented, market-driven economy is being progressively carried out by government with help from the international community. These reforms need to be supported by a parallel process aiming at conceiving and implementing economically and socially justified projects which can have a durable impact on all the sectors of the economy.

6. The transition from post conflict emergency to development is a formidable task which will have to confront a number of serious, wide ranging issues which affect the livelihoods of the Iraqi people and the social and economic prospects of the society: security, poverty, unemployment, weak social protection systems and lack of incentives for the private sector to invest in medium and long term projects. The incidence of absolute poverty is estimated at 8–10 percent, but a further 12–15 percent of the population is estimated to be vulnerable to falling into absolute poverty. Amongst these, several groups are especially vulnerable: unemployed youth, war victims with disabilities, and internally displaced persons, refugees, and returnees.

7. Realizing this vision calls for a series of policy reforms and implementation of innovative development programmes. Progress is being made on a number of these, including on the subsidies and incentive systems to support faster, more efficient and private sector led economic growth and on the rehabilitation of priority infrastructure and services.

8. However a lot remains to be done. The mission for the agricultural sector is to create the proper environment to support efficient and sustainable increases in food and agriculture production, to improve food security and reduce rural poverty, to construct efficient agricultural services and to improve basic rural infrastructure. The transition from emergency to development requires a holistic and participatory approach to the problems of the rural economy, building up social capital and setting the basis for sustainable growth.

9. Iraq in partnership with the international community has recognized the importance of agriculture for the substantive role it plays in the overall economic and social development of the country. The policy framework guiding the formulation of strategic priorities for a smooth transition from emergency to economic recovery and development is spelled out in a series of initiatives which coordinate the concerted efforts of the international community and the Government of Iraq. These include: the National Development Strategy (NDS) of 2005, the International Compact with Iraq (ICI) launched in early 2007, the MoA Agricultural Development Plan of mid 2007 and the MoWR priorities, the Plans of the Ministry of Agriculture (MoA-KRG) and Ministry of Water Resources (MoWR-KRG) of Kurdistan, and finally a policy statement by the Prime Minister (mid 2007), that sets priorities for a ten year implementation plan. A description of these major policy orientations is summarized in Annex 3.

---

<sup>1</sup> Detailed analysis is provided in Annex 2.

10. The ICI is co-chaired by the Government of Iraq and the United Nations. Other partners include the World Bank, the International Monetary Fund (IMF) and other regional financial institutions. The implementation of the ICI is supported by the International Reconstruction Fund Facility for Iraq (IRFFI) and the United Nations Country Team Joint Priority Action Plan, designed to deliver direct assistance to basic services that are of vital humanitarian importance. Under the IRFFI, FAO coordinated the UN sector for agriculture and food security, environment and natural resources management and under the new arrangements, has recently become the lead agency of the agricultural sector. To date, FAO emergency activities in Iraq have received US \$95 million in funding from the UN part of the multi-donor IRFFI. The focus areas of FAO present work in partnership with other concerned agencies are: irrigation and water supply systems, livestock and veterinary services, employment generation to develop small-scale income-generating cottage industries, food safety and food quality controls, fish farming and commercial fish industry, the seed industry and the date palm sector (summary description in Annex 4).

International Reconstruction Fund Facility for Iraq  
Donor Commitments  
to the  
World Bank Iraq Trust Fund and United Nations Development Group Iraq Trust Fund  
as of 31 May 2008  
(amount in millions)

DONOR	Donor Currency	WORLD BANK		UNDG		FACILITY (WB-UNDG)	
		Donor Currency	USD	Donor Currency	USD	Donor Currency	USD
AUSTRALIA	AUD	22.00	16.14	36.00	26.37	58.00	44.51
AUSTRALIA (Dept. of Immigration)	AUD	0.00	0.00	4.82	3.29	4.82	3.29
AUSTRALIA Total		22.00	16.14	40.82	31.67	62.82	47.81
BELGIUM	EUR	0.00	0.00	1.00	1.32	1.00	1.32
CANADA	CAD	35.00	26.87	80.00	63.79	115.00	90.45
DENMARK	DKK	0.00	0.00	73.16	12.41	73.16	12.41
EUROPEAN COMMISSION*	EUR	139.39	176.17	436.56	559.56	575.94	736.73
EC (Rapid Response Mechanism)	EUR	3.00	3.57	19.00	24.90	22.00	28.55
EC (Human Rights)	EUR	0.00	0.00	6.00	7.26	6.00	7.26
EUROPEAN COMMISSION* Total		142.39	179.74	481.56	591.76	594.94	771.54
FINLAND	EUR	2.00	2.38	6.00	7.70	8.00	10.28
GERMANY	USD	0.00	0.00	10.00	10.00	10.00	10.00
GREECE	EUR	0.00	0.00	3.00	3.83	3.00	3.83
ICELAND	USD	1.00	1.00	0.00	0.00	1.00	1.00
INDIA	USD	5.00	5.00	5.00	5.00	10.00	10.00
IRELAND	EUR	0.00	0.00	1.00	1.33	1.00	1.33
ITALY	EUR	0.00	0.00	23.80	29.78	23.80	29.78
JAPAN	USD	130.63	130.63	360.95	360.95	491.58	491.58
KUWAIT	USD	5.00	5.00	5.00	5.00	10.00	10.00
LUXEMBOURG	USD	0.00	0.00	0.20	0.20	0.20	0.20
LUXEMBOURG	EUR	0.00	0.00	1.70	2.12	1.70	2.12
LUXEMBOURG Total		0.00	0.00	1.90	2.32	1.90	2.32
THE NETHERLANDS	EUR	5.00	5.18	5.00	6.79	10.00	12.88
NEW ZEALAND	NZD	0.00	0.00	5.00	3.37	5.00	3.37
NORWAY	NOK	45.00	6.72	45.00	7.91	90.00	15.73
QATAR	USD	5.00	5.00	5.00	5.00	10.00	10.00
Republic of KOREA	USD	9.00	9.00	21.00	21.00	30.00	30.00
SPAIN	USD	20.00	20.00	20.00	20.00	40.00	40.00
SPAIN	EUR	0.00	0.00	55.10	73.17	55.10	73.17
SPAIN Total		20.00	20.00	75.10	93.17	95.10	113.17
SWEDEN	SEK	40.00	6.81	97.00	13.95	137.00	19.46
TURKEY	USD	1.00	1.00	0.20	0.26	1.20	1.30
UNITED KINGDOM	POUNDS	40.00	71.36	30.00	65.54	70.00	126.93
UNITED STATES	USD	5.00	5.00	5.00	5.00	10.00	10.00
<b>TOTAL</b>			<b>498.57</b>		<b>1,357.72</b>		<b>1,834.59</b>

\*USD equivalent of commitments not yet deposited are estimated at operational exchange rates and are for indicative purposes only.

This Table is provided by [www.uniraq.org](http://www.uniraq.org)

### III. FAO ASSISTANCE IN THE TRANSITION: POLICY GUIDELINES

#### A. ASSESSING AGRICULTURAL SECTOR PRIORITIES: THE COMMON THREAD

11. The International Compact with Iraq (ICI), the National Development Strategy (NDS), the MoA and MoWR strategies and the Prime Minister initiative, although formulated at different times, by and large coincide on the substance and thrust of the national policy initiatives which will serve as guidelines for the design of the FAO assistance strategy. For presentation convenience the strategic orientations of the policy initiatives have been clustered into three main “pillars” characterizing the government priorities for building up a modern and efficient agricultural sector:

1. **policy reforms,**
2. **capacity building, and**
3. **investment programmes.**

12. Technology transfer and adaptation is the main cross cutting theme. It is of prime importance for GoI and in particular for the agricultural sector. The formulation of the framework for FAO assistance to the agricultural sector of Iraq takes note of this fundamental aspect and includes it as a specific component of the integrated, holistic approach to project development work.

#### B. THE THREE “PILLARS”

##### i. Policy reforms

13. Policy reforms aim at providing an enabling environment for a free, market driven and rule based agriculture sector, for building up strong institutions and for appropriate public sector support. These reforms include *inter alia*:

- i) a clear definition of the respective roles of the state and of the private sector including for example, a progressive withdrawal of the state from all marketing and distribution activities;
- ii) programmes to alleviate poverty and provide opportunities for increasing rural incomes;
- iii) testing and development for wider replication of participatory development approaches for policy formulation which focus on, and respond to, the needs and aspirations of the vulnerable sections of rural society including women and the internally displaced persons (IDPs);
- iv) progressive review of the food policy and of the input subsidies to be in line with the development of a free market based agricultural economy;
- v) reforms in land and water management, integrating land and water development;
- vi) reforms in the agricultural marketing and trade sectors including progressive privatization of the input supply and marketing networks and preparation and enactment of the necessary rules and regulations related to WTO requirements and border controls;

- vii) review of the rural finance policies to assess their adequacy to serve the needs of a growing agricultural sector, and also for improving food security in rural areas. And at the same time, review of existing short and medium term credit facilities for investments in rural agro industries, small businesses;
- viii) reforms of the administrative and governance structures through simplification of the bureaucratic procedures, decentralization and deconcentration of the public sector functions with more responsibilities given to the planning, programming and executing role of the local authorities.

## ii. Capacity building

14. Improving the capacity of public agriculture institutions for the efficient delivery of services is a precondition to sustainable agricultural sector growth: agricultural research, technology transfer and adaptation and extension are the first in the order of priorities. Capacity building in the agricultural sector will include both the public and private sectors.

15. In the public sector, the upgrading of agricultural services will focus on:

- i) decentralization, efficiency, cost recovery, starting from capacities for agricultural planning, programming, monitoring and evaluation to capacity building for research and extension, pest and diseases control, quality standards and certification and training and capacity building for producers' groups and associations at the local level without excluding client orientation and gender integration; and
- ii) the development and application of information technology tools as well as group-based extension, farmer-to-farmer extension and farmer field schools (FFSs), to make delivery of extension messages more efficient, and to strengthen linkages with all relevant institutions.



16. Capacity building will also include support to:

- the building up of farmers' groups, local associations, the construction of social capital and the promotion of territorial strategies which will support the development of traditional products for which Iraq has a comparative advantage;
- promotion and assistance to the emergence of efficient market intermediaries, processors, small agro industrial concerns;
- the building up of value chains that can increase value added in the rural areas, farmers' income and contribute to job creation;
- improving agricultural technical professional education; and



- stopping the ongoing brain drain and outflow of human resources capacity in the relevant ministries.

17. These key reforms would pave the way in the medium term, to a gradual privatization of extension and other agricultural services on the basis of criteria to be defined, adjusted to reflect local situations and stakeholders' needs.

### iii. Investments for agricultural development

18. This third “pillar” includes investments in irrigation and drainage and rural infrastructure, agricultural markets and farm to market feeder roads, rehabilitation of the seeds/fertilizers/pesticides and other farm inputs production and distribution networks, investments for the rehabilitation and development of research stations, the extension services and of plant and animal health services and quarantine stations. Both the public and private sectors will be called to participate in this effort in their respective roles as defined by Government policy. Major investment categories would include:

a. Rehabilitation of the irrigation networks

to improve water use efficiency and the water conveyance systems and increase water availability for end users. Farmers would be encouraged to use new water saving technologies, water harvesting, salt resistant crop varieties - which would make possible the use of partially saline waters. Efficient on farm water utilization will provide savings in irrigation and drainage costs and in the cost of environmental degradation due to salinity.



b. Water quality monitoring and rehabilitation and improvement of the drainage infrastructure



to reclaim the salt affected and water logged areas and stop further environmental degradation. The use of Geographical Information Systems (GIS) for these and other functions will be developed and introduced progressively as a monitoring tool across all Government ministries.

c. Seed production facilities (cereals, vegetables, potatoes), including state and privately owned seed farms and forest nurseries, seed research programmes, seed multiplication,



processing, distribution, storage, quality control systems and private sector investments supported by seed legislation and regulations based on the Iraq National Seed Policy.

- d. Development of an efficient animal production industry (including beef, dairy cattle, small ruminants, buffaloes and poultry), and of all related facilities and infrastructure: artificial insemination centres, feed, vaccines production, drugs, equipment, rehabilitation/construction of cold storage facilities.

- e. Fresh and saltwater fisheries development, using local and foreign species, for providing a source of protein rich food and at the same time an additional income to poor segments of the rural population.



- f. Agro processing infrastructure for crops and livestock products to add value to local production, increase rural incomes and provide processed products of the required quality for the urban markets.

- g. Rehabilitation of the fertilizers, agro-chemicals, and marketing and distribution chains. While in the short term government investments will have to lead the way to substitute and compensate for the reluctance of the private sector to invest in the production, marketing and distribution chain, the medium term perspective will be for the private sector to take over most of these activities provided that credit facilities would be made available under proper lending terms and conditions. From an environmental perspective, the reliance on agricultural chemicals, particularly pesticides, induced by input subsidies should be gradually limited through more organic methods and the Integrated Pest Management (IPM) methods.



- h. Rehabilitation and development of research stations, of the extension services and of plant and animal health services and quarantine stations. These investments will require strong government support to start with. In due course the private sector could take over some of the above functions, for example: extension and plant and animal health services.

19. Finally, development of an efficient and effective agricultural credit system will be needed for farmers or rural businessmen to invest in farm equipment and services, post

harvest improvements, storage especially for grains, livestock infrastructure and processing plants for integrated value chains.

#### IV. AREAS FOR PRIORITY FAO SUPPORT AND JUSTIFICATION

20. The FAO strategy for assisting the Iraqi agricultural sector in the transition from emergency to development builds on three main sets of guidelines: Government policies and investment programmes (Chapter III), the preference for a holistic and participatory approach to agricultural sector development and FAO comparative advantage and technical strengths. Areas for priority FAO support will be selected on the basis of criteria (Section 3 below) coherent with the above guidelines.

##### 1. Approach to Agricultural Sector Development

21. The emergency programme, being carried out with FAO assistance has been conceived and implemented along sub-sector lines (rehabilitation of water supply systems, of livestock and veterinary services, cottage industries, food safety, fisheries rehabilitation and development, rehabilitation of the seed industry and rehabilitation of the date palms sub sector). Such an arrangement has been operationally effective for emergency relief purposes. However, sustainable development of the agriculture sector requires a different approach, based on an integrated, holistic effort aimed at improving farming systems with and without irrigation, promoting participatory community projects for agricultural development, introducing value chains for adding value to local products, creating social capital by working with communities and farmers' groups, and last but not least, building up local capacities in line with the government policy to support decentralization and endogenous territorial development.

22. Equally important are the sustainable use of natural resources and capacity building for the creation of rural support systems, institutions and infrastructure. The problems faced by the agriculture sector and the rural communities are complex. Solving them will require a participatory, interdisciplinary approach with technicians working in teams across sectoral boundaries, in consultation and in partnership with rural communities and all stakeholders.

23. Participatory projects for farming systems and value chains development would address: i) poverty alleviation and food security, ii) the improvement of the standards of living of poor and vulnerable communities/villages and individual households through strengthening their capacities for local planning, self-help and more active participation in local decision making, and iii) job creation, income generation and value adding to local productions.



24. The progressive restoration of a market based economy to provide the necessary incentives for the private sector to invest in agriculture would be essential to ensure farmers' participation and successful programme implementation. On the other hand, the feedback from the implementation of projects using participatory, holistic approaches would help

government in the conceptualization, formulation and implementation of sector policies geared to address the real needs of the sector.



25. Particularly important in project identification would be:
- **the careful selection of the areas** which would qualify for priority testing of improved farming and irrigation systems;
  - **the parallel strengthening of applied research, technology transfer and adaptation, extension, input distribution and agricultural services in general.** These will be important components of all projects;
  - **availability of funds (donors, the state, private sector) to finance public and/or private sector investments** in infrastructure and services for those areas selected for first phase or pilot projects; and
  - the possibility of planning for a **work programme** which will be developed over a **minimum period of four-five years.**

2. FAO's comparative advantage and technical strengths

26. In line with its mandate, FAO has developed specific competence and experience in agricultural development normative work and technical fields which have a direct bearing on food security, nutrition and standards of living of the rural people, production and distribution of food and agricultural products, the livelihoods of rural populations and the provision and access to sufficient nutritionally adequate and safe food. FAO can assist in the formulation of agricultural policies that contribute effectively to the economic and social development of the country and to the conservation, improvement and sustainable utilization of natural resources. Capacity building bringing together technical cooperation, access to knowledge and experience is an integral part of the work of FAO's both as a facilitator and provider.

27. FAO has been associated over a long time with the Iraq agricultural sector and has accumulated valuable experience on programme delivery and effective response to the needs of the sector. The scenario which is developed with the Medium Term Assistance Strategy builds upon past experiences and on FAO's comparative advantage and technical strengths.



28. In line with the UNDG policy and advice, the contribution of FAO to the agricultural development of Iraq would be realized in full coordination and cooperation with partner agencies and donors within the medium term goal of facilitating the difficult transition from emergency to development.

29. FAO assistance would focus on capacity building and on facilitating investments in infrastructure and services (extension, input supply, etc.) which will have to proceed in parallel to the capacity building effort in order to maximize impact.

30. In most cases, FAO support will be developed through farmers' groups based initiatives in pilot projects carried out to introduce and test: i) technological improvements for crop or livestock production, ii) new methods for transfer of technology, iii) improved farming systems including better land management, efficient water use and water saving technologies, iv) methodologies for strengthening farmers' grassroots associations, iv) value chains, v) government policies on small farmers' credit, and vi) progressive decentralization and privatization of services.

31. Besides capacity building, pilot or first phase projects would provide the necessary evidence and justification for larger scale investment projects as well as initial feedback on the effectiveness of the agricultural sector policy initiatives taken by government at central and decentralized level.

32. The "groups" initiatives are the vehicle through which some of the ongoing FAO projects would be expanded to pilot or first phase projects. Local groups would be supported by FAO with capacity building and technical assistance.

33. The technical fields of specific FAO competence that would be at the core of the FAO Medium Term Assistance Strategy include:

i. Water Management

34. Capacity building for small scale irrigation and appropriate water control technologies; modernization of large irrigation schemes, best practices for sustainable water use and conservation through the use of water efficient irrigation technologies, water harvesting, integrated water-soil fertility management, conservation agriculture,

drainage and salinity control, use of partially saline waters. Water management plans, the linkage between water and agricultural policies, water legislation, efficient water utilization, environmental sustainability in a situation of rapidly growing water scarcity. Promoting and supporting the development of Water Users' Associations (WUAs) through FAO specific assistance modules adopting Participatory Training and Extension methods in Farmers' Water Management.





ii. Crop production

35. Dryland and irrigated crops improvement through capacity building for applied research and extension services - these latter through the introduction of Participatory Training and Extension methods and of the Farmers Field Schools (FFSs) approach; development and use of improved seeds and farm inputs and promotion of new varieties of crops for dryland and irrigated agriculture; support to improved farming systems; introduction of Integrated Pest management methods (IPM); improvements in post-harvest technologies; introduction of forage crops in integrated legume-based crop and livestock systems; and introduction of water efficient drip and sprinkler irrigation systems. FAO may assist in the establishment of demonstration centres connected with the regional research stations which will lead the local programme of work on a participatory basis with local authorities and farmers' groups.



iii. Livestock

36. Capacity building and assistance in the formulation and implementation of projects aiming at increasing the supply of locally produced and safe dairy products and to increase



income for producers from the sale of milk and cattle for slaughtering. Development of pilots in association with small scale processing facilities and milk collection centres for the supply of towns or villages depending on location. Support to value chains. Capacity building, technical assistance and assistance in project formulation and implementation of pilot projects to test and introduce improved technologies for ruminant production systems to increase the supply of locally produced safe and high quality products. Technology transfer for poultry production

systems and <sup>1</sup> Live stock project in Iraq agency plans for progressive control of transboundary poultry diseases. Training of veterinarians; assistance for the control of zoonotic and transboundary diseases as and when these should occur following the completion of the ongoing livestock veterinary programmes.

iv. Fisheries

37. Projects for the expansion of sustainable aquaculture activities using both local and foreign species and enhancement of fisheries and fishery management in reservoirs. Small-scale rural aquaculture in selected locations with interested farmers/fishermen groups. Demonstration of improved management practices in natural stock of indigenous fish. Training and demonstration and trial sites for cage fish culture for technology transfer to the private sector. The integration of fish farming with agricultural farming as a means to develop interest in integrated farming systems. Processing and marketing improvements including the hygienic handling of production and analysis of market prospects.



v. Natural resources management.

38. A coordinated approach to natural resources management integrating forestry, rangeland and nature and soil conservation for the benefit of rural communities and the whole population. Desertification issues. Projects designed with a holistic approach to catchments rehabilitation, conservation and land use, implementing activities under village control for improving range/forest lands.

vi. Food safety and quality controls

39. Setting up modern food safety and quality control infrastructure and procedures, including all the necessary installations and border posts and complementary legislative measures.



vii. Food security

40. The establishment of a Food Security Monitoring System that would collect analyze and evaluate data on the national food supply and access to food for planning, programme implementation and supervision.

viii. Policy and sector work, statistics

41. Formulation of policies on food security, agricultural sector plans, investment projects preparation. The establishment of a modern system of collection and analysis of

agricultural statistics. Capacity building for WTO negotiations, capacity building for territorial programmes.

### 3. Criteria for FAO assistance

42. As mentioned, the criteria for selecting projects for FAO assistance have been developed the basis of Government and Donors policy statements (Chapter III) and the preferred approach, FAO comparative advantage and the technical fields of FAO specific competence (Sections 1 and 2 above). In broad terms, the selection criteria take into consideration:

- the present socioeconomic situation in the rural areas and the need to ensure a smooth transition from emergency rehabilitation to sustainable development;
- the implementation capacity of Government institutions both at national and local level;
- the need to build up the technical, institutional, financial and economic rationale and justification for larger Government and Donors' investments that will take place once the security situation and the macro-economic framework are re-established and therefore the need to go beyond rehabilitation of infrastructure and services and implement pilots or first phase projects of large enough a scale to justify future investment programmes at national level;
- FAO's general requirements for strengthening the quality of FAO's field programme, ensuring that projects contribute towards the achievement of the World Food Summit objectives and the Millennium Development Goals; and
- the need to remain broad and flexible enough to adapt to a rapidly changing environment and to a medium term perspective which could eventually require a change in emphasis and refocusing of some main activities. This would include the appropriate response to emergencies like floods, droughts, avian flu etc.

#### 43. Based on these premises; - in order to qualify for FAO assistance – projects would have to satisfy several of the following criteria:

- **have general objectives of food security, employment creation, poverty reduction and improved rural livelihoods;**
- **focus on transfer of technology for increasing productivity and production of crops, livestock, fisheries and improved natural resources management;**
- **cover technical fields where FAO has a comparative advantage and where it has developed knowledge and experiences that can be easily transferred to field projects;**
- **include a substantive component of capacity building** at national and local level for training of technical staff and farmers and for promoting the formation of social capital at territorial level;
- **be consistent with the ongoing activities under the FAO emergency programme** so that the important work carried out so far is consolidated at field level, expanded as needed in demonstration areas and appropriated by government in its programme of work and budget;
- **cover areas which qualify for priority pilot or first phase projects** on the basis of: i) potential for agricultural development, ii) farmers' interest for new initiatives and their

commitment to participate in farm investments, iii) the possibility of developing value chains, iii) the possibility to introduce improved technologies at a sufficiently large a scale to provide substantive justification for future replication or expansion, iv) economic and financial feasibility and environmental soundness of the proposed activities/components;

- **indicate a contribution to the development of policy initiatives at the forefront of Government and donors' programmes** ensuring that FAO supported field projects contribute effectively with field evidence, to the formulation of appropriate policies for the rural sector<sup>1</sup>. **Be aligned with UN interagency cooperation modalities** that support ICI policy formulation. Enforce partnerships and alliances to avoid duplication of activities and to share responsibilities in activities/projects with common goals and target groups;
- **include policy initiatives such as preparing Iraqi teams for WTO negotiations**, where FAO has developed specific guidelines and training packages;
- **demonstrate built in sustainability through the use of participatory processes** in the design and implementation of development projects and a positive sustainable impact on environmental conservation, land management and sustainable rural development;
- **promote gender equality and equity** through the systematic compliance with FAO's stated policy on mainstreaming a gender perspective into its normative work and field activities.
- **include participation of national institutions and farmers' beneficiaries in the financing and execution of the projects** so as to ensure ownership, commitment and follow up after the termination of the project;
- **be of direct interest to Government and donors for follow up large scale investments** in agricultural and rural development, that improve the livelihoods of the rural people and result in a multiplier effect on resources mobilization; and
- **in addition, for a selected project to be implemented funds would need to be made available** either through the IRFFI/UNDG mechanism or through government and/or other donors.

#### **4. A simple illustrative matrix**

44. The areas proposed for priority FAO support to the agricultural development of Iraq and the suggested approach are well in line with government policies and the detailed programmes as spelled out in the ICI, the NDS and the sector papers that have been outlined in Chapter III. The Matrix below summarizes the main strategic features of the FAO assistance strategy highlighting their coherence with the guiding policy principles.

---

<sup>1</sup> Such as trade issues, agricultural marketing, creation of community assets, small farmers credit.

## POLICY, PROGRAMMES AND FAO RESPONSE

THE "PILLARS"	DETAILED PROGRAMMES	FAO RESPONSE
<b>AGRICULTURE SECTOR POLICY</b>  For increasing agricultural production, improving food security, increasing rural incomes, poverty alleviation and for creating an enabling environment for a market oriented, private sector driven, competitive and profitable agricultural sector.	Poverty alleviation and increasing rural incomes. Progressive privatization of Ag. Services. Participatory development approaches. Progressive review of food policy and input subsidies. Reforms in land and water management. Reforms in agricultural marketing and trade sector. Review of rural finance policies. Decentralization, strengthening local governments, creation of a proper incentive framework.	Focus on agricultural development in areas with development potential. Introduction of innovative methodologies for the work of extension services. Projects to increase agricultural production through empowerment of producers groups using participatory approaches. Agricultural sector studies to assess food and input subsidies policies. Feedback from field projects on priority marketing and trade reforms. Assistance in Food Safety and Quality controls and WTO negotiations. Support to the definition of agricultural credit policy through feedback from field projects. Empowerment of local groups, creation of social capital, identification of comparative advantages, territorial strategies.
<b>CAPACITY BUILDING</b>	Agricultural planning, project preparation, producers groups, research and extension, agricultural services. Modern information technology tools and FFSs methods. Construction of social capital and territorial strategies. Private sector, marketing, agro industries. Value chains.	Assistance in agricultural planning and project preparation, monitoring of food security issues, new methods for extension services, training, seminars, courses abroad, exposure to successful field experiences abroad. Methodologies for territorial strategies and building up social capital. Development of value chains and identification of needed incentives for the private sector to participate. Exposure to successful experiences in value chains abroad.
<b>INVESTMENT PROGRAMMES</b>	Irrigation and Drainage. Seed research, production, multiplication, distribution. Animal production facilities, A.I. centers, fish hatcheries. Fertilizers, agrochemicals and livestock infrastructure.	Pilot irrigation projects with introduction of new technologies and WUAs to improve efficiency of water use. Improved water management and irrigation efficiency. Organization of seed multiplication and distribution in pilots with farmers' groups. Pilots for small dairy and beef producers, small ruminants, together with investments in related structures



	<p>Producer's organizations, value chains.</p> <p>Input supply and marketing infrastructure.</p> <p>Agricultural credit systems for on farm investments.</p>	<p>including food safety and quality control. Fisheries projects.</p> <p>Pilots in agricultural credit, value chains input supply and marketing improvements.</p>
--	--	---

## V. THE MEDIUM TERM PROGRAMME – DESIGN AND OPERATIONAL PROPOSALS

45. Taking into account the approach, FAO's comparative advantage, the criteria for selecting projects (Chapter IV), the ongoing projects under execution with FAO assistance, and the likelihood that future developments might rapidly change the economic and social perspectives and the rural and agricultural priorities set by the government and donors, it has been agreed with Government to:

1. Plan FAO assistance to the Government of Iraq for the medium term (2009-2014) on a "rolling" basis, considering that a fairly well identified programme of work has already been set up for the first two years of the cycle (2009/2010) and that projects for implementation in the subsequent years would be identified and prepared by the GoI and FAO during the first two years of programme implementation (2009-2010); and
2. In view of the inadequate skills and experience available, consider the urgent need for building up a project preparation capacity within government concerned bodies (MoA and MoWR principally). A preliminary proposal for setting up an Agricultural Sector Project Preparation Unit (ASPPU)<sup>1</sup> has been put forward and discussed but it needs further assessment of institutional implications and organizational responsibilities. This project will be of paramount importance for government (and donors). Besides being a key instrument for the implementation of the FAO strategy, it will enable agricultural sector institutions to cope with the substantive effort that will soon be required to identify, prepare and implement large scale rural and agricultural investment programmes.

### Projects for 2009-2010 implementation

46. The projects that have been discussed and agreed with Government (see below) would be included in the programme of work - with FAO assistance - for 2009-2010.

47. If considered appropriate by government (and donors) and agreed by FAO, other projects could come in during the first two years always within the objective of maintaining as much flexibility as possible in the work programme. The early establishment of the "ASPPU" would substantially contribute to the identification and preparation of new projects for implementation in 2009-2010 and beyond.

- Applied research and technology transfer, which are at the core of government priorities, would be a major component of projects dealing with improving the

---

<sup>1</sup> Name is provisional. Institutional arrangements to be defined.

productivity of crops and livestock and introducing innovations in traditional farming systems.

- IPM methods of pest control would be designed for application in all projects where conditions permit. This solution is considered more adapted to the reality of the prevailing field conditions than an IPM project developed and implemented at national scale.

48. On this basis, for the selection of projects to be included in year 1 and 2 of the programme it has been agreed with Government that priorities would include both continuation and expansion of ongoing projects and additional projects agreed upon as per the MoU, and considered to be in line with the selection criteria. The projects briefly described in the following paragraphs, include:

- ASPPU - Agricultural Sector Project Preparation Unit,
- Agricultural statistical survey,
- Irrigation schemes (irrigation and drainage, including new pumping stations, equipment, etc.),
- Plant protection / Centre for protection and diagnosis for plant diseases,
- On-farm irrigation,
- Citrus and fruit crops development,
- Modernization and development of the dairy cattle sector,
- Organization of the small ruminant sector and development of breeding strategies,
- Infrastructure and normative improvements for food safety,
- Saltwater fisheries,
- Strengthening seed production services, including vegetables and potatoes,
- Date palm production and marketing,
- Cottage industries.

49. Other projects would concern (see Annex I): strengthening of GIS capacities, fodder production, capacity building for the forestry and horticulture sectors, composting for production of organic fertilizers, agro-meteorology, technology transfer for the poultry sector, slaughterhouses.

50. For the rehabilitation of water supply systems and pumping stations, MoWR priorities



are for projects involving pumping equipment of various sizes, soil surveys, water quality monitoring, irrigation works, and dredgers. These will be reviewed with priority being assigned - for the medium term - to those schemes where infrastructural works would be accompanied by and integrated with, improved farm irrigation efficiency, farm development, strengthening of farmers' groups and progressive introduction of Water Users' Associations. A special mention should be made of MoWR requests for a GIS Centre and the building up of a GIS capacity in key sectors of the Government. This deserves attention in view of its importance for natural resources management planning and monitoring purposes.

### Project Profiles - Summaries

#### Agricultural Sector Planning and Project Preparation

51. The proposed project would aim at setting up an Agricultural Sector Project Preparation Unit (ASPPU) to assist the MoA and the MoWR (and eventually other Government Agencies), in the implementation of the Government policy for the agricultural sector and in the preparation of projects for Government and/or Donors' financing. FAO would assist in the setting up of the ASPPU providing technical assistance for capacity building and training of project staff and all the methodological tools for sector work and project preparation that have been developed by the FAO Investment Center and the FAO Technical Divisions. The ASPPU will be set up for a period of two years to be extended for successive periods as it will be decided in due course, following an evaluation of its performance which will be carried out jointly at mid term, by GoI, FAO and the Donor(s) who will finance the project. If the Government so wishes a request for assistance for this particular project could be made to the Technical Cooperation Programme (TCP) of FAO.

#### Agricultural Statistical Survey

52. One of the goals of the Iraqi National Development Strategy is to reform the agriculture sector through reducing state subsidies and fostering market-led growth. This process requires analyses of the effect of the proposed reforms and careful planning. Currently, the information necessary for such analyses is incomplete and whatever information exists is unreliable. The proposed project aims at building the capacity of the MoA and of the Ministry of Planning (MoP)-COSIT in the field of agricultural data collection and in utilizing information for planning purposes. It would provide the technology necessary to modernize the current data collection processes and the coordination between the central statistics office and the governorate level offices utilizing modern technological tools and all necessary equipment and facilities.

#### Irrigation schemes (irrigation and drainage infrastructure, including new pumping stations, equipment...)

53. The present irrigation rehabilitation programme is based on the restoration of the major pump stations with very limited emphasis on improving irrigation efficiency, the introduction of financially and economically sustainable cropping systems and capacity building and training of farmers, government staff



and technicians and other private sector stakeholders. The proposed project would focus at the beginning, on the development of areas where major infrastructure has already been rehabilitated and it would aim at completing the restoration of irrigation works (distribution and drainage systems), capacity building and training on up to date irrigation techniques and technical assistance on issues related to the efficient use of water. One of the most important components of the project would be the progressive introduction of the concept of WUAs (Water Users Associations) that should progressively take over the operation and maintenance of the irrigation systems.

#### Plant protection / Centre for protection and diagnosis for plant diseases

54. The Project would aim at providing the necessary support for the introduction of integrated pest control agents into Iraqi agro-eco systems through IPM - Integrated Pest Management programs. It would include infrastructure facilities, capacity building, production of biopesticides for controlling plant diseases, development of resistant crop varieties, and field trials. IPM methods would be introduced progressively and priority areas would be selected giving preference to those locations where other development initiatives would be ongoing.

#### On-farm irrigation

55. The project would aim at improving irrigated farming systems in selected areas where irrigation infrastructure rehabilitation is carried out. Pilot areas representative of the most common farming systems would be selected to serve for demonstration, capacity building and training. MoA technicians would be trained in new methods of extension and transfer of technology and in each location demonstration of improved farming and water management



practices would proceed in parallel with the restoration of facilities for applied research and technology transfer and specifically designed participatory training programmes based on Farmers' Field Schools (FFSs) methods. At the same sites where applicable, IPM methods would also be introduced so as to make the demonstration areas the test and justification for larger and much expanded programs at national scale.

#### Citrus and fruit crops development

56. Research and demonstration pilot projects would be carried out in selected locations identified on the basis of their potential and of farmers' interest to participate. It is envisaged that the project would contribute with the importation, selection and propagation of improved citrus and fruit varieties, resistant to major diseases and to soil salinity. The project would import root stocks, produce seedlings for distribution to farmers and would include capacity building, technology transfer and specifically designed training programmes.



### Modernization and development of the dairy cattle sector

57. This integrated project would address the urgent needs for building new foundations for a modern, dynamic and sustainable cattle production system in Iraq. While the primary focus and direct interventions will be on milk production and marketing, development activities will have an impact on both milk and meat production, in addition to the provision of hides, skins and other auxiliary products. The project would build upon the achievements of the on going programme for the rehabilitation of the artificial insemination centre in Baghdad and resumption of quality semen production and distribution to farmers for cattle breeding. The project will comprise a series of activities to be implemented in large pilot areas to be identified. These will include: embryo transfer technologies and semen distribution systems and related facilities to accelerate breeding programs and genetic improvement, new or rehabilitation of existing milk collection centres, the formation of producer groups/associations linked to a milk processing plant (the longer term goal will be for such groups to ultimately evolve into a National Association), capacity building and training of all concerned stakeholders.



### Organization of the small ruminant sector and development of breeding strategies





### Infrastructure and normative improvements for food safety

59. In cooperation with UNIDO and WHO, FAO has assisted in the implementation of a first phase project to improve food safety and increase the potential of the food trade sector in Iraq. The project is practically completed and only the construction of three border check-points (out of a total of the nine necessary), has been delayed because of some security difficulties occurring along the border where the construction works were planned to be carried out. The proposed project's main purposes would be to: i) complete the rehabilitation of the border checkpoints and modernize the border inspection and control infrastructure; ii) review the existing food legislation with the objective of providing the GoI with a draft food law to be subsequently approved and promulgated; iii) revise food standards and harmonize them with the internationally accepted CODEX standards; iv) strengthen the surveillance and control system of food born diseases; v) modernize the central and regional food control laboratories; and vi) improve and modernize the food processing systems.

### Saltwater Fisheries, Research and Demonstration

60. The fisheries projects carried out until now are all directed at improving fisheries in freshwaters. No support has been envisaged to those resources, lakes and marshes, formed by brackish/saline water where there are already traditional fishery activities. A first phase pilot



project, specifically oriented for brackish/saline water resources, would complete the available experiences and could provide answers to those problems that have limited the growth of fish production in these areas. The project will follow a participatory approach and it will: conduct adaptive research for production of genetically improved fingerlings including training and capacity building, strengthen active integration and participation of the stakeholders in project planning and

implementation, promote adoption of modern fish farming techniques, assist fish farmers to integrate fish culture practices with poultry, duck and livestock whenever it is applicable, emphasize an integrated, community approach for lake/marshes fishery and promotion of participation of local authorities in the implementation of project activities and in the enforcement of the fish protection act.

### Strengthening Seed Production Services including vegetables and potatoes

61. One of the first priorities of Iraq is to have in place, as soon as possible, a long term programme for producing and marketing quality seed. The strategy implemented under project OSRO/IRQ/502/UDG "Rehabilitation and Development of the National Seed Industry in Iraq" and proposed under the already



submitted project for “Rehabilitation of the vegetable seed sector” is in line with these objectives and it needs to be consolidated and expanded at national level. The main aim of the second phase project (in addition to infrastructure rehabilitation and equipment) would be to introduce: i) contract growers groups trained and capable to multiply registered and certified seeds; ii) demonstration of best farming practices and recommended inputs packages (seeds, fertilizer and pest management based on IPM methods); and iii) on farm and village seed storage facilities. Farmers once trained, would eventually become farmers’ leaders and participate in project planning and implementation.

#### Date Palms Production Development, Marketing

62. The existing date palm species of Iraq are the traditional ones and their date products are commonly classified in the international markets as “common dates”. Because of this, they only fetch very modest prices which do not guarantee a satisfactory economic profitability. Since April 2007, FAO as leading agency with UNIDO, has been assisting GoI in the implementation of the project “Rehabilitation of the Date Palm Sector in Iraq”. This project including surveys, tissue culture laboratory, an IPM programme, capacity building and training will be enhanced and expanded with a new phase which would focus on the identification, locally or abroad, of new high value varieties resistant to saline waters, the



preparation of a good marketing strategy and a comprehensive work plan for research and extension services. The goal would be to support the rehabilitation of the date sub-sector improving its ability to compete on the external markets and providing a safe food for the local population by: building up on the achievements of the current project, introducing and strengthening applied research on better varieties with good market prospects, multiplying and distributing these varieties to demonstration farms, assisting farmers in improving their cultivation techniques and introducing value adding activities in processing and marketing of dates through farmers’ groups/agribusiness value chains.

#### Cottage Industries

63. FAO is supporting interventions in food security and poverty reduction in five Governorates all over Iraq. To that effect, four separate projects are undertaken in collaboration with UNIDO to support household incomes of vulnerable groups through the introduction of small scale income generating cottage activities. Following the recommendations of the Cottage I evaluation mission, a National Programme for Cottage

Industries would be prepared to provide the programmatic framework for next phase projects. Pending the completion of the above plan, consideration could be given to diversifying the current approach by including - in a future programme - a specific component focusing on cooperative associations or farmers' groups. These groups would be trained in technical works directly related to the needs of a growing agricultural sector and would be given the possibility of establishing small businesses such as mechanized services (tractors, small processing equipment etc), cleaning of irrigation/drainage ditches and canals with appropriate machinery and tools, repair workshops for agricultural equipment, village storage facilities and other post harvest equipment (such as cleaners, dryers etc.), small processing equipment and facilities.



## VI. CONCLUSIONS AND FOLLOW UP

64. The strategy for FAO assistance to the agricultural sector of Iraq is justified by the need to focus on capacity building and transfer of technology, which are the major bottlenecks to sustainable agricultural sector growth, as well as by FAO's comparative advantage demonstrated during the long association of the Organization with Iraq. The projects proposed for implementation in 2009 and 2010 are in line with the strategic guidelines and their priority is supported by the need to consolidate the important work carried out so far and at the same time initiate innovative field programmes. The aim would be to demonstrate the feasibility of the proposed approaches and pave the way to future developments of much broader scope for government and donors' financing.

65. Besides the overarching issue of security - minimum security conditions will be essential for the realization of the proposed strategy - much of the success of the suggested approach will rely on government's capacity to initiate a substantive work programme with farmers and other stakeholders at field level on the basis of projects discussed and prepared with the full participation of all stakeholders including mainly farmers, the private sector business and local authorities. Attention is called to:

1. the proposed capacity building of MoA and MoWR and of other agricultural sector institutions through the establishment of a project preparation group (the "ASPPU")



The location of the Group, its structure and organizational responsibilities are of paramount importance for it to be an effective, permanent instrument for agricultural sector development and coordinated inter institutional work; and

2. the limited updated information available on the agricultural sector and therefore the need for the MoA, the MoWR and other agricultural sector institutions to carry out a study of the sector - an Agricultural Sector Review. Such a Review would be of paramount importance for the government to achieve a consensus on common priorities with concerned stakeholders including public institutions and the private sector. The “Review” would also be instrumental for identifying technical, economic and infrastructural priorities, comparative advantages and the most immediate opportunities for the identification, preparation and implementation of development projects.
66. Most of the projects presented in Chapter V in the form of profiles, require substantive preparation work before they are ready for implementation. In general terms additional preparation work should consist of the following:
- identification of specific locations/project areas, beneficiaries, priorities;
  - a rapid rural appraisal to assess interest and capacity of farmers and other stakeholders including Local Authorities, to participate in project investments, their willingness to join forces and work in groups or in more formal associations;
  - preparation of project components and cost, economic and financial justification; and
  - clarification of organization and management arrangements and of financing modalities including definition of the respective roles of national and local institutions and stakeholders’ participation.
67. Appropriate monitoring tools would be included in the projects. Taking into account the pilot nature of most of them it would be important to leave as much flexibility as possible in project design so as to be able to introduce modifications during implementation and following government and donors’ priorities for further developments.



Signing the Memorandum of Understanding

## ANNEX I



### FROM EMERGENCY TO DEVELOPMENT STRATEGY FOR FAO ASSISTANCE

AMMAN - VALIDATION WORKSHOP  
8 APRIL 2008

#### PRELIMINARY MEMORANDUM OF UNDERSTANDING

The proposed medium term strategy for FAO assistance to Iraq for the development of the agricultural sector has been discussed at the Validation Workshop held in Amman on 8 April 2008. The list of participants is attached.

The Line Ministries representatives attending the meeting have reviewed the draft Strategy for FAO Assistance presented by FAO and have taken note of the main topics, priorities and conclusions that have been brought up during the presentation and the ensuing discussions.

It is noted that the Strategy for FAO Assistance is fully consistent with the Agriculture and Food Security Sector Outcome Team Strategy and serves to underline FAO's contribution to the achievement of the identified sector outcomes, namely: i) enhanced production and productivity in the agricultural sector; ii) poverty reduction and creation of sustainable employment for vulnerable groups; and iii) improved agricultural policy and natural resource management.

The following agreements have been reached:

- On the general thrust of the strategy and its coherence with Line Ministries priorities. The Line Ministries endorses the FAO approach and the guidelines used in the preparation of the strategy.
- On the main focus of FAO assistance i.e.
  - integrated projects based on participation and work with groups;
  - technology development and transfer using pilot/demonstration projects;
  - capacity building; and
  - agricultural investment and sector work.

The Line Ministries recognizes the value of the proposed assistance as a catalyst to longer term development of the sector and agrees with the focus based on FAO's comparative advantage and long association with reconstruction and development work in the agricultural sector in Iraq.



- On the criteria for selecting areas/projects for FAO assistance.  
The Line Ministries endorses the proposed criteria and agrees to support prioritization of projects presented for FAO assistance in accordance with their consistency with the criteria. Emphasis was placed on the scope for joint programming with other associated UN agencies.
- On the characteristics of the Medium-Term Programme (2009-2014). The Line Ministries agrees that the Programme should be built on a "rolling basis" with priority being given to the already identified projects (to be discussed in detail subsequently) and that subsequent projects meeting the agreed criteria would be subject to detailed preparation.
- On the need to strengthen Line Ministries capacity for project preparation and sector work. The Line Ministries recognizes the importance of building up its capacities in this field to ensure effective project implementation and development impact and acknowledges that FAO could provide valuable support to the establishment of a strong nucleus of skilled professionals in agricultural project identification and preparation work.

Signed in Amman, 8 April 2008




HE Dr Ali Hussein Al-Bahadli  
Minister of Agriculture  
Baghdad, Iraq



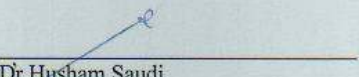
Mr. Ali Habeeb Taher  
Deputy Director General  
Ministry of Water Resources  
Baghdad, Iraq



Dr Fadel El-Zubi  
Officer-in-Charge, FAO Iraq  
Relocated to Amman



Ms Suzanne Raswant  
Senior Planning Officer,  
FAO (TCES), Rome, Italy



Dr Husham Saudi  
Director, Ministry of Planning and Development  
Baghdad, Iraq



Mr Abduljabbar Sulaiman  
DG Planning, Ministry of Water Resources  
Kurdistan Regional Line Ministries  
Erbil, Iraq



Mr Ghazi Faiq Haji Khalifa  
Planning, Ministry of Agriculture  
Kurdistan Regional Line Ministries  
Erbil, Iraq

### List of projects in the priority programme

Projects presented as Annexes to the Strategy:

- ASPPPU - Agricultural Sector Planning and Project Preparation Unit
- Agricultural statistical survey
- Irrigation schemes (irrigation and drainage, including new pumping stations, equipment, etc.)
- Plant protection / Centre for protection and diagnosis for plant diseases
- On-farm irrigation
- Citrus and fruits
- Dairy cattle
- Organization of the small ruminant sector and development of breeding strategies
- Infrastructure and normative improvements for food safety
- Saltwater fisheries
- Strengthening seed production services, including vegetable and potato
- Date palm production and marketing
- Cottage industries

Additional projects agreed upon as per the MOU to be considered in line with selection criteria:

- GIS
- Fodder production
- Capacity building for forestry and horticulture sector
- Composting for production of organic fertilizer
- Agro-meteorology
- Technology transfer for poultry sector
- Slaughterhouses

*Dr. Subhi M. al-Jumaily*  
9/4/2008

*Fadd Elrab*



## ANNEX II

### AGRICULTURE AND FOOD SECURITY: SECTOR BACKGROUND

#### Agriculture and Food Security

1. Of the total area of Iraq (43.7 million ha) 22 percent, i.e. 9.5 million ha. is cultivable land, utilized for agriculture. Agriculture provides about 8 percent of Iraq's GDP and 20 percent of employment. Population is about 26 million of which 7 million is rural.
2. The country has limited natural resources particularly arable land and water: because of soil salinity problems and traditional agricultural practices only three to five million ha are actually cultivated annually. Iraq's agricultural sector represents a small, but vital component of Iraq's economy. However, population growth combined with the need to produce more food from a limited and shrinking resource base of land and water have resulted in farming systems that tend to maximize short-term returns at the expense of long-term sustainability.
3. Crop production is the major source of income for the majority (75 percent) of farmers in Iraq, while the rest depend on livestock or mixed crop and livestock enterprises. The general stagnation in agricultural productivity which has been a characteristic of Iraq's agriculture over the last years (agricultural productivity has declined by one percent per year from 1980), has steadily increased dependence on imports to meet domestic food needs and made Iraq a major importer of agricultural products.
4. In terms of area cultivated, wheat is the main crop, followed by maize, dates, rice, tomatoes, and potatoes. Livestock raising (sheep and goats, cattle, camels, buffaloes) is extensively practiced and inland fisheries and backyard poultry raising are important as a source of protein and income for the rural population. Before the war, large industrial installations existed for intensive milk production and integrated poultry farms around the cities. Rainfed farming is concentrated mainly in northern Iraq where cereals are the major crops in mixed wheat-barley-forage legumes cropping systems. In central and southern Iraq, where agriculture depends mainly on irrigation from the Tigris and Euphrates rivers and their tributaries, mixed farming systems are predominant: date palms, which had made Iraq one of the world's leading date producers is cultivated on approximately 150 000 hectares. In the central provinces, fruit trees, mainly citrus, are interplanted in date palm orchards, and vegetables, mainly tomatoes and potatoes, are important irrigated crops.



5. Irrigation potential was estimated in 1990 at over 5.5 million ha, of which 63 percent in the Tigris basin, 35 percent in the Euphrates basin, and two percent in the Shatt Al-Arab basin. Considering the soil resources, it is estimated that about six million hectares are classified as excellent, good or moderately suitable for flood irrigation. The areas that have infrastructure for surface irrigation are estimated at three million ha, of which 2.2 million ha (67 percent) in the Tigris river basin, one million ha (30 percent) in the Euphrates river basin and the remaining 3 percent in the Shatt Al-Arab river basin. However, it should be noted that all these areas are not actually irrigated, since a large part has been abandoned due to water logging and salinity. Only 1.94 million ha were estimated to be actually irrigated in 1993.

6. Agriculture plays an essential role in Iraq's food security. The country was once almost self-sufficient in many agricultural commodities, but years of war and sanctions, followed by the current political situation, have led to the serious deterioration of all sectors of the Iraqi economy, especially agriculture – with drastic negative effects on agriculture productivity, food security and the livelihood of the rural population.



### Issues

7. Iraq faces a number of challenges which have a direct impact on all the economic sectors of the country and are related to the security situation, the weak institutional capacities, the deterioration of basic services and of social indicators in areas such as health and education, widespread unemployment - about 50 percent of the work force according to some estimates -, and absolute poverty where more than 60 percent of the population depends on the government's rationed food basket. Social inequities, the dilapidated state of most infrastructures, the weakness of the private sector and the distorted pricing structure and incentives framework complicate even further the social and economic development scene. The issues facing the agricultural sector are part and parcel of the above picture and are structurally dependent on the prospects for economic growth, for a free market economy and the modernization of the state.

8. Economic distortions and the past policy regime have affected markets for inputs, outputs, and the overall investment climate including financial and other support services. Policies on agricultural pricing and government regulation of the market have reduced the return on investment for major crops like wheat, rice and barley. The food policy premised on subsidized food rationing on a national scale with imported food has had a negative impact on the local grain market with consequent effect on producer prices. Heavily subsidized inputs given out directly by the government have not been conducive to private sector involvement in the marketing of inputs and encouraged both misuse by the farmers and smuggling to neighboring countries. The near absence of institutional credit has made the cost of capital prohibitive for agricultural producers and discouraged private investment.

9. Besides the overarching problem of security, the major issues with Iraq's agriculture today - low productivity and low growth rate and its inability to provide a dependable means of food supply and income for its population - are both attributable to the disruptions caused by the successive wars and to the above policy regime which did not provide any incentives to increase agricultural production and productivity in the interest of maintaining low food consumer prices. In the face of wars and drought, Iraq agriculture is under increasing pressure to feed its population growing at an annual rate of more than 2.8 percent. It is estimated that Iraq will need US\$3.5 billion to import basic food to meet the annual shortages for as long as required by domestic production to achieve sustained growth.

10. The capacity of the MoA – like the MoWR and other Government institutions - to provide services to the sector has remarkably deteriorated over the past two decades. The weak institutional support has translated into a drastic reduction of the performance and coverage of the research and extension services mainly due to lack of staff incentives and physical infrastructure. There is lack of an effective extension and training strategy, involving decentralization, pluralism, privatization, gender-sensitivity, client participation, and application of modern information technology tools; poor linkages with research and other institutions such as universities, NGOs, private sector; almost complete lack of support to women farmers and rural youth and shortage of qualified manpower; and low operating budgets. Linkage and coordination are also weak between the central extension organization and extension bodies in the governorates. Simultaneously, the non involvement of the beneficiaries in the setting of both the research and extension agenda is highly counterproductive for both. Many problems exist in the areas of plant protection, plant quarantine and animal health and diagnostic services.

11. On the same theme, extensive damage has been suffered by public and private production and service facilities in central and southern Iraq. Although there has been no systematic assessment of these damages yet it is clear that most of the government animal health and artificial insemination centers were looted and burnt and that many of the poultry production facilities and fish hatcheries have encountered a similar sort. Most of the seed production facilities were damaged and even the plant quarantine units at the borders were looted.

12. Widespread discontinuing of the maintenance of public owned assets following the 1990 sanctions has affected all of the government run agricultural facilities and particularly the extensive network of irrigation infrastructure. Present estimates indicate that over 500 irrigation and drainage pumps are in critically bad conditions and that substantial damage has occurred to the canal network due to lack of repair and maintenance.

13. Besides the physical damage to the service infrastructure and mainly because of the security situation, there has been a serious loss of human resources in agricultural services institutions such as agriculture research, extension, animal health and production support, plant quarantine and disease control, and input and output quality control. Massive budget cuts have reduced the level of services and prompted the departure of skilled personnel. The effect of all this is quite evident in such areas as plant protection where in spite of heavy usage of pesticides, diseases have been on the rise. The plant quarantine stations at the border



have also not been able to check the influx of plant disease for lack of funding. Weak abattoir services are also posing extreme health hazards for the population.

14. Shortages of inputs, weak extension and research services, unsustainable farming systems and crop rotations have led to substantial decrease in crop productivity, degradation of the natural resource base and increased disease and pest infestations. Main inputs that are especially in short supply include seeds, fertilizers, machinery and spare parts, pesticides and sprayers, vehicles and transportation facilities.

15. Shortage of fertilizer supply is forcing farmers to reduce application rates which greatly reduced overall fertility levels of soil. Monoculture farming has led to increased weeds, pests and disease population in the crop fields. Most of the fruits and vegetables delivered to the wholesale markets have been damaged by inappropriate handling, packaging and transport. The quality of grains is poor mainly due to admixture of inert matter and weed seeds.

16. Increased pest and disease infestation has been recognized as one of the most challenging constraints facing Iraqi agriculture and affecting food security. In northern Iraq, transboundary diseases and insect pests have been a major factor in limiting wheat production. Previously, the Government relied on aerial spraying of pesticides – a practice potentially detrimental to the environment. However even this practice has been discontinued because of the limited supply and high price of pesticides.

17. Nearly 70 percent of the cultivable land is estimated to suffer from salinity threat. Salinity has always been a major issue: it is estimated that in 1970 half the irrigated areas in central and southern Iraq were degraded due to water logging and salinity. The absence of drainage facilities and, to a lesser extent, the irrigation practices used (flooding) were the major causes of these problems. Later a land rehabilitation programme was undertaken, comprising concrete lining for irrigation canals, installation of field drains and collector drains reclaiming by 1989, a total of 700 000 ha. Recent estimations have nevertheless shown that a total of more than 70 percent of the irrigated areas suffered from some degree of salinity.



18. Agriculture uses 95 percent of all available water resources and produces 30 percent of the country's food requirements. Iraq will face water shortages in the coming decades and may have to adjust its agricultural production system accordingly. There is an increasing demand for water resources due to population growth and economic development on one hand, and reduction in the amount of

water available and a deterioration in quality as a result of intensive use of water resources in the neighboring countries on the other.

19. On the social side and of particular relevance in the rural areas is the erosion of the social fabric of communities and families which has resulted in a depletion of social capital, loss of cultural identity and the need for a vigorous effort to build up social cohesion and of the value of traditional customs and comparative advantages.

### Prospects

20. The agricultural sector of Iraq has technically, the potential for a sustained growth that can contribute to substantially increase the volume of agricultural products for domestic consumption and for exports. Iraq is strategically located amongst a number of countries that offer promising market opportunities for any kind of agricultural commodities it can produce with particular regard to those high value traditional products for which Iraq has enjoyed in the past, a particular comparative advantage.

21. It is possible to foresee that achievement of political stability, improved internal security and the establishment of a sound macroeconomic framework together with market mechanisms to reflect real opportunity costs and prices will facilitate significant private investments in the sector and will result in the sustainable growth of agriculture.

22. Existing agriculture is a low input - low output system. Crop yields are low by any comparative standards, which combined with low product prices result in small profit margins, if any and marginal incomes for farmers. Farmers use minimum inputs (fertilizers, pesticides, etc.) and tend to minimize operation costs concerned with land preparation, planting, weeding and harvesting. Under dry land production conditions and prevailing market and prices, only interventions that increase production without significantly increasing costs will be attractive to farmers. This will be also applicable to irrigated areas where a minimum package of inputs and cultivation costs are nevertheless necessary to maintain a reasonable income over production costs.

23. There are a number of opportunities for increasing production and incomes - assuming that the economic scenario would improve and that a market economy would progressively be introduced. Emphasis needs to be placed on promoting the use of better adapted varieties with higher yields and introduction of cultural practices (time and methods of planting, improved soil and water conservation techniques, irrigation practices and better water application methods to improve irrigation efficiencies) that can maximize net returns, of changes in the mix of crops (crop rotations and crop varieties) and of development of mixed farming systems.

24. Many technologies and management practices exist in other parts of the world which could be adapted to specific local conditions to fit special needs and circumstances.

25. The approach needs to be a two-track one on the one side improving farming practices and use of inputs and equipment and on the other ensuring the policy incentive framework for farming to become a profitable business.

26. Priority large scale investments would be needed in the rehabilitation of the irrigation infrastructure (including a long-term desalinization programme) and in the marketing and agricultural services networks for handling, storing, and distributing agricultural inputs and outputs. In addition, the restoration of a viable agricultural research and extension service to develop and disseminate improved varieties and sustainable and innovative production practices are needed to provide the foundations to private sector investments in agricultural development.

27. Presently, the government has taken the first steps towards freeing the prices of fertilizers, insecticides, wheat, barley, and rice. It has also directed the Ministry of Trade to purchase food basket inputs, especially wheat and rice from local farmers at international prices. This is expected to provide a first set of incentives to increase agricultural production. The government has also begun to develop agricultural policies and introduce institutional reforms including capacity building of the private sector, phasing out subsidies, reshaping water resource management, introducing microcredit schemes in pilot areas and rehabilitation of agro- industry.

28. Iraq will be dependent on imports for meeting domestic food demand for a few years to come. In the long term, market forces and international competition will be the driving factors behind Iraq's agricultural sector growth and it is not possible at present to predict to any certainty which subsectors of the Iraqi agricultural economy will develop such characteristics as to enjoy a comparative advantages on the international markets: however based on historical trends it may be possible to infer that some food grains and feedstuffs, fruits, meat, and dairy products could become competitive in terms of import parity prices (as imports substitution), or eventually as in the case of meat and meat products or dates and other fruits find a ready market in the neighboring countries.



29. To deal with the multiple challenges imposed upon it by internal and external factors, the agricultural sector has to structurally adjust itself to resolve socio-economic issues, land-use, and livestock production and feed resources, water resources, agro-ecology, environmental protection and research and extension themes with a holistic, multidisciplinary and long-term approach. The way ahead including the definition of the proper role of the public and the private sectors has already been clearly set by Government in a number of policy statements.

## ANNEX III

### THE POLICY FRAMEWORK

1. Iraq in partnership with the international community has recognized the importance of agriculture for the substantive role it plays in the overall economic and social development of the country. The policy framework guiding the formulation of strategic priorities for a smooth transition from emergency to economic recovery and development is spelled out in a series of initiatives which coordinate the concerted efforts of the international community and the Government of Iraq. These include: the National Development Strategy (NDS) of 2004, the International Compact with Iraq (ICI) launched in early 2007, the Ministry of Agriculture (MoA) Agricultural Development Plan of mid 2007 and the Ministry of Water Resources (MoWR) priorities, the Plans of the Ministry of Agriculture (MoA-KRG) and Ministry of Water Resources (MoWR-KRG) of Kurdistan, and finally a policy statement by the Prime Minister (mid 2007), that sets priorities for a ten year implementation plan.

#### The International Compact with Iraq (ICI)

2. The ICI is an initiative of the Government of Iraq based on a partnership with the international community for a five-year national plan that includes commitments from both Iraq and the international community for achieving peace, sound governance and economic reconstruction.

3. The Compact affirms the Government's vision for (*inter alia*) sustainable economic self-sufficiency, meeting basic needs, and ensuring the optimal use of the country's resources.

4. The International Compact builds up on a common goal between peace building and economic prosperity. National reconciliation, improved security, better governance and continued economic and social reforms will help to support Iraq's own development potential with Iraq's international partners providing financial, technical and political support. Of interest in the context of this report, a number of ICI statements confirming the aim to: i) develop the economy with a diverse production base capable of providing the requirements of sustainable market oriented development, integrated with regional economies and in particular with neighbouring countries; ii) set specific roles for the private sector in the economic activity, and a role for the Government in regulating this activity; and iii) provide safety nets for the poor and vulnerable segments of the population and provide Iraqi citizens with proper standards of public social services.



5. In the agricultural sector the ICI supports the development of a stable, competitive and sustainable agriculture to enhance food security and rural incomes, generate rural employment, diversify economic growth and protect the natural environment. This will be achieved by creating the enabling environment for a market oriented, private sector driven, competitive and profitable agricultural sector backed by:

- development of a cohesive agricultural policy that integrates with food policy, trade policy, industrial policy, water policy, environment and natural resource management policy and financial market development policy;
- institutional and infrastructural support; and
- development of a financing plan including public and private sources to support agriculture sector policies, institutional and infrastructural reforms.

6. In the short and medium terms, the following strategic actions will be developed by the Government to realize the specific sector goals:

- a consolidated land and water management policy and a comprehensive approach towards resolution of cross border water issues.
- a trade policy to free agricultural exports, imports and pricing.
- a fiscal policy to provide an economically sound basis for agricultural subsidies including gradual transition from input to price subsidies.
- financial market reforms to facilitate agricultural credit and private investment.
- capacity building for agricultural planning, monitoring, oversight, research, extension, pest and disease control, quality standard and certification.
- strengthening of agricultural producer groups, small agricultural marketing intermediaries, small processors and value adding chains with special attention to IDP and other vulnerable groups.
- developing the role of the Small Farmers' Fund and other concessionary agro-finance programmes.
- enhance the efficiency of agricultural markets through improvement of physical infrastructure including rural and municipal markets, farm-to-market roads, community assets (storage, refrigeration) and integrated water management infrastructures and build up the public marketing information infrastructure.

7. The ICI is co-chaired by the Government of Iraq and the United Nations. Other partners include the World Bank, the International Monetary Fund (IMF) and other regional financial institutions. The implementation of the ICI is supported by the International Reconstruction Fund Facility for Iraq (IRFFI) and the United Nations Country Team Joint Priority Action Plan, designed to deliver direct assistance to basic services that are of vital humanitarian importance. The IRFFI has been launched early in 2004 by the United Nations and the World Bank to help donor nations channel their resources and coordinate their support for reconstruction and development in Iraq. Donors have pledged over \$1.4 billion to the Trust Fund Facility to ensure responsive financing for near-term (2004) and medium-term (2005–07) priority investments in the country.

8. The Facility has two trust funds for donor contributions, each with its own characteristics and procedures: The World Bank Iraq Trust Fund (ITF), administered by the World Bank Group and the United Nations Development Group (UNDG) Iraq Trust Fund



(ITF). Of the US\$ 1 billion pledged to the facility, about \$ 400 million is for the World Bank-administered trust fund, and over \$ 600 million for the UNDG-administered trust fund.

9. FAO is the lead UN agency for Agriculture, Food Security, Environment and Natural Resources Management, working in close coordination with other UN agencies like UNESCO, UNIDO, UNDP, WFP, UNEP and UNOPS. Through the ITF mechanism, FAO and other 25 UN agencies have received resources for funding the Iraq programme implementation. The amount of resources received for project implementation by FAO has been the equivalent of some US\$ 95 million.

#### National Development Strategy (NDS)

10. Finalized in 2005, the NDS aims at restructuring the national economy and expanding its productive capacity through investment in a free market setting. The strategy clearly identifies the role of the state in normative and policy making functions while the private sector assumes a leading role in the reconstruction and development of the Iraqi economy. Participation of the economic actors in the development programmes is a key to the success of the strategy which will be facilitated by modernization of the bureaucracy, decentralization of decision making, transparency and accountability. Institutional and legal changes to create the proper incentive framework and improve the effectiveness and efficiency of public institutions will be essential components of the strategy.

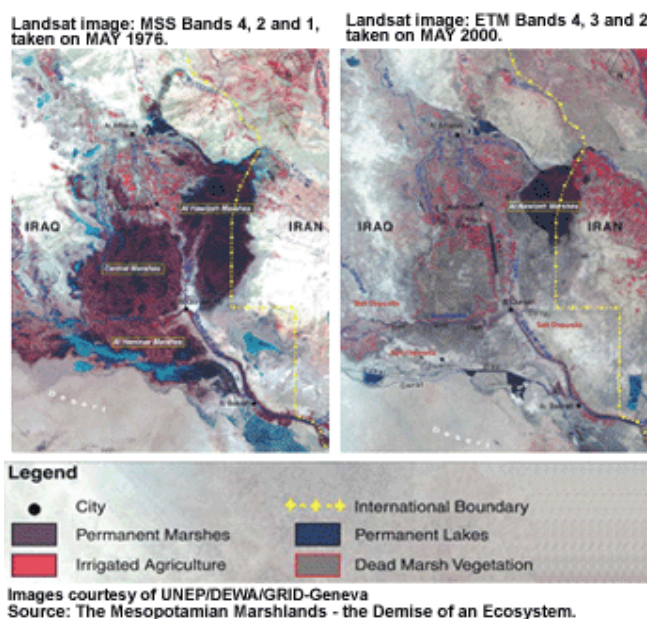
11. Within the NDS a number of strategic orientations have an impact on agricultural sector issues:

- the emphasis on generation of employment and creation of jobs, development of civil society organizations;
- diversification of the Iraqi economy and the creation of export capacities;
- decentralization, and stronger financial management;
- reducing subsidies by targeting vulnerable groups instead of providing them to the population at large;
- liberalization of external trade integrating the Iraqi economy with the global economy, removing distortions in the local prices of commodities and services, increasing competitiveness, and enhancing performance efficiency of the Iraqi economy. This process will help Iraq's current efforts to join the WTO; and
- promoting women's conditions as a factor of economic and social change;

12. There is an increasing demand for water resources due to population growth and economic development on one hand, and reduction in the amount of water available and deterioration in quality as a result of intensive use of water resources in the neighboring countries on the other hand. This situation necessarily requires the adoption of a master plan for this vital resource, including rationalization of water consumption in all sectors. The basic priorities in the area of water resources are:



- actions at the regional and international levels with respect to Tigris and Euphrates water division;
- rehabilitation of existing irrigation projects;
- implementation of new projects (dams, water reservoirs);
- research for better irrigation efficiency and application of research findings on pilot projects;
- utilization of artesian water sources for all purposes including agriculture and drinking water supply;
- maintenance of irrigation canals;
- renovation of pumping stations. A total of 1008 pumps are distributed over 254 stations and most of them are old. About 60 percent of these stations need to be renovated;
- rehabilitation of the water surveillance network along the Tigris and Euphrates Rivers and establishment of an advanced GIS network;
- feasibility studies for irrigation and drainage projects as well as improving the O&M of irrigation projects by adopting the necessary guidelines;
- rehabilitation of the supply of water to the Ahwar (marsh) regions in accordance with studies to be prepared and availability of water. This includes the construction of a number of facilities, canals, dams and outlets;
- capacity building and training courses in the country or abroad, in addition to participating in conferences, seminars and workshops outside Iraq and expanding educational programmes;
- aquatic weed control in canals and water reservoirs;
- supply of dredgers to rehabilitate main canals and water reservoirs.



13. Steps are taken towards progressively freeing the prices of fertilizers, insecticides, wheat, barley, and rice to purchase food basket inputs, especially wheat and rice from local farmers at international prices.

14. Steps have also been taken to develop agricultural policies and institutional reforms that will enhance food security, including:

- Increasing production and productivity through providing improved seeds, fertilizers and transfer of technology;
- development of research programmes, of agricultural services such as veterinary services, horticulture pesticides and agricultural extension;
- reduction of subsidies to the purchase of inputs for the agricultural sector;
- rehabilitation of the marketing infrastructure;
- improvement of the technical and administrative capacities;
- animal breeding programmes;
- plant and animal health improvements and controls and rehabilitation of the quarantine facilities;
- natural resources management including natural grazing lands;
- complementary macroeconomic policies that can increase agricultural incomes and enhance the impact on poverty and employment;
- improvement of rural infrastructure, and creation of adequate mechanisms for financing of agricultural development and for agricultural credit to small farmers.

#### Ministry of Agriculture – The 2007-2010 Agricultural Sector Plan

15. The Plan issued in mid 2007, provides a detailed assessment of the current issues facing crop and livestock production in Iraq and includes production projections based on area expansion and/or intensification. Achieving the Plan targets would go a long way towards meeting the required level of national food security measured in terms of availability of food crops and livestock products for domestic consumption

16. Main crops are wheat, rice, dates, tuber crops, vegetables, corn and sorghum and forage legumes: area expansion and crop intensification will require investments in surface and groundwater irrigation, increasing irrigation efficiency through the introduction of modern irrigation technologies, strengthening applied research and transfer of technology through an effective extension system, the use of improved varieties, farm inputs and sustainable farming systems, appropriate financing terms and conditions for on farm investments in equipment and post harvest facilities by small scale producers. Price support schemes for crops and livestock would be temporarily continued and will be phased out gradually.

17. Policy for livestock development would aim at developing local production of sheep and goats, cattle, camel (meat and milk) and chicken by improving the local breeds with A.I., improving the technical coefficients (weaning rate, weight at slaughtering...), vaccination campaigns, pastures improvement and modernization of equipment and facilities including slaughterhouses and refrigeration facilities. Imports of meat and meat products would be

maintained at a sustained level at least for the period needed for local production to reach the set objectives.

18. According to available estimates, at the end of the Plan period wheat production would cover 59 percent of total requirements (49 percent at present), rice 19 percent (as against 14 percent), potatoes 100 percent (77 percent), tomatoes 50 percent (40 percent), corn and sorghum 50 and 15 percent respectively, beef and poultry meat about 30 percent, milk more than 100 percent.

19. Capacity building will be a priority requirement: education and training programmes would be set up for small farmers including men and women so as to introduce them to modern technological innovations; extension centers would be rehabilitated and equipped as needed and attention would be paid at ensuring that a minimum social, cultural and health care support is provided in the rural areas - by the concerned institutions -, to participating farmers and farmers' groups.



20. Capacity building will include institutional strengthening of the MoA for developing an adequate data collection and statistical basis for planning, monitoring and programme evaluation purposes and appropriate mechanisms introduced to monitor requirements in terms of imports and exports of crop and livestock products. Capacity would be developed to assess crop and input prices policies and for the enactment of laws and regulations concerning the agricultural sector including quality controls, promotion of private sector involvement in agricultural development and creation of employment in agriculture.

21. Improving the environment is a constant preoccupation of the Plan which would aim at controlling desertification, increasing the forested areas by planting of selected tree species and more than doubling the number of protected areas.

22. MoA plan implementation would be coordinated with and accompanied and supported by parallel programmes of the MoWR which in particular would accelerate the execution of integrated irrigation projects both surface and groundwater as follows:

- land reclamation by year 2015 of 9.22 million dunums including new irrigation of 1.340 million dunums in eastern and southern Jazeera and Kirkuk and irrigation rehabilitation of 7.88 million dunums. About 1 million dunums would be reclaimed per year at a cost of 2250 billion Iraqi dinars per year.
- multipurpose water reservoirs and central control stations: Bakhmeh dam on the Upper Zap and Badoush dam on the Tigris, Mandawa Bridge on the Upper Zap, Taqtaq dam on the Lower Zap.
- land development of main estuaries (Eastern and Western Euphrates, East and West Gharraf).

- small dams in the Western Desert and the Eastern Region and Kurdistan Region for human, agricultural and livestock use and to feed the groundwater as well as securing potable water.
- installing the hydrological monitoring network (gauging stations) all over Iraq (180 stations).
- re-studying the water balance to have a better understanding of the water uses for the different purposes until 2030 and using the GIS technologies through the Center for Geographic Information Systems.
- operation and maintenance of the irrigation and drainage projects and control of aquatic weeds.
- assessment of the relevance of soil surveys for optimal irrigation water uses.
- assessment of crop priorities for allocation of scarce irrigation water: horticultural crops, rice, fish farming.

#### The Prime Minister's Initiative

23. In the spring of 2007 the Prime Minister has formulated a ten years plan with the main objective of enabling Iraq to achieve self-sufficiency in the production of agricultural crops, increase farmers' income and reduce rural unemployment through the cooperation between the private and the public sectors including institutions, peasants and businessmen.

24. The initiative aims at making sure that production inputs (seeds, pesticides, fertilizers) would be made available to farmers, that a proper marketing and commercial policy would ensure a fair price to producers for selected products (price stabilization through market mechanisms), that private investment in the agricultural sector would be supported and that the living conditions in the rural areas would be improved.

25. Through the Initiative the Ministry of Finance has been authorized to allocate no less than 25 percent of the reconstruction budget to the governorates, for projects that aim at fostering agricultural growth and improve peasants' livelihoods.

26. The initiative encourages the formation of farmers' associations at local level to play a role in capacity building and as intermediaries between individual farmers and the public sector and to support the public sector in those areas where implementation capacity of the public institutions is weak. This enhanced role of the private sector will be encouraged by a new land contracts system whereby new farmers could be allocated land through specific contracts with the state on condition that they use it for the production of agricultural crops.

27. The State on its side would play a major role in the rehabilitation and development of agricultural sector infrastructure including drainage and irrigation, in improving existing laws and regulations concerning water resources availability and use, in strengthening agricultural research, extension, veterinary and plant protection activities, and in modernizing food safety and quality controls.



28. The above would be complemented by the setting up of a Supreme Board of Agriculture to monitor progress of the implementation of the Initiative and by additional measures such as the establishment of a Special Fund to offer small loans at preferential interest rates in order to: i) encourage poor farm families and small farmers to start productive, income generating projects; and ii) facilities for small scale businessmen to start new projects in the rural areas.

## ANNEX IV

### ONGOING FAO PROJECTS – AN OVERVIEW

1. Under the IRFFI, FAO coordinated the UN cluster for agriculture, food security, environment and natural resources management and has recently become the lead agency of the agricultural sector under the new arrangements. To date, FAO emergency activities in Iraq have received US\$95 million in funding from the UN part of the multi-donor IRFFI. The focus areas of FAO present work are:

2. **Rehabilitation of water supply systems.** In collaboration with the Ministry of Water Resources FAO assists in the rehabilitation of eight pumping stations to improve water supply for both humans and animals and to restore the irrigation and drainage infrastructure. The equipment has been delivered for the eight pumping stations and work is in progress on the installation of the last two pumping stations in Babil and Nassria Governorates. Once completed the eight pumping stations will provide fresh water to about 400 000 people, with 20 water treatment centers, and will serve the needs of a substantial number of livestock owners. Water drainage systems have been improved in the Babil province enabling excess water to be drained from the project area and reduce the water table to acceptable levels. Rehabilitation of community irrigation schemes for the restoration of water supplies in rural areas is also being undertaken in the Erbil Governorate and in other areas of the Euphrates and Tigris basins.



Environmental considerations are an important element of this programme which will result in a reduction of water logging and desalinization of agricultural lands. Improving the drainage works will avoid saline water intrusion from upstream agricultural areas preventing further contamination of downstream canals.

3. **Restoration of the veterinary services.** In collaboration with the MoA veterinary department, FAO and the State Veterinary Company have assisted in a nationwide programme for veterinary services rehabilitation and staff training. Veterinary laboratories across the country have been restored and stocked with field supplies, equipment, vehicles. FAO has also assisted in re-establishing animal disease control and prevention activities and control of an outbreak of Avian Flu. Comprehensive training programmes for Iraqi technicians have been



designed and implemented to enhance national capacities in disease surveillance, diagnosis and control including: HPAI control and prevention, training in disease control, restoration and stocking of veterinary laboratories, and restoration of cattle and sheep and goat breeding programmes. Up to 500 000 livestock producers could benefit from the project which could also contribute to increasing employment in the livestock sector.

**4. Restoration and development of essential livestock services.** In collaboration with the MoA, the Department of Animal production and the General Company for Livestock Services, FAO is helping to restore essential Government services to the subsector. This



includes rehabilitation of artificial insemination facilities, a sheep and goat breeding programme, equipment of the Central Laboratory and training of technicians at several locations in Europe and the Near East. Improvement of livestock services is expected to benefit up to 500 000 livestock owners and increase the supply of healthy animal foods to the population. About 5 000 jobs would be created especially for women managing household cattle, milking and processing.

**5. Promotion of employment generation developing small-scale income-generating cottage industries.** FAO is supporting interventions in food security and poverty reduction in Nassiriah and other selected districts in the Thi-qar Governorate in southern Iraq. The household incomes of vulnerable groups focusing on women, female headed households, internally displaced persons, returnees and the disabled are being increased through the introduction of small scale income generating cottage activities such as metalwork, weaving and masonry, and micro-enterprises such as dairy processing and beekeeping. Projects are undertaken in collaboration with UNIDO whereby FAO is responsible for agricultural activities and UNIDO for the non-food cottage industry component. The first projects in Al Qurna and Nassiriyah have been completed, others are still ongoing. Vocational training and demonstration centers are being rehabilitated and training of trainers carried out. An evaluation has been carried out for phase I projects showing overall satisfactory results (more than 1500 persons trained, 15 associations established and 768 trainees provided with equipment and tools) but there are problems for the sustainability of the investment made once the project construction period is terminated. Phase two has started with the preparation of designs and general layout of the Erbil training center. Other two phases are being planned in the Governorates of Qadesia and Nenawa.

**6. Supporting Community Livelihoods and micro industries in Northern Iraq.** FAO and UNIDO have supported communities to implement and manage small scale agro industries along the lines of the successful experiences of the Nassiriyah project. Sectors of intervention include dairy processing, production of juices and jams, small scale pickle production, beekeeping and honey processing. A regional vocational center is being rehabilitated and upgraded.

7. **Restoration of food safety and food processing capacity.** A joint FAO, UNIDO and WHO project aims at improving food safety and increase the potential of the food trade sector in Iraq with three main targets: health, agriculture and the food processing industry. The main objectives are to create a coordination mechanism for a comprehensive national food safety system including the establishment and operation of a national codex committee, strengthen the capacity of the national institutions and their staff in food control and improving enforcement at all levels, create an environment suitable for the development of entrepreneurship in the food processing sector, and assure food safety throughout the food continuum. The project is also assisting Government in the drafting of laws and regulations regarding food control standards and build up capacities in food safety, food borne disease surveillance, food inspection, laboratory techniques and related practices. The update of Iraqi Food Legislation is in progress, the national Codex Committee has been set up, food inspection at the entry points has been improved and activities setting quality standards for food consumed, agriculture and consumers' education are ongoing. Field activities consist of the rehabilitation of five MoA border inspection posts and equipping them with the necessary inspection and communication equipment.

8. **Resumption of fish farming and commercial fish industry including training in modern techniques, supplying fingerlings and support of an applied and adaptive research programme.**



FAO is helping in the rehabilitation of fish farming and of the commercial fishery industry through increased production of fingerlings, capacity building on fish farming techniques and support of an applied research programme. This involves the rehabilitation or construction of new hatcheries, fry fingerling rearing facilities, and assistance to the diversification of aquaculture from land to water based practices and fish culture in submerged cages

at Kut and Hindia dams to provide demonstration and hands on training sites. To rehabilitate subsistence fishing in the marshes – once widely practiced – a fish stock enhancement project has been launched for rural people in the Huweza marsh. Project implementation is well advanced: equipment has been procured for the onsite installations, laboratories, hatchery designs have been completed, and part of the aquaculture extension material has been prepared. A follow up US\$7.31 million project has been prepared by FAO in close consultation with Iraqi specialists.

9. **Rehabilitation and Development of the National Seed Industry in Iraq.** The project aims at increasing domestic food production and improving food security and nutrition for the Iraqi people. This will be brought about by increasing the availability and use of high quality seeds of adapted varieties and the provision of a sound foundation to a revitalized, sustainable seed industry. A national seed policy will be formulated, the existing seed legislation will be upgraded and improved coordination and control mechanisms set





up. The damaged infrastructures in the research centers and seed certification systems are being rehabilitated and the key technical capacities of the MoA scientists, technicians and staff are being enhanced through appropriate training, study tours and related courses.

A project proposal entitled "Rehabilitation and Development of the National Vegetable Seed Industry in Iraq" a two-year US\$ 3 million has been prepared, technically cleared by FAO headquarters and included in the pipeline.

**10. Rehabilitation of the date palm sector.**

A joint FAO/UNIDO project aims at contributing to employment generation, poverty reduction, and community building in rural areas by rehabilitating and modernizing the date palm sector through the provision of technical assistance to farms and enterprises. The project is divided in three components including demonstration farms, introduction of IPM and tissue culture laboratories. Development so far is considered satisfactory with the cultivation programme

advanced and study tours organized and completed. Also, good progress shown in the establishment of quality standards and the contribution of research to the processing and phytosanitary status. The IPM programme is still to be introduced.

