

## Executive Summary

1. The present Distribution Plan is prepared as referred to in section-2 of the Memorandum of Understanding signed on 20 May 1996 between the Government of Iraq and the UN Secretariat (referred to herein after as the “MOU”) for the purchase and distribution of food, medicine, medical supplies and equipment and other supplies necessary for the essential civilian needs to help alleviate the hardships suffered by the people of Iraq. The plan constitutes an important element in the implementation of resolution 1153 (1998) and the Secretary-General’s report of 1 February 1998. It includes a classified list of supplies and goods to be purchased and imported by Iraq for this purpose.
2. For the three northern Iraqi governorates, namely Dohuk, Erbil and Suleimaniyah, the procurement and distribution of essential civilian humanitarian supplies as well as rehabilitation activities will be the responsibility of the United Nations Inter-Agency Humanitarian Programme, (hereinafter “the Programme”) in accordance with paragraph 20 of the MOU and paragraphs 3 and 6 of its Annex I. In accordance with paragraph 2 of Annex I of the MOU, the humanitarian requirements of the three northern governorates in the Distribution Plan, (hereinafter “the Plan”) were identified by the Programme, taking into consideration all relevant circumstances in the three northern governorates and in the rest of the country, in order to ensure equitable distribution. These requirements were discussed with the Government of Iraq and incorporated in the Plan.
3. A total amount of US\$ 3,000 million shall be available to meet the humanitarian needs of the people of Iraq. The Plan allocates US\$ 1.113 billion for food sector and US\$ 180 million for food supporting supplies sub-sector. The general food basket will be enhanced by an increase in calories and protein, especially for animal protein (as dried whole milk) which will contribute 8.4% of total protein, an improvement over the last ration (see table below). The inclusion of weaning food for infants fills an important nutritional need.

General rations	Phase III	Enhanced	Change	% change
Calories (Kcal)	2030	2300	270	11.7
Protein-non-animal	46.5	46.5	-	-
Protein-animal	0.0	4.27	4.27	-
Total protein	46.5	50.77	4.27	9.2

Infants	Phase III	Enhanced	Change	% change
Calories (Kcal)	438	696	258	59
Protein	11.7	19.7	8	68.4

Fortification of vegetable oil with Vitamin A will help to reduce the proven public health problem of this deficiency. Fortification of salt with iodine will continue as before, to reduce the problem of iodine deficiency disorders known to be prevalent throughout Iraq.

The distribution of food will be carried out within the existing framework according to the ration system currently applied and which is described in the previous distribution plans.

The Plan allocates US\$ 180 million for the food sub-sector for spare parts and equipment pursuant to the activities of storage and transportation of foodstuffs and grain milling as well as delivering them to the consumers in conformity with the quantities of the goods imported in accordance with the MOU. Of this total, US\$ 30 million will be allocated to meet the current needs for the transportation and delivery of the imported goods through the provision of trucks and repairing the railway network with a view to ensuring the easy flow of foodstuffs supply and transportation.

4. To address the problem of widespread malnutrition, the Distribution Plan has
  - (4-1) increased the allocation specific for infants by 59% for calories and by 71% for protein;
  - (4-2) assigned therapeutic milk via the health service for malnourished children throughout Iraq;
  - (4-3) raised the allocation for medical services by 30% which should allow the combined effects of morbidity/malnutrition on mortality, and provided micro-nutrients;

- (4-4) increased the general ration and improved its protein and micro-nutrient quality; supported agriculture to include poultry and egg production, in order to enhance household food security;
  - (4-5) adopted multi-sectoral approach to reinforce the nutrition strategy with a four-fold increase for water/sanitation to reduce diarrhea and water-borne diseases; augmented education by three times which will enhance the health and nutrition education of school children. To improve the capacity of social services, the allocation for electricity has been increased substantially to provide safety for food storage, for water supply and maintain health care such as for the immunization cold chain and in hospitals.
5. US\$ 308 million is allocated to the medical services sector, 60% of which is for import of required items for rehabilitation of hospitals and health centers, and 40% for the import of medicines. It should be noted that all Iraqi citizens, Arab and foreign residents have access to public health services. In addition to the provision of medicine, spare parts will be purchased to repair out of service equipment and to repair and rehabilitate some health infrastructure, such as air-conditioning equipment and elevators of hospitals throughout the country. Subject to the provisions of the MOU relating to the three northern governorates, health commodities will reach the beneficiaries through hospitals and primary health care centers using the existing distribution system. The Plan allocates US\$ 46 million for the three northern governorates, of which US\$ 12 million is for medicines and US\$ 34 million for rehabilitation of health infrastructure. US \$8 million allocated for supplemental nutrition support for pregnant and lactating mothers by providing high protein biscuits will be distributed on a monthly basis to pregnant mothers in their last trimester and to lactating mothers for three months after birth through (1500+) Community Child Care Units/MOH in Iraq. Micro-nutrients (Iron and multi-vitamins) will be distributed to pregnant and lactating mothers through MCH centers. With roughly 50,000 births per month, the funds allocated for this distribution are sufficient to provide the additional caloric requirements for pregnant and lactating mothers.
6. The condition of potable water and sanitation system remain critical throughout Iraq. Rehabilitation requirements are estimated at over US\$ 500 million. However, due to limited funds, the Plan allocates US\$ 210 million, of which US\$ 60 million is for Baghdad serving about 6 million people in the city and the surrounding districts, US\$ 114.5 million for the rehabilitation of water and sanitation facilities in the remaining governorates, US\$ 35.5 million for the rehabilitation of water and sanitation facilities in the three northern governorates. Deterioration in this sector

continues as referred to in the UN Secretary-General's report of 1 February 1998. The report pointed out that the situation requires greater attention to this sector which has a serious impact on public health, environment and population, especially children, women and the elderly. Equipment will be imported to rehabilitate potable water and sanitation facilities in Baghdad and other governorates.

7. As a result of the destruction inflicted on the electricity sector and the lack of spare parts and equipment for maintenance, the situation has severely deteriorated resulting in harsh power cuts for all types of consumers. The power generation, transmission and distribution systems have all suffered from lack of maintenance and the report of the UN Secretary General of 1 February 1998 referred to this situation. The Distribution Plan/Phase III stated that the shortage of electric power has resulted in daily planned load shedding throughout Iraq and the deficit was 1600 MW in 1996; the maximum load was 5300 MW during July 1997 and is expected to be 5600 MW during the summer of 1998, while the generation of power is falling and the deficit will be at the same level or more. This situation would lead to severe power cuts for all consumers including hospitals, water treatment and sewage plants, wheat mills, irrigation and drainage pump stations, schools, universities, fuel stations and other services. The amount required to rehabilitate this sector is very large. However, to address minimum requirements, this Plan allocates US\$ 411 million for this sector. US\$ 123.5 million is for the three northern governorates. The amount allocated would be used largely for enhancing power generation by rehabilitating some of the power generation units and adding new standby generating units, as well as for maintaining the transmission and distribution networks in Iraq. Priorities in the three northern governorates are to address the repairs required to the structures of the two dams and their hydro-generation systems besides maintenance of the network and introduction of new generating capacity.
8. The rehabilitation requirements in the agricultural sector are enormous. The sector still suffers from severe shortages of agricultural machinery as well as of basic inputs due to the stoppage of agricultural imports since 1990. United Nations reports underlined the need for plant protection, and control of livestock diseases. The provision of agrochemicals to the farmers and veterinary vaccines and diagnosis equipment, will address those needs. The report of the UN Secretary-General clearly referred to the needs in this sector and recommended sizable funds in order to boost production of food for the population. This sector will receive US\$ 250 million to meet the basic needs. Of that amount, US\$ 80 million is allocated to the irrigation sector where there is a need for irrigation pumps, equipment for drilling

wells, equipment for operation and maintenance of irrigation projects as well as necessary spare parts. The balance of US\$ 170 million will be used for agriculture, out of which US\$ 50 million will go for poultry productions. Agriculture sector in the three northern governorates will receive additional US\$ 57 million. The Plan has focused on the enhancement of domestic food production in order to contribute towards improving the diet of the population as this concerns both quantity and quality, in particular micro-nutrients, vitamins and animal protein. The proposed activities cover the provision of the basic inputs for vegetable, fruit and animal production. These include inputs needed for soil preparation seed, irrigation, fertilizer, plant protection chemicals and drugs for the control of animal diseases.

9. Primary and higher education sectors are in need of major rehabilitation works. The effects are clear on schools and other educational facilities; there are 4100 damaged school buildings. In addition to the increase in density of pupils in each classroom, the severe shortage of desks where more than one pupil share the desk, and the severe shortage of books, there is an actual need for preparing 50 million books annually. Due to lack of printing materials and papers, the printing facilities of the Ministry of Education have stopped. All schools suffer from severe shortage of laboratories, aid and training materials. This undermined teachers and students rehabilitation and training. Higher education and public education have been also affected by the shortage of books and materials required for scientific departments of the Iraqi universities. The needs of higher education for laboratory equipment required for students in medicine, pharmacy, and agriculture will be provided. Other general needs such as reference books, spare parts for laboratory equipment, photocopiers and educational supplies will be made available as stressed by the report of the UN Secretary-General of 1 February 1998. This sector will receive US\$ 100 million. US\$ 47 million is allocated for the three northern governorates to meet the necessary requirements of primary and secondary schools and higher education.
10. The Settlement Rehabilitation programme in the three northern governorates is aimed at those who require immediate support to enable their permanent resettlement in their appropriate places. And assisting population in cities and towns to ensure their access to infrastructure and services. This is achieved through the provision of consolidated packages of services in the areas of: a) rural village resettlement; b) rehabilitation of resettled villages; c) infrastructure and services rehabilitation in townships and urban areas; and d) basic assistance for resettlement of families. A total funding of US\$ 55 million is allocated to this sector under the current Plan.

11. Landmines in the three northern Governorates continue to claim the lives of many people. An estimated 20% of the arable land of the region cannot be cultivated because of land mines. The implementation of humanitarian programmes, including resettlement, are also being severely hampered by lack of access to significant areas. The programme aims at clearing mines in areas close to rural communities, economic activities and resettlement towns. Training, mine awareness and establishment and expansion of prosthesis centres are also among the priority activities. The current Plan allocates US\$ 11 million for the required activities in this sector.
12. The present condition of telecommunications throughout Iraq, including its three northern governorates, is extremely poor and requires immediate attention. A viable system of communications is integral to the life of the community and the successful implementation of the "Oil-for-food" programme including distribution of food and medicines in a more effective manner, communication inputs including telephone systems has been introduced, which are essential for information flow among service providers, for health education to communication and households, for coordination of sectors like food, agriculture, education, cultural; emergency health services, and environment. Due to the limited amount of the fund, US\$ 150.5 million have been allocated, US\$ 10 million allocated for three northern governorates. The basic needs are reflected in the attachments.
13. The previous plans did not allocate any funds for oil sector due to the inadequate resources and because the rates of production and export required in those plans were less than the available capacity. In order to attain and maintain the rates required, the United Nations has dispatched an expert team to ascertain the needs and requirements of this sector. These needs and requirements cover all the stages of production, such as the requirements of conducting and monitoring of oil deposits, wells reclamation and connection, maintenance, rehabilitation and operation of production and export systems. All these systems have been operating over the past years without the required maintenance, rehabilitation and compensation although they are outdated and in bad need for that. It has been concluded that the upstream sector is in need of large funds to achieve these purposes. However, the actual need in this stage has been reduced to US\$ 210 million due to the limited funds available under the plan and to provide the minimum and critical requirements. The responsibility of oil sector includes another basic and vital aspect for the life of the Iraqi people, namely the provision of energy and fuel to meet their humanitarian needs and maintain their life in its all aspects,

particularly the provision of gas oil, kerosene, and fuel for power stations. This requires that oil refineries and gas oil plants to continue their production at high rates, as well as the provision of oil products and delivering them to their users. The vital requirements, for this sub-sector, have been determined at US\$ 90 million; due to the limited amount available. This makes the total requirements of oil sector US\$ 300 million.

14. The humanitarian needs of the population of Iraq are enormous due to the cumulative deterioration of living and environmental conditions during the years of embargo. The humanitarian situation and the goods to be imported for all sectors have been reviewed in accordance with paragraphs 4 and 11 of resolution 986 and by the report prepared by the UN Secretary-General. The report clearly pointed out that the various sectors mentioned in the above paragraphs still suffer from shortage of basic needs despite the implementation of the distribution plan. There still remain needs for humanitarian supplies.
15. The Government of Iraq confirms its willingness to cooperate fully with the Programme and to allow it to observe throughout the country the equitable distribution of humanitarian supplies imported under this distribution plan. To this end the UN personnel working in the Programme will enjoy unrestricted movement in connection with the performance of their functions and the possibility of receiving what facilitates their functions in accordance with paragraph 44 of the MOU.

**Table 1****\* Allocations for sectors activities covered by the Distribution Plan**

Sector/Activity	Allocations in US\$m (countrywide)	Allocations for Dohuk, Erbil, Suleimaniyah (US\$m)
<b>SECTOR</b>		
— <b>**Food</b>	<b>1,113</b>	<b>155</b>
<b>Soap/detergent</b>		
— supporting supplies of equipment/spare parts for food supply, goods transportation/trucks/ rehabilitation of railway network	<b>180</b>	
	<b>1293</b>	
<b>Medicines and Health Rehabilitation*****</b>	<b>308</b>	<b>46</b>
<b>Water and Sanitation</b>	<b>210</b>	<b>35.5</b>
<b>Electricity</b>	<b>411</b>	<b>123.5</b>
<b>Agriculture</b>	<b>250</b>	<b>57</b>
<b>Primary and Higher Education</b>	<b>100</b>	<b>47</b>
<b>Settlement Rehabilitation</b>	<b>55</b>	<b>55</b>
<b>Mines Related Activities</b>	<b>11</b>	<b>11</b>
<b>Nutrition</b>	<b>11.5</b>	<b>11.5</b>
<b>Infrastructure support for food, nutrition, and health sector: transport/ telecommunications</b>	<b>150.5</b>	<b>10</b>
<b>SUB TOTAL</b>	<b>*** 2800</b>	<b>551.5</b>
<b>**** Oil</b>	<b>300</b>	
<b>Grand Total</b>	<b>3100</b>	

\* The estimated allocations by sector constitute indicative figures to give an order of magnitude of intended use of resources. The actual amounts will depend on market prices at the time of procurement.

\*\* The general food ration will be enhanced by an increase in calories and protein; especially for animal protein (as dried whole milk) which will contribute to 8.4% of total protein. The inclusion of milk and weaning food for infants fill an important nutritional need by adding 2 boxes of baby milk and 2 boxes of baby food and 1/2 kilo of milk for adult per capita.

\*\*\* A reduction in the funding from US\$ 3.1 billion net, it does not follow that all reductions should be proportionate, i.e. food sector and medical services are a priority.

\*\*\*\* It is assumed that, in accordance with previous distribution plans, oil equipment and spare parts will be funded through a separate oil sale.

\*\*\*\*\* US \$8 million allocated for supplemental nutrition support for pregnant and lactating mothers

## **Part I - Food Sector**

### **Introduction**

16. The Government of Iraq established special rationing system to ensure the distribution of foodstuffs to all Iraqi citizens, Arabs and foreigners residing in Iraq. The system was launched on 1 September 1990 after the imposition of the embargo on Iraq. It is presently applied throughout Iraq. Foodstuffs imported under the MOU are distributed by the Government of Iraq throughout the country except in the three northern governorates, where the Programme distributes the food ration to the population on behalf of the Government of Iraq.

### **The main features of the system**

17. The main partners of the system are:
- Ministry of Trade / Government of Iraq
  - The consumers (citizens of Iraq, Arabs and foreign residents).
  - Retail ration agents (private sector).
18. The Ministry of Trade undertakes, on a monthly basis, the distribution of foodstuffs to the retail ration agents in their designated areas, and to ensure their delivery to the household registered with the concerned agents. There are more than 45,864 ration agents distributing the food monthly in the 15 governorates and over 10,000 ration agents in the three northern governorates. Each ration card has a number of coupons that correspond to the basic food items involved in the system. The coupons are collected from the households monthly by the retail ration agents. The ration card covers one calendar year.
19. Every Iraqi citizen, Arab and foreign residing in Iraq is entitled by law to obtain the "Rationing card" from the Registration Centers. These centers establish lists of families by name, age and number of consumers in each household and send the list to the computer center. The computer center sends one copy of each list to the retail ration agent and another copy of the list to food distribution centers.
20. The monthly individual ration under the current system is the same for each individual with regard to commodities, quantity and the related nominal fees. Households are well informed through public and private mass media, on a monthly

basis, of their entitlements and on the time of distribution in various distribution centers.

21. The follow-up mechanism to ensure effective and proper implementation of the Rationing System is done through:
  - The concerned monitoring offices of the Ministry of Trade.
  - Elected People's councils.
  - Citizens
22. The beneficiaries of the system have the right to submit to the Ministry of Trade complaints against the retail ration agent in their designated areas, if they discover that the agent is violating the relevant regulations. Accordingly, the Ministry of Trade circulates a questionnaire among all households registered with the said agent. If the findings show that 51% of the participating households in the process condemn the agent, his agency license will be canceled and a new retail agent will be immediately appointed.
23. Mechanism of obtaining the rationing card, the required documents and complaints are as contained in the previous distribution plan, paragraphs 19, 20, 21, 22, 23).

### **Monitoring of Distribution**

24. The observation of distribution and determining the adequacy of the materials in accordance with the distribution plan will be carried out according to paragraphs 37-38 of the MOU.

### **Plan for Food Distribution**

25. The same mechanism of food distribution stipulated in paragraph 22 of the distribution plan of phase III shall be followed under this plan.

### **Arrangements for procurement and Storage**

26. Arrangements for procurement, storage and the transport of foods supplies under this plan shall remain as stated in paragraph 24 of the distribution plan of phase III.

### **Location of the independent Inspection Agents**

27. The locations of the independent inspectors will continue according to the current manner under paragraph 25 of the distribution plan of phase III.

### **Warehouses**

28. Specific warehouses shall be designated to store the foodstuffs imported by the Government of Iraq under the plan. The locations of these warehouses will be within the main storage complexes of the Ministry of Trade throughout the governorates of Iraq.
29. In accordance with paragraph 5 of Annex I of the MOU, humanitarian supplies destined for distribution in the three northern Governorates shall be delivered by the programme to warehouse within these Governorates. Warehouses in Mosul and Kirkuk to which supplies may also be delivered either by the Government of Iraq or the Programme, will be under the management of the programme.

### **Maintenance, Repairs, Rehabilitation and Replacement of equipment required on the basis of priorities for the handling, storage, supply and distribution of food**

30. The Plan is based on the actual need of food sector according to the activities related to the storage and transportation of foodstuffs as well as grain milling and delivering to the consumers in accordance with the ration system and in conformity with the volume of the imported foodstuffs. The following has been taken into consideration in preparing the requirement:
- Repairing and rehabilitating the apparatuses and equipment of grain silos in a manner that ensures the speedy transportation and receiving of the imported grains and supplying them to mills as quickly as required.
  - Ensuring the minimum needs of the mills to keep them operating and to ensure the production of the best quality of flour, packing and delivering it to the citizens on time.
  - Ensuring new means of transportation to enhance the capacity available in the country for the transportation of grains, flour and foodstuffs as well as their delivery to the citizens according to the determined timings. For example, the provision of trucks and the repair of railways.
  - Ensuring the minimum needs for cold storage and other warehouses for the foodstuffs as per their usage, the transportation of the stored goods, keeping them according to the requirements of their storage and facilitating their delivery to the citizens on time.

This Plan allocates US\$ 180 million to ensure the procurement of the current needs for this sector as described in annex-1/trade.

**Table 2**  
**Iraqi population by governorate covered by the Plan**

Governorate	Population	Adults*	Children under one
Ninevah	2168807	2104061	64746
Tameem	790824	769487	21337
Baghdad	5748755	5581367	167388
Salah Al-Din	899978	873757	26221
Diala	1125243	1094038	31205
Anbar	1114885	1078846	36039
Babylon	1242968	1208897	34071
Kerbala	651537	632760	18777
Najaf	818956	792274	26682
Qadisiya	794821	771098	23723
Muthana	479851	464040	15811
Basrah	1722445	1664190	58255
Maysan	718455	688234	30221
Thi-Qar	1318681	1273347	45334
Wasit	819356	796187	23169
Dohuk**	725047	707108	17939
Erbil**	1123255	1100253	23002
Suleimaniyah**	1440586	1417899	22687
<b>Total</b>	<b>23704450</b>	<b>23017843</b>	<b>686607</b>

\* THE NUMBER OF ADULTS WERE CALCULATED ON THE BASIS OF THE ACTUAL FIGURE OF THE BENEFICIARIES DURING NOVEMBER 1997 AND ADDING MONTHLY, THE FIGURE OF 61700 PERSON, REPRESENTING AVERAGE PROJECTED GROWTH FOR EACH MONTH. FOR THE LAST SIX MONTHS PRIOR TO NOV. 1997, THEN TAKEN THE AVERAGE OF MONTHLY FIGURE BETWEEN JUNE 1998-NOV.1998.

\*\* BASED ON THE ACTUAL FIGURE OF NOV. 1997 ADDING MONTHLY, THE FIGURE OF 39789 CHILD, REPRESENTING AVERAGE INCREASE IN THE NO. OF CHILDREN FROM MAY 1997 DUE TO THE PREVIOUS REGULATIONS THAT ALLOW FAMILIES TO TAKE FOOD INSTEAD OF MILK, UNTIL MAY 1998.

**Table 3**  
**Consolidated Plan and Categorized List of Foodstuffs,**  
**Soaps and Detergents**

Items (1)	Monthly ration per capita (kg) (2)	Total monthly requirements (ton) (3)**	Total needs for six months (ton) (4)	Required value for six months (US\$) (5)***
1. Food, wheat flour*	9.000	255263	1531578	295.000.000
Rice	2.500	59641	357846	115.000.000
Sugar	2.000	47713	286278	97.000.000
Tea	0.150	3510	21060	53.000.000
Cooking oil	1.500	35785	214711	195.000.000
Milk powder	3.600	2472	14832	43.000.000
Dried whole milk/cheese	0.500	11694	70164	178.000.000
Fortified weaning cereal	0.800	550	3300	10.000.000
Pulses	1.000	23857	143142	54.000.000
Iodized Salt	0.150	3579	21474	3.000.000
Subtotal				1.043.000.000
2. Soaps and detergents soap	0.250	6019	36114	33.000.000
Detergents	0.350	8427	50562	37.000.000
Total				70.000.000
Grand total				1.113.000.000

Note: these figures represent indicative quantities and values subject to actual distribution and market conditions.

- 1- Wheat is to be processed and distributed to beneficiaries as wheat flour the conversion rate used is 10 kg of wheat to 8.5 kg of wheat flour.
- 2- Quantities are calculated on the basis of population figures listed in table 2. The following allowances to retail agents are added to ensure the accurate ration weight is given to customers : 2% for wheat flour, rice, sugar, cooking oil, pulses, salt, and detergents : 0.5% for tea. No additional quantities are given to the agents for milk powder and soap as these items are distributed by tins and pieces respectively.
- 3- Children under one year of age receive only milk powder, fortified weaning cereal, soap and detergents.

## **part II - Plan for Purchase and Distribution of Medicine and Medical Equipment and Supplies**

31. In drafting its health policy, the Government of Iraq has followed the guidelines contained in the programme of action of the World Health Organization on the basic medicine.
  - The provision of successful and low-cost medicine that can be purchased to meet the needs of the whole population of Iraq.
  - The ensure equitable distribution.
  - To ensure the high quality and proper use of medicine.
  
32. The plan is formulated to meet the actual urgent needs for medicine, medical supplies, equipment, spare parts and other essential items necessary for the rehabilitation of health facilities; medicines warehouses; drugs and syringes local production. At a value of US\$ 308 million, 60% of which for the importation of medical equipment and supplies necessary for rehabilitation and 40% for medicine and medical supplies. Addition of US\$ 8 million in needs required for pregnant and lactating women. The current situation of hospitals and health facilities still faces many difficulties despite the implementation of the previous distribution plans. The reports of WHO and UNICEF point-out that the actual need for balanced health and medical services requires the provision of additional funds. Furthermore, malnutrition and the difficult economic and social circumstances have resulted in increased morbidity and mortality. To cover the requirements of an estimated 600,000 malnourished children under five years of age, each receiving 0.1 kg/day of (therapeutic milk) for a total of 25 days during a six-month period, the total needs will be 1,500 tons ( $600,000 \times 25 \times 0.1$ ) and the total cost for six months will be US\$ 3.5 million. The report of the UN Secretary-General of 1 February 1998 clearly pointed out the current situation of the infrastructure of hospitals and health centers which are in need for very large funds.
  
33. Before August 1990, the rate of expenditure of the Ministry of Health was more than US\$ 500 million for the purchase of medicine and medical supplies. There were also recycled stocks which were sufficient for one year in addition to the known annual funds of investment for infrastructure. Therefore, the amount allocated by the previous distribution plans does not meet health service needs. The shortage of the medical supplies makes health services scientifically incomplete. The provision of medicine without necessary medical equipment and diagnostic

facilities does not permit the provision of essential health services. Thus, there is no full benefit from medicine and medical supplies without medical apparatuses, equipment and other support systems necessary for the rehabilitation of hospitals.

34. As regards medicine and medical supplies, the situation is exceptionally serious. Patients, at best, receive doses less than their actual needs. The local pharmacological production has been substantially reduced. In 1989, the need for medicine was met with the Ministry of Health spending more than US\$ 500 million to purchase imported medicine and medical appliances. Additionally, there were reserve stocks which permitted the continuous flow of medicine.
35. The Plan aims at the provision of high quality and low-cost medicine which meet the needs of the whole population of Iraq. Up to date medical equipment, such as CAT Scans and MRI, medical and surgical appliances, dentistry, diagnosis equipment and vaccines are required. Among other priorities that require an urgent attention within the framework of the Plan, are the provision of pesticides, insecticides (for domestic use), the provision of field vehicles to ensure communication within the health network and vehicles to transport medicine and medical equipment. It should be stressed that the public health sector cannot be improved by the provision of medicine and medical appliances only. The infrastructure of hospitals, medical centers and warehouses is in need of rehabilitation through the provision of spare parts and replacement equipment. Furthermore, the provision of 200 ambulances for the health services are basic and urgently needed to improve public health services.
36. The health situation in the three northern governorates has not improved significantly. Only 10% of the 381 primary health centers can provide services for mothers and children. There is also a decrease in some medicine, medical appliances, basic equipment of diagnosis and modern equipment for treatment. Therefore, the basic components of the health plan for these governorates include the provision of medicine, repairing and maintenance of the basic infrastructure and the provision of spare parts. US\$ 12 million have been allocated for medicine and medical supplies, and US\$ 34 million for the basic health infrastructures. The general condition of the health infrastructure and distribution systems at district level in the three northern governorates remain poor. Equipment for water quality control has begun to arrive in the north. However the need for more modern diagnostic and treatment equipment, and for rehabilitation of basic infrastructure remains. Therefore the basic components of the health plan for these three governorates include the continuing provision of basic medicines and medical supplies and medical equipment.

### 37. Sub-Sectors

Given the nature of the health care sector, priorities for individual items cannot be set without discriminating between patients. Purchase orders for essential drugs, medical supplies, equipment and support items will however be issued in accordance with the general priorities emerging in the health sector and in consideration of projected stock shortages. Special priority items or changes in priority or complementarity will be communicated through the Permanent Representative.

- a. Medicine and Medical supplies: The objective pursued under the Plan is to make available needed medicine and medical supplies to health care providers throughout Iraq. The Ministry of Health will give focus to those items in the annexes which are for general use in order to ensure a continuous flow of essential items to health facilities. However, for better efficiency and cost savings, US\$ 20 million will be allocated to rehabilitate the local production capacity for disposable syringes and drugs which require the import of spare parts, raw materials and new equipment for the plants.
- b. Rehabilitation of Health Facilities: It is estimated that approximately 50% of the medical equipment is obsolete and/or un-repairable thereby requiring replacement. However, given the limitations of funds, only critical equipment for medical care and diagnostic purposes will be procured. The import of spare parts is to effect repair of equipment that can still be used. The overall objective of these measures is to improve the quality of care and hence add to the benefit expected from increased availability of medicine and medical supplies. Additionally health infrastructure rehabilitation is to improve general working conditions and provide better and acceptable hospital conditions for patients. This would be achieved through the import of spare parts and some equipment for hospital engineering such as air-conditioning, heating and elevators. In addition fork lifts, trucks and spare parts will be imported to facilitate distributions of supplies. Items listed for logistical, information processing and communications support are considered critical for an efficient distribution and inventory management system.
- c. Quality Control Laboratories: Given the importance of this sub-sector, allocations will be made to provide medical equipment to facilitate timely quality control testing as well as to allow for effecting all tests required by Iraqi regulations.

38. In accordance with the MOU and the distribution plan, in the three northern governorates, the Programme will be responsible for the distribution of medical supplies and medical equipment as well as for infrastructure rehabilitation. The Programme shall ensure that the needs determined by health sector are compatible with the basic needs of these governorates.

### **Plan Components**

39. The components of the plan composed of the estimation of needs, the distribution, the measures of organization, the standards of importation and storage will remain as contained in the first distribution plan, paragraph 43.
40. In accordance with paragraph 39 of the MOU, the Government of Iraq shall provide the Programme with detailed information about the delivery of appliances and equipment to their locations in order to facilitate and ensure monitoring of their use. The Programme will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

**Table-5**

**Criteria for distribution of Ambulances \***

<b>Serial no.</b>	<b>Governorates</b>	<b>Number of ambulances</b>
<b>1.</b>	<b>Ninevah</b>	<b>14</b>
<b>2.</b>	<b>Tameem</b>	<b>6</b>
<b>3.</b>	<b>Baghdad</b>	<b>60</b>
<b>4.</b>	<b>Salah Al-Din</b>	<b>8</b>
<b>5.</b>	<b>Diala</b>	<b>8</b>
<b>6.</b>	<b>Anbar</b>	<b>10</b>
<b>7.</b>	<b>Babylon</b>	<b>8</b>
<b>8.</b>	<b>Kerbala</b>	<b>6</b>
<b>9.</b>	<b>Najaf</b>	<b>6</b>
<b>10.</b>	<b>Qadisiya</b>	<b>6</b>
<b>11.</b>	<b>Muthana</b>	<b>6</b>
<b>12.</b>	<b>Basrah</b>	<b>16</b>
<b>13.</b>	<b>Maysan</b>	<b>8</b>
<b>14.</b>	<b>Thi-Qar</b>	<b>8</b>
<b>15.</b>	<b>Wasit</b>	<b>6</b>
<b>16.</b>	<b>Dohuk</b>	<b>6</b>
<b>17.</b>	<b>Erbil</b>	<b>8</b>
<b>18.</b>	<b>Suleimaniyah</b>	<b>10</b>
<b>Total</b>		<b>200</b>

**\* Distribution: One ambulance / 100.000 population.**

## **Part III - Plan of Equipment Purchase for Water and Sanitation Sector**

41. Deterioration in this sector has manifested itself seriously in the decrease in quantities of potable water and in inadequate sanitation for the population, both of which have contributed to sharp increases in the incidence of water-borne diseases in the whole country. With the drastic deterioration in this sector during the past seven years, a survey recently undertaken by UNICEF revealed that the water coverage has gone down to an average of 41% in all rural areas. On the other hand , the per capita share of water has gone down to 218 liters / day in Baghdad, 138 liters /day in other urban areas and 91 liters / day in served rural areas. This deterioration is related to the poor functioning of most of the water treatment plants, lack of spare parts and equipment, the poor status of the water distribution network, and electrical power cuts of up to 10 hours per day. Water quality results, reported by MOH and WHO, have shown a high contamination percentage of water samples. On the other hand and while the turbidity of water reaching the population should not exceed 1 National Turbidity Unit (NTU) as set by the Iraqi standards , more than 70% of the water currently served is of a turbidity exceeding 10 NTU.
42. Despite the identification of the deteriorated situation of the sector of potable water and sanitation by the reports of UN agencies and the report of the UN Secretary-General of 1 February 1998 which clarified the actual situation of the projects and the minimum required needs for maintaining their operation, deterioration continues due to the limited sums allocated for this sector in the previous distribution plans, the delay in the arrival of supplies, as well as the nature of these supplies which require no less than six months for their manufacture and shipment.

### **Sector Objective and Strategies :**

The overall objectives of the Water and Sanitation Sector in Iraq are :

1. To provide sufficient quantities of potable water to the population.
2. Dispose, hygienically, of all kinds of waste ( solid and liquid ).

To meet the above objectives, three subsequent planning stages are to be followed :

Stage I: Rehabilitate the existing system to enhance efficiency and improved performance. The estimated cost of this phase is US\$ 600 million .

Stage II: Fill in the gap to reach universal accessibility of service whereby the underserved and the unserved will be covered.

Stage III: Increase the level of service to meet the normal growth of the population.

The purchase strategy followed in preparing the three subsequent distribution plans of SCR.

43. The production of potable water in 14 governorates is 1400 million cubic meter / year. The design capacity of Baghdad is 850 million cubic meter / year. As the requirements determined in the previous distribution plans have not arrived in Iraq yet, the current estimated capacity of these facilities is 50 % less than their design capacity. The water system in center / south Iraq is composed of 218 water treatment plant, 1191 compact water unit, 51 boosting station and thousands of kilometers of water supply pipes. In the north the system is composed of 21 water treatment plants, 640 boreholes and 140 various other systems . However, most of these water supply system are working at less than 50% efficiency. Breaks and leaks of the water network are decreasing water pressure, as a result.
44. In sanitation the situation is even worse. None of the 13 sewage treatment plants in the country is functioning properly and raw sewage is disposed directly into rivers and causing contamination. The sewage collection and the rainfall collection systems which are composed of 250 vertical sewage pumping stations and more than 1,000 sewage submersible pumping station are all malfunctioning and in desperate shape because of the deteriorating status of network and the lack of pumps, spares and other supplies. Other areas where septic tanks and cesspools are utilized for sewage disposal are also facing enormous problems due to the high water table and the breakdown of the fleet of cesspool emptiers. Flooded septic tanks are flooding residential areas and causing contamination.
45. The current situation necessitates much attention to this sector due to its negative effects on public health, environment and citizens, particularly children and women. This requires the allocation of US\$ 210 million in the Plan to meet the urgent humanitarian needs in this sector according to the details contained in annexes 1 and 2 / water and sanitation, including US\$ 60 million to Baghdad and US\$ 120 million to the districts surrounding Baghdad and other 14 governorates, and US\$ 35.5 million will be allocated to the three northern governorates.
46. The spare parts and equipment required for this sector are described in annexes 1-8 / water and sanitation. The proposed DP has some changes in the purchase policy. Priority continues to be given to the purchase of water purification chemicals and some of the specific urgent required supplies in specific water treatment plants. There will be a focus on improving water services to under-served or unserved rural population by the purchase of 100 compact water treatment plants. More attention

is being given to sanitation by the purchase of sewage pumps, cesspool emptiers, sewer jetting units, sewer cleaning equipment and garbage collectors. As a second priority, focus will be given to the purchase of supplies to water treatment plants (pumps, circuit, breakers, starters, motors) and also supplies for incomplete water treatment plant meant to serve unserved population and whose civil works are 60-90-% completed. Also, focus will be given to the purchase of some ductile and UPVC pipes for the water supply network. There will also be a small focus on water quality control through the purchase of required supplies. On a third priority basis, water tankers to provide services to unserved areas and some support vehicles ( trailers and loaders ) will be purchased. An amount of up to US\$30 million is allocated to the three northern governorates for the water and sanitation sector, where again the prevailing situation is very similar to that pertaining throughout Iraq. The pattern of deterioration has not yet been arrested. The adverse effects on public health and the environment, and especially on women and children, continue to be very much in evidence. In urban areas the apparent ready access to water and sanitation systems tends to conceal the fact that the quality of potable water is highly variable and very dependent on a reliable and continuous electricity supply. The latter ensures that pressures remain sufficient to avoid drawing polluted water back into the main supply pipes. In addition many of the pumps are well beyond their useful working life, with the result that the supply of water to households is by no means guaranteed even where systems are nominally in place. For rural areas, recent surveys indicate that water supply coverage is under 50%, rather less than had originally been thought. Access to sanitary latrines is much less at only 16%. A particular problem in this sector is the widespread deterioration of the vehicle sanitation fleet, which is used for regular removal of both liquid and solid wastes. The much-reduced capacity of this fleet is compromising both the health and environmental situations, which will become even worse over the coming summer unless corrective action is taken before then.

The acquisition of more vehicles and repair of the existing fleet is therefore identified as a top priority, to which the sum of US\$5 million will be allocated. The next priority will be for rural water and sanitation for an amount of US\$4 million, and thereafter US\$10 million for urban sanitation and finally US\$11 million for urban water supply.

47. In accordance with paragraph 40 of the MOU, the Government of Iraq shall provide the Programme with detailed information about the delivery of supplies and equipment to their locations in order to facilitate the monitoring of their use and to make sure of this. The Programme will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU .

## **Part IV - Plan of Supplies and Equipment for Electricity Sector**

The inadequacy of electricity due to the damage inflicted upon this vital sector and non-availability of spare parts and equipment for maintenance, is a serious problem throughout the whole of Iraq. This fact has been confirmed by the UN reports and the report of the UN Secretary-General on the implementation of the distribution plan in November 1997, which referred to the shortage of electrical power and which has led to the adoption of a daily load shedding throughout Iraq. In July 1996, the shortage was 1600 MW. In 1997 the maximum summer load was 5300 MW and is expected to be 5600 MW during 1998. Thus, the shortage of electricity will continue at the same level or more as demand is increasing while generation is falling. Annex- I /electricity shows a diagram of designed capacity, the maximum capacity available, the peak load and the shortage of power generation during July 1997. As a result of the unplanned surprise failures of some units, protection relays start operating to save the network from complete shutdown. This causes severe power cuts to all types of consumers including hospitals, water plants, sewage plants, wheat milling plants, irrigation and drainage pumping stations, schools and universities and other social services as reflected in the report of the UN Secretary-General of 1 February 1998.

49. To address urgent needs, a sum of US\$ 411 million is allocated in this plan; the details of which are contained in annex-2 / electricity and the annexes of the three northern governorates. The Plan concentrates on increasing generation, as there is a severe shortage of power, by installing new gas turbine generation units and carrying out repairs to some of the large thermal, gas turbine and hydro-electric power generation stations throughout Iraq. Part of the sum is also allocated to transmission, distribution and relay networks in different parts of Iraq. It is proposed to install new gas turbine units alongside the existing Mulla Abdulla gas turbine power station, at an estimated cost of US\$ 150 million, listed under Section A17 of Annex 2. These new units are expected to add around 360 MW of power to the grid, depending on the weather conditions. A sum of US\$ 23 million has been allocated for rehabilitation of the gas turbine generating units of the Mosul gas turbine power station, shown at Section A15 of the Annex 2. Two of the generating units will be rehabilitated and this is expected to add 70 MW to the national grid. In the thermal generating systems, two units of Baiji and Najebia power station and two units of Nassiriya power station are planned for rehabilitation on a turn-key project basis, possibly with the original equipment manufacturers, with technical service costs estimated at around US\$ 70 million. (see Sections A02 & A03 of

Annex 2). With this rehabilitation, the four generating units are expected to add 160 MW to the grid. A sum of US\$ 25 million is allocated for repairs of two gas turbine units at Khor Al Zubair power plant and the maintenance of other gas turbine units (referred at Sections A14 of Annex 2), and this is estimated to increase generation by 90 MW. US\$ 5 millions are allocated for maintenance and repairs to the hydro-generation units at Qadisia and Saddam power plants. (see Sections A09 and A10 of Annex 2). These are for urgently required repairs to ensure the system remains operational, but an increase in generation is not anticipated. Although the transmission and distribution networks are in need of rehabilitation, with the limited available funds, a sum of US\$ 20 million has been allocated for the distribution network and US\$ 11.5 million for the transmission network. The above mentioned figures could be varied according to the urgency of the system requirements at the time of order. Outlays for various systems and the expected increase in power generation are given in Annex 3/electricity. The Ministry of Industry is fully aware that the combined total of these priority projects exceeds that sectoral allocation by some US\$ 17 million. However, it should be stressed that the above figures are indicative for planning purposes and show the scale of resources which are required to implement above mentioned projects.

50. For the three northern governorates where the dilapidated condition of electricity mirrors that of the rest of Iraq, the highest priority has been identified as the urgent need to address the critical and dangerous state of the Dokan and Derbandikhan dams which supply power to the north and irrigation water to the southern part of the country. There is also an urgent need to repair the hydro-generation facilities at the two dams, which are in an increasingly run-down and fragile condition. Even basic maintenance has not been possible in the last seven years, and generation systems frequently have to be shut down. In addition leakage through the draft tube at Derbandikhan due to cavitation has reached alarming levels and could cause flooding to the station if it does not receive attention. For repairs to the civil structure of the two dams US\$ 17 million has been allocated, and for the rehabilitation of the two hydro-power generation systems, an allocation of US\$ 43 million will be required. This is consistent with the priorities identified in the Secretary-General's report of 1 February 1998. For a total allocation of the three northern government US\$ 123.5 million, priorities in addition to the foregoing would be an assessment study of the electrical power system across the three northern governorates US\$ 0.5, the connection of Dohuk Governorate with Erbil - Suleimaniyah power grid US\$ 33.5 million, and the introduction of additional generating capacity for three governorates US\$ 19.5 million, this allocation is complementary to the US\$ 43 million allocated for maintenance of the generating

system. Annex 4/electricity includes a categorized list of the above mentioned requirements.

## **Part V - Plan of Procurement and Distribution for the Agricultural Sector**

### **INTRODUCTION**

51. The agricultural sector has a vital role to play in the improvement of food security within the country. The Iraqi population relies heavily on domestic food production as a supplement to the food basket acquired under SCR 986.

The agricultural sector in Iraq has suffered significant deterioration due to acute shortages of essential inputs. Further negative effects have resulted from the expansion of the total area dedicated to cereal production under the practice of monoculture which has depressed yields and contributed to decreased soil fertility.

Agricultural production involves many complex and interrelated biological processes. This dictates that all interventions have to be addressed in a highly integrated manner in order to achieve targeted goals. Provision of the basic inputs which are needed will strengthen the sector and improve availability of agricultural products at current or even lower prices.

The overall objective must be to address the problem of the supply of these urgent needs in order to stimulate domestic production of food items and thus offer a locally available supplement for the food basket.

### **ACTIVITIES ENVISITED BY SUBSECTOR**

#### **ENHANCED DOMESTIC FOOD PRODUCTION**

A - 52 Production of field crops , vegetables and fruits

52-1 The crop production cycle involves a series of key activities including soil preparation, seeding, field irrigation, weed control, pest control and harvesting. It should be noted that almost one half of the area under crop production in Iraq relies upon irrigation. Failure to adequately respond to each of these inter-related activities, will seriously compromise the eventual crop production level achieved. It follows that it is essential that appropriate inputs must be available for each activity and this in a timely manner. Indeed timeliness is vital to the success of each activity, the time frame often being restricted to a mere day or two if the resulting production yields are not to be depressed.

52-2 Agricultural production in Iraq in general, and field crop production in particular, is highly mechanised even at the small and subsistence farming levels. Prior to the

imposition of sanctions, it was estimated that the total number of agricultural tractors amounted to more than 40,000 working on the 4 million hectares of arable land. This represents very approximately, one tractor for 100 hectares under cultivation. Currently, only a small portion of the tractor fleet is still operational which has resulted both in generally inadequate soil preparation and an overall reduction of the area which may be cultivated within the time frame available for tillage.

The shortage of agricultural tractors has also affected the ability to undertake other activities vital for successful crop production, particularly seeding, the application of fertilisers, weed and pest control and harvesting and harvest transport, all of which require timely intervention.

Agricultural production is adversely affected by the state of the tractor fleet, and many of the associated implements and machines. This is characterised both by a generalised shortage of operational machines and the urgent need for vital spare parts for both maintenance and repair. The machinery requiring particular attention, apart from tractors, includes ploughs and sprayers.

52-3 In partial response to the urgent need for remedial measures in this regard, the plan includes the proposed acquisition of 1650 tractors of different types. It is estimated that this quantity will enable adequate and timely soil preparation, seeding, weed control and fertiliser application for an area comprising approximately 200,000 hectares which represents 5% of the total arable area (see Annex AGRI.-1).

In order to overhaul some of the tractors already available in the country, the plan also includes the provision of spare parts for a range of existing types of tractor. (see AGRI-1 appendix 1).

The particular problem of soil preparation will be addressed through the proposed importation of 750 mounted moldboard ploughs together with spare parts amounting to 5% of the ploughs' value. (see annex AGRI-1).

Timely weed and pest control measures may only be undertaken if adequate numbers of agricultural sprayers are available. The plan therefore intends to provide 2,000 mounted and wheel-barrow sprayers together with 3,000 knapsack sprayers. (see annex AGRI-1).

Due to the acute shortage of operational harvesting equipment, post harvest losses are continually increasing. In many cases, the farmer has been forced to revert to manual harvesting methods which invoke particularly high losses. In other cases, the poor condition of the mechanical harvesters also increases harvest losses. It has been estimated that overall post harvest losses may at present, have risen to 20 or 25 % of the potential crop yield. The plan proposes to import 400 combine harvesters to alleviate this situation as well as assorted spare parts for different types of combine harvesters (see annex AGR-1-and appendix-2).

52-4 Table 1 shows the allocation of the planned tractors to the 15 Governorates. This allocation is based on the area under cultivation and the number of available and operational tractors in each region. A similar procedure will be followed at District level. At farm level, all the farmers are eligible to apply to be an end user of a tractor.

**Table –1****Distribution Plan For Tractors – Harvesters – Irrigation Pumps – Sprayers**

<b>Governorate</b>	<b>Tractors</b>	<b>Combine Harvesters</b>	<b>Irrigation pumps</b>	<b>(100) lt Sprayers</b>	<b>(400-600) It Sprayers</b>	<b>(14-20) It Knap-Sack Sprayers</b>
<b>Ninevah</b>	<b>280</b>	<b>74</b>	<b>400</b>	<b>466</b>	<b>34</b>	<b>106</b>
<b>Tameem</b>	<b>200</b>	<b>44</b>	<b>400</b>	<b>78</b>	<b>56</b>	<b>167</b>
Salah Al-Din	<b>110</b>	<b>31</b>	<b>500</b>	<b>60</b>	<b>118</b>	<b>352</b>
<b>Diala</b>	<b>140</b>	<b>31</b>	<b>500</b>	<b>78</b>	<b>116</b>	<b>351</b>
<b>Baghdad</b>	<b>80</b>	<b>22</b>	<b>275</b>	<b>19</b>	<b>74</b>	<b>220</b>
<b>Anbar</b>	<b>35</b>	<b>7</b>	<b>200</b>	<b>19</b>	<b>54</b>	<b>160</b>
<b>Babylon</b>	<b>90</b>	<b>25</b>	<b>250</b>	<b>24</b>	<b>84</b>	<b>253</b>
<b>Kerbala</b>	<b>15</b>	<b>2</b>	<b>150</b>	<b>2</b>	<b>40</b>	<b>119</b>
<b>Najaf</b>	<b>120</b>	<b>22</b>	<b>250</b>	<b>20</b>	<b>74</b>	<b>220</b>
<b>Qadisiya</b>	<b>140</b>	<b>33</b>	<b>450</b>	<b>68</b>	<b>68</b>	<b>206</b>
<b>Muthana</b>	<b>45</b>	<b>8</b>	<b>200</b>	<b>20</b>	<b>14</b>	<b>34</b>
<b>Thi-Qar</b>	<b>80</b>	<b>22</b>	<b>300</b>	<b>27</b>	<b>36</b>	<b>109</b>
<b>Wasit</b>	<b>210</b>	<b>50</b>	<b>500</b>	<b>87</b>	<b>136</b>	<b>411</b>
<b>Maysan</b>	<b>90</b>	<b>26</b>	<b>375</b>	<b>27</b>	<b>24</b>	<b>75</b>
<b>Basrah</b>	<b>15</b>	<b>3</b>	<b>250</b>	<b>5</b>	<b>72</b>	<b>217</b>
<b>Total</b>	<b>1650</b>	<b>400</b>	<b>5000</b>	<b>1000</b>	<b>1000</b>	<b>3000</b>

**NOTE:** The distribution allocations are based on cropping pattern and cultivated area. Final distribution will be decided in proportion to the above table but determined by physical arrival of the consignments.

Agricultural authorities will select beneficiaries on the basis of the following criteria: the farm size (area), the farmer's production index and the current state of old tractors on the farm. As the amount of mechanisation equipment will fall short of present overall needs, priority will be given to those end users who have not so far benefited from similar distributions either prior to or after the imposition of sanctions.

As regards the distribution of tractor operated agricultural machinery, all Governorates will be entitled to submit their requirements according to farmer demand. Any justifiable request will then be duly considered within the limitations of total availability.

Table 1 shows the proposed distribution of combine harvesters which will follow similar criteria and be based upon cropped areas, the farmer production index and the current state of his harvesting equipment.

53. Iraq faces a serious shortage of hybrid and certified seed, especially sunflower and vegetable seed, together with seeds and seedlings needed for the orchards. Prior to the imposition of sanctions, the country used to regularly import both seeds and seedlings so as to satisfy requirements. The embargo has interrupted supplies of these essential inputs and seriously depressed production yields in consequence.

In order to redress the situation and to enhance the domestic production of fruit, vegetables and sunflower (for vegetable oil), the plan includes the proposed importation of hybrids, certified seeds and seedlings (see Annex AGRI-2 section A and B).

These inputs will be made available to all the farmers already involved in the production of these particular crops. The distribution plan to each governorate will be determined on the basis of the total area under each of these crops together with due consideration of both ecological and climatic factors.

The proposed quantities represent 25% of the total annual needs estimated for vegetable seeds and 80% of the annual requirements for both sunflower and orchards.

54. Iraq previously was able to satisfy the greater part of all national fertiliser requirements through national production and manufacture. However, the factories suffered severe damage after 1991 and this has drastically reduced the possibility of self-sufficiency in the production of these inputs.

Shortage of fertiliser has led to large areas of crops being grown without any fertiliser being applied. In other cases, application rates have been considerably reduced which significantly depresses potential crop yields. The situation has been further aggravated by the practice of monoculture of cereals as described above. This seriously reduces soil fertility which can only be redressed by increasing the application rates of fertilisers.

Given these circumstances, the Plan aims to at least maintain current levels of production yields (which are currently falling each year). It is proposed to import 22,000 metric tonnes of di-ammonium phosphate (DAP) which in fact corresponds to 55,000 metric

tonnes of N.P.K (18.18.0). Such a procedure will reduce transportation costs and so help to overcome some of the logistical constraints which will be encountered during the distribution process. In addition to the DAP, 1,500 metric tonnes of potassium and magnesium sulphate are to be imported. (see annex AGRI-2 section C ).

This total quantity of fertiliser has been proposed on the basis of satisfying the minimum plant nutrient requirements for approximately 150,000 hectares under both cereal and vegetable crop production.

The allocations accorded to each Governorate will be made with due consideration of the present availability of locally produced fertilisers, together with an assessment of the current state of the soil fertility.

All farmers will have equal accessibility to the planned inputs. They may submit their requests which will then be evaluated according to the farm holding size, the type of the crop grown and the recommended fertiliser application rates for the particular crop.

55. Agricultural production in many parts of the country relies entirely upon irrigation, whereas in other areas, supplementary irrigation is used to complement rainfed supplies. There is an urgent need both to repair and replace many of the irrigation pumps. Many of the pump units which have been installed previously are powered by electric motors; the frequent electrical power failures which Iraq is currently suffering means that even installed and operational units cannot always be used.

The plan proposes to redress this situation by acquiring 5,000 irrigation units of different capacities, most of which are to be powered by diesel engines, spare parts for irrigation pumps of different types and additional to sprinkler irrigation units. The overall objectives are to ensure the ability to irrigate an area of between 50,000 and 100,000 hectares. Naturally, the area which will eventually be irrigated will depend upon total water requirements which in turn, depend upon both the crop under production and the local climatic characteristics during the crop growth cycle (see Annex AGRI and appendix 3).

The proposed distribution plan for field irrigation pumps to the Governorates is based upon the total area under irrigated crop production and previous provision of irrigation inputs (see Table 1). Distribution to the end user will depend on current needs of the farmer which will be evaluated once the applications are submitted.

56. The prevalence and widespread development of weeds, plant diseases and crop pests constitutes a serious and worsening constraint to agricultural production throughout the country. The situation has been further affected through the practice of monoculture and the failure to carry out regular and coordinated pest and disease control campaigns due to the shortage of the necessary agro-chemicals.

With the objective of at least maintaining present levels of production, a range of

herbicides, insecticides, fungicides and other pesticides has been proposed. (see annex AGRI-3). These are needed for more effective control of the most serious and widespread weeds, diseases and pests.

The quantities of the herbicide requested, represents approximately 25% of the total estimated national crop protection requirements. Weed control will be undertaken either through ground or aerial spraying methods. The herbicides will be distributed to farmers according to levels of infestation and the area under crop production.

The pesticides will also be allocated to the Governorates according to infestation levels. The ultra-low volume (ULV) pesticides will be applied through either aerial or ground control application procedures which will be undertaken by the State Board of Plant Protection. Specific targets include sunnpest, local grass hoppers and date palm diseases. Emulsion concentrate (EC) pesticides will be available to the farmers according to their needs. Upon receipt of specific farmer requests, the plant protection staff will determine the type, quantity and application dose required for each individual case.

Additional agro-chemicals have been requested for the bee industry which is similarly affected by acute shortages of essential control inputs. Distribution and control procedures will be similar to those indicated above for the pesticides. ( see AGRI-3).

## B-Animal Production

Prior to the imposition of the embargo, livestock production contributed between 30 and 40% in value to the total production of the agricultural sector. It also played a significant role in providing a significant part of the nutritional requirements at household level.

Livestock production continues to constitute a major source of employment throughout the country but as a whole, the sub-sector has suffered greatly as a result of the sanctions and its contribution to the country's food security has been drastically reduced.

Previously, the per capita share of domestically produced animal protein was estimated to be 18 g/day. This may be compared with the minimum per capita requirements recommended by the World Health Organisation (WHO) which are 28 g/day and current domestic production which is estimated to be only 2 g/day.

Whereas prior to the imposition of sanctions, the government used to bridge the gap through regular importation of red meat and poultry products, this possibility has now been severely restricted. In consequence, a marked deterioration in the general health status of the population has been noted, particular in children up to 15 years of age who currently represent 45 % of the total population.

57.1 Animal production levels depend upon a number of inter-related aspects of which some of the most important are genetic stock, feed characteristics and animal health.

Furthermore, even genetically improved livestock when managed through appropriate feed regimes, will still fail to reach optimum production levels if attention is not paid to maintaining the animal's health.

The General Veterinary Directorate within the Ministry of Agriculture is responsible for all aspects of animal health. The total value of annual importations animal health requirements amounted to some \$ 30 million. This included to satisfy acquisition of vaccines, drugs and equipment, as well as necessary field transport means and cold chains facilities.

Previous activities included regular vaccination programmes against serious endemic diseases, together with campaigns for drenching, dipping and spraying animals against endo- and ecto-parasites as well as zoonotic disease.

This budget has now been drastically reduced and under the oil-for-food programme, the value of products imported for animal health purposes have on no occasion exceeded US\$ 3 million every 6 months. The field programme has also been considerably reduced which is now resulting in serious and widespread outbreaks of a whole range of viral, bacterial, parasitic and tick borne diseases.

Both brucellosis and tuberculosis, which were previously under control, are now spreading widely. It is currently estimated by sampling that 10% of the sampled sheep is brucellosis

positive. An alarming number of 60,000 cases of screwworm have been identified over the course of last year, including human cases. In addition, there have been cases registered of endo parasites, congo fever and echinococcus.

57.2 The plan aims to make maximum use of the limited available resources, supplementing them in key areas selected on a priority basis, with the overall objective of commencing a programme to redress the present serious situation.

57.3 The proposed rehabilitation of the cold chain facilities comprises provision of spare parts and refrigerators as well as the acquisition of emergency electrical generators to protect the facilities during the frequent and widespread electrical power cuts which the country is presently suffering. These will be installed in the veterinary hospitals and clinics throughout the 15 Governorates. In addition, 3 ten tonne refrigerated trucks will be acquired for transport of the vaccines (see Annex AGRI-4).

57.5 The plan also considered the provision of priority supplies for animal health. This includes vaccines, veterinary drugs and supplies, together with application equipment (see Annex AGRI.4).

Particular attention has been focused on the need for surveillance and control of world screwworm. Livestock production in Iraq is normally undertaken according to traditional methods conducted by nomadic groups and characterised by considerable transhuman movements. Such practices result in scattering the livestock population throughout the country, which in turn, obliges the mobilisation of veterinary service teams. Only through such methodology may any control or eradication measures can be achieved.

The plan thus includes the acquisition of mobile veterinary, clinical and field vehicles for transport of the teams involved in the control operations as well as needed chemicals.(see Annex AGRI 4).

57.6 The plan includes basic equipment needed to improve the diagnostic capabilities at the various veterinary centers (see Annex AGRI-4).

58. During the period of the 1970s and 1980s, the government focused intense efforts on building up a poultry industry designed to respond to the nutritional needs of the country. This programme involved the establishment of a number of different sizes of modern poultry farms for the production of both table eggs and broiler meat. In addition, stock farms, hatcheries and poultry slaughter houses were established.

The programme included economic incentives and fostered the establishment of efficient services for the provision of poultry health services. Regular supplies of the necessary production inputs were organised and by 1989, a total of some 8,000 poultry farms were

operational. Production at that time was estimated at 1,700 million table eggs and 250,000 tons of poultry meat.

58.1 Today, poultry production has dropped by over 85%. The recent joint MOA/FAO survey showed that of the many abandoned poultry farms, some 2,360 could be rehabilitated in the short term, provided that funds were to become available. As regards the remaining farms, these have suffered greatly since the imposition of sanction and would require high investment to be brought back into production. Indeed, many have already been sold and the installations used for other purposes.

The Government of Iraq is highly concerned regarding the nutritional status of the Iraqi population, in particular, the lack of animal protein in the SCR 986 food basket. For this reason, it is in favour of a plan which would allow enhancement of domestic production of animal protein, particularly the reactivation of the poultry industry.

58.2 The Plan consists of two major components which will be addressed through two parallel activities. The first of these will focus on addressing the rehabilitation needs of those farms which most easily and quickly could be brought back into production. The second will provide the basic production inputs for both table egg and broiler production (see Annex AGRI-5).

The overall objectives include an annual production of 60 million table eggs and 6,000 to 7,000 metric tonnes of broiler meat on a monthly basis.

Poultry production requires housing with a controlled environment in order to allow optimum production levels whilst reducing the risk of high mortality rates due to air borne diseases. The rehabilitation of 2,000 farms is envisaged, including the provision of emergency electrical power supplies.

58.3 The broiler production cycle is short and requires the regular supply of day old broiler chicks. This will be achieved through the importation of 18 million broiler eggs for hatching, complemented by domestically produced hatching eggs.

The needs for laying hens will be organised in two ways. Firstly, a total of 33,000 day old parent chicks will be imported in a series of four separate consignments. These will be reared at the parent stock farm and will supply the available hatcheries with hatching eggs destined for the production of laying hens. (AGRI -5)

Secondly, a total of 1 million hatching eggs will be imported through a series of consignments programmed according to the production cycle. This is to satisfy the need for day old layer chicks until the locally produced parent chicks reach the laying stage. (AGRI-5)

Poultry production requires a supply of balanced rations containing both high quality proteins and micro-nutrients. The bulk of the energy requirements will be met through the

use of domestically produced maize, barley, sorghum and other grains. The protein and micro-nutrient requirements for both layers and broilers will be met through importations of Soya bean-meal, and poultry concentrate. (AGRI-5)

The Plan also indicates the need to import equipment for farm transport and for the packing of final products. (annex AGRI -5).

59. As regards livestock production, approximately 85% of the cattle population within the country are indigenous breeds with milk production levels ranging from 200 to 1,500 kg per lactation. Since the imposition of sanctions, attempts to improve breeding of the stock through artificial insemination have been virtually paralyzed. There is an urgent need to reactivate the breeding programme, particularly in view of the prevailing economic and food security situation.

To these ends, the plan includes the acquisition of basic artificial insemination equipment.(see annex AGRI-4)

## **IRRIGATION SUB SECTOR**

60. Pumping Stations: The water pumping stations play a key role in the irrigation systems which have been established in many parts of Iraq. These not only provide the irrigation water to the fields but also, drain part of it out again. Unfortunately, the vast majority of these stations are suffering from frequent breakdowns as the equipment exceeds the end of its useful life. There is also an acute shortage of necessary spare parts for maintenance and repair. In many of these cases, rehabilitation will prove uneconomic and indeed, will often also not prove to be technically feasible.

The plan therefore proposes that a number of the pumps should be replaced whilst others will be rehabilitated through provision of spare parts. The proposed inputs are presented in the Annex AGRI-6.

The overall objective of this intervention to provide services for approximately 500,000 hectares of land which at present, are suffering from a severe lack of pumping capacity and efficiency.

60.1 Maintenance of Irrigation Projects: Whilst the establishment of irrigation projects requires a very high level of investment, this all risks to be lost unless those projects are adequately maintained. Many of the soils in Iraq are alluvial and are exposed to erosion. This causes high rates of sedimentation in the rivers and risks to adversely affect water supply for irrigation purposes.

In order to maintain these resources, the rivers and water channels require continuous dredging. Equipment for maintaining irrigation projects also need either to be replaced or to be repaired. The annex AGRI-7 indicates the immediate requirements which have been identified for inclusion in the present plan.

60.2 Surveys and monitoring of water storage structures: The main infrastructure for water storage and control consists of dams and barrages. These not only store the water prior to its distribution but also constitute a vital component of the flood control measures. As part of the maintenance procedure for such structures, periodic monitoring surveys must be undertaken. In addition, the Saddam Dam on the upper Tigris above Mosul requires grouting for its foundations.

The inputs required in this regard are presented in the annex AGRI-8.

60.3 In vast areas, ground water resources represent the only source of irrigation and drinking water. Governorates which currently have urgent needs include Kerbala, Najaf, Anbar, Tameem, Diala and Basrah.

The inputs consisting of equipment and spare parts which are required for restoring this

source of supply are listed in the annex AGRI-9.

60.4 Water and Soil Analysis: Deterioration of water quality throughout the country necessitates continuous monitoring by the Ministry of Irrigation. On the other hand, water distribution to farmers depends on the status of the soil and its suitability to the intended crops. Both activities need well equipped laboratory facilities. To enable the ministry to carry out these activities, necessary laboratory instruments and supplies have been included in the plan (annex-AGRI-10).

61. In the three northern governorates of Dohuk, Erbil and Suleimaniyah, the sector has suffered drastic deterioration as a result of the sanctions. Crop yield remained very low due to , (a) poor land preparation which resulted from obsolete machinery and nonavailability of spare parts, (b) increased insect/pest/weed infestations arising from lack of basic agrochemicals, (c) deteriorated soil quality and fertility, (d) destruction of most irrigation infrastructure and service, (e) inadequate training both at farmers and extension workers' levels, and, (f) virtual non-existence of agricultural support services. The livestock sub-sector has suffered considerably as a result of acute shortage of basic inputs and lack of effective veterinary services. Epidemic and zoonotic diseases have re-emerged. The poultry industry, which earlier played a significant role in self-sufficiency in poultry products as well as supplementing the traditional diet, has virtually collapsed due to destruction and shortages of required basic inputs. Deforestation has resulted in soil and environmental degradation in the region. The current Plan intends to address some of these priority requirements.

The implementation of the proposed plan for the agricultural sector will require US\$ 250 million for the 15 Governorates and US\$ 57 million for the three northern Governorates (Dohuk, Erbil and Suleimaniyah).

62. In accordance with paragraph 40 of the MOU, the Government of Iraq shall provide the Programme with detailed information about the delivery of supplies and equipment to their locations in order to facilitate the observing of their use, the Programme will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

## **Part VI - Plan of Purchase of Materials and Requirements for Education Sector**

63. Primary, secondary and higher education in Iraq have been affected by the severe shortage of the basic teaching materials, school furniture, books, stationery, printing requirements, training laboratories and other basic requirements. The magnitude of the needs of the education sector can be seen in the light of the total number of students and pupils which is 4.8 million. The damage to the classrooms of about 4.157 thousands school remained unrepaired. Most of these classrooms are without doors or windows. In some schools, the classroom, which usually holds 30 students, enrolls 70 students. A large number of schools still lacks potable water and sanitation. This sector needs an urgent rehabilitation as indicated by the reports of UN agencies and the report of the UN Secretary-General of 1 February 1998.
64. The current situation has led to the decrease in school enrollment and to a considerable increase in the rate of school dropouts, particularly in the primary and secondary stages. The quality of teaching has been effected by the lack of basic educational means and materials. Thus, the general, basic and urgent requirements of the educational sector throughout Iraq are estimated at large amounts, only US\$ 100 million have been allocated in the plan for the basic educational requirements up to the secondary stage, of which US\$ 23 million for higher education as contained in annex1-2/education.
65. The basic educational infrastructures in the three northern governorates have been hugely damaged and suffered from severe shortage of basic educational materials, including books. The plan allocates US\$ 47 million to address the current need for rehabilitating the damaged schools, furniture as well as training the personnel. Of the proposed allocation, US\$ 23 million will be directed towards primary and secondary education, where there will be an emphasis on the procurement of essential school supplies and equipment, and the development of training materials and rehabilitation of schools will also be a priority, where an amount of up to US\$10 million will be allocated, out of US\$ 24 millions.

US\$20 million will be directed towards higher education, where again the emphasis will be on the procurement of supplies and equipment, including reference books and journals, library supplies, basic office and furniture items, and specialised equipment for technical and vocational training, emphasis should be given to

ensuring equal access to primary special education for children with disabilities and strengthening the capacities and service providers.

## **Part VII - Infrastructure support for Food, Nutrition , Agriculture and Health Sectors**

### ***Transport and Telecommunications Plan of Purchase of Materials and Requirements***

#### **TELECOMMUNICATIONS**

66. The present state of telecommunication systems throughout Iraq is extremely poor. Apart from the wider social considerations, there are negative consequences for the efficient procurement and distribution of humanitarian supplies. The difficulty experienced by the Ministries involved in implementing the MOU when communicating with their suppliers has contributed to delays in ensuring timely submission of applications and subsequently in the delivery of supplies to Iraq. In the health sector, poor communications between warehouses and hospitals have contributed to delays in the collection of supplies by health facilities. The absence of adequate data links have also hindered the timely passing on of accurate information on requirements. In regard to the electricity sector, this has affected the coordination of operation between the source, the transmission stations and substations. In order to ensure a more effective implementation of the distribution plan and enhance utilisation of commodities imported, communications equipment is required. The first priority is Kimadia's distribution system.
67. A provisional allocation of up to US\$ 150.5 million is envisaged for this equipment out of that US\$ 10 million for the three northern governorates. The annex gives one option for the establishment of a net work which would be available to all Ministries and facilities involved in procurement and distribution of goods supplied through the MOU. A range of technical options is still under consideration to ensure that the resources allocated to communications improvements in all relevant sectors, will provide the most effective logistic support.
- 67-1. Rehabilitation of existing telecommunication infrastructure services are needed at this stage. The rate of unsuccessful telephone calls is extremely high at present due to the severe congestion in the telephone exchanges and the transmission systems. This due mainly to the large number of unrepaired exchanges and microwave radio stations due to lack of spare parts. The requirements presented here in the field of telecommunications has the following objectives:

- 67-2. Providing the necessary spare parts and other hardware needed to repair and maintain certain existing telecommunication systems.
- 67-3. replacement of damaged equipment in order to restore services to the areas that have severely limited telecommunication services .
- 67-4. A mobile and wireless telephone systems has been also included in the requirements for two main reasons. The first is to fulfill the urgent needs of the health and other humanitarian services, and the second is to act as a stop gap measure in some areas that have a very poor and severely damaged paper insulated copper subscriber networks or no networks at all.
68. The plan allocates US\$ 150.5 million to meet the necessary and urgent needs and requirements out of that US\$ 10 million of three northern governorates. Annex-1, 2/communications shows this.
69. In accordance with paragraph 41 of the MOU, the Government of Iraq shall provide the Programme with detailed information about the delivery of supplies and equipment to their locations in order to facilitate the monitoring of their use and to make sure of this. The Programme will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

## **Part VIII - Plan of Purchase of Materials and Requirements for Oil Sector**

70. The large increase in oil exports required to implement the provisions of the enhanced distribution plan requires a large component of spare parts and infrastructure equipment to achieve and sustain increased production and export. Since the implementation of the MOU very minor amount of equipment and spare parts has been provided to prevent further deterioration in oil production, processing, storage and transportation. The Secretary- General's letter to the Security Council date 15 April 1998, noted in particular that "a sharp increase in production without concurrent expenditure on spares and equipment would severely damage oil-containing rocks and pipeline systems, and would be against accepted principles of 'good oil field husbandry'".
71. In regard to downstream requirements, the provision of various oil products for local consumption meets a range of essential humanitarian requirements including heating, cooking, electricity production and transportation. It is very important to rehabilitate oil products distribution. Since 1990, for example liquid gas cylinders have been utilised years beyond their safe working life and consequently users have suffered many unnecessary burns and accidents. Similarly, fuel station should be operated within appropriate safety margins and provision is made for urgently required equipment.
72. Accordingly, a separate allocation of \$300 million will be made for spare parts, material and equipment to support crude oil production and export, of which \$210 will be for upstream and \$ 90 for downstream requirements. This amount is considered necessary to cover the most essential and urgent needs. The attached annex (8/oil/1-2) gives details of materials, equipment and specialized technical services required for crude oil production and export, refinery, gas processing plants, products handling and distribution system.

In accordance with paragraph 41 of the MOU, the Government of Iraq shall provide detailed and timely information about the delivery of supplies of equipment to their locations in order to facilitate and ensure observation of their use.