# Portrait of the Current Socio-Economic Developmental Situation and Implications in Iraq based on Specified Scenarios

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### **Executive Summary**

Iraq has witnessed steep declines in its economic viability since the Gulf War and ensuing sanctions in August 1990. Dramatic falls in national and per capita income, in addition to hyperinflation, high debt and unemployment are all indicators of the severity of the economic situation in Iraq. As a reflection of the situation, Iraq's Human Development Index has fallen from a ranking of 96 in 1990 to 126 in 2000, making its current ranking comparable to Lesotho rather than China or Iran before.

Iraq is an oil-based economy, and the collapse of both the oil sector, as well as non-oil exports has been critical to the socio-economic situation in the country. The reconstruction costs are at this junction impossible to forecast, but are likely to exceed the war damages in Afghanistan and Kosovo. The conflict appears imminent, the international community must begin to prepare emergency bridging mechanisms to ensure Iraq's economic viability and social stability in a critical post-conflict period.

Official figures have not been released for many years, but real GDP is estimated to have fallen by nearly two-thirds in 1991 compared to 1989, owing to an 85% decline in oil production and devastation of the industrial and service sectors. The high dependency of the Iraqi economy on crude oil as an outside source and its negative impact on the GDP remains a problem for the Iraqi economy that has few or no other means of gaining much needed revenues for rebuilding its collapsed infrastructure. Thus, a post-conflict post-sanction Iraq's oil sector will require significant investment to ensure its viability, and this investment is necessary to ensure a future for the oil industry in Iraq. This implies that funds will not be available for socio-economic development and Iraq will require external aid to address its dire socio-economic situation.

Notably since the implementation of the Oil-for-Food Programme, the overall health and socioeconomic situation of the country has improved somewhat. However, it should be noted that this programme is a temporary assistance measure providing for humanitarian needs only. Within the programme's context, it cannot cover developmental needs in support of long-term solutions to Iraq's current socio-economic downfall. However, noteworthy, is the improvement of the economy in the northern governorates due to the Oil-for-Food Programme.

In addition to the direct affects of a declining economy on employment and income for example, there are direct affects on infrastructure and social structures as well. In relation to infrastructure, the combination of sanctions and a waning economy have left a disabled infrastructure in need of acute repair and maintenance. Although the Government of Iraq has repaired some of the damages incurred during the last two decades of war, due to a lack of resources and limitations imposed by the sanctions, much of this work is of a temporary nature and will require further repair. Water and sanitation, which are not only critical as infrastructure networks, are also essential to the health of the population and the environment. Water resources are limited, and continue to decrease due to regional water resource conflicts, and sanitation networks are limited to portions of Baghdad only. Consequently, a serious reconstruction effort is required in all infrastructure sectors including but not limited to: transportation, power, communications, water and sanitation, industrial infrastructure related to the oil industry and others, and social infrastructure such as schools, health facilities, etc.

The social well-being of Iraq's citizens has also been negatively impacted since the Gulf War and current sanctions. Health conditions have deteriorated. For example, child mortality for children under 5 has more than doubled, chronic disease has increased with cancer related illnesses increased four fold, and malnutrition although improving is still at seriously high levels. Additionally, food security is still an issue in Iraqi society. Prior to 1990 however, Iraq had the highest rate of food availability per



capita in the region. The Oil-for-Food Programme has alleviated some of the strife related to food security, however production remains low in agriculture and husbandry, which directly affects food availability, consumption, and the overall health situation.

Construction declined due to sanction limitations in imports of materials, and this has directly affected the rehabilitation of structures and the provision of adequate shelter throughout the country, resulting in overcrowding and habitation in unsafe conditions.

Education has been severely retarded during this period, and Iraq currently suffers from a deficient educational system. This is tragic as Iraq was once a regional leader in education. Educational facilities, for all levels of education, are non-compliant with basic standards and basic materials and resources are not available.

Iraq's public institutions are suffering from the current conditions, with government institutions enveloping disguised unemployment in order to deal with the current unemployment situation, and thus creating inefficient bureaucracies in need of significant overhaul in any post-sanction period.

Any significant change in the socio-economic situation in a post-conflict post-sanction Iraq will only occur with a regime change which will encompass overall changes to the public institutions and their service delivery, coupled with international aid to a crippled socio-economic and humanitarian situation. The difference between the regime change scenarios is in whether there is a conflict or not, clearly after a confflict situation there will be greater need for rehabilitation to damaged infrastructure and buildings, in addition to all other currently dysfunctional socio-economic sectors including inter alia: education, health, employment generation, infrastructure; water and sanitation, and public sector reform.

In addition to the assistance needed to repair Iraq's destroyed socio-economic systems and public sector, any conflict would also have ramifications on neighboring countries as well. Most visible will be the humanitarian issues related to displaced persons and refugees resulting from a conflict. This again will require international assistance and aid to curtail any increased negative impacts to the region.

Overall, Iraq will require significant assistance to reach a sustainable and viable statehood, where eventually it can stand on its own and within which private investors will find a hospitable environment. The region as a whole will also require further international aid to handle the added impact of a conflict. Alleviating further conflict and easing the pains of many years of neglect will require significant assistance on all fronts by a dedicated international community.

### Introduction

Two regional conflicts and more than ten years of blockade have enfeebled Iraq's once-limber economy, retarded prospects for its recovery and reduced levels of human development across the country. Fluctuating and falling national and per capita income since 1989, hyperinflation, high external debt and aging and damaged infrastructure have exacted a heavy human toll, lowering the health, nutritional, educational and employment status of many citizens. Iraq's ranking on the Human Development Index plunged from 96 in 1990 to 126 in 2000, the last year for which a global score is available. That decline implies that, despite its urban and industrial economy and some recent signs of sporadic and skewed improvements from a low base, Iraq may have come closer to Lesotho than to Iran or China in terms of human development.

The oil industry, the mainstay of Iraq's economy, is in shambles amid the ravages of war, sanctions and neglect. Production, which stood at 3.5 million barrels a day (bpd) before 1990, is now put at between 2 million to 2.5 million bpd, accounting for annual revenues of about USD10 billion - USD16 billion. That production continues to decline steeply by some 100,000 bpd a year. On the other hand, experts estimate that the overall costs of post-conflict reconstruction, over and beyond humanitarian assistance, would range between USD25 billion - USD100 billion. This includes a minimum of USD5 billion to repair existing oil export facilities and USD20 billion to rebuild electrical power infrastructure. It does not include relief on Iraq's external debt (estimated at USD100 billion) or on its war reparations obligations (some USD160 billion) that will siphon away resources for reconstruction.

The wide financing gap between current revenues and commitments and foreseeable humanitarian and reconstruction needs implies significant financial support from various external sources at the outset. Such external support would be required speedily to restore essential social services to a dependent middle class society and prevent its collapse, repair critical infrastructure and prepare the ground for the oil economy to play its part in sustainable reconstruction. In the medium term, returning Iraq to pre-1990 oil production levels of 3.5 million bpd, while also meeting human security needs and lifting human development levels, will take substantial rehabilitation of the industry and its supports, the reorientation of public distribution mechanisms, investment-friendly policies and systems, major inflows from private as well as public sources and appreciable lead times. Under those conditions, oil revenues could be counted on substantially in subsequent phases of recovery and reconstruction.

Data on economic and social conditions in Iraq are notoriously spotty, incomplete and sometimes contradictory depending on the source. Yet certain indicators of the country's tumultuous situation recur in recent international and national surveys.

- GDP per capita has fluctuated drastically over the period 1989 2000, and may have fallen as low as anywhere between USD 500 to USD700.
- Annual inflation, running at 45% before 1990, jumped to an estimated average of 500% in 1991 after Iraq invaded Kuwait.
- The UN Food and Agricultural Organization (FAO) calculate that, from the imposition of sanctions to end-1995, food prices rose 4,000-fold in nominal terms.
- Child mortality among children under 5 has more than doubled, chronic disease has increased, with cancer-related illnesses rising fourfold. Malnutrition, although improving, is still at seriously high levels.
- Between 1989-1996, employment in four key sectors, construction, manufacturing, water supply and electricity fell by 54 percent.

- Between 1990 and 2000, the daily per capita share of potable water sank considerably. The amount available in urban areas improved overall in 2002 to 197 liters per person per day.
- In 1997, primary crop production was as low as 2.2 million tons, the lowest level since 1991, however, production figures improved in post-drought conditions in 2002 to 2.6 million tons. Food security is a mounting issue in Iraqi society despite the success of the Oil-for-Food programme in alleviating famine in parts of the country. Before 1990, Iraq had the highest rate of food availability per capita in the region.

Apart from the evident socio-economic needs of the country, a new governance structure is urgently required to provoke compliance with international laws, respect fundamental human rights and support capacities in planning, management and administration. The ECPS Portrait of Iraq Paper based on contributions from DPA, DPKO, OIP, OHCHR and UNDP, outline a road map for reform. (For additional information on governance and the rule of law, please refer to the above-mentioned paper where these matters are addressed in detail.)

The Oil-for-Food Programme remains among the few bright spots in this brief snapshot of Iraq's current socioeconomic position. Since its initiation in 1996, the Programme has brought significant resources, effective organization and an equitable distribution mechanism to bear on humanitarian needs in northern Iraq, making a decisive positive impact on the local economy and people's living conditions. In addition, successful infrastructure repairs and a more efficient public welfare system in the northern governorates also point to an incipient recovery. Conflict would inevitably put the expansion of these fragile gains at risk. Moreover, as the following pages illustrate, the general pattern of social and economic decline in much of the country must be reckoned with. It underlines the importance of prioritizing recovery and reconstruction actions in the event of conflict in order to reverse key underlying trends, which will worsen in that scenario. It is entirely possible that oil exports, the Oil-for-Food Programme itself and the infrastructures services on which Iraq's non-subsistence middle-class society depends would disintegrate altogether.

The United Nations system is preparing forward-looking and differentiated action plans to collaborate with the international community in supporting humanitarian and reconstruction objectives in Iraq under 5 scenarios with an emphasis on 2 scenarios involving regime change.

The different categories of priorities and responses entailed by these scenarios are discussed in Section VI. It is foreseeable that, in any scenario, Iraq will require quick support to initiate fundamental measures for restoring society to normalcy and reintegrating the country with the international community. Speedy action and significant resources will be required to:

- Restore health, education, electricity, water supply, sanitation, transport and other essential
  public services aiming for greater efficiency and equity. Adapt the Oil-for-Food programme as
  a mechanism for wide and fair distribution of humanitarian aid and, beyond that, for temporary
  rehabilitation pending the resumption of oil income;
- Re-orient and re-tool capable yet highly centralized planners and administrators to function as effective public servants in a transformed socioeconomic context;
- Create an enabling environment to allow the private sector to start their activities as the principal actor in the rehabilitation, repair and eventually expansion of the oil industry and production sector at large, introducing an open, efficient and investment-friendly regulatory environment to attract private investment from all interested international sources.

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### I. Economic Structure

Several decades of conflict have curtailed the current economic growth possibilities and lead to a dramatic fall in national and per capita income. Official figures have not been released for many years, but real GDP is estimated to have dropped drastically since 1989. By 2000, GDP per capita may have fallen as low as anywhere between USD500 to USD700. The high dependency of the Iraqi economy on crude oil as an outside source and its negative impact on the GDP remains a problem for the Iraqi economy that has few or no other means of gaining much needed revenues for rebuilding its collapsed infrastructure.

During the nineties Iraq suffered hyperinflation, high debt and unemployment, as well as infrastructural, social and human degradation. However, expenditures in the military and security sector continued to rise. The resulting deterioration in the economic performance affected Iraq's ranking in the Human Development Index (HDI). Human development level, as measured by the HDI ranking, was relegated from a ranking of 96 in 1990 to 126 in 2000.

The economic blockade, imposed on Iraq since August 1990, coming on top of damage wrought by Iraq's war with Iran, has had a negative impact on the various economic sectors and has impacted the livelihood of the people in a pronounced manner. The annual inflation, which was running at 45% before Iraq invaded Kuwait in 1990, jumped to an estimated average of 500% in 1991. The UN Food and Agricultural Organization (FAO) has calculated that, from the imposition of sanctions to the end of 1995, food prices rose 4,000-fold in nominal terms. Although the government operated a rationing programme, its lack of foreign exchange resulted in only sporadic deliveries of basic foods covered by the system. A financial crisis at the end of 1995 forced it to raise the price of the basic monthly ration almost 50-fold between January and March 1996. With the introduction of the Oil-for-Food Programme in May 1996, food prices were greatly reduced.

At present, Iraq's foreign debts exceed USD100 billion, and according to the Economist Intelligence Unit, Iraq is also bound to pay approximately USD160 billion in war damage compensation, primarily to countries involved in the Gulf war. Some studies put these estimates around USD300 billion.

The Iraqi Dinar enjoyed the status of a strong currency for a long period, albeit underpinned by oil revenues. This has since changed, and currently there are two currencies, the old Iraqi Dinar is used in northern Iraq (with an exchange rate of currently I.D. 8-9 to one USD and I.D. 18 to one USD for the period 1996-2001), while the new Iraqi Dinar is used in the remainder of Iraq (with an exchange rate of I.D. 2050 – 2080 to one USD). However, prevailing black-market rates vary considerably.

The government's acceptance of the terms of the Security Council Resolution 986 (1995) Oil-for-Food Programme in 1996 enabled the resumption of oil exports, allowing some relief for the country's desperate humanitarian situation. As a result of the Oil-for-Food Programme there has been a revival of the economy in the three northern governorates of Erbil, Dahuk, and Suleimaniyah (due to 13% of the oil revenue appropriated through the Security Council resolution 986), which has resulted in the expansion of the construction sector, employment creation, demand for services such as housing, etc. By 2000 the Consumer Price Index went down to 465 from 2500 when sanctions were imposed, giving people a higher purchasing power. This was reflected in the availability of goods in domestic markets. Due to the Oil-for-Food Programme, numerous social indicators were reversed greatly improving the lives of the Iraqi people at large. Malnutrition rates in 2002 are half those of 1996, and access to potable water is today 197 liters per person per day, compared with 166 liters in 1997.

### Dependency of the Iraqi Economy on Crude Oil

The high dependency of the Iraqi economy on crude oil and the fact that oil exports were halted for the better part of the 1990s had had an acute negative impact on the GDP under blockade conditions. The GDP declined drastically and the per capita share of consumer goods, whether imported or locally produced, also decreased sharply. The flow of imported durable goods amounted to at least 75% of Iraq's total import before the blockade period. During 1988-1990, the Iraqi citizens annual per capita share of consumer durable and non-durable goods was about USD 88.

The share of the private sector of the total imports increased during the first years of the blockade as compared to the share of the public sector. Private sector shares went up from 40% to 60% of the public sector imports. The total value of export and import decreased from I.D 4,668 million in 1990 to an average of ID 750 million for the years 1991-1995. The GDP decreased from ID 13,862 million in 1990 to an average of ID 3,766 million for 1991-1995.

The linkage between the economic sectors and crude oil on the one hand, and reliance by the economy on the ailing distribution system, transportation and storage, on the other hand, has meant that the Iraqi economy is vulnerable to changes in the level of revenue received from crude oil exports and the availability of transportation means to haul goods from one end of the country to another.

### The Oil-for-Food Programme

Since the Gulf Crisis of 1990, Iraq has been under economic sanctions imposed by the United Nations Security Council. In the immediate aftermath the overall health situation of the Iraqi people deteriorated, in particular women and children have been severely affected. The estimated maternal mortality ratio increased to 249 per 100,000 live births (1989-1999) compared to only 117 during the late 1980s, and half of all the pregnant women were anemic. The expectation of life at birth decreased from 65 and 67 years for males and females, respectively, in 1992, to about 61 and 63 years in the mid-1990s.

In May 1996, the Government of Iraq, as a first major step towards substantive alleviation of the most pressing humanitarian needs, concluded a Memorandum of Understanding (MoU) with the United Nations, which detailed the practical arrangements for the implementation of Security Council Resolution 986 (1995). This is known as the Oil-for-Food Programme, and has grown into the biggest programme in the history of the United Nations to address basic human needs in a single country.

In the Center and South of Iraq, the Government of Iraq implements the Programme. It undertakes to ensure equitable distribution of the humanitarian supplies and UN officials observe the distribution. Since the Government of Iraq has withdrawn its administration from much of the three northern Governorates of Erbil, Dahuk, and Suleimaniyah, the implementation of the Humanitarian Programme in these Governorates is undertaken by the UN system on behalf of the Government of Iraq.

The success of the Oil for food programme has been especially visible in northern Iraq, in terms of developing basic services, and consequent economic performance. Northern Iraq with its approximately 15% of the Iraqi population receives 13% of the oil revenues, while the portion to be attributed to the Centre and South is brought down to 59% of the total oil revenues, due to the payment of war compensation and SCR986 management costs. Moreover, economic performance in the north can also be attributed to lax border controls with Turkey, and considerable cross-border trade.

The Oil-for-Food Programme has improved the overall health and socio-economic situation of the country, and continues to make a difference in the day-to-day life of the Iraqi people. In the area of nutrition, the trend of malnutrition among children under the age of five, albeit still at a relative high level, has been arrested and reversed. Preliminary findings indicate that the number of underweight children in 2002 is half of those in 1996. The quality of health care delivery services improved resulting in a downward trend in reported cases of cholera, diphtheria, meningitis, mumps and tuberculosis etc. The rate of new cases of tuberculosis decreased by 57% from 2000 to 2001, and Iraq was reported polio free in January 2000.

The Programme is very supply-oriented and, while it has had an effective and stabilizing effect on the humanitarian situation, it has nonetheless had some unfortunate side effects that have skewed the economy against some areas of local production and created unhealthy dependencies. Finally, it should be noted that the current programme is a temporary assistance measure providing for humanitarian needs only. The programme, cannot, within the context of the sanctions regime, expand to also cover developmental needs in support of long-term solutions to Iraq's current socio-economic downfall. (End Note 1.)

### Employment and Income

The decline of economic activities means that a similar decline took place in the rate of employment. Unemployment, which was affected by the sanctions took different forms such as the increase in the size of employment in marginal activities, disguised unemployment in government institutions and external migration partly through brain drain that continued unhindered up to the late 1990s. The government allowed its employees to leave their jobs, due to low government salary levels, and for long periods, in order for them to improve their income. Iraqi women who have been enrolled into the workforce in great number since the start of the Iraq-Iran war have since entrenched their position in the labour force and today represent 19% of the national workforce.

The absence of reliable information to measure unemployment has made it very difficult to find a suitable indicator that can reflect the actual deteriorating situation, with the exception of the most recent but still out-of-date statistics on the number of employees in the public sector, data regarding the construction and manufacturing sectors, water supply and electricity. However eyewitness accounts testify to the emergence of a vibrant and highly un-regulated informal sector which thrives on buying and selling usually third rate goods that are either recycled internally or have escaped the test of quality control at import points. To thousands of Iraqis this outlet has meant the difference between having or not having a measure of decent clothing and an important means of obtaining additional income by selling belongings. (End Note 2.)

#### Trade

Oil has dominated Iraq's exports since the early 1950s. As the state became increasingly dependent on petroleum as a source of revenue, other areas of possible revenue growth were neglected. Imports are far more diversified, as Iraq produces little domestically and relies on imports for most of its needs. The passage of UN resolution 1409 in May 2002 was expected to improve the import situation; the resolution theoretically allows all imports not on a list of prescribed weapons and dual-use items, immediate access to the country, and recently the per capita food imports have increased significantly as well as for medical supplies and thus health care services have somewhat improved.

### Foreign Trade (USD million)

	1999	2000	2001
Exports	12,750	20,603	15,905
Crude oil	12,143	19,622	15,148
Imports	-6,886	-11,153	-11,000
Balance	5,864	9,450	4,905

Source: Economist Intelligence Unit.

In the last year, Iraq has negotiated several multi-billion dollar agreements with foreign oil companies mainly from Russia, France and China. In addition to new oil field exploration projects, contracts for overhauling and servicing existing production facilities have according to some Deutsche Bank estimates, reached an investment potential of some USD 20 billion. However, the UN sanctions have overwhelmingly dissuaded companies from actually commencing work, frustrating the Iraqi side to threaten firms to start work without further delay or lose its contracts. Nonetheless, Iraq has concluded free trade agreements with a number of Arab countries and has expanded the envelope of trade with them to unprecedented heights. Agreements have been signed with Syria, Egypt, UAE, Algeria as well as Jordan. The Annual Baghdad Trade Fair has since the mid-1990s been drawing participation from Arab, Asian and European countries, notably France, Italy, Spain and Germany, resulting in trade improvements in recent years.

### Agriculture

The share of inputs, whether imported or locally produced, in the total value of agricultural products is very low as compared to other sectors. Most of these inputs are either produced within the same sector, e.g. the seeds, or produced by the manufacturing sector, e.g. chemical fertilizers and pesticides. This has impacted negatively on agricultural products, especially the production of the main four crops: wheat, barley, rice and corn. In 1997, only 2.076 million hectares could be cultivated, which was 13% less than that of 1995, the lowest since 1991.

WFP and FAO conducted a food and nutrition assessment in Iraq in August 2000 that indicated a dramatic fall in agricultural production to be partly due to the drought conditions which started during the 1998-99 crop season. In 2002, estimates show that in post-drought conditions, the production level was estimated to be back to 2.6 million tons. In 2002, a rebound in agricultural production materialized following good rains during the 2001/02 winters. Maize and sunflower production increased with 25% and the production of poultry, meat and eggs has doubled. (End Note 3.)

### II. Infrastructure

### Physical Infrastructure

Since 1991, the Iraqi government appears to have been successful in repairing some damages of the last two decades of wars, but due to a lack of resources much of the work is temporary and may be substandard. However, the country's civil infrastructure remains in serious disrepair. Transportation, power and communication infrastructures were decimated during the Gulf War and the sanctions have prevented any comprehensive reconstruction effort. Today, the task ahead is enormous and does not only involve electricity and transportation infrastructures, but also water and sanitation systems, schools, housing, local industries, health centers, roads,

bridges and public buildings, not to mention the requirements of the oil industry which is in a lamentable state.

The breakdown of key infrastructure networks such as power grids and water distribution networks has had a major impact on the socio economic situation. Sanctions have not only translated into major shortfalls in equipment, spare parts and supplies, which were critical to maintaining a decade of patchwork, but more importantly have made the construction of new installations difficult, even when existing systems were beyond repair. Furthermore, holds placed by the UN Sanctions Committee on government contracts prior to mid 2002 have also had a significant impact, however, less so today with the new application system in place.

Iraq's national electricity grid was badly damaged during the 1990-91 Gulf war, when around 90% of the country's power stations and transmission network were destroyed or heavily damaged. A report released in June 2000 indicated that the power generation capacity in the central and southern areas had declined to about 50% of demand. An average of 12- hour power cuts per day were being applied in most governorates, while in Baghdad governorate the average has been only four hours per day. Fortunately, higher rainfall in 2002 and significantly higher water levels in dams and reservoirs resulted in increased levels of generated hydropower supporting the overall electrical situation in 2002.

The railway system has three major routes: the Baghdad-Kirkuk-Erbil line, the Baghdad-Mosul-Yurubiyah line, which links with the Turkish system, and the Baghdad-Maaqal-Umm Qasr standard line. While services still operate, they are infrequent, unreliable and inadequate, owing to the dire state of the infrastructure. In August 2000 the line between Mosul and Aleppo, Syria's second city, was reopened. Additional resources have been directed towards the railways in a bid to improve internal distribution.

The 39,000-km road system was subject to major development before 1991. The bombings of 1991 targeted roads and bridges, destroying many including the Baghdad-Amman highway, which was severely damaged. Post-war reconstruction efforts have been relatively successful, and the government claims to have repaired the majority of the damaged bridges and roads.

There are two international airports, at Baghdad and Basra, and smaller civil airfields at Hadithah, Kirkuk and Mosul. Civilian international air traffic is banned under the current sanctions regime, although France and Russia, as well as a host of Arab states, have disputed the ban and partly ignored it in practice.

A major priority after the 1988 Iraq-Iran ceasefire was the modernization and expansion of Umm Qasr port. With the beginning of food imports under UN Security Council Resolution 986 in 1997, Umm Qasr became the major port to service Iraq's needs. Its general dilapidation, however, began to have an impact on food and medicine deliveries, at which point a concerted effort to improve facilities at Umm Qasr was undertaken.

In the main cities, especially Baghdad, telecommunications infrastructure was largely destroyed during the Gulf war. A report of May 2002 noted an improvement in the local and trunk networks stemming from upgrades to the cable network. Further improvement in the telecommunication infrastructure and international connectivity is expected after installation and commissioning of a satellite earth station and corresponding international equipment.

The situation in the northern Governorates has been different. The impact of contracts on holds for UN agencies working in northern Iraq has been minimal and mechanisms were in place to address the cash requirements. This has translated into agencies being able to undertake rehabilitation and reconstruction of key infrastructures. As a result of the work of the UN agencies in northern Iraq, there is a much better understanding, documented in needs assessment and technical surveys, of what it will take to put in place a fully operational infrastructure base in the northern Governorates of Iraq.

#### Water and Sanitation

Access to potable water is insufficient in both quantity and quality, and in many cases the water and sanitation networks remain in a poor state of repair. The deterioration of water facilities has, however, been halted, resulting in improved access by consumers to potable water. The amount available in urban areas is now 197 liters per person per day, compared with 166 liters in 1997.

Currently 500,000 metric tons of raw effluents are pumped into fresh water sources daily. At present approximately five million people, four million of whom reside in Baghdad, are connected to a sewage network and to reliable pumping stations, which are connected to the electrical grid. Only an estimated ten percent of these sanitations stations have backup generators, which could cause severe environmental and health hazard in the event of electrical failure. In 2002, 960 water treatment and 17 sewage treatment plants were in acute need of rehabilitation. (End Note 4.)

### III. Social Structure

### Health

The international sanctions that were imposed on Iraq following the August 1990 invasion of Kuwait have had severe repercussions for health care and child mortality. The national health care infrastructure, which reached 97% of urban and 71% of the rural population before 1991, has faced severe shortfalls in supplies and capacity. In the 10 years since the sanctions have been in place, childhood mortality in the south and central regions has more than doubled to a rate that is higher than 20 years ago, while in the northern region childhood mortality rates have dropped to half of the rates of 20 years ago. Maternal health has especially been affected. According to a UNICEF study, the percentage of underweight children under the age of 5 has declined from 23% in 1996 to 10% in 2002 for the south and central regions under the Oil-forFood Programme.

In addition to high level of mortality of infants and children below 5 years old, (according to Iraqi Ministry of Health December 2001 reports, in the 3 months from September to November 2001 there were 31,000 deaths, among them there were 21,000 children below 5 years of age), and the increasing spread of chronic diseases, there is also a widespread increase of child labor and street children. WHO reported in 2001 that cases of anemia, rickets and pneumonia have increased by 10%. Iraqi Ministry of Health's reports in 2001 indicated that cases related to different cancerous illnesses had increased four fold in the last 10 years. It averaged 46 cases per 100,000 citizens in 1990/1991. One third of children infected by various cancer diseases died.

Severe shortage of essential drugs and medical equipment coupled with soaring inflation, have seriously hampered the health system. Iraq's expenditure on medicine decreased to about USD 3 per capita in 1995-1996, recovering to USD 16 in 1997. UNICEF surveys indicate that in the Center and South 23.1% of children under five years of age suffered from chronic malnutrition, 4% were acutely malnourished. By comparison, the improvements in the three northern governorates, has been

significant with 14.7% of children under five years of age suffering from chronic malnutrition, and 3% acutely malnourished.

### Food Security

During the pre-sanctions period in 1990, Iraq enjoyed the highest rate of food availability per capita in the region, because of its relative prosperity and its abilities to import the quantities of food it required, constituting about two thirds of its need. The imposition of sanctions in August 1990, limited Iraq's ability to secure hard currency needed to import foodstuff. Consequently, shortage of food and, consequently, malnutrition started to emerge and became more acute during the 1990s reaching chronic conditions, especially among the more sensitive groups i.e. under five years-of-age children, pregnant and lactating women. An estimated 60% of the population - the poorest of the poor - relies solely on the monthly food basket to meet all household needs.

Livestock has been severely affected due to two main factors, a.) The sanctions and the consequent shortage of vaccines and limited availability of veterinarian requirements, and b.) Successive drought seasons, resulting in acute shortage of feed which in effect decreased the production of milk and dairy products. The number of cows, sheep and goats declined to 9.4 million, which represents around 60% of their number during the years 1986-1990. Red meat became scarce and costly and is today beyond the reach of the majority of the population. (End Note 5.)

### Food Consumption and Nutritional Status

The calories per capita per day increased from 3,000 calories in 1980 to 3,444 calories in 1989. Beginning in 1990, the Government started to distribute basic foodstuffs in limited quantities through a ration system wherein all citizens received a food basket of equal size and content. Accordingly, the daily calorie intake per individual provided by the Government ration was around 1,000 calorie during the period from 1990-1996, which is less than half the daily requirement level of 2,500 calories set by WHO. People covered the deficiency through purchases from the local market, where prices were so high that only few people could afford to do so. Therefore, the food basket provided by the Government remained the major source of calories for the majority of the population. Food arriving in the country under the Oil for Food programme has had a positive impact on the overall calorie intake, increasing it to 2,396 in 1997, but the food basket continues to lack red and white meat, eggs and dairy products. (End Note 6.)

The Multiple Indicator Cluster Survey (MICS) carried out in 2000 revealed that 15.9% of children under 5 years-of-age suffer from moderate to severe malnutrition with 2% suffering from severe malnutrition. Severe and moderate stunting was also high (22.1%) with 6.4% of children under 5 years of age suffering from severe stunting. Wasting rates were as high as 5.9% of which 1.2% suffered from severe wasting. The results of the MICS also revealed that moderate and severe malnutrition indicators were higher in the rural areas as compared to the urban areas, with negligible difference between male and female indicators.

### **Housing**

The most affected commodity sector was construction, which in the mid 1990s stopped completely except for limited reconstruction activities performed by state owned corporations. These corporations achieved early on some results in rehabilitating the most important infrastructure networks as well as some of the housing stock, which had been damaged in January 1991. However,

new housing stock has been significantly curtailed until late 1990s resulting in overcrowding and substandard living conditions.

Recently in the housing sector in the Center and South, residential construction was expected to reach 14,432,896 square meters for 2002, compared with 347,892 square meters in 1996.

The decline in economic activities impacted negatively on all aspect of human development. The rehabilitation/construction of schools and health institutions was hindered by low allocations of funds to the education and health sectors, resulting in long-term consequences on the state of human development in the country.

### Education

The Educational system in Iraq has suffered as a result of the current socio-economic problems thereby forcing people to seek productive work in order to support themselves and their families. Ensuring the right for education does not only constitute a moral issue nor is it dependent on economic justice, what remains a indisputable correlation is that educational decline and the current situation is an aftermath of the last two decades of hardship. Furthermore, due to the deteriorating socio-economic circumstances in Iraq, teachers' social status worsened and their morale weakened. Moreover, the education process was badly affected by an austerity policy adopted by the state, insufficient teaching materials and cuts in the education budget.

Universities and educational institutions ceased to receive adequate number of academic books and journals due to a drain in hard currency. This has had a very negative effect on the current educational standards. Prior to 1989, Iraq was a generous producer of books, journals, magazines and newspapers as well as an importer of large quantities of books and magazines. With the non-availability of commercial foreign magazines and books, the Iraqi reader was limited to a newspaper that was only a few pages, and to a limited number of used books and magazines. (End Note 7.)

#### Culture and Social Fabric

The impact of recent wars left deep marks on the Iraqi population. Iraqis have generally been used to prosperity and an abundance of personal funds that bought them goods and services. Their health and education services were free, the cost of gasoline, water and electricity was negligible, and personal vehicles and travel abroad were all subsidized by the state. This is no longer the case.

The immediate crash of the Iraqi Dinar against the dollar meant that the 400 Iraqi Dinars, an average salary for a mid-rank government official, equivalent to USD 1,200, suddenly had the value of between USD 1 and 25 cents. This monthly wage could not sustain the livelihood of the Iraqi family and meant that it had to resort to different income generation means, some of which were completely alien to its way of living. Concomitantly Iraq witnessed the migration of 4 million able Iraqis seeking better job opportunities abroad. The mass emigration meant that in many households' women and children were left to fend for themselves adding to an already large number of female-headed households. The long existing system of extended family support was no longer in place since the austerity meant that families could only take care of themselves and hardly had the extra resources to assist others, particularly affecting women and children and segments of the population in need of special attention. (End Note 8.)

### Environment

There is a lack of accurate data but it is recognized that the biodiversity of the region in addition to the environmental and social implications related to water resources in particular are of prime concern in Iraq. And especially since there is no recent data on the environmental situation, more attention is required in this area, as adverse affects to the environment if left unchecked could be a great detriment to the region as a whole.

## VI. Iraq Scenarios and Implications for the United Nations

Five scenarios with likely humanitarian impact will be explored under the following five headings, with an in-depth socio-economic analysis of heading a and b.

- a. No war and regime change
- b. War and regime change
- c. No war and no regime change
- d. War and no regime change
- e. War and chaos

Regardless of the scenario, Iraq requires support in restoring normalcy to its society and reintegration into the international community making maximum use of its institutions and capacities. Certain priority actions should be undertaken to address relief and recovery and the state of imbalance of the socio-economic situation, these include:

- Restore law and order through justice, police, etc
- Provide for immediate humanitarian needs (food, drugs, shelter, ...)
- Stabilize major infrastructure components such as water, electricity, sewerage, and communications, etc
- Address the transportation infrastructure
- Instigate post disaster economic management along with public sector reform
- Implement a judicial structure addressing past violations in conformity with UN human rights standards
- Provoke and provide enabling environment for private sector investment
- Orient the economy towards increased employment generation
- Repair the mainstays of the economy, which is predominantly the oil sector
- Enable and improve the main elements of governance (national, regional, local) including central sectoral and regional planning capacity)
- Target specific critical aspects of health and education

### No war and regime change

Under such a scenario the need for socio-economic recovery would be tremendous since Iraq was exposed for two decades to two wars and a sanction regime that strongly influenced the economy and lead to a general deterioration of the development path. A new regime would probably call for an end of the sanctions and introduce some form of economic and political liberalisation. The cost of recovery would be lower, but important. The speed of such a recovery would mainly depend on degree of openness and liberalisation of the new regime. Should the changes be of a purely cosmetic nature, the socio-economic revitalisation process would be slow and probably marginal.

The different possibilities of regime change could consist of either a change within the regime (the Ba'ath party produces different figures to hold power and introduces measures of liberalisation to ease the tension and attract support of the Iraqi people; Saddam Hussein might go into exile); or an internal change (within the Iraqi Army – i.e. coup d'Etat).

Even under a new type of government, it is likely that the country may slip back into its old ways. The new leadership that emerges in Iraq, in either scenario, will not inherit exactly the same structural basis of power, which has maintained the current regime. However, the current regime has established a pattern of rule that will be very hard for any future Iraqi regime to shake off. The remnants of existing state machinery, and the state model of governance are all likely to work against a truly new state emerging from a conflict (either with internal or external forces). Any future authority will most probably utilise the remaining infrastructure of the state, including the regular armed forces.

Socio-economic scenario: Regardless of the extent of a regime change and easing or lifting of the sanctions, the requirements for extensive rehabilitation work are clearly laid out in the assessment of the current socio-economic situation in Iraq.

The overall socio-economic situation will improve, as the market will be opened to neighboring countries the region and beyond, even if limited and good will enter without restrictions. A certain number of Iraqi persons in exile might return contributing to the efforts of rebuilding the nation in its various aspects. However, with not additional inflow of investment Infrastructure breakdown would add to social and community despair. Inadequate water and sanitation provision would seriously hamper the already strained health situation and overall capacity to maintain services. Furthermore, the overall health situation is critical especially for children and pregnant and lactating women, elderly and disabled, are especially at risk. Increased risk for transference of diseases compelled with the fact that health centres and hospitals are insufficiently equipped to cater to an additional caseload, major health concerns are eminent. Finally, with the government's limited capacity for local and regional planning, budgeting and management of the civil service system, and public investment etc., the need for external assistance would be eminent.

## Assessment of the possible implications for UN activities:

The source and type of change is decisive in defining the path towards a more participatory system of governance. This will also be decisive in defining the role of the United Nations. In case of regime change without war, it may be difficult to envisage a role modeled on post-conflict engagement of the UN. In addition, it is worth to note at the outset that the role of the UN will depend on the perception of the new actors in the new regime. (End Note 9.)

If a pro-democracy government would come to power, the sanctions might be lifted and the Oil for Food programme discontinued if a settlement was reached with the Kurds. UN agencies would be enabled to start advisory functions to the government on development, socio-economic and governance matters. Some projects might be executed directly by the UN.

External collaboration and support would be needed in order to secure adequate inflow of expertise and resources required for rehabilitation and development activities. Iraq would be required to re-build its economy, notably its oil sector by attracting major foreign investments in order to bring its obsolete oil industry up to international standard. Meeting human security needs and lifting human development levels, will require investment-friendly policies and systems, major inflows from private as well as

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public sources. The UN may assist with such venues by organizing donor conferences and assist in transfer of technical expertise etc.

Ensuring that positive social and economic effects, including political stability, are felt as soon as possible and in all communities and among all ethnic and tribal groups will be vital. National reconciliation will depend on the level to which communities will feel confident and consider social, political and economic solutions (including the distribution of resources/budget and goods) as just. Moreover, it is important that the people feel the benefits of change and the raising standard of living as soon as possible.

The UN could have a role to play in assisting in the transition from the highly subsidized economic system that exists today to a more self-reliant that builds on capacities from within. Assist in developing local capacity for self-administration, creating and establishing the necessary planning and management capacities for local administration promoting a transition away from the current centralized nature of the Iraqi administrative system.

Notwithstanding such long-term goals, and longer-term assessments, the UN should access emergency resources and prepare larger emergency response plans. Based on the Iraqi peoples creativeness and resilience, as well as their organizational capabilities, the need for massive assistance in administering the reconstruction efforts would most likely be limited to the interim period, prior to full resumption of oil exports. After this time, and as a road map for reform and reconstruction is being implemented, combined with improved governance, oil revenues would provide for autonomous economic recovery.

Regarding the northern governorates in Iraq, the focus of the UN should here be to sustain the achievements to date and build on them. Not only is there an obligation to protect the large human and financial capital investments realized under the Oil-for-Food Programme over the last seven years but not doing so will represent a major step back in the national reconstruction process. Furthermore, mechanisms and strategies from successful UN interventions in northern Iraq, may with benefit be duplicated for the rest of the country.

## War and regime change

Regime change in Iraq is possible, and most likely through war. Depending on the level of 'intensity confrontation', damage levels may vary between major, medium and light. A high intensity conflict would affect the majority of the population, causing the collapse of public services and destruction of oil fields and the production facilities at large. Population movements, primarily within the center region, with potential outflows to the north and borders with neighboring countries, possibly causing a regional spillover effect. The medium level would affect some segments of the population, not seriously affecting the production sector leaving the oil and electric power sector mostly undamaged, and only causing a minimum of internal movements. Finally, the 'light intensity' impact would likely not affect any of the 18 governorates, except for a few incidents in and around Baghdad, causing a limited level of disruption and little confusion / disruption to everyday life.

Upon the conclusion of a possible conflict, Iraq may look towards the coalition forces and major regional institutions, the United Nations and the Arab League etc. to assist in ensuring lasting political change and security. With its long-standing presence in the country, and a delivery system already established under the Oil-for-Food Programme, the UN is equipped to assist in promoting a broad level of development goals and immediate and long term humanitarian assistance.

Socio-economic scenario: With some 60% of the population, 14 million people, highly dependent on their-monthly 'food basket' of the Oil-for-Food Programme, a high intensity conflict with major damage to infrastructure and delivery systems, with possible score-settling and anarchy, would result in both a situation of uncertainty and fear with little or no means of providing any supplements.

Experts estimate that the overall costs of post-conflict reconstruction, over and beyond humanitarian assistance, could range between USD25 billion - USD100 billion. The electric power network only would require USD20 billion to be restored to its former generation capacity, with additional billions for roads and bridges, railways and ports. Currently there is a wide financing gap between revenues and commitments, private sector investments will therefore be required to restore essential social services and repair of critical infrastructure preparing the ground for the oil economy to play its part in sustainable reconstruction.

The humanitarian situation would be affected by infrastructual break down with major ports not being able to receive supplies, railway systems not operating adequately, road transportation hampered by lack of gasoline and damage to bridges and roads etc. Another eminent risk during -and post conflict is the collapse of sewage treatment facilities, especially in Baghdad where sewage networks serve four million people. Since these facilities are connected to the electrical grid, should the power supply be insufficient to operate these stations, this would cause the spread of epidemic diseases as well as cause environmental problems. The collapse of water and sanitation systems has resulted in the capita share of water dropping by half and water contamination levels increasing six-fold, which has only increased the incidence of water-borne diseases and the prevalence of malnutrition.

Currently large parts of the country rely on potable water distribution, ranging from once a day to once every ten days, with an average of 20 liters per household per day being delivered, an interruption to such services would cause an increased risk for pregnant and lactating women, the elderly, child mortality and IDPs. Water born diseases (epidemic) are another risk that could endanger large parts of the population.

Internally displaced persons, Iraqis seeking asylum in neighboring countries and large influxes of refugees in the border areas raise concern over security and the nature of containment at hand. This could pose a potential risk for serious environmental damage, affecting the economy and livelihoods of people, thereby causing a serious obstacle for long-term planning and rapid recovery. The UN has the capability to address all of these critical issues, in a humanitarian and rapid sustainable manner.

## Assessment of the possible implications for UN activities:

The United Nations would be required to rapidly expand its current humanitarian programme to cover the areas in Iraq most in need of assistance, such as the south with 5.4 million people, segments of the population depended on the Oil-for-Food 'food baskets', and providing immediate support to an estimated 2 million IDPs and refugees. For northern Iraq, enjoying last year's improvement in infrastructure and food security, the need for UN intervention may not be immediate, however, the supply of food commodities would still need to be replenished to avoid a humanitarian crises.

The possibility of the destruction of oil production facilities, leaving the entire Iraqi economy without revenues, would create a need for massive financial aid. Without its oil production facilities intact, Iraq would not be in a position to revive its economy and to undertake necessary reconstruction, upgrading and expansion of its production sector. For Iraq to meet its own needs and obligations it requires significant financial support from various external sources.

An immediate decrease / collapse in trade would have a broad effect on the economic situation and directly result in an even lower social services rate. Economic collapse could seriously affect the productive sectors and have a significant long-term impact, and in the short term be an added liability for the most needy segments of the population. National and regional stability could be affected adding to the unstable situation in Iraq and the region.

Initial survival assistance to at least a few hundred thousand affected people, would be needed within days, with the long to mid-term assistance encompassing the majority of Iraq's 23 million people. Therefore, a careful review of existing capacities in Iraq should outline how an apparatus could be put in place within a very short timeframe making use of existing UN agencies active in Iraq, and their personnel, e.g. already established systems of capacity building. UNDP's 'Common Roof' concept supporting the local administrations and planning units in the northern govornorates, may with benefit be replicated for the South and Center.

An obvious role for the UN, notwithstanding a major task during a conflict and immediate post-conflict period, is the ensuring of a safety net for the population with respect to food security, especially in the likely event that oil exports may not resume immediately after a conflict, and, therefore, not allow to fund necessary food imports.

The functioning of the country's infrastructures is essentially dependent on electricity generation, especially in the water and health sectors. Therefore, agencies with a proven capacity for rapid follow up and deployment of staff and projects, especially if already available in Iraq, should utilize its technical expertise and human resources for short and long-term interventions within physical infrastructure, and most other socio-economic sectors.

The role of national stakeholders is extremely important in identifying needs, priorities, aid sequence and local factors. Transition to recovery could be addressed by enabling the return of expatriates/experts for much needed recovery work. Possibly the TOKTEN program could be used. For this to happen, ensuring the involvement of countries and experts from the Arab region may prove instrumental, and a certain level of security would need to be put into place.

Since the current administrative structure is unsuited for the huge challenges ahead, emphasis should be given to create capacities in planning, management and administration. Local authorities should receive assistance in positioning themselves to take up any function, as required by a new national administration, and to ensure that the capacities created within the local authorities, or individuals, remain in place and possibly expanded.

In order to promote an effective planning and delivery system ensuring fair distribution of food, a broad network created by the General Federation of Iraqi Women and other national women's structures, may with benefit be engaged by the UN in assisting with food distribution. Experience shows that women prioritize differently than men, e.g. by allocating more for children and the elderly.

Finally, focusing on an "exit" strategy for international aid by developing national economic institutions, restarting planning systems hereunder promoting mechanisms for local governance are solutions that rely on Iraq's potential for self-subsistence based on oil revenues and it's human capital. Donor conferences and promotion of private sector collaboration are important means of ensuring an adequate level of assistance in Iraq's efforts to rehabilitate its oil production, and getting its economy back on track.

## No war and no regime change

Full Iraqi compliance with UN resolutions and a policy change by the US backing away from its current concerted efforts to unseat the Iraqi leadership, is a probability. Should there be a status quo in the current situation, it is likely that the current sanctions regime may be continued without any major changes to its restrictions, and limitations for promoting development work within Iraq.

## War and no regime change

Iraq has been greatly weakened over the past two decades, however, the leadership, as a last viable resort, may resist long enough to generate extensive damage causing international and US domestic reaction to force the US Administration to end the war with the current leadership still in power.

### War and chaos

Should the leadership believe its main chance of survival would be to resist long enough generating damage and escalating the war, this would have a major disruptive effect on already unstable international financial markets as well as a considerable negative impact on energy markets. Oil fields and production facilities could also be destroyed causing serious damage to the environment and hampering economic growth.

# Sub-regional implications in case of a regime change

A regime change in Iraq will favour trade exchange in both the private and the governmental sector, which will positively affect the sub-region. Iraq has already established commercial relations with most of its direct neighbours. An enabling environment for private sector development would further increase sub-regional trade in primarily with Turkey, Jordan and Syria, but also with Saudi Arabia, Kuwait and Iran.

There are also specific interests for each country. Turkey, Jordan and Syria have considerable economic interests and they will want to gain advantages for the sacrifices they made and would have to make in case of a war. Turkey further might also seek to maximise the economic benefit from a regime change trying to have an influence in the oil-rich North of Iraq.

The prospect of regime change in Iraq with implications for the entire Middle East, might favourably influence the flow of foreign direct investment with spillover effects for the region.

### End Notes

### End Note 1.

The Government of Iraq and the UN, coordinated by the UN Office of the Iraq Programme (OIP), have implemented twelve 180-days Distribution Plans (each known as a Phase) thus far. The current Phase XIII, in accordance with the UN Security Council Resolution of 4 December 2002, runs until mid 2003. To date, some USD 40.5 billion worth of contracts for humanitarian supplies and equipment have been approved. Supplies and equipment worth almost USD 25.8 billion have been delivered to Iraq, while another USD 10.4 billion worth of humanitarian supplies and equipment are in the production and delivery pipeline.

Due to the Oil-for-Food Programme, malnutrition rates in 2002 are half those of 1996. Access to potable water in rural areas improved from 41% in 1997 to 46% in 2000, while in the urban areas it decreased from 94% in 1997 to 92.4% in 2000. The humanitarian situation remains very precarious, and, in some areas, the Programme has not succeeded in reversing certain indicators, as witnessed in the continuous high level of infant mortality, and of communicable diseases such as amoebic dysentery and giardiasis.

### End Note 2.

The decline in the number of employees in the construction sector, manufacturing sector and water supply and electricity sectors was in 1996 about 46% of its level in 1989 resulting in a decrease in-per capita income, which, in turn, had negative consequences on the human development index.

Accordingly, under current circumstances, any improvement of the humanitarian situation and the reactivation of economic activity are impeded by depleted financial and human resources, high rates of unemployment and inflation, and a continuous deterioration of economic and social infrastructures in all sectors. The GDP per capita has fluctuated drastically over the period 1989 - 2000 and may have dropped as low as USD500 according to an ILO mission of May 2000.

#### End Note 3.

Prices of agricultural products have been controlled by the government and have historically favored the urban consumer at the expense of the farmers. Under sanctions, however, some farmers have fared better than most other Iraqis. In an attempt to increase food production, the government has raised the price of staple foods, including wheat, barley and rice, while heavily subsidizing seed and pesticides. However, the farming infrastructure has been largely neglected, which, when combined with sanctions, has taken a heavy toll on productivity. Harvests of vegetables and cereals have shrunk by one-third since 1990.

The agricultural sector contribution in the provision of inputs of agricultural origin needed by the manufacturing sector accounted for 85% of the total production inputs of agricultural origin. These inputs, whether imported or produced locally, constitute 30% of the total commodity inputs, and the rest is of industrial origin.

### End Note 4.

Endowed with two major rivers, as well as various lakes, reservoirs and marshes, Iraq has abundant water resources as compared to its neighbors. The government is trying to compensate for the construction of upstream dams in Turkey and Syria by increasing storage, but the overall management of water resources is hampered by the lack of a water-sharing agreement between Turkey, Iraq and Syria. Several major drainage canals have been dug in the southern marshes, causing considerable

international concern for the environment, and the communities residing in the concerned areas. In 1995 the construction of the Third River (Saddam River) was completed. It starts at the northern borders of Baghdad and runs all the way to the south connecting with the Euphrates. Its purpose is to act as a drainage canal but it has the length of a river, over 500 kilometers and a width of 20 meters at certain points.

### End Note 5.

As a result of serious shortage in cereals and poultry products, vegetable and fruits, and production of dates, acquired higher importance in the Iraqi diet. However, the production of vegetables and fruits shares the same limitations; shortage of irrigation water due to drought, lack of fertilizer and pesticides due to the sanctions, and other impediments due to the difficulties resulting from the blockade.

In 1997, the production of the main crops was as low as 2.2 million tons, which is the least since 1991. This low productivity cuts across all parts of the country. The drought seasons during the late 1990s further aggravated the situation. However, poultry, meat and eggs have doubled in resent years adding to an improvement in acute malnutrition and reduction in underweight children.

### End Note 6.

During the sanctions period, vitamin A deficiency became a problem due to the absence of dairy products, meat and eggs from the food basket, and their high prices in the local markets as compared to average incomes. Iodine deficiencies lead to a group of disorders ranging from stillbirth to low mental capabilities, mental retardation and deafness. A study, conducted in the country revealed an increase of goiter enlargement rates among primary school children. Vitamin D deficiency, causing rickets among young children emerged as yet another problem.

Anemia, due to iron deficiency, has become one of the most common nutritional disorders in Iraq, affecting as many as 70% of pregnant women with probably similar percentages among young children. It is an important cause of maternal death and has constituted to greater susceptibility of young children to infectious diseases.

The surveys carried out by the Ministry of Health in cooperation with UNICEF revealed that there were noticeable decline in stunting among children since the implementation of the Oil-for-Food Programme, i.e. since April 1997.

#### End Note 7.

In education, females continue to lag behind males in both literacy and primary school enrollment rates. In 1998, 64% of adult men and 43% of adult women were literate. During the same period, youth (people aged 15-24) literacy showed a smaller gap of 77% of males and 64% of females. According to World Bank estimates, 80% of boys and 70% of girls were enrolled in primary education in 1998.

Planned versus Actual Number of Students Registered at various Educational Stages in 1999/2000

1999/2000 Planned Number	Real Number D	
	Real Number Registered	
	67,701	
	3,224,602	
	1,051,905	
<del></del>	N/A	
198,687	62,973	
6,921,016	4,407,171	
	1999/2000 Planned Number 129,271 4.173,664 1.823,374 636,020 198,687	

Source: Ministry of Education - State Directorate of Educational Planning

Number of Schools Planned for versus those Actually Implemented

Stage	tained for versu	s those Actually Implemented	
Kindergartens		Planned for	Actually Implemented
Primary			563
Secondary		10531	
Vocational			-505
Total		374	2941
Source: Minint		16124	236
Source. Ministry of Educat	ion/ State Directora	16124 to of Educational Planning	12245
	18 20 18 18 18 18 18 18 18 18 18 18 18 18 18		

### End Note 8.

With the sanctions, the welfare state ceased to exist. The sanctions achieved the destruction of the purchasing power of the Iraqi citizen, and the destruction of the subsidy system of the state affecting national capacity, hereunder resulting in brain drain of the public sector.

Austerity and economic hardships have led to severe deterioration in the values and practices of the Iraqi society. Informal statistics show a surge in the rates of divorce; child labour; prostitution; violent crimes; the emerging informal sector which deals in stolen and sub-standard merchandise; absence of health and hygiene standards in medical facilities, and in the food industry; deteriorating housing facilities; deteriorating municipal services; corruption of the police and the legal system; deterioration of the education system through lack of teacher training, school equipment and tools, and most importantly lack of personal means to dress and eat properly among teachers and students alike. Many Iraqis have resorted to living, regardless of means, and many others shifted their emphasis to a revival of religious values and extremism. The two models of living exist side by side in today's Iraq.

### End Note 9.

For instance, the last statement of the Iraqi opposition did not refer to any role for the UN except under

### **Brief Country Overview**

Total Population:

22.4m; (50.3% Females & 49.7% Males)

Population Growth rate:

 $2.6\%^{2}$ 

Population Distribution:

70% Urban; 30% Rural3

Adult Literacy:

62% (male: 46.8% and female 78.6%)4 Males: 61.7 years; Females: 64.7 years<sup>5</sup>

Life Expectancy: Ruling Party:

Baath Party

President:

Mr. Saddam Hussein

Vice-President: Vice-President:

Mr. Taha Muhai Eddin Maarouf Mr. Taha Yaseen Ramadhan

Deputy Prime Ministers:

Mr. Tariq 'Aziz, Mr. Ahmad Hussein, Mr. Hikmat Mizban

Minister of Foreign Affairs:

Mr. Naji Sabri

Minister of Oil:

Mr. Samir Abdul Aziz al-Najm

Estimated GDP Per Capita in 2000:

USD5006 and 7

External Debt:

USD 62.2 billion (2001 estimates)<sup>8</sup>

Major Industries: Major Resources: Oil, Petro-Chemical, Electrical, Fertilizers, Construction material, Textile.

Oil, Sulphur

Oil Reserves:

Approximately 200 billion barrels or 20% of the worlds oil reserves9

Gas Reserves:

110 trillion cubic feet of proven natural gas reserves

Exports:

USD 15.8 billion (2001 estimates)

Main Trading Partners:

Russian Federation, Egypt, France, Jordan, China, UAE, Australia, Syria

Workforce Distribution 1990 & '92:

Agriculture sector:

35% in 1990 / 14% in 199210 (estimated figures) 30% in 1990 / 67% in 1992 (estimated figures)

Service sector: Construction sector:

17% in 1990 / (estimated figures)

Industry sector:

12% in 1990 / 19% in 1992 (estimated figures)

Oil sector: Main four crops: 2% in 1990 / (estimated figures) Wheat, Barely, Rice and Corn

Million Hectare cultivated in 1997:

2.076 (13% reduction over 1995 the lowest since 1991)

Telephone lines per '000 population

1980 - 19 / 1990 - 37 / 1996 - 33 and 1999 - 3011

Major Donors to UNDP in Iraq:

ECHO, UNOHCI, French & Norwegian Governments

Latest NHDR Publication Date:

Next NHDR Publication Date:

Early to mid 2003 126/174 countries

HDI Rank for 2000 Poverty Index for 2000 126/174 countries & Gender Dev. Index for 2000: 126/174 countries

Census by Central Statistical Organization (CSO) Iraq, 1997

<sup>&</sup>lt;sup>2</sup> Central Statistical Organization (CSO) Iraq, 1997 <sup>3</sup> Central Statistical Organization (CSO) Iraq, 1997

<sup>4</sup> UNESCO 1995

<sup>5</sup> WHO, The World Health Report, 2001

<sup>6</sup> ILO, May 2000

<sup>&</sup>lt;sup>7</sup> EIU Country Report, 1<sup>st</sup> Quarter 2000

<sup>8</sup> CIA - The World Fact Book 2002

<sup>9</sup> Jane's and Economist, 2002 10 Jane's and Economist, 2002