

SANCTIONS AGAINST IRAQ

COSTS OF FAILURE

by

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A report prepared for the Center for Economic and Social Rights on the impact of United Nations-imposed economic sanctions on the economic well-being of the civilian population of Iraq.

Mission Background

On May 3-13, 1996, the Center for Economic and Social Rights (CESR, formerly known as the Harvard Study Team) sent a team of economists from the London School of Economics to Iraq. One of the economists on the team had participated in the 1991 mission, and this study builds on that work. The objective of the work was to study the effect of sanctions on the Iraqi economy and the livelihood and well-being of its population.

Earlier in the year (April 2-19), CESR had conducted scientific surveys in the areas of child mortality and nutritional status, public health, and water and sanitation infrastructure. These studies were designed to assess the impact of sanctions on the civilian population. In May, CESR had released its findings with a legal assessment of UN Security Council sanctions imposed against Iraq. The report, *UNSanctioned Suffering: A Human Rights Assessment of United Nations Sanctions on Iraq*, raised ethical and legal questions about the present sanctions regime that imposes such terrible costs on a population, which has no voice in the policies of either its own government or the international community. The report stated that less drastic means are available to constrain the Iraqi regime without imposing the costs on the most vulnerable sectors of society, and recommended that the Security Council and the international community consider the following measures:

- *Modify the oil-for-food deal to remove the limit on oil revenues for humanitarian needs.* It does not make legal, ethical or economic sense for the Security Council to adopt an arbitrary limit of \$4 billion per year that will guarantee continued deprivation throughout the population.
- *Adopt alternatives to comprehensive sanctions on Iraq and in future cases.* The international community should not impose massive and collective suffering on innocent civilians for the sins of their government -- the entire human rights regime is premised on the inherent dignity of the individual. The case of Iraq demonstrates that sanctions are not always a humane alternative to war.
- *Establish a clear legal framework to govern Security Council sanctions.* Although the UN Charter and general principles of international law govern Security Council action, this area of law is less clearly defined than, for example, humanitarian law which governs military conduct during war. The UN should convene an international panel of experts to draft a legal regime that defines the parameters of the Council's power to maintain international peace and security through sanctions and other forms of pressure.

EXECUTIVE SUMMARY

The scale of economic sanctions against Iraq is probably unprecedented in recent history. The imposition of sanctions can be regarded as a macroeconomic shock of massive proportions. Although the sanctions regime has allowed for an easing of the restrictions on the importation of foodstuffs and medical supplies, the availability of these essential supplies, among other things, continues to fall far short of the requirements of the civilian population.

The main source of this shortfall lies in the inability of Iraq to pay for imports. The Iraqi economy has been denied of the revenue from its most valuable asset: petroleum. The effect of the ban on Iraqi exports is the same as the effect of a quantitative restriction on the importation of food or medicines, and in this sense, the allowances in the sanctions regime for 'humanitarian' imports are somewhat illusory.

Iraq had relied heavily on oil revenues in the past, and its economy had developed around the surpluses generated by oil exports. As such Iraq was particularly vulnerable to an oil embargo. The mechanisms through which the oil embargo affected the economy were two-fold: firstly it reduced dramatically the revenues available to the government, and secondly, it led to a dramatic reduction in the value of the Iraqi currency.

The impact on earnings and livelihoods has been disastrous. Real earnings fell by around 90 per cent in the first year of the sanctions, and then fell by around 40 per cent more between 1991 and 1996. There has been a steady shift of people into casual labour. Wages in this form of employment are now much lower in Iraq than wages for casual workers in some of the poorest parts of the world. Qualitative observations on the type of survival strategies that Iraqis are resorting to confirms this impression that in many ways Iraq is now very much like some of the poorest countries in the world, whereas before the sanctions it could be placed on par with the upper Middle Income countries.

The government has responded in a number of ways to the economic crisis brought on by the sanctions. There has been a policy of generating some revenues through seignorage or by the way of printing money. This process, as predicted by economic theory has its limitations, and it appears that these were reached some time in late 1995. Overall, under the circumstances, the management of the macroeconomy has been effective.

Arguably the most significant achievement of the government in response to the sanctions has been the establishment of a ration system. This appears to be efficient and equitable. It would be fair to say that the ration system in tandem with the grain procurement system is what has prevented the onset of mass starvation and famine in Iraq.

The human and economic cost of the sanctions has, indeed, been enormous, and it has largely been borne by the civilian population of Iraq. There can be no question of seeking justification for policy-induced human suffering of this magnitude. It is nevertheless imperative to determine what the

ultimate objectives of this policy were, and whether, and to what extent, those objectives have been attained.

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1 Introduction

When Iraq invaded Kuwait, the UN Security Council responded with sanctions against Iraq.¹ Amounting to a complete economic and political isolation, their aim was to force Iraq to withdraw from Kuwait. Following the military route of the Iraqi army, the UN Security Council passed a new resolution (687) on 3 April 1991 continuing the sanctions in order to secure Iraq's compliance with the terms of the ceasefire. During the last six years, and measured against the goal of isolating the Iraqi economy from world commerce, these have proven to be the most effective sanctions applied against a country in recent history.

The main goal of this paper is to study the impact of the sanctions on the Iraqi economy and its population. Its main focus is on the livelihood and the well-being of the civilian population in the area that has been under the control of the government, that is, the whole of Iraq except the three governorates in Iraqi Kurdistan. This study builds on an earlier study carried out in 1991, when sanctions were only one year old.² We document changes in the Iraqi economy and the impact of sanctions on the economy since then, as well as contrasting with the situation before 1991.

Resolution 687 *inter alia* required Iraq to accept unconditionally the following conditions:

- Kuwait's territorial boundaries as demarcated by the UN Iraq-Kuwait Boundary Demarcation Commission (IKBDC),
- To compensate for the damage caused by the invasion of Kuwait as determined by the UN Compensation Commission (UNCC), and
- To submit to dismantling by the UN Special Commission (UNSCOM) and the International Atomic Energy Authority (IAEA) of weapons of mass destruction and long-range missiles and also of all programmes associated with their development or manufacture.

Still in force over six years later, the sanctions against Iraq are, according to the former UN

¹ The Security Council passed its resolution 661 on 6 August 1990, within a week of Iraq's invasion of Kuwait. This resolution required all member states to prevent any trade or financial dealing with Iraq and occupied Kuwait.

² For detailed reports of the earlier study and related surveys see Drèze and Gazdar (1991 and 1992) and International Study Team (1991).

Secretary-General, "one of the most complex and far-reaching set of decisions ever taken by the [Security] Council" (United Nations, 1996, p 29).³ The sanctions are a landmark for the UN and international relations in three respects.

First, they have been unanimously agreed by the five permanent members of the Security Council and accepted by almost all other UN member states. Some observers hailed this consensus as a portent of a new cooperative spirit in the international community in the post-cold war era.⁴

Second, the UN and its agencies have taken on unprecedented roles in implementing Resolution 687 and enforcing the sanctions. These range from the demarcation of the boundaries between Iraq and Kuwait, conducting "rigorous, no-notice, on-site inspection anywhere in Iraq", itemised approval of what Iraq can import and a detailed policing of the use of revenue derived from the export of oil permitted under the recently-concluded "food-for-oil agreement". The breadth and depth of the UN involvement stands in a marked contrast to its marginal role in the enforcement of internationally orchestrated economic and political sanctions against other recalcitrant states, such as Libya, the Sudan, North Korea, Haiti, and the former Yugoslavia.

Third, the sanctions have been remarkably effective in their implementation if not in securing all their aims. As yet, there have been few attempts by UN member states to break the sanctions. Compared to multilateral sanctions against other states, the sanctions against Iraq stand out in their scope and effectiveness. Except for food and medicines, there has been a blanket ban on all commodities unless specifically exempted by the UN Sanctions Committee. Only limited oil exports to Jordan for own consumption were permitted until the recent "food-for-oil" agreement between Iraq and the UN.

The effectiveness of sanctions has been aided by geographical and political conditions. There are only two outlets for oil exports on a large scale: one is the shipping terminal at the mouth of a narrow strait on to the Gulf bordered by Kuwait on the one side and Iran on the other, and other is the pipeline through Turkey to the Mediterranean. The first has been blockaded and the second is easy to police. With five out of its six neighbours, Iraq has either been at war or has had strained relations. The sixth is Jordan, which having refused to join in the military alliance against Iraq during the Gulf war, has since distanced itself from the Iraqi regime.

³ See, for example, United Nations (1996), p 6.

⁴ United Nations (1996), p 111.

As a result of their effectiveness, oil export restrictions have dealt a large blow to the Iraqi economy. In this report we argue that even while imports have been prohibited, the main effect of sanctions has come through the complete shut down of oil exports and other sources of financing. The sharp reduction in the purchasing power and the rise in the price of foreign exchange have rendered import controls largely otiose. The result is the "temporary" shut down of an economy that was highly dependent on foreign imports financed by oil revenues.

The result of this shut down is widespread economic disruption and impoverishment. The public sector has reduced wages to \$3-\$5 a month due to limited revenues, and industrial production is down 80% in many regions due to reduced purchasing power and imports. The result is that millions of people have taken on casual work in the service sector, or shifted to food production which remains relatively profitable, while at the same time waiting for the "temporary" sanctions to end.

The main achievement of the sanctions regime is that the Iraqi regime has been forced to compromise, albeit grudgingly, on a number of issues relating to regional security, and Iraq's military power has been contained. The compromises include the unconditional acceptance by Iraq of its boundary with Kuwait, as demarcated by the UN Iraq-Kuwait Boundary Demarcation Commission, the (partial) destruction of the stockpiles of long-range missiles, biological weapons and fissile material, and the dismantling of the facilities for their production.

The sanctions have also severely weakened the Iraqi economy, and hence reduced the power of Saddam Hussein's regime to conduct belligerent activities in the future. But given that six years later the regime remains in power, it is clear that sanctions have failed to topple the regime as some observers had hoped. Further, the regime remains as brutal and uncompromising in its treatment of political opponents as it was prior to sanctions. If one goal of sanctions was to improve human rights in Iraq then to date sanctions have clearly failed in this regard.

Hence the main achievement of sanctions is a reduction in Iraq's offensive capability. But this has come at great cost in terms of increased poverty, and large dislocation in a country of 20 million people. Although the UN and its agencies have taken an interest in the impact of the sanctions on the Iraqi population - e.g. the Security Council has offered the Iraqi government the option of exporting a limited quantity of oil to finance humanitarian imports (SCR 706 & SCR 986) - even these concessions have been contingent on the "good behaviour" of the Iraqi government. By implication the UN and the international community have chosen to tolerate widespread suffering of the population in order to achieve the containment of Iraq's military power.

Recently a modest breakthrough in the direction of relieving poverty was achieved with the successful negotiations between the UN Security Council and the Government of Iraq over the implementation of a "food-for-oil" (FFO) agreement. This agreement allows Iraq to export a limited value of oil with part of the revenue available for the import of staples, medicines and other items to relieve suffering. The agreement involves detailed monitoring by UN officials to ensure that all of the revenues available to the Iraqi government are only used for approved and specified imports. As a result of the civil strife in Iraqi Kurdistan and military intervention in that region by the government of Iraq, the FFO agreement was temporarily suspended, but finally came to fruition in December 1996.

However, while we believe the FFO arrangement is a welcome change, we argue that it will not be sufficient to end the extreme disruption of people's lives in Iraq. The FFO programme does not provide sufficient funds to dent the large decline in Iraq's export revenues, so economic stagnation will surely remain.

Any observer of the current situation in Iraq cannot help but conclude that sanctions have been implemented with little assessment of their costs in terms of poverty, and their long-term consequences. If the aim has been, in the words of a former UN Secretary-General, to "build lasting peace and security in the region" (p.29), the very longevity of the sanctions and the absence of any end on the horizon warrants concern. Given the high economic costs of sanctions documented in this study, we believe that the United Nations should seriously consider alternatives to comprehensive economic sanctions in order to achieve its ultimate goals in the region. The unfortunate reality is that at this stage, none of the main parties to the sanctions regime appear interested in examining such alternatives.

2 Context and Scope of Study

This study is based on a survey in 1996, and builds on research begun in 1991. The 1991 survey took place exactly one year after the imposition of sanctions, and some four to five months after the end of hostilities. The 1991 study was based upon surveys of households, markets, and economic enterprises, as well as interviews with a wide cross-section of people including ordinary citizens, officials, factory managers, representatives of international aid organisations and UN agencies. Surveyors visited a large number of locations, including areas outside of government control in Iraqi Kurdistan and the southern marshes where, also, the writ of the government was tentative. The primary focus of that study, as of the present one, was on the rise of poverty, and particular attention was paid to the issue of food security.

The format of the 1996 visit was similar to the one in 1991, except that it was shorter and the number of places visited were fewer. In total we spent only one week in Iraq in the beginning of May 1996.

It is important to put on record the conditions of our travel and work in Iraq. The week we spent in Iraq was divided between visits to various localities in and around Baghdad, and a visit to Basrah in the South with frequent stopovers for interviews in towns and small settlements en route. In the greater Baghdad area we visited homes, farms, shops and factories in a broad cross section of districts, including Al-Thawra (Saddam City), Adhamiyah, Bab-al-Shaikh, Karadi and Jamila. We spent a night in Basrah and on way to and from we stopped for interviews in several southern governorates, including Kut, Ammarah, Nasiriyah, Najaf, and Karbala. The sample of families we interviewed in Iraq was chosen at random. The sample, although not representative in the statistical sense, represents a broad cross-section ranging from well-off to desperately poor households.

Though we had to submit our travel itinerary to the Iraqi authorities and obtain a written permit, no prior restriction was placed on localities we could visit other than that these excluded Iraqi Kurdistan outside government control. En route we stopped wherever we liked and interviewed who ever we chose. The main constraint we faced was the limited time at our disposal.

Iraq is a heavily policed country. We came across police and military checkpoints at regular intervals on inter-city roads and also within towns and cities. At various points during our travels in the country, we had to show the government authorization but allowed passage without let or hinderance except on one occasion. On the road to the marshes in the south we were stopped and not allowed to proceed until permission was granted by the local governor. We were permitted to travel to the marshes on the condition that we would be accompanied by an armed escort. We chose not to take up the offer

because of the limited time and the feeling that the presence of an armed escort might detract from the purpose of our visit. The heavy armed presence on the roads to the marshes indicated that the area is not fully under government control, but there was regular traffic in and out of the marshes.

The Ministry of Information assigned interpreters who often (but not always) accompanied us. Our escort from the Ministry of Information did not try to influence where we stopped, who we interviewed and what questions we asked. All interviews with households were conducted in the privacy of their homes, and we did not detect any reluctance or hesitation on the part of our interviewees in responding to our questions. But it has to be said that we took care to restrict our questions to economic and welfare matters, such as wages, employment, incomes, asset ownership, prices, food consumption and the functioning of the ration system. We generally found our respondents to be extremely frank and hospitable. In fact, on issues relating to the earnings of household members or profits of enterprises, we found respondents to be surprisingly frank in comparison with our experience in similar investigations in other countries.⁵

On a number of these issues we were able to cross check our respondents' replies against actual observations both in homes as well as in business premises. It was not difficult, for instance, to form an impression about a family's general living conditions, by observing the quality of their dwelling, their ownership of bulky household durables, as well as the appearance of their children. Similarly, in factories, workshops and farms, it was relatively easy to observe and cross-check some simple data such as the number of workers present and the proportion of machines running.

We directly conducted interviews with over 20 families about their economic condition covering their income, employment, food consumption, living conditions, and access to the ration system. We also visited a wide range of economic enterprises, including small private sector workshops, large factories, both private and government owned, farms, shops and markets. In addition to these we were able to visit a number of hospitals. We also had meetings at a number of ministries, including the Ministry of Trade, where we were able to meet with the minister himself, as well as the Ministry of Labour and Social Welfare and the Ministry of Agriculture where we met with senior officials. We visited the institutions involved in the operation of the food rationing system, including the computer centre which keeps the record of ration recipients for the whole country, a flour mill, a wholesale centre for the distribution of ration supplies to retail outlets and shops delivering rations to households. This provided a

⁵ One reason for such openness with income data in Iraq compared to many other developing (and indeed developed) countries is that direct taxation is practically unheard of. In many other countries people are worried about disclosing their earnings lest the information gets passed on to tax authorities.

cross-check on the responses by households about the functioning of the ration system.

The amount of information we were able to gather in a short time and from a limited number of interviews, although not comprehensive, is, we believe, not misleading. We present and make use of the quantitative data to convey the broad magnitude of the impact of the sanctions on the economy and on the welfare of the population and also corroborate qualitative observations. These figures are particularly useful in the absence of any well-accepted and objective source of statistical data on these issues.

3 Macroeconomic Overview and Review of Earlier Findings

The results from the 1996 study show that the macroeconomic impact of sanctions have persisted with little change since 1991. In order to understand the impact of sanctions, it is important to remember how dependent the Iraqi economy is on oil. When evaluated at the market exchange rate, oil exports equalled 75% of Iraqi GDP in 1990.⁶ This overstates the importance of oil since the official exchange rate was maintained at an appreciated level compared with market rates, but even if we measure GDP using the official exchange rate, dollar oil revenues were 15% of GDP in 1990.⁷ The importance of oil in the economy would have fallen somewhere between these two levels.

These oil revenues formed the basis for Iraq's economic structure and policies. Most importantly, while fiscal accounts have not been made public, it is clear that the government was highly reliant on oil for its revenues. There are few taxes in Iraq, so the main part of revenues apparently came from oil and profit transfers from non-oil state enterprises. Iraq's oil production is managed by several large state companies, and these in turn are directly controlled by the government.

The oil revenues had been used to finance a range of investments, expenditures and subsidies. The government hired a large public service and military. Throughout the 1980s large scale military imports and soldier's salaries were financed with oil revenues.

In addition, during the 1970s and early 1980s the government built up state industry and agriculture by introducing sizeable direct and indirect subsidies. This ensured rapid growth of domestic agriculture and industry, but since it grew with the aid of subsidies and inexpensive foreign exchange, it was, in effect, highly dependent on oil revenues.

⁶ Economist Intelligence Unit (1995).

⁷ Government of Iraq (1994).

A third use of funds was to construct a broad ranging social welfare system. This included consumer subsidies for a range of food items, a state safety net and pension system, as well as substantial investment in education and public health. By the late 1980s Iraq had one of the best educational and health systems in the region.

In short, the state was a key player in all areas of the economy: production, employment, private consumption and the provisioning of public goods. Although the main factor behind this economic structure had been the state's access to substantial revenue by the export of oil, it is worth noting that this structure was preserved when, during the war with Iran, foreign debt emerged as an important supplement to oil revenues as the means of financing imports.⁸

3.1 The Impact of Sanctions on Oil Revenues

The impact of sanctions was to abruptly end revenues from oil exports, and also to cut Iraq off from other sources of finance such as foreign borrowing. The effect on imports was dramatic. As shown in Table 1, total estimated Iraqi imports fell from \$10.3 billion in 1988 to just \$0.4 billion by 1991.

The magnitude of this shift can be illustrated using some international comparisons. Table 2 gives estimates of the dollar value of imports per person for various groups of countries. Controlling for factors such as the size of an economy and the diversity of its structure, per capita import values are positively correlated with per capita national income. Before the sanctions Iraq's imports per person were close to the average of the countries ranked as High Middle Income in the World Development Tables of the World Bank. By 1996 they were only around one third the average level for the poorest countries in the world, and one-eighth the level of Low Income Arab countries. Current import levels fall well below levels in countries such as Zaire (\$211 in 1991), Sudan (\$55 in 1991) and India (\$62 in 1991).⁹

We can use these data to examine the likely macro implications of the food-for-oil (FFO) agreement between Iraq and the United Nations Security Council. Under this agreement, which was signed in May 1996 (but held in abeyance until the end of November 1996) Iraq will be allowed to export

⁸ It is worth noting that issues relating to external debt formed the backdrop in 1990 to events leading up to Iraq's invasion of Kuwait. For detailed analysis of the evolution of Iraq's external debt and its sustainability see Jiyad (1997).

⁹ World Bank (1993).

up to one billion dollars worth of oil every ninety days. Out of this amount a total of \$650 million could be spent on the import of food, medicines, medical equipment and goods specifically for humanitarian purposes. FFO implies imports of \$130 per person. Together with existing average import values of \$20 per person, this would take Iraq's total imports to \$150 per person per year -- still well short of the figure for the three poorest Arab states (Mauritania, Yemen and Egypt).

It can be argued that the figures presented above seriously under-estimate Iraq's ability to import, because they do not take into account possible breaches of the sanctions. In particular, if Iraq is somehow able to export more oil than is allowed under the sanctions, its ability to pay for imports would be consequently higher. This issue is examined in some detail in Appendix 1. There we argue that apart from logistic and political difficulties in hiding oil exports, Iraq's production data, independent estimates of production by OPEC, and evidence from neighbouring countries also confirm that any cheating on oil exports was probably small.

3.2 Impact on Government Finances

The most striking evidence of the effectiveness of sanctions comes from changes in the macroeconomy. The collapse of oil revenues (and other foreign exchange flows) lead to two immediate problems: First, government revenues fell causing a fiscal crisis. Second, and most importantly, a severe shortage of foreign exchange and imports caused the relative price of tradable goods (including food and medicines) to rise. We deal with the fiscal crisis and its effects on the economy in this section. The impact of the foreign exchange crisis is considered in section 3.3 below.

While there is no data available on the fiscal gap, it is clear that the immediate impact of lower oil revenues was to cause a large fiscal deficit. The government responded by limiting nominal expenditures, while issuing money to finance the budget deficit. With more and more money being issued, inflation rose and the dinar depreciated.

Figure 1 shows the movement in the market exchange rate of the Iraqi dinar against the US dollar from 1990 till the middle of 1996.¹⁰ Before Iraq's invasion of Kuwait one dollar exchanged for around 4 dinars. By the middle of 1991 a dollar bought 8 dinars, and by December 1995 it was possible to purchase 3,000 Iraqi dinars for one dollar. This high inflation was driven by the government's need to print money in order to finance expenditures.

¹⁰ The official exchange rate has remained at \$3.2 per Iraqi Dinar throughout this period.

One of the important results of sanctions is that the government has sharply curtailed producer and some consumer subsidies. For example, it can be seen from Figure 2 that in 1990 the wheatflour price and the food price index rose much more sharply than the price of a US\$ in IDs. This was due entirely to the removal of two sets of subsidies on wheatflour, which accounted around a third of the food price index. Before the sanctions, the import and marketing of wheatflour and some other staples was largely a state monopoly. These imports were valued not at the market exchange rate but at the over-valued official rate, which was equivalent to a subsidy to consumers. In addition to this there was also a direct price subsidy on wheatflour. Soon after the imposition of sanctions the government withdrew these general subsidies and replaced them with a subsidized ration system (on this see section 4.2 and section 6). The private sector began to play an active role in the import and marketing of all food items including wheatflour.

Two distinct types of price movement are noticeable. Firstly, the initial adjustment which involved the removal of subsidies caused substantial relative price movements -- in particular the price of the basic staples relative to wages (or the price of labour) rose sharply. Secondly, as the government resorted to issuing money as a way of financing expenditures, the overall price level also increased and there prevailed a situation of chronic high inflation.

This distinction is worth bearing in mind, because the two types of price movements have different potential implications. The change of relative prices has had a serious adverse effect on the purchasing power of Iraqi households. This change was felt most dramatically in the first year of the sanctions. The second type of price change -- i.e. the general rise in the price level -- became noticeable after the initial period of macroeconomic shock, as the government struggled to keep up with its spending priorities in the absence of any significant sources of revenue.¹¹

Although public finance data were not available, it can be safely assumed that the main items of expenditure are salaries of government employees and consumer subsidies, notably through the ration system.¹² It is clear that under its new and severe fiscal constraints Iraq could no longer afford to maintain its large public sector of old. All the evidence suggests that the government has maintained its

¹¹ About the only form of effective taxation that has existed in Iraq during this period has been an implicit tax on agricultural production. See sections 5.1 and 6.3 below.

¹² Even if assume that expenditure on the military or on conspicuous consumption by the ruling elite take up a large proportion of the government's resources, in the absence of significant opportunities to import merchandise, much of these expenditures are also likely to be in the form of wage and salary payments.

fiscal commitment to subsidize the ration, and has preserved employment levels in the public sector at the expense of the purchasing power of public sector salaries, by not adjusting them with the rise in prices.

Although attempts have been made at regular intervals to raise public sector salaries -- the first such pay rise taking place in September 1991 -- since these were financed by monetary expansion, their effects were quickly neutralised as prices rose in response. Indeed, a serious consequence of systematically financing pay rises by printing more money is that the economy could enter a spiralling cycle of inflation.

It can be argued that Iraq was on the verge of such a cycle in late 1995, when the salary and price rises were reversed by a stabilization programme. This stabilization programme coincided with Iraq's announcement that it was willing to enter negotiations for a food-for-oil deal. This announcement contributed to the stabilization programme as it led to an appreciation in the market exchange rate of the Iraqi dinar, and a decline in the relative price of imported goods. The stabilization programme was successful to the extent that it checked the spiralling cycle and brought prices and wages down. Nevertheless, by 1996 public sector workers commonly earned \$3-\$5 per month compared to their pre-sanctions salaries of \$150-\$200.

3.3 Foreign Exchange Crisis

The most important impact of the decline in oil revenues was a severe tightening of the available funds for imports. With reduced supply of imported goods, the price of these was bid up relative to domestic goods and particularly labour.

This shift in the relative price of foreign exchange has striking effects on the measure of dollar GDP. The World Bank reports that GDP per capita was \$2840 in 1989. Our current estimates place it at roughly \$200.¹³ Since real GDP has probably fallen on the order of 50%, the remaining decline would have to be explained by changes in the relative price of foreign exchange. Based on these estimates, we can then roughly decompose the overall decline in dollar GDP from \$2840 to \$200 into two components: it fell by half due to loss in real production, and then fell by a factor of seven due to a sharp rise in the price of foreign exchange due to scarcity.

In our surveys of domestic markets and enterprises, we generally found that domestic prices for

¹³ See Appendix 2 for details.

imported goods were not very different from prices in Jordan adjusting for the exchange rate. This implies that enterprises and households did not have to pay a premium (above transport costs) for imported goods. A premium would be charged whenever import restrictions were highly effective, so that importers earned a reward for the risks they take in attempting to break the restrictions. Given this observation, we believe the greatest impact of sanctions has come through the oil export restrictions - with reduced purchasing power people are simply unable to buy the goods they used to purchase.

The importance of the exchange rate to household purchasing power is shown in Figure 2. The plot shows changes in the price of wheat flour, which is the main staple food item in Iraq, an index of food prices, and the exchange rate (the price of a US\$ in IDs).¹⁴ Except in the first year of the sanctions, the three price indexes have tended to move in tandem, corroborating the observation during the 1991 visit that the market prices of staples closely tracked the exchange rate. This shows the strong link between the open markets for staples and the foreign exchange market. It is the imported supplies at the margin which determine the price.

The scarcity of foreign exchange has had direct impacts on production. The enterprises we visited noted that purchasing power had fallen sharply, and the cost of imported goods was prohibitively high.¹⁵ They curtailed production as a result, so that many firms reported declines of the order of 70% to 90%. We did not get the impression that shortages of inputs restricted production, rather it was limits on market demand associated with reduced incomes.

The one sector which did not face decline was agriculture. Since the shortage of foreign exchange induced a sharp relative rise in the price of food, and since food demand has been maintained even with the fall in incomes, it has become highly profitable to be in the agricultural sector. While agricultural production appeared to fall immediately after sanctions were introduced, there was substantial evidence that production was returning or surpassing pre-war levels for many products.¹⁶ This was particularly true of dates where production has grown very sharply.

3.4 A Nation on Hold

¹⁴ The food price index is based on a basket of food items with consumption weights corresponding to pre-sanctions consumption patterns. For details of the consumption weights used see Drèze and Gazdar (1991).

¹⁵ See section 5.2 for further details.

¹⁶ This is discussed in greater detail in section 5.1.

The impact of these shocks at the household level varied depending on which sectors households were employed in, whether they were in the private or state sector, and their opportunities to find alternative source of income. Broadly, while the public sector adjusted to the sanctions by mainly reducing wages, the private sector responded more by cutting employment and less by reducing wages. Whether unemployed or earning low wages, the most common means to gain additional income was to find self-employment or casual labour.

Thus, as a result of lost oil revenues, the main macroeconomic impact of sanctions has been to reverse the economic change that began with higher oil revenues in the early seventies. Agricultural production has become highly profitable, inducing greater production and specialization in basic, non-import intensive food production. And employment has shifted from capital intensive sectors to services.

But there is one important difference from this simple view. Instead of causing permanent change, there were clear signs that sanctions have put the economy "on hold" while households, government and enterprises wait for a return of oil revenues. We found that public servants usually maintained their government jobs while searching for additional employment to supplement income. Likewise enterprises reduced production but maintained their full capacity and structure waiting for a return to a period of higher demand.

This impression of temporary change was most visible in terms of the exchange rate movement. Whenever there were signs that the sanctions might be relaxed, the Iraqi Dinar appreciated sharply. This makes complete sense since higher oil revenues would reduce the governments need to print money, and raise the relative supply of foreign exchange - both causing an appreciation of the exchange rate. The exchange rates movements also lead to immediate similar changes in food prices, so that basic goods such as flour and eggs also rose and fell with the Dinar.

These factors were vividly demonstrated in the exchange rate and price movements that took place from around December 1995 onwards. The event that marked the decline in prices and the stabilisation of the exchange rate was a government announcement of an austerity drive coupled with the announcement that after having rejected its terms for five years, Iraq was now willing to enter negotiations on the food-for-oil deal. This deal, as outlined above, allows Iraq to import some humanitarian supplies in return for the sale of a limited value of oil exports. The austerity drive involved

wide ranging public sector pay cuts, as well as the announcement of new taxes.¹⁷

The impression this gave was that production and wages could sharply increase once oil exports were restored, and things could return substantially towards pre-war conditions - albeit with a population which has been subjected to extreme hardships in the interim. But an examination of the magnitudes makes it clear that the current programme of food-for-oil will only have a modest impact on economic recovery. The implied exports from this programme will raise oil revenues to 1/3 their pre-war levels, but keep total imports at levels associated with the poorest (non-oil producing) Arab countries. Even with this programme, we can expect the Iraqi economy to remain "on hold" so long as oil revenues do not rise substantially further.

4 Livelihoods and Poverty

The impact of sanctions on Iraq's macroeconomy is of concern ultimately because of the effects of sanctions on living conditions. In this section we document and analyze changes at the micro-level in the livelihoods and the command over resources of various groups of the Iraqi population. For most groups (particularly public-sector employees), changes in prices translate into a roughly similar decline in the real value of income left after the purchase of the ration. Trends in wages and earnings are examined in section 4.1. The price of the ration basket has been revised upwards only periodically and by a margin well below the inflation rate. The ration system has been for most Iraqi households the principal cushion against starvation. The details of the ration system and its crucial role in preventing deprivation are outlined in Section 4.2. In section 4.3 we document some observations about the kind of survival strategies employed by households to make the ends meet. Some specific factors in vulnerability are discussed in section 4.4.

4.1 Trends in Wages and Earnings

As we have noted above, a benchmark period for "normal" economic conditions in Iraq is hard to specify. Prior to the invasion of Kuwait which triggered the sanctions, Iraq had been in a war with Iran for the best part of the 1980s. The pattern of employment of the labour force was heavily influenced by

¹⁷ It should be noted that while the pay cuts were indeed implemented quickly, the fate of new taxes is not yet clear.

that war and what it would have been under the conditions of peace is difficult to specify. For what it is worth, the 1987 census showed that the largest employer by far, accounting for nearly half of all workers, was the service sector.¹⁸ Nearly a quarter of all workers were employed by the government, and a large proportion of those by the armed forces and the security services. Sectors with significant numbers of the self-employed, such as agriculture and wholesale and retail trade, accounted for a small proportion of the labour force, around 12 per cent and 6 per cent respectively.

The 1977 census, the last one under peace conditions, gave the proportion of agricultural workers as around 30 per cent, and the proportion of wage-employees in the workforce as around 60 per cent.¹⁹ It would be fair to conclude that before the Gulf War, and even prior to the Iran-Iraq war, Iraq was a fairly urbanised society, with a relatively small proportion of the workers engaged in agriculture and a large proportion of the workforce reliant on salaried employment for their livelihoods.

In August 1991, one year after the imposition of sanctions, the employment pattern showed clear effects of the defeat in the Gulf war and the sanctions. First, there were obvious signs of a massive demobilization, implying a large reduction in the number of government employees. Secondly, there had been a large decline in formal sector regular employment in the private sector because of the downturn in economic activity and enterprise closures. This decline appeared to have been more or less compensated by a rise in informal private sector activities including petty trade, casual labour, and various forms of self-employment. Thirdly, there were no retrenchments in the civilian public sector and the nominal salaries of public sector employees had remained unchanged for a year. Fourth, a large number of foreign workers had departed from Iraq. On the basis of these developments, the 1991 study concluded that employment had stagnated, as had nominal earnings, and that, abstracting from the subsidised rations, real incomes had declined more or less in line in the inflation rate. There had been a huge rise in prices, and according to the food price index, real earnings had declined to between 5 to 7 per cent of their pre-sanctions levels.

It was quite remarkable, that for a whole year after the imposition of sanctions, nominal earnings had remained frozen. The first major pay rise following the sanctions was made in September 1991, when the government increased the salaries of public employees across the scale. This was followed by regular increases till December 1995 when the first pay cuts were announced. To get an idea about changes in real wages and earnings, it is important, of course, to use some relevant deflator. One

¹⁸ Drèze and Gazdar (1991) based on Government of Iraq (1990), Annual Abstract of Statistics.

¹⁹ United Nations Population Division (1988), World Demographic Survey.

possibility is to use a food price index of the type presented in Figure 2 above. Prices in Iraq at the time of our survey, however, were extremely volatile. Day to day changes in the exchange rate were reflected very rapidly in changes in food prices, and also in the casual wage rates. Since we are interested in comparing changes in earnings between different types of activities, it would be helpful to use a deflator that Iraqis themselves are likely to use as a benchmark for wages and other prices. In Table 3 we present all wages and earnings in terms of wheat flour equivalents.

In terms of wheat flour equivalent, there was a marked decline in wages and earnings between 1991 and 1996. The decline was the most pronounced for public sector salaried employees. The salary of a middle ranking civil servant, for example, which commanded 80 kilograms of wheat flour in 1991, was equivalent to only 16 kilograms in May 1996. Other people on government salaries such as pensioners, workers in public sector enterprises and army soldiers also saw declines of the order of sixty per cent. Among public employees the best protected were professional army officers, whose real incomes declined by 45 per cent.

Public sector salaries are revised periodically by the government to compensate for inflation, but only partially. Even public sector factories and other economic enterprises generally run at a loss because the prices of many of their outputs are administratively controlled. Public sector wages are not good indicators of the decline in economic activity in the private sector. Private sector salaried employees were better protected against inflation but not unemployment. Skilled textile workers, for example, appeared to have lost by only 17 per cent. Similarly, unskilled factory workers in the private sector saw their real wages decline by 43 per cent. The informal private sector saw losses of a similar magnitude. Daily wages of casual unskilled labourers as well as earnings from petty vending declined by around 40 per cent.

One group of self-employed workers, namely those in agriculture, are *prima facie* better placed than most other workers to protect themselves against price rises. Incomes in agriculture depend on the quality of the harvest and the price of the output.²⁰ Real incomes of farm households, therefore, ought not to be adversely affected by rises in food prices, if the market for agricultural produce operated without restriction. In Iraq, however, there is a state-controlled system of grain procurement, under which the government buys the entire harvest at set prices.

There has been almost no change in the relative procurement price ratios of the various foodgrain crops (including barley, rice and three grades of wheat). We can take the procurement price for Class 1 Wheat as the benchmark. Before the sanctions, farmers received 270 dinars per ton. In

²⁰ On the question of the quality of the harvest see section 5.1 below.

terms of the market exchange rate, this was equivalent to around \$60. In 1991 the procurement price was 800 dinars, or around \$100. The nominal price kept rising till 1995, but these increases did not keep up with the depreciation of the dinar. By 1994 the procurement price had been raised to 35,000 dinar, but was equivalent to less than \$90. In 1995 the price was raised further to 105,000 dinars per ton. At the market exchange rate of 2,000 dinar per dollar in the middle of 1995 (the wheat crop is harvested in May) the real price was just over \$50. In 1996 the procurement prices remained unchanged, and this implied a real gain for farmers as the exchange rate had improved considerably in the dinar's favour.²¹ In dollar terms then, the 1996 price was exactly the same as the price in 1991 -- i.e around \$100 per ton.²²

Although procurement prices, and therefore agricultural incomes, fluctuated like other incomes over the last six years, they were no lower in 1996 than they had been in 1991, and were, indeed higher than they had been in 1990. This does not necessarily imply that farmers' real purchasing power was higher in 1996 than before the sanctions. Even if we do not consider the effect of sanctions on the quality of the harvest, the purchasing power of a dollar was much greater in 1990 than in 1996 since a large number of essential consumer goods were costed at the overvalued official exchange rate.²³ The fact that since the sanctions, agricultural workers have been somewhat protected against price rises is particularly significant given that there has been a large reported rise in the proportion of the workforce now employed in agriculture. According to the estimates of the Ministry of Labour and Social Welfare, nearly 40 per cent of the workforce were now engaged in agriculture in some way or another.²⁴

Many public sector employees supplement their incomes with a second job or self-employment in the informal sector. For those with jobs in the public sector, recourse to secondary employment might imply that they make only token attendance at their main job. For certain groups of public employees, however, this can have serious consequences. It is perhaps not surprising that professional army officers, for instance, were among the few groups in the public sector whose salaries kept pace with the rest of the economy. We also came across several cases of professionals such as doctors or teachers

21 Sources for procurement prices in the various years are as follow: FAO (1995) for prices up to 1995, author's survey, for 1996 prices.

22 World export prices during these years were US \$129 in 1991, and \$151 in 1994 (FAO, 1995b, Food and Agricultural Organization, Annual Report, 1995).

23 See discussion of exchange rates and prices in section 3.3 above.

24 For further discussion of grain procurement and changes in Iraqi agriculture, see section 5.1 and section 6.

who could afford to do their jobs only because they had other sources of income in the family.

Petty trading and unskilled casual labour are, in general, "bottom line" activities which have virtually free entry. There appeared to have been a dramatic rise in the number of people, including young children who were involved in these activities. We discuss this further in section 4.3 below. Here it is worth noting the extremely low rate of remuneration in these activities. An unskilled labourer in Iraq can expect to earn the equivalent of 3 kilograms of wheat flour for a day's work. In comparison, unskilled agricultural labourers in West Bengal, one of the poorest states of India, can expect to earn the equivalent of 6 kilograms of rice, the staple food in that area.²⁵

4.2 Importance of the Monthly Ration

The importance of the state ration system in providing sustenance to the Iraqi population was recognised in the 1991 study. It was found then, that given the extremely low levels of incomes, the food ration was the main factor in preventing the onset of large-scale hunger and starvation in Iraq. Five years hence, the situation remains the same, and in fact, the importance of the food ration system as a lifeline for ordinary Iraqis has increased considerably.

Each family is registered with a ration agent (a private grocery store) in its locality, who maintains a detailed record of households (the number and ages) receiving the ration. The family's ration bundle consists of equal entitlements for each of the members aged over one year of various food and other items, and a fixed monthly ration of infant formula milk for each child aged up to one year.²⁶ There has been little change in the quantities of various items included in the ration (Table 4). While there has been a decline in the ration amount for some items (wheat flour, rice, sugar and baby milk), there has been an increase in supply of other goods (cooking oil, tea, soap and washing powder).

The value of the ration bundle for a family of six (including one infant) in terms of wheat flour equivalents (i.e. in terms of the market value of the bundle denominated in terms of the market price of wheat flour), has gone down from 88 to 79 kilograms -- a reduction of around 9 per cent. The nominal cost to the family has declined from around 4.6 kilograms of wheat flour to 2.5, so that the subsidy element in the ration has declined somewhat less than the total value (Table 4). Given the decline in real earnings of the order of 40 per cent or so, the relative value of the ration to Iraqi families has,

²⁵ See, for example, Sengupta and Gazdar (1996).

²⁶ Details on the functioning of the ration system are discussed in Section 6 below.

nevertheless, increased. For an unskilled worker who supports a family of six, and who manages to find work 25 days in a month at the going wage (3 kg of wheat flour), the value of the ration is equal to his entire month's earnings. A professional army officer with a relatively high salary for the public sector earns about a third less than what the ration provides.

In comparison with levels of food consumption prevalent in Iraq before the Gulf War, the ration covered only around one-third of the total. The average monthly consumption of wheat flour, for example, was around 24 kilograms per person, compared with the ration entitlement of 8 kilos.²⁷ A household consumption survey from the early 1970s estimated monthly per capita wheat flour consumption as just under 15 kilogramme.²⁸ While the differences in these consumption estimates might be due to differences in methodology and data sources, the rise in food consumption between the early 1970s and the late 1980s is consistent with the growth in per capita incomes over this period, and the extremely low food prices in Iraq before the war.

It can be argued that the pre-sanctions food consumption is not a good indicator of food needs, since Iraqis were, in some sense over-consuming.²⁹ Judging by a more frugal standard of consumption, the ration does indeed cover a greater proportion of needs. In 1996, for example, the adult ration supplied the equivalent of 1290 kcal a day, down from 1417 kcal per day in 1991. It is helpful to compare these figures with a conservative benchmark for need, say the notional calorie entitlement associated with the poverty line in India. This is set at 2100 kcal per person a day for urban adults.³⁰ The Iraqi ration corresponded to 67 per cent of this benchmark in 1991, and to 61 per cent in 1996. This appears to be consistent with the current consumption patterns of Iraqi households, who report that the ration covered between a half and two-thirds of the monthly consumption of the main food items.³¹

²⁷ Estimated by dividing the total wheat consumption in the country in 1989 (3.3 million metric tons) by the estimated population over the age of one year in 1989 (14 million).

²⁸ FAO (1977), Review of Food Consumption Surveys, based on a nationwide survey of food consumption in 1971 by the Ministry of Planning, Government of Iraq.

²⁹ This view is corroborated by the pattern of disease in Iraq before the Gulf War. It is reported, for instance, that before the war the main child nutritional disorders were related to obesity (WHO, 1996).

³⁰ EPW Foundation (1993).

³¹ There are, of course, many food items such as vegetables that are not on the ration at all. Also, the adult equivalent calorie availability is likely to be higher since young children are thought to have lower caloric needs. These qualifications imply that the food consumption levels of Iraqi families are higher -- though not by a very large margin -- than that of families in India who have incomes close to that

4.3 Survival Strategies

Our assessment of livelihoods, purchasing power and entitlements in Iraq is supported by a number of observations of a qualitative nature. These observations relate, in particular, to strategies adopted by Iraqi families to maintain a minimum consumption level in the face of dramatic declines in their purchasing power.

It is common now in Iraq for workers to be engaged in several types of low income activities. Although there has not been any retrenchment from the public sector, a large number of people have left voluntarily as they find the salaries too low for subsistence. Most of those who have stayed try to complement their meagre salaries by getting involved in other self-employment or casual employment activities.³²

It is apparent that there has been a very dramatic rise in the number of people who engage in "bottom line" economic activities such as casual labour and petty trading. There is free entry into these activities, so long as a person is reasonably healthy, but rates of remuneration are now extremely low (**see Table 3**).

A visible phenomenon is the rise in the number of children working as petty vendors. It is not clear if the children who work as petty traders take up these activities outside of school hours, or whether they have dropped out of school altogether. In our interviews with families whose children are involved in petty vending, the parents generally claimed that their child did attend school, and did the petty trading in his spare time.³³ In economic terms, these activities, such as selling from a carton of cigarettes, are extremely low in value added, and are mainly of a marginally redistributive nature. The fact that a large number of people, both adults and children, are prepared to spend a large amount of their time trying to earn a narrow margin on a transaction of small turnover, indicates that this is not a positive economic opportunity, but a measure of some desperation.

country's poverty line.

³² Indeed, we came across several cases of army conscripts who worked as casual labourers or in family enterprises on the days that they were on home leave.

³³ It might be added that labour participation among girls and women is extremely low in Iraq even at this time.

The same remarks apply to another, largely redistributive activity, that was uncommon in Iraq before the war. There are now, in all major towns and cities, special markets for the exchange of used goods of all descriptions. These markets usually held on specific days of the week in public places were virtually non-existent before the war, but attract a very large number of buyers and sellers now. The items bought and sold at these markets range from bulky household durable goods such as cookers and refrigerators, down to used items of clothing, old door fittings, and even used transistor circuit boards. As in the case of petty vending, in the flea markets also, many transactions involve extremely low turnovers. Here, too, the willingness of people to spend the entire day hoping to make a narrow margin on these transactions reveals the absence of alternative opportunities for remunerative employment.

Many of the vendors are older people and pensioners selling their assets in order to finance current consumption. As an illustration of how, in an initially wealthy economy, there might be some scope for such marginal activities to be sustained, consider the following case observed in the main flea market in Basrah. A pensioner was trying to sell his cooker and hoping to raise around 20,000 dinars for it. His plan was then to purchase a smaller (also used) cooker for 10,000 dinar and to use the difference in the two values to finance current consumption. He was well aware that soon he might have to repeat this cycle with the smaller cooker that he was hoping to buy, in exchange for something of even lower value.

We were able to observe another "bottom line" activity that is generally to be found amongst the poorest people in low income countries -- namely, post-harvest gleaning.³⁴ En route to Basrah we came across several cases of groups of women going through recently harvested fields and manually collecting individual grains of wheat left behind.

4.4 Vulnerability

The present economic situation in Iraq does not allow easy generalisations about patterns of vulnerability and deprivation. It is true, of course, that some groups such as those with access to foreign currency (sent by relatives working abroad), or who own productive assets, or have marketable skills, as well as those with good connections both within the country and outside, are relatively well-protected. The same is true of those with access to farm land, or other forms of self-employment in occupations that do not rely too heavily on imported inputs. Conversely, people with few assets to use or sell, elderly people with little family support, and others reliant on fixed nominal salaries are particularly vulnerable.

³⁴ See, for example, Beck (1994), for observations from eastern India.

A notable aspect of the situation in Iraq, however, is that small apparent differences in some economic or demographic variable can lead to large differences in consumption levels. Large families that rely mainly on the earnings of a single worker (usually male) - as is common in Iraq - can experience dramatic turns for the worse if that sole breadwinner is unable to work through illness or some other misfortune. Sanctions thus have affect on incomes and livelihoods, not only due to the economic recession, but also through the failure of public interventions in public health and health care services.

Regional contrasts are quite striking in this regard. In many towns and cities of southern Iraq, for instance, where the sewage system has broken down. We visited several homes inundated with sewage from the street. Visibly the area around Basrah seemed to be far worse off than the rest. This is due, not only to the fact that the area bore main brunt of the Gulf war, but also to the fact that it was the main battle ground during the 8 year war with Iran. The region seemed to have received little investment since the beginning of the 1980s.

5 Structural Adjustment

In section 3 we suggested that the UN sanctions against Iraq might be interpreted as a very specific form of external shock to the Iraqi economy. We traced the movement of various real and financial variables over the last six years in order to provide a basis for an assessment of the changes in livelihoods and living conditions (section 4). Underlying the changes in macro indicators such as price levels, exchange rates, and national income are numerous behavioural responses to the shock on the part of the various types of economic agents. For instance, sections 4.1 and 4.4 discuss labour participation and saving (or dissaving) behaviour of individuals and families in response to income declines. Likewise, the response of the government in first financing expenditure through monetary expansion, and then introducing a stabilisation package, is documented in section 3.2. In this section we put together some evidence on the extent of the structural adjustment in the Iraqi economy in response to a massive reduction in its international trade. The next one (section 6) examines some institutional responses of the public sector to the various crises that emerged in the wake of sanctions.

As shown in section 3 (and in the 1991 study) the macroeconomic impact of the imposition of sanctions was extremely sharp. The 1991 study was almost exclusively concerned with this impact itself. The main event, after all, was the decline in real incomes, of the order of over 90 per cent, and under those circumstances any questions about specific sectoral responses were simply part of the detail. It was also too early for a study of structural adjustment, given that the hostilities had ended barely five months before, and it was widely expected then that the sanctions were to end soon. Following five years of the sanctions, it is both desirable and possible to develop a better understanding of how the economy has responded to arguably one of the most dramatic external shocks experienced by any country in recent

years.

5.1 Agriculture

In the absence of oil revenues, agriculture is the key sector for a number of reasons. Firstly, historically, Iraq was a largely agrarian economy prior to the large scale development of the oil sector. Its comparative advantage, in terms of relatively fertile agricultural land remains. Secondly, the diversification of the economy away from agricultural production was driven by oil revenues, both directly, in the sense that much of the non-agricultural employment in the public sector was directly financed by oil-based public revenues, and also indirectly, in the sense that private sector manufacturing and service activities were heavily dependent on direct and indirect state subsidies, also financed from oil revenues. Finally, from the point of view of overall food security, agriculture is, obviously, the key sector.

We have already noted in section 4.1 above that there has been a reverse movement of labour towards agriculture. This makes sense in the light of the fact that real incomes in this sector have declined less, and in relative terms are likely to have improved over the last six years (see section 4). In spite of an estimated trebling of the agricultural workforce (Table 5), and increases in cropped area of the order of 70 per cent, estimated agricultural output has increased relatively modestly.

Take the two main cereal crops (Table 6). Wheat yields are down on average by around 20 per cent, but with substantial increase in the area under crop, output has been higher, on average by about 30 per cent. In the case of barley, however, although the area under crop has increased by over 70 per cent, the increase in total output has been of the order of 25 per cent. This is due to a large decline in the yield. The yields for barley in the early 1990s, moreover, compare unfavourably with yields obtained in the 1950s and 1960s (see Table 6).

The main reasons that have been cited for the decline in the yields of both wheat and barley are the shortage of farm machinery, good quality seeds, and chemical inputs such as fertilisers and pesticides. While this might be true in the case of wheat, the case of barley is not so clear cut. The yields in the 1950s and 1960s were obtained prior to the massive farm mechanisation or the introduction of other new import-intensive technologies that have been affected by the sanctions regime. The fact that reported yields are now much lower than they were in the 1950s and 1960s cannot be explained entirely or even substantially with reference to the shortage of these imported or manufactured inputs. It is possible that official figures for agricultural output are downward biased.

5.2 Supply and Demand Constraints

As noted in sections 3.1 and 3.3 above, Iraq's economic structure was highly dependent on oil revenues for the financing of imports. Other sectors of the economy such as manufacturing relied heavily on imported inputs such as raw materials, machinery and spare parts. The economic blockade affected different industries in a different manner. For larger enterprises with specialized or bulky input requirements quantitative restrictions on imports were sufficient to cause a substantial reduction in capacity.

For numerous small-scale consumer industries, however, inputs could be and were smuggled through neighbouring countries. These enterprises could, indeed, purchase their inputs on the black market. The main problem that such industries faced was the sharp rise in the relative price of their inputs. Whereas in the past they had rationed access to foreign exchange at the overvalued official exchange rate, now they had to achieve profitability at world prices. The main problem that these types of enterprises were facing in 1991 was to make a transition to this change.

It is reasonable to expect that the surviving economic enterprises in Iraq today would be those that were able to make an adjustment to the new situation. In other words, for industries that did not face very serious quantitative constraints in obtaining imported supplies, only those firms that remained competitive at world prices would have survived.

Our interviews with small-scale industrial units revealed, that such an adjustment had, indeed, taken place. The main constraint that the surviving firms reported in their expansion of output and employment, or the utilisation of capacity, was the demand for their products. The fall in incomes had resulted in the decline in demand for these goods. With a pick-up in incomes and consumer demand, many industries would be able to expand output and employment within a short period.

We did find evidence, therefore, that the private sector had adjusted to the new economic situation in accordance with the broad predictions of theory. An unintended effect of the sanctions has been the revival of the private sector and the weeding out of activities that flourished under the protective regime of the dual exchange rate.

6 Ration System and Other Public Interventions

It is crucial to examine the response of the government to the economic crisis precipitated by the UN Sanctions for a number of reasons. Firstly, as we have already discussed above, the government

has been the dominant force in the allocation of resources as a result of the availability, in the past, of oil revenues. Secondly, in the post-sanctions period, specific state interventions, notably the monthly ration, have been critical in avoiding large scale hunger and starvation. Finally, the response of governments to major crises reveals a great deal about both the underlying political priorities as well as administrative and managerial abilities. In this section we focus mainly on the state ration system. We also make some comparisons with other public services and government interventions.

6.1 Coverage

A central feature of the state ration system is that it is comprehensive and non-targeted: everyone is entitled to the ration regardless of means and the ration and its price are uniform across the country. This was the principal finding of the 1991 study, and was based upon surveys of households and markets in urban and rural regions from all government-controlled governorates at the time. Up until that time, there had been a great deal of speculation outside Iraq that the ration system was used selectively as a reward and punishment device by the Iraqi regime against various sections of the population. The 1991 visit found no evidence for this. On the contrary, it was found that even people who were quite outspoken in their opposition to the regime received the ration and were satisfied with the functioning of the ration system.

During our second visit, we covered fewer locations and interviewed a smaller number of households than in the 1991 visit. What we found is that the ration system, but for some details, operated exactly the same way as observed in 1991.

In section 4.2 above we have given details of the quantities of the various commodities that are supplied as part of the monthly ration. We did not find a single family which reported even a small difference between the quantities it received and the officially announced quantities. Furthermore, the ration agent was usually a local grocer and people faced little difficulty in obtaining the ration on time. It is fair to assume, therefore, that the ration system does function quite effectively.

The fact that the quantities are uniform all over the country, and that these are regularly broadcast in the public media, is an important factor in ensuring that people have good information about their entitlement. Although the basic ration entitlement is uniform all over the country, we did find some minor variations, two of which are worth mentioning. First, the quality of the goods supplied, particularly the quality of the wheat flour, varies from month to month, and also from location to location, though we did not observe any systematic variation between locations in different regions of the country.

Secondly, from time to time supplies of items that are not normally part of the monthly ration are made available. In particular, we were told by all respondents in the Baghdad area that they had received small quantities of poultry meat during the Muslim holy month of Ramadan in the previous year. Some families, also in the Baghdad area, reported receiving occasional supplements of lentils and chickpeas. Outside Baghdad, particularly over most southern towns and villages, we did not come across any household which had received supplements to the usual ration. This exception, however, proves the rule. While there is some discrimination in the dispensation of public resources including the ration system, this discrimination is limited to extra items that are outside the normal ration entitlement. The basic ration is, from all evidence, comprehensive and equitable.

6.2 System of Delivery

All families are registered with a local ration agent, and receive coupons corresponding to the number of members of the family. Ration agents are usually local grocers for whom the disbursement of the ration is a side activity. The agents receive supplies from government-controlled wholesale stores and silos and flour mills on the presentation of coupons which they collected from the families in return for the delivery of the previous ration. These ration coupons are the currency within the ration system. Though these are not transferable, the goods supplied on the ration are obviously marketable. As each agent has only about 40 or so local families registered with him, he is in a position to monitor their situation. Likewise, his clients are able to monitor his performance.

There is potential scope for mutually advantageous collusion between the agent and his clients at the expense of the government. Some instances of such collusion are likely to occur. But the possibilities would appear to be few, given the punishment to deter such collusion are high. This includes the revocation of licence to act as a ration agent, which is a guaranteed source of income, and in the extreme the closure of the business. Moreover, the whole rationing system is computerised and, as explained to us by the Minister of Trade, special checks are built in the system to weed out false claims by exaggerating the numbers in the household and registration with more than one agent.

To obtain ration tickets, household heads have to register with the ration office in the neighbourhood and have to present identity cards which all citizens and foreign residents must carry. We visited one such office in Baghdad. The data collected by these neighbourhood offices is collated and stored centrally and cross-checked against the data collected when identity cards are issued. Ration tickets carry the name of the head of the household and the month for which it is valid, and are colour coded by governorates. Ration tickets are distributed to households by the ration office. An interesting feature

of the system of checks on the abuse of the ration system is that it is focused on preventing false claims rather than on the resale of rations on the open market. There seemed to be no attempt to brand the goods supplied on ration. Given that the ration is designed just to prevent starvation, there is little incentive for households to sell their ration. However, we were told that poor families often sell infant formula milk and feed their infants ordinary food, occasionally with fatal consequences for the infant.

The rationing system for its functioning relies heavily on the elaborate system of policing and surveillance which reaches down to the grassroots. It is interesting to note the dual use of this system both for coercion and social welfare. Another important feature of the rationing system is the symbiosis of the government and the private sector. Shops distributing the rations are privately owned. They are, in general, neighbourhood grocery stores which also supply rations as one line of business. The same shops also sold items supplied on ration at market prices. Many of the mills which supply wheat flour for ration are also privately owned. There appears to be enough economic incentive for the private sector to partake in the operation of the ration system.

We also visited a centre for the distribution of sugar, tea and cooking oil to ration agents. On the presentation of the ration tickets collected from households for delivering the last ration, they were issued with the entitlement to collect the next set of rations.

We visited all the links in the chain of the rationing system, all in the Baghdad area. They all seemed to be efficiently run. The efficiency with which the Iraqi rationing system operates and its apparent success in not only preventing false claims but also making it relatively easy to collect ration tickets and rations stand in a marked contrast to the operation of similar rationing system in a number of developing economies such as India and Pakistan, where the abuses of the system were extremely widespread.³⁵

6.3 Availability to Entitlement

The ration system in post-1990 Iraq can be viewed justifiably as an example of a successful food security programme in the time of economic crisis. The government's response to the economic shock can be viewed at two levels. In the first instance, it can be examined as an emergency food distribution system that prevented the onset of famine at a time when purchasing power collapsed dramatically, and when there were serious questions about the smooth functioning of markets.

³⁵ See, for example, Alderman (1988), for an account of the disfunctioning of the ration system in Pakistan.

There is now a considerable body of evidence from international experience that shows that famines are likely to occur not simply due to inadequate food availability in aggregate terms, but due to the collapse in the entitlements of particular sections of the population.³⁶ In the case of Iraq, also, it is clear, that in the absence of public intervention, famine conditions might have prevailed. The ration system protected the basic food entitlement of all sections of the Iraqi population from falling below a point where mass starvation could have occurred.

The ration system played a key role in preventing famine at a time of economic shock. Since then it has emerged as an effective mechanism for converting the country's aggregate food availability into a basic universal entitlement year on year to date. While there is a great deal of literature now on the experience of various countries in dealing with a dramatic decline in food entitlements at the time of emergency, there are few examples of similar interventions that have been sustained over such a long period. The Iraqi state ration stands out in the sense that it combines an efficient system of food distribution with a sustainable system of procurement.

We believe that the procurement system is sustainable because it is based largely on Iraq's domestic production of grains, and therefore relies little on the availability of foreign exchange. In this regard, it is an important departure from the way that most sectors of the Iraqi economy were organised prior to the sanctions.

Even if we accept the official data on the output of foodgrains (see section 5.1 for a discussion of why the official data might be downward biased) Iraq's aggregate output was sufficient to cover the needs of the ration system in 1995 (Table 7). Admittedly, for this to happen, the 'wheat flour' supplied in the ration would comprise of a large part of grains other than wheat, such as barley. Reports on the quality of the flour, which is supplied through the ration system, suggest that such dilution does take place.

The fact that a country can produce enough grain to cover its basic needs does not imply that it does indeed do so. The recent history of famines around the world amply demonstrates that potential or actual output does not freely translate into food security for the population. In the absence of a well-designed and effectively-managed procurement system, production targets may not be realized and whatever is produced may not actually reach the ration system. If, for example, the procurement price is much lower than the market price, farmers would have an incentive to conceal their output from the

³⁶ See Sen (1981) for a seminal contribution, and Drèze, Hussain and Sen (1995) for evidence from various countries.

procurement agency. If the gap between the procurement price and the market price were large enough and if concealment were difficult, people might actually withdraw from grain production altogether.

In the Iraqi procurement system, farmers are required to supply the procurement agency with an amount of grain which is calculated by multiplying their cropped area with the designated yield of the land in question, which, in turn, is calculated by taking into account various production conditions and is based on some notion of the average yield of that land. In principle, then, the entire output is supposed to be sold to the procurement agency, which is a local committee of the Ministry of Agriculture. The penalty for any shortfall is the market value of that shortfall -- i.e. a farmer who fails to meet the target set for him would have to purchase the shortfall from the market and supply it to the procurement agency. Farmers can apply for consideration if due to some specific reason the harvest turns out to be much lower than average. In such cases a local committee of the Ministry of Agriculture with knowledge of local production conditions adjudicates.

Procurement systems of this type are not uncommon in situations where there is a government food subsidy to consumers. Part of the subsidy is raised by imposing a tax on farmers, who are required to sell some part of their output (in the case of Iraq, the entire harvest) to the government at lower than market prices. The tax is the gap between the market prices and the procurement price. Like any system of taxation, procurement systems also attract evasive behaviour on the part of the taxed population.

As in the case of the food ration, where effective operation requires good system design, the issue of design and implementation are of paramount importance if a procurement system is to be sustainable. A number of features of the working of the procurement system in Iraq show that the authorities have been attentive to such considerations.

Firstly, the implicit tax on farmers should not be onerous enough for them to engage in large-scale evasion, or worse, withdrawal from grain production altogether. International experience has shown that attempts by procurement (or tax) authorities at shifting much of the burden of the consumer subsidy can badly backfire and result in a depletion of agricultural output. Given the paucity of data on a number of relevant variables, there are no reliable estimates of the implicit tax on agriculture in Iraq. We have attempted to arrive at some very rough benchmark numbers on the basis of known differences between procurement and market prices of wheat. Our rough estimates of this implied rate of taxation range from 20 to 35 per cent of the value of produce.³⁷ Considering the fact that the ration system involves a subsidy of over 95 per cent to consumers, the part of the burden which is borne directly by

³⁷ For details, see Appendix 3.

farmers is relatively modest.

Secondly, since the procurement target for farmers is set according to the area of land they have under crop, a potential form of evasion might be for them to under-report cropped area. The incentive for farmers to do so has been reduced in Iraq by linking the supply of subsidized inputs such as seeds and fertilizers with the reported cropped area. The grain procurement agency also acts as the supplier of subsidized inputs such as seeds and fertilizers, and these are rationed according to reported cropped area.

Finally, evasion at the time of harvest is minimised by the procurement agency exercising some direct physical control over the harvesting operations. In the major grain growing regions of the country, farmers can hire mechanical harvesters either directly from a local branch of the Ministry of Agriculture (which also happens to be in charge of procurement) or from private contractors who in turn also report to the procurement agency. An official of the agency is usually present at the time when the harvesters go into operation and makes a record of the condition of the harvest.

In sum, the Iraqi procurement system appears to be well-designed against various forms of evasion and avoidance that can cripple the functioning of such procurement systems. Most importantly, while the procurement price does indeed imply a net tax on farmers, this tax does not appear to be high enough to substantially dampen incentives. In fact, as we have argued in sections 4.1 and 5.1 above, there has been a large increase in the proportion of the workforce in agriculture, and cropped area has also risen substantially in the sanctions period. Working in tandem the procurement and the ration systems have, thus far, been successful in turning Iraq's agricultural potential into higher domestic food availability, and this aggregate availability into basic food entitlements for the population as a whole.

6.4 Repression and Welfare

It is clear from the foregoing discussion that the Iraqi government invests a great deal of financial as well as administrative and political resources in order to maintain the ration system in good stead. This may appear paradoxical to some given the regime's notorious record in terms of brutality and oppression within the country.³⁸

³⁸ Republic of Fear by Samir al-Khalil provides a harrowing account of the systematic use of terror and violence as instruments of control in Iraq (Al-Khalil, 1989). The same book also comments on the development achievements of the current and past Iraqi governments: "A regime of terror actually presided over an across-the-board increase in the standard of living in Iraq, and it significantly improved the lot of the most destitute layers, furthering the levelling of income differentials that began after 1958." (al-Khalil, 1989, p 93).

It might be argued that the government's active role in preventing the onset of mass starvation serves its narrow and cynical aim of the existing leadership of prolonging its rule by averting political strife. Such calculations clearly do have a place in explaining the behaviour of governments. The actual calculation is likely to be somewhat more sophisticated than a simple "bread-for-loyalty trade-off". By responding in an effective manner to a threat of food insecurity instituted by "outsiders" (i.e. economic sanctions imposed by the U.N. Security Council), the leadership would seek to enhance its claim to political legitimacy within Iraq.

Even if the present Iraqi regime's commitment to the ration system is motivated primarily by narrow political calculus, it needs to be stressed that this commitment to welfare is not new-found and that it must be viewed in the historical context of welfarist interventions by successive governments in Iraq. These interventions, which include action by the government on a variety of social and welfare issues, such as education (particularly the education of girls), public health care, development of infrastructure and indeed radical land reforms, have been consistent and substantial features of public policy at least since the late 1950s. These welfarist concerns have coexisted for most of this period with political repression and the widespread suppression of civil liberties.³⁹

Both these aspects of the Iraqi state -- i.e. political repression and social welfare -- have been documented over time. The fact that the Iraqi state and the present government have little respect for civil and political liberties is well-established. There is also little doubt that the sanctions regime has done little to alter this situation. Our investigation into the government's response to economic sanctions has highlighted continuity also in that other less widely recognized aspect of the Iraqi state -- namely its commitment to social welfare.

This point is an important one for developing an understanding of what might happen in Iraq if and when the sanctions regime is relaxed or modified. There has been a tendency to equate political absolutism with absolute appropriation of public resources for private ends. It has been argued, for instance, that the over-riding and exclusive financial priorities of the Iraqi leadership are to amass private wealth and to bolster the state's coercive and military apparatus.⁴⁰ While there is no doubt that private

³⁹ It is worth pointing out that this combination of political repression and social welfare is not unique to Iraq.

⁴⁰ For instance, while arguing against the relaxation of sanctions in April 1996, Madeleine Albright, the former US ambassador to the UN asserted that Iraq had spent over \$2 billion on building palaces for President Saddam Hussein. This estimate was found to have been based on highly dubious methodology and was not subsequently repeated.

appropriation and military expenditure are important priorities for the Iraqi leadership, commitment to social welfare expenditure is also an important government priority in its own right. A considered discussion about the future of the sanctions regime needs to keep this point on board.

7 Retrospect and Prospect

The main aim of this report has been to establish the impact of sanctions on Iraq's economy and in particular on the economic conditions of the civilian population. Most of the discussion thus far has been focused on changes in economic variables, on the responses of the private sector and the state to these changes, and on the livelihoods and living conditions of the people. In this section we shift the focus and draw attention to issues concerning the objectives of the sanctions regime.

The time horizon of the sanctions regime is indefinite, unless specifically terminated by the consent of a majority of the members of the Security Council and of all the permanent members. It therefore offers tremendous leverage to individual permanent members of the Security Council: any one of them can veto a proposal for terminating the sanctions or modifying their terms. Given this extraordinary leverage enjoyed by the permanent members, it is clear that the political and strategic aims of these powers play a crucial role in the continuation of sanctions.⁴¹ Here, we restrict our attention to the formally stated goals and objectives of the United Nations and examine whether, or to what extent, these goals and objectives have been realized.

Finally, in section 7.2, we turn to the most recent modification in the sanctions regime, namely, the food-for-oil agreement between the UN Security Council and the government of Iraq. We argue that while it does provide welcome relief to ordinary Iraqis, the food-for-oil deal is merely a modified continuation of the sanctions regime. It does not obviate the need for seeking a quick and just solution to the crisis that has blighted the lives of millions in Iraq. The food-for-oil deal does, however, expose some important contradictions in positions taken by the main protagonists.

7.1 Objectives of Sanctions

The United Nations Organization, and its Security Council in particular, can be properly regarded as the body charged with representing the will of the international community in the resolution of the

⁴¹ See, for example, Simons (1996) for a documentation of statements by leaders of various permanent members linking sanctions against Iraq with political and strategic objectives such as the overthrow of Saddam Hussein or the "containment" of Iraq.

Gulf conflict. Punitive sanctions against Iraq ought to be seen, therefore, within the wider context of actions taken by the international community in the pursuance of its objectives. It is worth recalling at length the words of a former Secretary-General of the United Nations who oversaw many issues arising from the Gulf crisis during his tenure:

"The breadth of actions taken by the United Nations in more than five years of work - from the immediate, intense world-wide diplomatic activity aimed at ensuring universal support for the restoration of Kuwaiti sovereignty, to the ongoing challenge of building long-term peace and stability in the region - have confirmed the extraordinary relevance of the United Nations in addressing the most complex political issues facing the international community...

"A principal concern for the Organization throughout its involvement has been to alleviate the hardships the conflict has visited upon the Iraqi civilian population...

"By the use of sanctions and other enforcement measures, through efforts to institute a programme of disarmament and weapons control, in the provision of humanitarian assistance, and with programmes in areas such as boundary demarcation, compensation for damages caused by the invasion and the promotion and protection of human rights, the United Nations has broken new ground as peacemaker, peace-keeper and peace-builder." (United Nations, 1996, p 3).

These extracts from the former Secretary-General's reflections on United Nations and the Gulf conflict highlight two important aspects of how the organization itself perceived its role. Firstly, while the restoration of Kuwaiti sovereignty and the cessation of armed conflict were regarded as immediate tasks, the ultimate objective was to build "long-term peace and stability in the region". Secondly, the organization regarded the alleviation of hardships faced by Iraqi civilians as a "principal concern".

It is pertinent to ask how far and to what extent the objective of building long-term regional peace and the concern with the conditions of Iraqi civilians have been reflected in the resolution of the Gulf crisis. In order to address these questions, it is useful to proceed by examining the mechanism adopted by the Security Council in the pursuance of its objectives. The ceasefire resolutions, and particularly resolution 687 is of fundamental importance in this regard. According to Mr. Boutros-Ghali, the former Secretary-General of the UN:

"The primary basis for the wide range of actions that the United Nations has taken to accomplish this goal [that of establishing regional peace], is Security Council resolution 687 (1991), adopted on 3 April 1991, which imposes numerous obligations on Iraq and, in doing so, constitutes one of the most comprehensive sets of decisions ever taken by the Council." (United Nations, 1996, p 4).

Resolution 687 does, indeed, impose a comprehensive set of conditions on the government of Iraq. It also calls for unprecedented coordination between various UN agencies and international organisations -- particularly in the area of weapons control -- for its implementation. Apart from demands for compensation, the acceptance of international boundaries and the repatriation of prisoners, resolution 687 is overwhelmingly concerned with military matters, such as weapons control. Besides its scope and detail, there are three aspects of resolution 687 that deserve mention, especially in the light of the broad objectives mentioned by Mr. Boutros-Ghali.

Firstly, the only reference contained in resolution 687 to humanitarian considerations is that it allows for the relaxation of the sanctions regime for the import of food and medicines.⁴² This relaxation, however, is conditional "on the policies and practices of the Government of Iraq, including the implementation of all relevant resolutions of the Council..."⁴³ Since these "relevant resolutions" and conditions are largely concerned with weapons control, there appears to be a clear hierarchy in the goals of the Security Council in the favour of military objectives over and above humanitarian concerns. Although, to our knowledge, no specific threat of revoking the relaxation of imports of food and medicines has ever been made since the adoption of resolution 687, it is remarkable that the conditionality exists at all. The declaration that the alleviation of the suffering of Iraqi civilians was a primary concern also rings hollow in the light of admission by Mr. Boutros-Ghali that "...donor response to the five United Nations inter-agency humanitarian appeals issued since January 1992 has [...] fallen well short of the funding goals" (United Nations, 1996, p 113).

The second conspicuous feature of resolution 687 is that it demonstrates that the Security Council failed to make any meaningful distinction between mechanisms designed for the achievement of

⁴² Mindful of the fact that allowing the import of food and medicines was meaningless in the absence of Iraq's ability to pay for such imports, the resolution also empowered the sanctions committee was "empowered to approve [Iraqi exports], when required to assure adequate financial resources" for humanitarian imports (Resolution 687, section F paragraph 23 United Nations, 1996, p 197). This formed the basis for food-for-oil deal which is discussed in section 7.3 below.

⁴³ United Nations, 1996, p 197, extract from paragraph F-21 of resolution 687.

immediate and urgent objectives (ending Iraq's occupation of Kuwait) and "peace-building" measures such as the demarcation of boundaries and the limitation of Iraq's offensive potential. The regime of comprehensive economic sanctions was imposed under resolution 661 within a few days of Iraq's invasion of Kuwait in August 1990. The objectives of this resolution were, quite justifiably, extremely short-term ones. It was imperative at that time to secure Iraq's rapid withdrawal from Kuwait and the restoration of Kuwait's sovereignty. The aims of the cease-fire conditions as set out in resolution 687, however, are by definition over a longer time horizon. These include among other things the identification and destruction of Iraq's capacity for the production of chemical, biological and nuclear weapons and their delivery systems, as well as the institution of an ongoing programme to monitor possible breaches of weapons control in the future. No time period is specified for the completion of these tasks. The political and military situation, and the demands of regional peace and security were vastly different in April 1991 when resolution 687 was adopted than they had been in August 1990. It is striking, then, that instead of considering any alternative instrument for ensuring Iraq's compliance with the cease-fire conditions, the Security Council simply reiterated the maximalist position of comprehensive sanctions as enunciated in resolution 661. This is so in spite of the fact that the UN did recognize the distinction between its peacemaking, peace-keeping and peace-building tasks.

Thirdly, resolution 687 advances a purely legalistic and military settlement to the Gulf conflict. While there are detailed prescriptions for limiting Iraq's military potential and about its legal obligations under international law in the resolution, neither resolution 687, nor any of the other resolutions or negotiations propose or consider long-term political or diplomatic initiatives for confidence-building and conflict resolution in the region. This is a serious omission because although adherence to its international legal obligations by Iraq, and the limitation of its military potential might be necessary conditions for regional peace and stability, they are not sufficient conditions. Given the importance of Iraq in terms of its population, resources and political history, it is difficult to envisage a long-term settlement in the region that excludes Iraq.

In sum then, resolution 687, which provides the basis for the continuation of the sanctions regime reflects very inadequately the twin objectives of the international community of building long-term peace and alleviating the suffering of Iraqi civilians. Even in its wording, the resolution does not live up to the claim that the suffering of civilians is a primary concern. The failure to make a distinction between the very different contexts of peacemaking and peace-building, or in other words between the imperatives of immediate aims such as the restoration of Kuwait and longer aims such as the monitoring of Iraq's armaments programme, has set the scene for prolonged and continuing economic hardship in Iraq.

It can be argued that the sanctions regime under resolution 687 has been successful in securing Iraq's compliance with her international legal obligations and in the implementation of one of the most comprehensive internationally-monitored disarmament systems in the world. This, indeed, has been the main argument put forward by proponents of the continuation of sanctions. Progressive compliance by Iraq with the demands of resolution 687 is undeniable, though the claim that comprehensive economic sanctions are the only or even the most effective or least costly instrument for ensuring compliance is open to question.

This is particularly the case if we take a longer view of the conditions required for peace-building in the region. Implicit in the prescriptions contained in resolution 687 is the understanding that the main causes of regional instability and aggression were Iraq's disregard for international law and its advantage in military capability over other states. Such an analysis ignores other political factors such as the potency of Arab nationalism and the sense of historical injustice in Iraq, both among the rulers and the people.

Almost the entire spectrum of political opinion in Iraq, and not merely the present regime, is influenced strongly by these ideas. Any political leadership would be required to affirm Iraq's role as a regional power in order to establish its credentials. The issue of long-term peace and stability in the region, therefore, cannot be properly addressed without due recognition of these realities. While the sanctions regime might have been effective in reducing Iraq's military potential and in securing its compliance with international law for the time being, by imposing a heavy cost on Iraqi civilians it adds further fuel to the sense of historical injustice felt by ordinary Iraqis. Given that it is widely perceived inside Iraq as a vengeful measure, the sanctions regime gives rise to further cynicism amongst ordinary Iraqis with international institutions.⁴⁴ While on the one hand the sanctions and other punitive measures against Iraq might enforce an uneasy peace in the medium-term, their long-term effects are likely to be counter-productive and unpredictable.

7.2 "Food-for-Oil" Agreement

The end of 1996 saw the implementation of the "Food-For-Oil" agreement first proposed in August 1991 and finally agreed in May 1996. The deal was reached in May 1996, when a Memorandum of Understanding was agreed between Iraq and the Security Council for the implementation of Security Council resolution 986 of April 1995. The terms of this resolution are valid initially for six months and can be renewed for another six. The agreement can be revoked and does not supersede any previous UN

⁴⁴ Even the Iraqi opposition parties that have suffered extreme brutality at the hands of the present rulers remain far from unequivocal in their support for sanctions.

resolution. In fact, it remained in abeyance for over 6 months between May and December 1996 due to the intervention of the Iraqi army in factional fighting in Iraqi Kurdistan.

Background to FFO

It might be recalled that resolution 687, which is the key Security Council document governing the sanctions regime, contained a proviso that empowered the sanctions committee to allow limited and ad hoc exports from Iraq in order to finance the importation of humanitarian supplies. Between April and July 1991 the government of Iraq made several representations to the sanctions committee to exercise this power. This period had also seen several fact-finding missions sent to Iraq by the Secretary-General in order to ascertain humanitarian conditions. The reports of these missions, particularly the inter-agency mission also known as the Aga Khan mission, painted a bleak picture of the conditions inside Iraq.

The response of the Security Council was to adopt resolution 706 which allowed the export of \$1.6 billion worth of Iraqi oil for a period of six months.⁴⁵ Part of the proceeds were earmarked for the compensation fund and to pay for various UN activities in Iraq. The remainder were to be placed in an escrow account and to be used for the import of essential supplies approved by the sanctions committee. Resolution 706 proposed strict monitoring of Iraqi finances, imports as well as the distribution of food and other supplies. The Iraqi government rejected these terms as being overly intrusive and as compromising its sovereignty. Although sporadic negotiations continued on the implementation of resolution 706, it was clear in early 1992 that the Iraqi government would not accept its terms.

This diplomatic impasse allowed the Security Council to wash its hands of any responsibility for the condition of the civilian population of Iraq. Accordingly, the government of Iraq, which "by acting in this way [i.e. discontinuing negotiations on FFO], is forgoing the possibility of meeting the essential needs of its civilian population and therefore bears the full responsibility for their humanitarian problems." (Statement by the President of the Security Council, 5 February 1992, in United Nations, 1996, p 391). There were no significant initiatives after that for over 3 years till April 1995 when a new resolution (986) was adopted which formed the basis of the current food-for-oil agreement. There was also no significant attempt by the UN to monitor humanitarian conditions in Iraq in this period.

According to the former Secretary-General, resolution 986 "took into account some of Iraq's

⁴⁵ The basis for these figures is somewhat obscure. For a discussion see below.

concerns over resolutions 706 (1991) and 712 (1991) by reaffirming 'the commitment of all Member States to the sovereignty and territorial integrity of Iraq' and describing the new exercise as 'temporary'. (United Nations, 1996, p 103). This implicit admission that Iraqi objections to those resolutions could be and were accommodated somewhat contradicts the position taken by the Security Council over a period of three years of stalemated negotiations that Iraq bore "full responsibility" for the suffering of its civilian population.

Impact of the agreement

The current food-for-oil agreement allows oil Iraq to export \$2 billion worth of oil every six months, excluding that delivered to Jordan for own consumption. The proceeds flow into an escrow account in an international bank chosen by the UN Secretary-General and are used for three purposes in the following proportions:

- 50% for use by the Iraqi governments for the procurement of humanitarian supplies for the whole of Iraq except the three Kurdish governorates outside the Iraqi control;
- 15% for the use by the UN for humanitarian supplies for the three Kurdish governorates of Arbil, Dahouk and Suleimaniyeh;
- 30% for payment into the Kuwait Compensation Fund controlled by the UN;
- 5% for UN administration expenses.

One billion dollars (per six months) at the disposal of the Iraqi government for humanitarian supplies has to be spent as specified in the categorized procurement plan approved by the UN Sanctions Committee.

The agreement will bring about a substantial reduction in the suffering of the Iraqi population through two channels: first, the appreciation of the Iraqi dinar relative to the US dollar, and, second, increasing the resources for the import of food, medical supplies and inputs for the restoration of infrastructure such as sewage works and water purification plants. The first effect is immediate and, as pointed above, the market price of food and medicines closely track movements in the exchange rate. The second, especially the restoration of infrastructure, will take effect with a lag. As we have noted in section 2 above, the food-for-oil agreement has been a contributory factor in the relative success of the macroeconomic stabilization programme initiated in late 1995 by the Iraqi government.

It must be noted, however, that the substantial positive impact of FFO is actually an indication of the depth of the economic recession in Iraq. The agreement falls well-short of any benchmark of the country's basic needs. In 1989 Iraq's import bill for food and medicines was \$2.36 billion and the

expenditure on preventive water sanitation purification was around \$100 million. Assuming 4% inflation, the these two categories of import would cost around \$3.2 billion in 1997 prices. This excludes the repair of facilities and the replacement of medical equipment. Even allowing for cuts in non-essential food and medicines, \$2 billion per year fails to cover by a significant margin the bill for essential food and preventive and curative health care.

The amounts stipulated under the FFO also stand in marked contrast to estimates of needs prepared by the various UN agencies. The appears to be based upon the six-monthly limit on oil exports of \$1.6 billion that was first proposed in resolution 706 in August 1991, adjusted for price increases. The origin of the \$1.6 billion itself are somewhat obscure. According to the report of the Aga Khan mission, the last authoritative inter-agency mission, even for a "greatly reduced level of services" Iraq required \$6.8 billion over a one-year period in 1991. The breakdown of this amount was \$180 million for water and sanitation, \$500 million for health services, \$53 million for supplemental feeding, \$1.62 billion for general food. Import requirements of agricultural inputs were estimated at \$300 million, and those for the restoration of the oil and the power sectors were respectively put at \$2 billion and \$2.2 billion.

The discrepancy between the estimates of the Aga Khan mission and the limit set under resolution 706 was recorded in a report of the Secretary-General in September 1991 which noted that "...the actual sum from the sale of Iraqi petroleum and petroleum products will have to be determined by the Security Council after its consideration of the present report." This report estimated the six monthly essential requirements at \$1.8 billion (United Nations, 1996, pp 299-300). At current prices, this would be equivalent to over \$2.2 billion, or twice as high as the allowance set by the food-for-oil deal.

The modalities of this agreement, which is, in essence, the only concession by the UN to humanitarian conditions inside Iraq, raise two sets of important (and uncomfortable) questions:

- What is the rationale of restricting oil exports to an amount which falls well short of meeting humanitarian needs?
- What are long-term prospects for the resolution of the sanctions crisis?

The limitation on the export of oil to \$2 billion per six months does not lend itself to justification in terms of the misuse of additional revenue. The agreement provides for stringent monitoring by the UN Sanctions Committee of proceeds set aside for humanitarian needs. It is difficult to understand why the monitoring mechanism would not be able to cope with an import bill exceeding \$ 1 billion per six months. One possible rationale would seem to be to restrict Iraqi oil sales either to allow other oil exporting countries to export more or to prevent a fall in oil prices, which higher Iraqi oil exports may

imply. If true, this would be extremely cynical abuse of Security Council power in the pursuit of goals that had nothing to do with building peace and security.

Another possible explanation is that with greater resources at its disposal Iraq might be able to circumvent import controls more effectively. Arms exporting countries may become lax in their export monitoring and thus allow Iraq to rearm itself. Since all of Iraq's major suppliers also happen to be permanent members of the Security Council there is more than a hint of irony in this argument. The implication of such an argument would be that the Security Council, finding it impractical or costly to monitor its permanent members' arms exports, has resorted to a virtual shutdown of the Iraqi economy. The cost of mutual distrust among the permanent members of the Security Council has been borne in tragic proportions by Iraqi civilians.

The history of the negotiations between Iraq and the Security Council since 1991 indicates that the food-for-oil deal cannot be regarded as anything more than a palliative. Just as the impasse over resolution 706 allowed the Security Council to shelve the issue of humanitarian suffering in Iraq for over three years, the present agreement is likely to postpone a long overdue re-appraisal of the sanctions regime for a year, if not longer.

The sanctions may have succeeded in forcing the Iraqi government to submit a substantial proportion of the stock of long-range rockets and nuclear and chemical materials and facilities for their manufacture. The continuation of sanctions may help to unearth and destroy what has until now been concealed; but it would not change the Iraqi leadership or change the character of the regime. It would prolong the suffering of the Iraqi population and contain Iraq through a stranglehold on its economy. These conditions are likely to hinder rather than help the cause of meeting "the ongoing challenge of building long-term peace and stability in the region".

Appendix 1

Leakages under the Sanctions Regime

Under the sanctions resolutions, the only exports that are exempt are oil exports to Jordan for its domestic consumption. Jordan's total annual imports of crude oil before the Gulf War averaged around 17 million barrels, and its annual import bill for the commodity was around \$320 million (United Nations, 1992, UNCTAD Commodity Yearbook 1992). It can be safely assumed that nearly all of Jordan's oil imports originated from Iraq. Indeed the total value of Jordan's imports from Iraq as reported in IMF sources was around \$300 million. This pattern remained unchanged after the Gulf War and the sanctions except for one year (1993) when Jordan's imports from Iraq are recorded as nil. In subsequent years the pattern of trade appears to have been revived. It is likely that Jordan's domestic oil consumption has risen in recent years because of economic growth.

Even allowing growth, Jordan's domestic consumption would still be a tiny fraction of Iraq's pre-sanctions estimated oil output of over one billion barrels per year. Current industry estimates put Iraq's output at under a fifth of that level. In 1994, for example, the Organisation of Petroleum Exporting Countries (OPEC) reported that Iraq's output stood at 570,000 barrels a day (or over 200 million barrels a year). Even at the current low levels, Iraq's output far exceeds its exports to Jordan.

The difference is consistent, however, with Iraq's pre-sanctions patterns of domestic consumption. Between 1987 and 1990, Iraq consumed on average 173 million barrels of oil per year. Whether domestic consumption has substantially declined is far from clear. Industrial recession certainly would have led to lower demand for power, and thus for fuel oil. Similarly, with massive declines in income the demand for oil by motorists and other consumers ought also to have reduced. But the prices of petroleum products have declined dramatically, so that petrol is now virtually free in Iraq. This is one commodity for which prices have fallen. Petrol now costs 1.5 Dinars per litre, or the equivalent of 0.15 cents at the May 1996 exchange rate. This reduction in price is likely to have counteracted somewhat the effects of low incomes and low demand from industry. It is possible, of course, that actual output is substantially higher than OPEC estimates. It is interesting to note, however, that Iraqi government figure for oil production in 1993 and 1994 were over 30 per cent higher than OPEC estimates. This would not be consistent with a government which is trying to conceal the level of output.

It is useful to consider the implications of the most extreme case of leakage from the sanctions regime. If we take the higher figure supplied by the government of Iraq, the country's total output in 1994 would have been around 270 million barrels compared to the OPEC estimates, using secondary industry sources, of 208 million barrels. Even under the extreme assumption that this entire amount was exported, at the improbably high return to Iraq of \$10 per barrel, total export revenue in 1994 would have been \$2.7 billion. "Improbably high", because the average price of crude oil in 1994 was US \$15.5 per barrel (IMF International Financial Statistics Yearbook 1995). It is highly unlikely that smuggled oil would fetch anything close to its market value. Iraq's return per barrel, after subtracting the cost of extraction is likely to have been lower than \$10. In per capita terms this would have been the equivalent of \$150 per person. This is still lower than the value of imports per person of the three poorest Arab

countries (see Table 2).

There are severe limits to the amount of oil Iraq is able to export. Prior to the imposition of the sanction, the principal conduits for Iraqi oil exports were the pipeline from Turkey to the Mediterranean coast and the oil terminals in Basrah. Export from either of the two is easy to police and there is no evidence to suggest either have been used for exports. Exports through land route is the only possible option. The possible land routes are very limited. Three of the six states neighbouring Iraq, Saudi Arabia, Kuwait and Iran are large oil producers and the first two have been strong supporters of the sanctions, and the relations with Iran have been strained, if not absent. With the remain three states, Iraq has had no relation with Syria, which supported the military action against Iraq, and the relations with Turkey, which too supported the military action, have been minimal. The route through Jordan is the only possible channel for significant oil exports. All of Iraqi oil fields are far away from the Jordanian border and Iraqi oil exports to Jordan has to be transported over a distance of 600 to 700 kilometres [we should check the distance] by trucks. Supplying oil to Jordan for domestic consumption is a large logistic operation. Even if Iraq succeeds in transporting sufficient oil to Jordan, any significant re-export of oil through Jordan, which is not an oil producer, would be easily detected. In sum, some seepage of oil to neighbouring countries cannot be ruled out, significant breaches in the embargo on oil exports is technically infeasible.

Appendix 2

Estimate of Iraq's Current GNP

Our household surveys suggest that workers earned \$25-30 per month in casual labour. This was generally more than wages paid in the state sector. At \$30 per month total wages per worker on an annual basis are \$360. Cross country comparisons show profits fall in the range of 0.25 to 0.75 times the wage bill. Assuming that they are 0.5 times the wage bill, and assuming the labour force participation rate is 50%, then GNP per capita equals \$270 (before subsidies, rents or indirect taxes). Since these calculations are very rough, the bias could be substantial and in either direction, but they show dollar GNP has fallen sharply from the levels above \$2000 recorded in the late eighties. An alternative measure comes from the National Accounts data published by the Iraqi authorities. According to these Iraqi GDP was 128.1 billion dinar in 1993. The average exchange rate during the year was 260 ID/dollar, hence GDP per capita would equal \$26. Since inflation and controlled prices for rations would bias the value of GDP, this also will be a very rough estimate. Given the discrepancy between these measures, we use a rough estimate of \$200 per capita in the paper.

Appendix 3

Estimate of Implied Tax Rate on Farmers in 1996

The following estimates are worked out for wheat. The benchmark procurement price of wheat grain is taken as 100 Dinar per kilogramme. The benchmark market price of wheat flour in May 1996 was 250 Dinar per kilogramme. The market price is determined, on the margin by the import price. The implied tax on the margin is calculated by working out the difference between the price a farmer could expect to obtain on the market and the procurement price.

Starting from the market price of wheat flour (250 Dinar) we need to work out the market price of wheat. Part of the difference between the wheat flour price and the procurement price is accounted for by the costs of converting wheat into wheat flour and other transportation and transaction costs. Allowing for a margin of 33% for the costs of milling, transport and other expenses, gives the implicit market price of wheat flour as 167 Dinar.

The procurement price of 100 Dinar, however, does not take into account the implicit subsidy to the farmers for seeds and fertiliser. If we assume that the implied rate of subsidy is as high as a third (i.e. 33 Dinar) of the procurement price, the net tax paid by a farmer per kilogramme of wheat sold to the procurement agency would have been around 34 Dinar. If, on the other hand the implied subsidy was a tenth (10 Dinar), the net tax paid would have been 57 Dinar. The tax rate, on the margin, would have been between 20 to 35 per cent depending on the value of the subsidy.

References

- Alderman, Harold (1988), "The Twilight of Flour Rationing in Pakistan", Food Policy, August 1988.
- Al-Khalil, Samir (1989), Republic of Fear: Saddam's Iraq, paperback reprint 1991 (London: Hutchinson Radius)
- Beck, Tony (1994), The Experience of Poverty: Fighting for Respect and Resources in Village India (London: Intermediate Technology Publications).
- Drèze, Jean and Gazdar, Haris (1991), "Hunger and Poverty in Iraq, 1991", DERP Discussion Paper 32, STICERD, London School of Economics.
- Drèze, Jean and Gazdar, Haris (1992), "Hunger and Poverty in Iraq, 1991", World Development, 20(7) pp. 921-945.
- Drèze, Jean, Hussain, Athar and Sen, Amartya eds, (1995), Political Economy of Hunger (Oxford: Clarendon).
- Economist Intelligence Unit (1995), Iraq: Country Profile 1995.
- EPW Research Foundation (1993), "Poverty Levels in India: Norms, Estimates and Trends", Economic and Political Weekly, April 13, 1993.
- Food and Agricultural Organization (1977), Review of Food Consumption Surveys 1977, (Rome: Food and Agricultural Organization).
- Food and Agricultural Organization (1995a), "Evaluation of Food and Nutrition Situation in Iraq", Terminal statement prepared for the Government of Iraq, Food and Agricultural Organization, Rome.
- Food and Agricultural Organization (1995b), Annual Report 1995, (Rome: Food and Agricultural Organization).
- Government of Iraq (1994), Statistical Yearbook 1994.
- Human Rights Watch Middle East (1995), Iraq's Crime of Genocide: The Anfal Campaign Against the Kurds (New Haven and London: Yale University Press).
- International Study Team (1991), "Health and Welfare in Iraq After the Gulf War", Mimeo, Medical Education Trust, London.

Jiyad, Ahmed (1997), "The Development of Iraq's Foreign Debt: from liquidity to unsustainability", paper presented at conference on Frustrated Development: The Iraqi Economy in War and Peace, 9-11 July, University of Exeter.

Sengupta, Sunil and Gazdar, Haris (1997), "Agrarian Politics and Rural Development in West Bengal", in Drèze, Jean and Sen, Amartya eds, Indian Development: Selected Regional Perspectives (Delhi: Oxford University Press).

Simons, Geoff (1996), Iraq: From Sumer to Saddam, Second Edition (London: Macmillan).

United Nations (1996), The United Nations and the Iraq-Kuwait Conflict, 1990-1996, (New York: Department of Public Information, United Nations).

United Nations Population Division (1988), World Demographic Survey 1988.

World Bank (1993), World Development Report 1993 (New York: Oxford University Press).

World Health Organization (1996), "The Health Conditions of the Population in Iraq Since the Gulf Crisis", Report.

Table 1: Value of Iraq's Foreign Trade: 1987-1994
(current US \$ millions)

Year	Exports	Imports
1987	9,705	7,445
1988	9,687	10,286
1989	12,284	9,890
1990	10,303	6,520
1991	468	418
1992	595	621
1993	65	192
1994	307	225

Sources: IMF, Direction of Trade Statistical Yearbook 1994, and Direction of Trade Statistical Quarterly, various.

Table 2: Iraq's Imports per Capita - Some Comparisons^a

	Population (millions)	GNP per capita (US \$)	Imports per capita (US \$)
Iraq 1987-90	17	-	584
Iraq 1991-94	19	-	20
Low Income Countries ^b	3,039	380	61
Poorest 10 Countries ^c	167	133	37
Low Income Arab Countries ^d	84	650	157
Lower Middle Income Countries ^b	1,096	1590	304
Upper Middle Income Countries ^b	501	4370	781
Iraq under FFO ^e	20	-	150

Notes:

- a All comparative data for various country groups are for 1993.
- b As classified in the World Development Report 1995.
- c Ten poorest countries for which comparable data were available: Mozambique, Tanzania, Ethiopia, Sierra Leone, Burundi, Uganda, Nepal, Malawi, Chad and Rwanda.
- d Mauritania, Egypt and Yemen were the three members of the Arab League in the Low Income Country group.
- e The food-for-oil (FFO) deal would allow Iraq to import humanitarian supplies upto the value of \$2.6 billion a year.

Sources: Word Bank (1995), World Development Report, IMF (1994) International Financial Statistics Yearbook.

Table 3: Wages and Earnings, 1991 and 1996

Wages and earnings^a	1991	1996	Percentage decline
Self-employed, daily earnings ^b			
Petty vending	2.0	1.2	40
Unskilled laborer	4.8	3.0	38
Taxi driver	22.0	10.0	55
Average change			44
Monthly salaries			
Pensioner	22	9	60
Army recruit	34	12	65
Unskilled worker in public enterprise	52	20	62
Unskilled worker in private enterprise	70	40	43
Postman	72	16	78
Middle ranking civil servant	80	16	80
Army officer	88	48	45
Skilled textile worker private	120	100	17
Average change			56

Notes:

- a All wages and earnings are in terms of kilogrammes of wheatflour.
- b Expected earnings for a full day's work in given activity.

Source: For 1991, Drèze and Gazdar (1992), for 1996, authors' survey.

Table 4: Changes in the State Ration, 1991 - 1996

	August 1991		May 1996	
	Quantity per person	Market price	Quantity per person	Market price
Wheat flour (kg)	8	2.4	7	240
Rice (kg)	1.5	4.1	1.25	350
Cooking oil (ltr)	0.25	10.3	0.75	580
Tea (kg)	0.05	23.7	0.1	1,270
Sugar (kg)	1.5	4.4	0.5	670
Soap (pieces)	0	-	1.5	90
Washing powder (kg)	0	-	0.2	100
Baby milk (kg)	1.8	22.2	1	3,200
Costings for family of six persons with one infant				
Nominal price of full ration	11.1		600	
Cost at market prices	212		19,048	
Implied subsidy	201		18,448	
Implied subsidy in kilogrammes of wheat flour equivalent	83		77	

Sources: For 1991, Drèze and Gazdar (1991), for 1996, authors' survey

Table 5: Workforce in Agriculture

Source	Year	Per cent
Population Census	1977	30
Population Census	1987	12
Ministry of Labor and Social Welfare	1996	40

Sources: Population Census 1977, as reported in World Demographic Survey (1988), United Nations Population Division; Population Census 1987, as reported in Annual Abstract of Statistics 1990, Central Statistical Organization, Government of Iraq; Ministry of Labor and Social Welfare, authors' interview.

Table 6: Agricultural Output and Yield: Wheat and Barley

	Wheat			Barley		
	Area ('000 hectares)	Yield (kg/hectare)	Production ('000 tons)	Area ('000 hectares)	Yield (kg/hectare)	Production ('000 tons)
1984	493	956	471	525	917	482
1985	1,540	913	1,406	1,357	981	1,331
1986	1,240	836	1,036	1,456	718	1,046
1987	859	841	722	972	764	743
1988	1,041	892	929	1,314	1,094	1,437
Annual average, 1984-88	1,035	887	913	1,125	895	1,008
1990	1,196	1,000	1,196	1,995	929	1,854
1991	2,517	587	1,477	2,412	318	768
1992	1,677	600	1,006	2,012	750	1,509
1993	2,013	590	1,187	2,314	675	1,562
1994	1,806	743	1,342	1,535	633	971
1995	1,535	805	1,236	1,389	642	892
Annual average 1990-95	1,791	721	1,241	1,943	658	1,259
Annual average 1954-58	1,432	595	852	1,179	894	1,054
Annual average 1959-63	1,480	494	731	1,115	783	873

Sources:

For 1984-88, FAO Production yearbooks, various; for 1990-95 FAO (1995); for 1954-63: Warriner (1969).

Table 7: Wheat flour Requirement and Availability: Various Estimates

Requirement for 1996a $7 * (18,000,00) * 0.95 * 12 =$	1.4 million Metric Tonnes
Estimated availability as per cent of 1996 'Need'	
1. 1995 wheat harvest	71
2. 1995 wheat + 20% barley supplement	88
3. 1995 wheat + barley harvest	122
4. 1995 wheat + 29% barley supplement	100

Note:

a - Total requirement is calculated as follows: per capita requirement per month = 7kg; estimated population in government-controlled areas = 18 million; estimated proportion of the population above the age of 1 year = 95%; number of months = 12.

Sources:

FAO (1995) for crop production and wastage ratios, authors' survey for grain requirement of the ration system.

Addendum

Allocations Under “Food-for-oil”

The United Nations Security Council adopted Resolution 986, “food-for-oil”, on 14 April 1995. The Memorandum of Understanding was signed on 20 May, 1996, by the government of Iraq and the UN for the implementation of SCR 986. Under the first six month period (December 1996 - May 1997) \$2.15 billion of total revenue was generated from oil sales (including the pipeline fee). Of the total oil sales, nearly 50 percent (\$1.09 billion) were allocated towards humanitarian expenditures⁴⁶:

- \$878.4 million for the purchase of humanitarian supplies by the government of Iraq. By May 1997 contracts for only \$572 million had been approved by the Sanctions Committee. (Given the population of 18 million persons, the dollar amount per person per month was roughly around \$8.13); and
- \$215.4 million for the purchase of humanitarian supplies for distribution in the three northern governorates (Dohuk, Erbil, and Suleimaniya) by the United Nations Inter-Agency Humanitarian Program. (Similarly, given the population of 3.08 million persons, the monthly humanitarian amount was \$11.66 per person per month.)

The rest of the proceeds were allocated as follows:

- 30 percent to the United Nations Compensation Fund for Kuwait;
- 10 percent for UN operations, including UNSCOM activities;
- 5 percent to cover transportation costs for oil exported via the Turkish pipeline; and
- 5 percent for oil pipeline repair and maintenance.

The purchasing of food, to maintain the ration in the center and south and to introduce it in the north, was the priority under FFO. The total amount of food to be purchased for the first six months was valued at \$805 million – \$691.3 for the center/south and \$113.3 for the north. According to the distribution, the World Food Program was to administer the purchasing of food commodities, monitor the distribution in the center/south, and to distribute the ration in the north. While the monthly food ration under the MOU kept the original items, it increased the quantities such that the current nutritional value of the ration is 2,030 kcal/cap/day (Table A). Despite the increased amount of food, the present ration is unbalanced and insufficient to meet the nutritional needs of the population, particularly those of children and pregnant and lactating mothers.⁴⁷

⁴⁶ UN Security Council. Report of the Secretary-General Pursuant to Paragraph 11 of Resolution 986. S/1197/419. 2 June 1997.

⁴⁷ The energy value of the ration is inadequate. The average nutritional need is 2,500 kcal. The ration is also nutritionally unbalanced and deficient in a number of vitamins and minerals, such

In the first six months, there were considerable delays in the humanitarian pipeline despite the availability of cash from FFO. The first full ration was not distributed until August 1997, a year after the signing of the MOU. And, less than 5 percent of medical supplies had been delivered to Iraq. The first medical item received in Iraq, on May 9, 1997, was intravenous fluid. However, only 10 percent of what was requested was received and an additional 8 percent was delivered in June. These delays, even for simple humanitarian items, were largely related to the rate at which contracts were approved by the Sanctions Committee.⁴⁸ A large portion of the contracts were either put on hold or blocked. No explanation was provided by the Committee for these delays or rejections.

Although each UN agency because of the FFO agreement has increased its revenue, independent humanitarian, non-FFO, revenue has shrunk over the last six months. This has meant that programs outside the FFO plan have had to shut down

The provisions of FFO were extended for another six months, phase II, on 8 June, 1997 under the UN Resolution 1111 and the distribution plan was approved by the Secretary-General on 4 August.. It was expected that \$1.32 billion were to be available for humanitarian supplies. The second distribution plan allocates funds in the same general proportion of 40 percent for central/south Iraq and 10 percent for northern Iraq. The sectoral allocation of funds is presented in Table B.

A special report released by FAO/WFP⁴⁹ assessing the impact of FFO reported that the funds were insufficient to meet the agricultural and nutritional needs of the population.

as vitamins A, C, B6, and riboflavin and calcium, zinc, and iron. The quality of protein is low given the heavy cereal content of the ration.

48 Security Council Briefing on Iraq by USG Akashi. 22 May 1997.

49 FAO/WFP. 1997. Special Report: FAO/WFP Food Supply and Nutrition Assessment Mission to Iraq. 3 Oct. 1997.

Table A. Food ration quantity by year (kg per person)

Item	August,1991 ⁵⁰	November, 1993 ⁵¹	August, 1995 ⁵²	May, 1996 ⁵³	Under FFO May, 1997
Wheat flour	8.00	9.000	6.000	7.00	9.00
Rice	1.50	2.250.	1.125	1.25	2.50
Pulses	-	-	-	-	1.00
Vegetable oil	0.25	0.500	0.625	0.75	1.00
Sugar	1.50	1.500	0.500	0.50	2.00
Tea	0.05	0.075	0.100	0.10	0.150
Salt	-	-	-	-	0.150
Baby milk	1.80	1.80	1.800	1.80	2.70
kcal value per capita/day excluding milk	1,372	1,800	1,093	1,129	2,030

50 International Study Team. 1991. Economics Report.

51 Food and Agriculture Organization. 1993. Mission Report.

52 Food and Agriculture Organization. 1995. Mission Report.

53 Center for Economic and Social Rights. 1996. Economics Report.

Table B. Allocations to Selected Sectors in Phase II.

Sector	Total Allocations (\$ US)	Allocations Center/South GOI	Allocations 3 Northern Governorates
Food	804.63	691.33	113.30
Soap/detergent	65.38	56.18	9.20
Equipment/ spare parts for food processing and logistics	36.00	36.00	
Total	906.1	783.51	122.50
Medicine	210.00	181.00	29.00
Nutrition	9.90	-	9.90
Health/repairs	10.00	-	10.00
Water and Sanitation	44.17	24.17	20.00
Electricity	55.30	36.00	19.30
Agriculture	50.00	24.00	26.00
Education	27.30	12.00	15.30
Resettlement	6.00	-	6.00
Demining	2.00	-	2.00
TOTAL	1,320.68	1,060.65	260.00
Population	21,080,000	18,000,000	3,080,000
Assistance per person per month (Phase II)		\$9.82	\$14.07

Source: Distribution Plan. Resolution 1111. In accordance with the MOU of 20 May 1996.