

EGYPT

EVALUATION OF THE NETHERLANDS DEVELOPMENT PROGRAMME WITH EGYPT 1975-1996

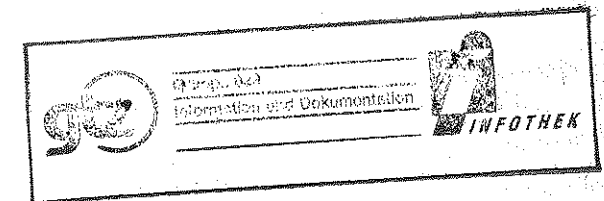


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EVALUATION OF THE NETHERLANDS
DEVELOPMENT PROGRAMME WITH
EGYPT, 1975-1996



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Preface

This report presents the findings of the evaluation of the Netherlands development co-operation with Egypt. It is one of a series of three country evaluation studies carried out by the Policy and Operations Evaluation Department. The other two cover the development co-operation with Bangladesh and Bolivia.

The main objective of the study was to assess the policy relevance, effectiveness, efficiency and sustainability of the bilateral aid programme for Egypt. The study covers some twenty years of development assistance, i.e. since Egypt was selected as a priority country in 1975 and up to 1996. During this period a total of Dfl. 960 million has been disbursed as programme aid and project aid. In view of the wide scope of Netherlands aid to Egypt, activities have been grouped into five main clusters: programme aid, and project aid (including commodity import support) to main sectors, i.e. water management and drainage, agriculture and animal husbandry, drinking water and sanitation, and health and population. Separately, an assessment is made of aid to Fayoum Governorate, the concentration area of Netherlands aid in Egypt.

The report comprises three volumes. This volume (Volume 1) contains the Main Findings and Summary. Volume 2 constitutes the main report, whilst Volume 3 is a detailed study of the support to water management and drainage. The comment of the Egyptian Ministry of International Cooperation is included in Volume 2.

IOB is an independent unit within the Ministry of Foreign Affairs, responsible for evaluating the Ministry's policies and operations. A more detailed description of IOB is presented in Volume 2, Annexe 2. The evaluation was directed and coordinated by Jan Sterkenburg (IOB) and Roland Rodts (Rodts BV), whilst advisory groups of external and internal experts in Egypt and the Netherlands advised on methodology and commented on draft reports. Although many individuals contributed to the evaluation study, IOB bears sole responsibility for the report.

*Director, Policy and Operations Evaluation Department,
Ministry of Foreign Affairs*

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Main findings

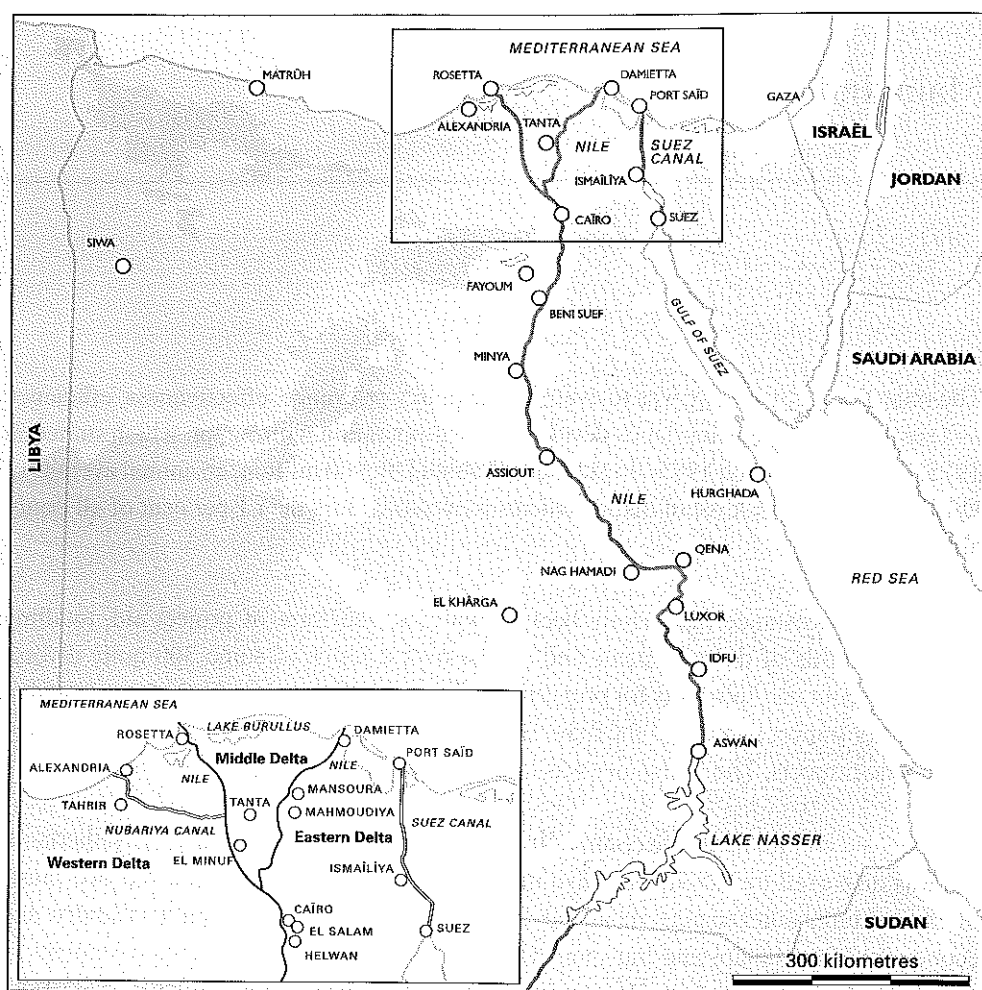
The objective of this study was to evaluate the policy relevance, effectiveness, efficiency and sustainability of Netherlands development co-operation with Egypt, which started in 1975. During the period 1975-96 aid totalled about Dfl. 960 million, an annual average of Dfl. 44 million. This level of disbursements represented less than 1 per cent of all donor aid to Egypt.

Netherlands assistance has mainly been provided in the form of project aid, totalling about two-thirds of disbursements and spread over a series of some 300 quite diverse projects. About one-third was for programme aid, some 40 per cent of which consisted of commodity import support to the main sectors of project aid and was sometimes linked to specific projects. The remainder was largely used for debt relief.

If project aid is combined with commodity import support for specific sectors, Netherlands aid was disbursed for activities in five main sectors. Three of these received two-thirds of expenditure: water management and drainage, agriculture and animal husbandry, and economic infrastructure and transport. One-quarter was disbursed for improvements in social services, in almost equal proportions to drinking water and sanitation, and health and population.

1 Overall assessment

Development assistance to Egypt was part of the Netherlands foreign policy of the early 1970s to improve relations with Arab countries in general and Egypt as a leading nation in the Middle East in particular. Since then, political relations with Egypt have intensified and improved. Trade relations have also expanded: exports to Egypt have increased considerably, and so did Egyptian exports to the Netherlands. Netherlands development aid contributed positively to intensifying and improving relations between the two countries.



Map 1 Egypt: general map

Netherlands aid was oriented principally towards Egypt's economic growth and self-reliance. Programme aid helped to stabilise the Egyptian economy and to restore economic growth. Support to the Social Fund for Development helped to increase employment opportunities. Part of the project support to water management and drainage and to the agricultural sector also contributed to economic growth.

Indirectly, several activities helped to improve production and living conditions and were thus also beneficial to the lower income groups. This applies particularly to low income groups in the main cities who have profited from improvements in drinking water supply and in sanitation.

The main achievements in the aid programme were the increase in production and provision of services through the supply of technologically-advanced commodities to public institutions and state enterprises and the training of substantial numbers of their staff. Commodities supplied under the aid programme were generally of good quality, and in high demand in Egypt. The training enhanced the technical capabilities of organisations involved. Usually, technical assistance helped to improve the effectiveness of commodity supplies.

Commodity supplies and technical training did not result in the more effective functioning of government institutions in general, mainly because structural problems of the public sector could not be addressed effectively at the level of individual projects. A minor part of the aid (representing about one-fifth of disbursements) was marginally successful in the sense that objectives were achieved only to a limited extent or not at all. The main causes for this lack of success were the orientation towards ineffective public institutions and deficiencies in project preparation.

Results were best in cases where public agencies oriented their activities towards clients' demand and had sufficient financial autonomy to raise additional revenue, enabling them to offer better employment conditions and to finance other operations and maintenance costs.

The efficiency of project aid was rather low due to ad-hoc programme development and problematic project cycle management, which was largely caused by differences in priorities between Egypt and the Netherlands.

The sustainability of project aid achievements has improved as a result of the introduction of the economic reform policy and renewed economic growth. The principal factors that enhanced the sustainability of project aid achievements were a favourable government policy, the orientation towards client demand, and the degree of financial autonomy of public institutions.

Tackling environmental concerns has always been an implicit part of the aid programme for Egypt. In supporting water management and drainage in particular, the aid programme addressed one of Egypt's most fundamental problems of waterlogging and salinisation of scarce land and water resources. None of the activities had adverse environmental effects.

There were few opportunities to incorporate the improvement of the position of women in the aid programme, due to the relatively low priority that this was given in Egypt's policy, the technical orientation of the aid programme and its focus on the public sector.

The issue of women and development was most explicitly addressed in the health sector, while improved drinking water supplies also had a favourable effect on their situation.

2 Trends in the aid programme

Total annual disbursements increased during the period 1975–90 and subsequently decreased during the 1990s. This decrease was mainly the effect of the reduction in programme aid, which in turn was related to the improvement of Egypt's foreign exchange position.

Table 1 Netherlands bilateral aid programme for Egypt, 1975–96, in Dfl. millions

Aid form/sector	1975/80	1981/86	1986/90	1991/96	Total
<i>Programme aid</i>					
Commodity Import Support	22.0	7.0	77.3	18.3	124.6
Debt relief	3.7	0	47.1	64.8	115.6
Other	16.4	0	59.7	16.6	92.7
<i>Project aid</i>					
Water management and drainage	19.7	23.3	36.5	61.7	141.2
Agriculture/animal husbandry	30.2	53.0	28.0	16.4	127.6
Drinking water and sanitation	2.0	32.5	0.1	12.2	46.8
Health and population	5.6	6.0	40.8	29.1	81.5
Infrastructure and transport	10.2	83.8	21.7	4.5	120.2
Miscellaneous	12.2	23.7	35.4	37.7	109.0
Total	122.0	229.3	346.6	261.3	959.2

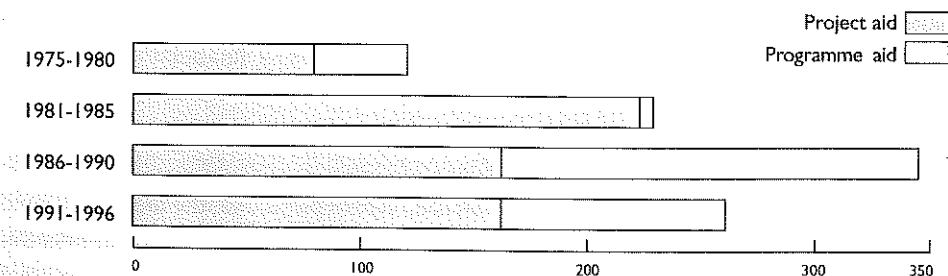


Figure 1 Total Netherlands project and programme aid to Egypt (Dfl. million)

Within programme aid a shift occurred from commodity import support in the 1980s to debt relief in the late 1980s and early 1990s. Commodity import support had a strong emphasis on capital goods for social services (drinking water and health).

There were also considerable sectoral shifts in project aid. Disbursements for agriculture and infrastructure/transport decreased sharply in the mid-1980s, whereas those for water management and drainage increased. Aid disbursements to drinking water and health went up substantially during the 1980s and stagnated again during the 1990s. Changes in project aid were the effect of lessons learnt during the execution of the aid programme, the incorporation of Netherlands policy priorities and different requests for aid from Egypt.

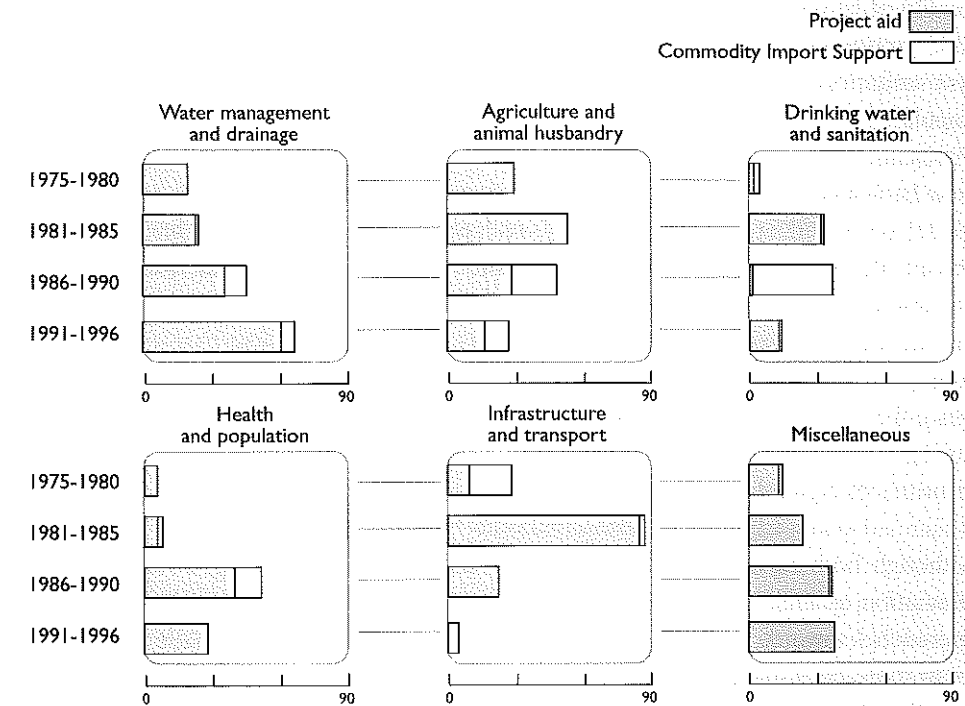


Figure 2 Total aid to main sectors (Dfl. million)

The shift to technical assistance during the second half of the 1980s was due to the disappointing results that had been achieved with part of the commodity supplies. In most cases, technical assistance enhanced their effectiveness by raising capacity utilisation. The increase in technical assistance also coincided with growing attention for Netherlands policy priorities such as institutional development, women and development, and the environment. At first, institutional development was interpreted as improving the technical capabilities of government organisations. Recently, however, activities have focused more and more on general institutional strengthening.

Finally, the aid programme showed an increase in expenditure for governorate-level activities due to the selection of Fayoum as a concentration area for Netherlands aid.

3 Policy orientation

Netherlands development aid for Egypt over the past twenty years has been oriented towards several crucial development problems. In its programme aid, the Netherlands focused on the need for economic stabilisation, the reduction of the balance of payments deficit, and the improvement of social conditions under structural adjustment. In project aid, the Netherlands chiefly addressed problems related to the scarcity and declining quality of Egypt's water resources, a crucial issue for the Egyptian economy in terms of food production and the living conditions of its population. The aid for drinking water and sanitation concentrated at first on the urban centres, where a large proportion of the population lives and where water and sewerage problems are most visible. Starting in the 1990s, the even more alarming drinking water and sanitation problems of the rural areas have been addressed in Fayoum Governorate.

During the first decade of the aid programme the Netherlands did not work out its development aid policy for Egypt at strategic and sectoral levels, and discussions between the two countries were restricted to the project level. Projects were characterised by the supply of technologically-advanced commodities, that were in high demand by Egypt. Since the mid-1980s the Netherlands and Egypt have exchanged views on policy issues during bilateral consultations, particularly about the need for economic reform and the priorities of Netherlands development aid policy.

Although both Egypt and the Netherlands considered economic growth and poverty alleviation as their main objectives, the relative importance of each objective and the approaches towards their realisation differed. Egypt considered economic growth as the main route by which to reduce poverty and preferred programme aid and commodity supplies. The Netherlands preferred more direct poverty alleviation through giving support to specific target groups. Priorities of Netherlands aid, such as poverty alleviation, promotion of gender equality and institutional development were often not shared by Egypt. Differences of opinion were usually settled in accordance with Egypt's priorities and the aid programme consequently had a strong orientation towards economic growth and self-reliance.

4 Effectiveness

Representing less than 1 per cent of total macro-economic aid to Egypt, the effectiveness of Netherlands programme aid must be assessed in the wider framework of donor support. The effect of donor aid on Egypt's balance of payments was highly positive. In the 1980s commodity import support helped in overcoming the foreign exchange crisis. In

the 1990s, the debt service reduction helped to stabilise the Egyptian economy and to restore economic growth. Activities financed under the Social Fund for Development proved positive in terms of employment generation, improvement of infrastructure and expansion of private enterprise.

Project aid had focused strongly on government institutions which dominated the Egyptian economy and society. The Netherlands considered the improved performance of these institutions to be a necessary and effective means towards better production and living conditions for the country's population. However, the structural problems of the public sector could not be addressed effectively at the level of individual projects. Results were best in cases where public agencies oriented their activities towards clients' demand and had sufficient financial autonomy to raise additional revenue to ensure better employment conditions and other operations and maintenance costs. Projects whose objectives were mainly technical were often more effective than those that combined technical, social and institutional objectives.

The effectiveness of project aid varied considerably over the sectors. In water management and drainage, assistance has been instrumental in training substantial numbers of staff and strengthening the technical capabilities of recipient organisations. Research support has provided further insight into the country's potential and current problems; but some two-thirds of the research was insufficiently user-oriented, however, and thus reduced its applicability. Technical assistance by the Netherlands contributed to the recent increase in the implementation rate of field drainage, largely due to massive investment in equipment supported by other donors. It also brought about greater irrigation efficiency in Fayoum. Several studies, together with farmers' demand for drainage indicate increased yields and farm incomes in areas under field drainage. The effects for individual types of farmers are not known due to the lack of basic social and economic information.

In the assistance to drinking water and sanitation the effectiveness of commodity supplies was high. Aid contributed to the rehabilitation and expansion of the utilities, strengthening of recipient organisations, and improvement of services. Aid also led to better living conditions, particularly in the urban areas of Cairo and Alexandria. The impact of assistance on creating financially-viable water utilities was hampered by a problematic institutional and policy environment, which has only recently started to improve.

The effectiveness of support to the health sector was mixed. The supply of equipment to specialised hospitals and for vaccine production was effective: the equipment was intensively used in treating patients and producing crucial vaccines. The effectiveness of the supply of raw materials for anti-biotics production and of equipment for rehabilitation centres for the handicapped was marginal. The former did not contribute to the necessary

changes in high levels of drug use, in the preference for expensive brand names, and inefficient production. The latter mainly provided sheltered employment for a limited number of handicapped people. The effectiveness of basic health projects was high in terms of the rehabilitation of infrastructure and the training of staff. There is little or no information about the impact of the basic health assistance in terms of the more intensive use of renovated public health units, increase of family planning methods and improvement of the people's health.

The effectiveness of support to agriculture and animal husbandry was disappointing. It was strongly oriented towards larger farms and state enterprises, and one-third of the activities, representing over 40 per cent of disbursements only marginally achieved their objectives, if at all. This applied in particular to support for the dairy industry, primarily due to weak performance by the public sector agencies involved. Support to the poultry industry was effective mainly because of a favourable government policy and the supply of good quality commodities. Horticultural activities supported in Fayoum and in potato cultivation were also successful, largely due to adequate technical assistance and limited government intervention in production and marketing.

5 Efficiency

In general, efficiency in the aid programme for Egypt was affected by ad-hoc programme development, and problematic project cycle management, which was to a large extent caused by differences in priorities between the donor and the recipient country. Egypt has clear-cut ideas and expectations about the role of aid in the development of the country. The increased emphasis on social and institutional objectives and the shift to technical assistance on the part of the donor often differed from Egyptian priorities. Differences of opinion prolonged project preparation and implementation, and reduced efficiency.

From the beginning the aid programme was characterised by a predominance of project aid and a rather diverse package of projects in response to a wide range of Egyptian proposals. The country policy plans introduced by the Netherlands in the second half of the 1980s did not lead to a joint design of sector-specific strategies. Moreover, the policy plans incorporated a gradually increasing number of donor priorities which broadened the aid programme and placed a high demand on aid management. However, the concentration of aid in Fayoum governorate had a positive effect on efficiency.

Aid management was problematic in all stages of the project cycle. Project preparation was often prolonged over several years, took a substantial amount of time and manpower and was largely a donor activity. Objectives were often phrased in rather general terms and

were not operationalised in concrete targets to be realised within specific time frames. Most projects were not appraised in terms of alternative solutions and approaches. In project implementation delays often occurred in tendering and procurement. Delays in supplies, over-sized equipment orders and frequent project extensions raised cost levels. Monitoring was weak up to the mid-1980s, after which it improved, partly due to the deployment of sector specialists at the Netherlands Embassy. Throughout, monitoring remained focused on the use of inputs and on the financial aspects of project implementation, with little attention for output and results for target groups. Evaluations were carried out systematically after the mid-1980s. They were mostly oriented towards input aspects and problems of project management and gave little attention to effectiveness and impact.

6 Sustainability

The Netherlands started its aid to Egypt during a period of overriding domination by the public sector over the country's economy. Since the introduction of the economic reform programme the role of the public sector has changed affecting positively the sustainability of Netherlands support.

Macro-economic support was part of an international donor effort in the framework of the economic reform programme, and made a useful contribution towards the longer-term stabilisation of the economy. In general, this enhanced the sustainability of project achievements.

At the project level, the principal factor that favourably affected institutional and financial sustainability appeared to be the priority given to the various aid activities in government policy, including arrangements for cost recovery. Successful orientation towards client-demand, and the degree of financial autonomy and management capabilities of relevant public institutions, were also of crucial importance. These conditions varied for the different organisations supported under the aid programme.

The sustainability of the results of the national drainage programme is fairly secure: it has high priority in government policy and the investment costs of field drainage are now almost wholly recovered from farmers. Prospects for research are best for those institutes that have started to develop structural links with clients and have secured a more solid financial basis on which to recruit and retain motivated staff.

For drinking water and sanitation, utilities have recently been allowed to retain collected tariffs and to utilise them to meet operations and maintenance costs. The process is likely to take some time in the face of strong opposition, however. With regard to drinking water,

cost recovery is high for the Alexandria utility and still low for Fayoum. The outlook for sanitation is less auspicious: full cost recovery would require a tenfold increase of current tariffs.

The sustainability of achievements in the agricultural sector hinges on demand for the products and services offered, on the possibility to charge realistic prices, and on the financial autonomy of pertinent organisations to use revenues for offering attractive employment conditions. In the health sector prospects are relatively good for specialised hospital services, and highly uncertain for basic public health facilities.

Technical sustainability has generally been good insofar as recipient organisations were capable of handling the technology provided. The provision of after-sales services by commodity suppliers and adequate technical assistance have had a positive effect on sustainability.

Summary

1 Objective and scope

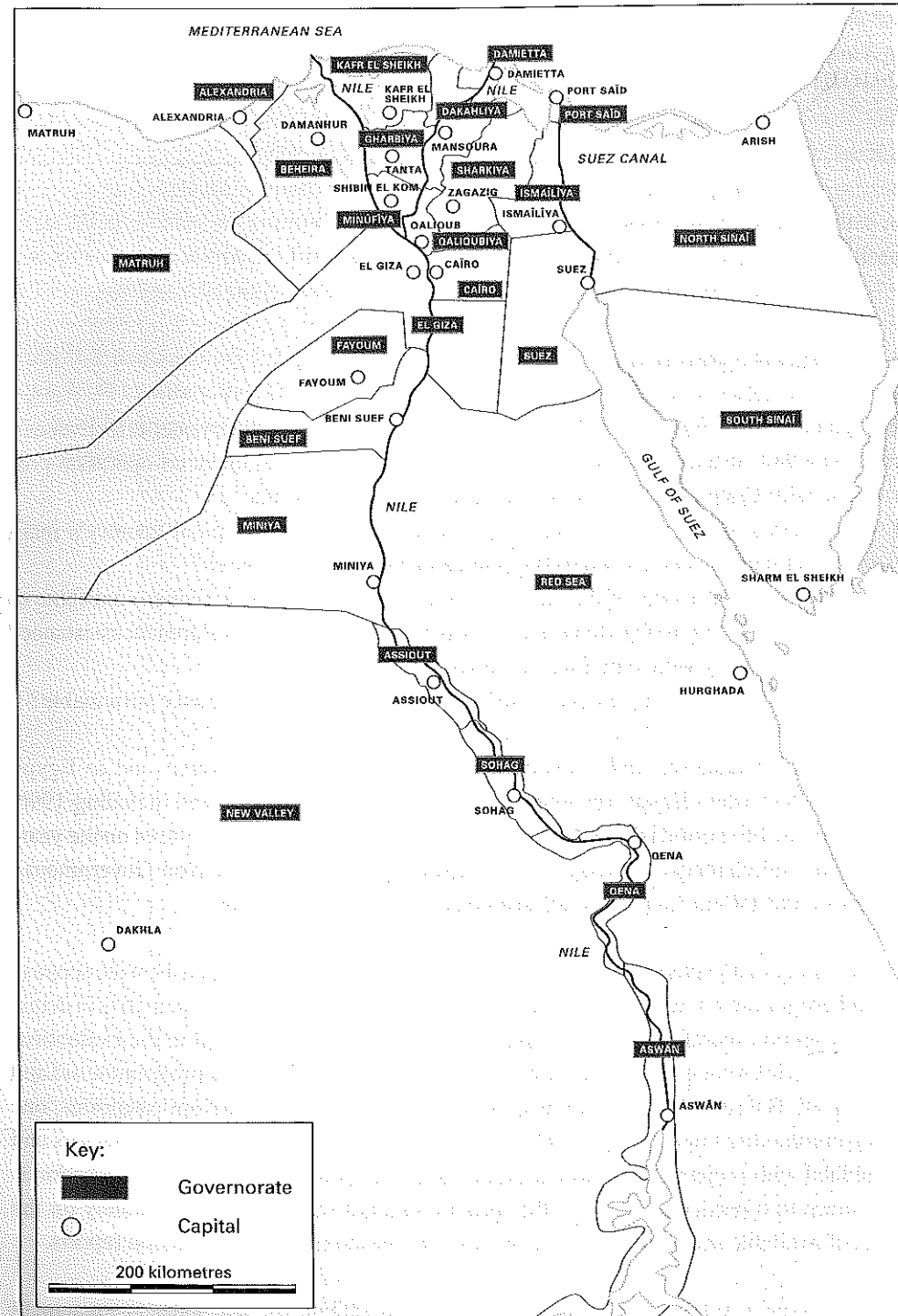
The general objective of this study is to evaluate the policy relevance, effectiveness, efficiency and sustainability of the Netherlands bilateral development co-operation programme with Egypt, as specified by the following key questions:

1. How does the Netherlands aid programme relate to the recipient country's main development problems and to Egyptian and Netherlands policies?
2. What were the results of the aid programme and how did the activities contribute to achieving the main objectives and priorities of Netherlands development assistance?
3. How efficiently were activities organised and carried out?
4. To what extent are the results of Netherlands development assistance sustainable?

The country evaluation study covers some two decades of Netherlands aid to Egypt, i.e. from 1975 when Egypt was selected as a priority country up to and including 1996. Although the full period is covered in the study, particular emphasis is placed on the years 1986-96. Aid channelled through the co-financing programme for Non-Governmental Organisations (some 3.6 per cent of disbursements) is not included.

An inventory of all activities financed over the past twenty years revealed the wide scope of the aid programme. It was virtually impossible to examine all supported activities in detail, and a selection therefore had to be made of what should be included in the evaluation. First, activities were grouped into two main categories: non-project or programme aid and project aid. Subsequently, programme aid was sub-divided into relevant categories, one being commodity import support. The latter was classified according to main sectors and combined with project aid in those sectors, thus giving an overall picture of Netherlands assistance to a particular sector. Other programme aid was evaluated separately on the basis of available secondary sources, in particular evaluation and completion reports.

Finally, project aid was clustered into five main categories: (1) water management and drainage; (2) agriculture and animal husbandry; (3) drinking water and sanitation;



Map 2 Egypt – Administrative map

(4) health and population; and (5) infrastructure and transport. Activities that did not fit into these categories were classified under miscellaneous. The first four categories were included in the evaluation. As disbursements for economic infrastructure and transport were low during the period 1986–96, activities in that sector have not been included in the study.

A separate study has been made of aid to the Fayoum Governorate, a concentration area that now receives some 30 per cent of bilateral project aid. The Fayoum study focused on the advantages of geographical concentration and on the relevance and effects of aid as perceived at governorate and community level.

The evaluation thus covers the following components of development assistance to Egypt: programme aid, aid to water management and drainage, agriculture and animal husbandry, drinking water and sanitation, health and population, and aid to Fayoum Governorate. It deals with some 70 per cent of total disbursements of Netherlands aid to Egypt.

2 Country profile

The Arab Republic of Egypt occupies an area of roughly 1 million sq. kms., only about 35,200 sq. kms. of which are settled and cultivated, the remainder being desert. In 1996 the population was estimated at 60.2 million, about half of whom live in urban areas. Population growth, now about 2 per cent per annum, has fallen since the mid-1980s largely as a result of intensive family planning programmes. Employment creation has lagged behind the numbers entering the labour market: estimates of unemployment vary between 10 per cent and 22 per cent of the potential labour force, and an estimated 2.6 million Egyptians are at present working abroad. Migration has relieved pressure on scarce domestic jobs but also intensified the shortage of certain skills. Remittances by workers abroad have had a favourable effect on economic growth and Egypt's foreign exchange position.

The country's development is affected by the aridity of the climate. The deficient rainfall means that agriculture is entirely dependent on irrigation and on the waters of the Nile. About three-quarters of the cultivated area are so-called Old Lands situated along the Nile and in the Delta. Virtually all of the remainder are New Lands, i.e. desert land that has been brought under cultivation in recent times. Water quantities are limited and water quality is a matter of concern. In the Nile Delta in particular, untreated or poorly treated urban and industrial effluent discharged into the Nile increasingly threatens the health and welfare of many people. In addition, deficiencies in water management in agricultural areas has caused the salinisation of agricultural land and waterlogging. The Government

has introduced legislative instruments and has set standards, rules and procedures for environmental conservation. During the last five years it has also launched a number of important initiatives intended to strengthen the management of environmental affairs.

The service sector is the main economic sector, contributing 50 per cent to GDP against 15–20 per cent for agriculture and for industry. The service sector has experienced higher growth rates than the commodity sectors during the past twenty years and, moreover, is an important foreign exchange earner. Two components, tourism and the Suez Canal fees, provide almost two-thirds of Egypt's foreign exchange.

Agriculture is dominated by smallholder farming. Egyptian farmers traditionally practise mixed farming, growing various crops and holding a few head of cattle and sheep. Apart from the area under fruit orchards and sugar cane, the land is double cropped and yield levels are high by world standards. The share of production marketed differs chiefly in accordance with farm size and cropping pattern.

Industry has expanded considerably since the 1960s, stimulated by high public investments and a policy of subsidies and effective protection. The sector was dominated by public enterprises, however, and returns to investments were low. As part of the structural reforms and a first step towards privatisation, and in a major effort to improve efficiency and restore financial viability, public enterprises were re-organised in 1993. At the end of 1996 they still controlled two-thirds of the manufacturing sector and expected gains in productivity had only partly materialised.

Starting in the 1950s, the Egyptian Government placed much emphasis on social development in order to foster greater equality and increased wealth. The stagnation of the economy between the mid-1960s and mid-1970s and especially in the 1980s, however, made it increasingly difficult to sustain these policies. Government was forced to abandon its policy of guaranteed employment and to reduce its real per capita expenditure on basic services such as health and education. Efforts to eradicate poverty reduced the proportion of the population living below the poverty line from 40 per cent in the mid-1970s to 25 per cent in the mid-1980s, and remained at that level up to the mid-1980s. Significant achievements have been made in education and health care. Primary school intake increased from roughly 60 per cent in the 1960s to over 90 per cent in the mid-1980s. In addition, an extensive rural health network was built. The quality of services, however, needs further improvement: half of the population over 15 years is illiterate and basic health indicators compare unfavourably with those in other countries of similar income levels.

There are striking disparities between men and women. In spite of a significant increase since the 1960s from 8 per cent to 20 per cent at present, female participation in formal

employment is low. However, formal paid employment does not properly reflect women's participation in the economy: more than 60 per cent are classified as unpaid family workers. Apart from this high percentage, women are chiefly employed in the public sector and as wage earners and self-employed in the informal sector. Female illiteracy is high (more than 60 per cent against 34 per cent for men) in spite of the recent increase in enrolment of girls. Also, maternal mortality is high and women have a higher incidence of malnutrition and are exposed to higher risks of death and morbidity than men.

3 Development strategy

Egypt's socio-economic history of the last 45 years can be sub-divided into three distinct periods: a period of state socialism (1952–73), a transition period of cautious liberalisation (1974–85), and one of economic reform (1986–present).

The period of state socialism was characterised by a strong expansion of the public sector through a series of nationalisations and government investments, chiefly in manufacturing industries and the service sector. Indirectly, the state intervened also in agriculture; through state-controlled co-operatives the Government reorganised agricultural production by a system of land consolidation, crop quota and crop rotation, fixed prices, and control over agricultural marketing and processing. Up to the mid-1960s Egypt achieved significant economic progress under this system, but since then the economy has stagnated.

In the early 1970s, Egypt introduced an outward-oriented development strategy and opened-up the country to international finance and technology. Increases in oil exports, migrants' remittances, Suez Canal earnings and tourist receipts resulted in a sharp rise in foreign earnings, which fuelled economic growth to an average of 9 per cent per annum between 1974 and 1980. Despite this, the economy suffered from growing inefficiencies in the use of domestic resources and a slow rise of employment. In the 1980s external revenues dropped considerably, economic growth stagnated and the foreign debt situation deteriorated dramatically.

In the mid-1980s Egypt started to implement economic reform measures, which initially did not sufficiently address the deep structural weaknesses of the economy. Structural adjustment policies introduced in the early 1990s involved more fundamental measures towards reform. Exceptional levels of foreign aid were provided in support of these policies and economic growth was restored at a level slightly over population growth rates. However, the country continued to witness weak output growth, high and rising unemployment, and sluggish export and private investment performance. The pace of

reform accelerated in 1996. Current policies are consistent with a gradual increase in output growth hoped to amount to about 6 per cent by the end of the century, which should lead to higher per capita incomes and a moderate decrease of unemployment.

4 Bilateral relations

The Netherlands has had *de facto* diplomatic relations with Egypt since the 17th century, when the Republic of the Seven United Provinces opened a Consulate in Alexandria. The Netherlands representation expanded during the 19th century when steamer services to Alexandria started and trade and shipping between Egypt and the Netherlands intensified. When Egypt became independent in 1922, the Consulate was up-graded to a Legation, and in 1955 to that of an Embassy. Egypt's representation in the Netherlands has had the status of Embassy since it started in 1928.

Present relations between the two countries must be interpreted in the wider context of Netherlands policy towards the Middle East, the Arab-Israeli conflict and the peace process. Two closely related principles formed the basis of this policy: support to the resolution of the Arab-Israeli conflict and assistance to the region's socio-economic development. Over the past two decades Netherlands foreign policy has increasingly become embedded in that of the EU. As one of the Mediterranean countries, Egypt is the principal recipient of EU aid in the region.

Egypt and the Netherlands are not important trading partners. For the Netherlands, exports to Egypt represent less than 0.3 per cent of its total exports and its imports from Egypt are less than 0.1 per cent of total imports. For Egypt the percentages are somewhat higher: its trade with the Netherlands represents 3 per cent of its imports and also 3 per cent of its exports.

The Netherlands has strongly expanded its exports to Egypt since the early 1970s. Egyptian exports to the Netherlands have also increased, although to a lesser extent. There has always been a substantial gap in trade, with Egypt importing three to four times as much from the Netherlands as it exported. Egypt also has such a trade deficit with most other European countries.

In 1960 Egypt and the Netherlands signed a cultural agreement, but cultural exchange did not become very intensive until 1975. Since the mid-1980s cultural activities have also been financed under the aid programme, including university co-operation, archaeological research and the restoration of icons.

Key informants on both sides consider that the relations between the two countries have intensified and improved since the mid-1970s. Two factors are important in this respect: support to the Middle East peace process and the role of development assistance.

5 Foreign aid

Egypt is one of the biggest recipients of foreign aid in the world. Net disbursements have averaged more than US\$ 1800 million per annum over the past 25 years. Large-scale development assistance started in the mid-1970s when Egypt embarked upon its Open-door policy and improved its relations with the western world. Total aid increased sharply in the 1990s to an average of some US\$ 3 billion per annum. This was due to debt cancellations in relation to Egypt's turn to market-oriented economic policies and to its stand in the Gulf War. Moreover, aid conditions have become more favourable. The proportion of grants increased from slightly less than 50 per cent in the 1970s to over 80 per cent in the 1990s.

In per capita terms, aid totalled about US\$ 100 in the 1990s, which is higher than for most low-income countries and substantially higher than aid to other countries with similar population levels. In spite of these large amounts, total aid did not exceed the average for Africa in the 1990s, i.e. some 15 per cent of GNP.

Bilateral aid is the most important aid category, accounting for two-thirds of the total aid flow over the period 1970-94. Multilateral aid fluctuated strongly but with an average of 12 per cent of all aid over the 25 years period, it was substantially lower than bilateral aid. Aid from the Arab countries is usually mentioned as a separate category and amounted to one-fifth of total aid. It is provided by the Gulf States in particular. In the 1970s it represented half of all aid. It became negligible in the 1980s due to strained relations following Egypt's peace negotiations with Israel and increased again in the 1990s as a result of Egypt's support to Kuwait during the Gulf War.

The United States is by far the most important bilateral donor providing almost 45 per cent of all aid and 60 per cent of all bilateral aid over the period. The US share in bilateral aid increased to 70 per cent in the early 1990s. A second category of bilateral donors includes Germany, Japan and France with shares of 6 to 10 per cent of bilateral aid. Other bilateral donors, including the Netherlands, contribute small percentages of total aid, i.e. 1 per cent or less.

6 Netherlands aid policy

In 1974 Egypt was selected as a priority country for Netherlands aid due to several considerations. Egypt was a leading country in the Middle East and the Netherlands hoped by providing development aid, to improve its relations with Egypt and the Arab countries in general. Moreover, Egypt had recently re-oriented its foreign policy towards the western world and had introduced domestic policy changes that emphasised economic self-reliance and improvement of the position of low-income groups. Although Egypt was then officially a middle-income country and already received substantial amounts of aid from other donors, it had a high percentage of people living in poverty. From the perspective of development assistance this was the main reason for the Netherlands to include Egypt among priority countries. Finally, the selection was inspired by economic motives insofar as the Dutch business community considered the Middle East, and Egypt as its most populous country, to be a promising market for exports and investments.

During the first decade of the aid programme, annual bilateral consultations concerned only project proposals. The discussions reflected Egypt's interest in the supply of technologically advanced capital goods produced in the Netherlands. The intention was to focus on a limited number of sectors, on geographically well-defined rural areas and on quickly disburseable financial aid.

Since the mid-1980s the Netherlands has written country policy plans as a frame of reference for the identification and selection of concrete activities. These policy plans have incorporated a gradual broadening of the aid programme over an increasing number of priorities. They have also emphasised the need for improved aid management. The principal issues were: more internal cohesion of the programme, and reduction of the number of activities.

7 Programme characteristics

The core of the programme consisted of regular bilateral allocations which increased from Dfl. 15 to 20 million per annum in the period 1975–80 to Dfl. 30 million during the 1980s and to Dfl. 35–40 million in the 1990s. Regular country allocations add up to Dfl. 600 million, or two-thirds of total aid volume over the twenty years period. The remaining one-third was allocated on an ad-hoc basis out of special aid budget categories. The most important of these was the balance of payments assistance programme. Disbursements totalled Dfl. 960 million over the period 1975–96, and are specified according to aid form and sector in the table below.

Table 2 Netherlands bilateral aid for Egypt, 1975–96 (Dfl. mln)

Aid form/sector	1975/80	1981/85	1986/90	1991/96	Total
<i>Programme aid</i>					
Food/emergency aid	16.3	7.0	8.7	0.6	25.7
Commodity Import Support	22.0	–	77.3	18.3	124.6
Debt relief	3.7	–	47.2	64.8	115.7
Co-financing structural adjustment	–	–	20.0	16.0	36.0
Direct balance of payments support	–	–	31.0	–	31.0
Sub-total	42.0	7.0	184.2	99.8	333.0
<i>Project aid</i>					
Water management/drainage	19.7	23.3	36.5	61.7	141.2
Agriculture/animal husbandry	30.1	53.0	28.0	16.4	127.5
Drinking water/sanitation	2.0	32.5	0.1	12.2	46.8
Health/population	5.7	6.0	40.8	29.1	81.6
Infrastructure/transport	10.2	83.8	21.7	4.5	120.2
Miscellaneous	12.2	23.7	35.4	37.7	109.0
Sub-total	79.9	222.3	162.5	161.6	626.3
Total aid	121.9	229.3	346.7	261.4	959.3
Average/year	20.3	45.8	69.3	43.6	43.6

Source: DGIS.

Netherlands assistance to Egypt has been provided mainly in the form of project aid, totalling Dfl. 626 million or 65 per cent of total disbursements, and spread over some 300 projects. About one-third of disbursements was for programme aid, 40 per cent of which consisted of commodity import support to the main sectors of project aid and was sometimes linked to specific projects. The remainder was largely used for debt relief.

Commodity import support was chiefly disbursed for the drinking water and sanitation sector. It represented almost half of all aid to this sector. For other sectors it varied between 10 and 20 per cent.

If project aid is combined with commodity import support for specific sectors, Netherlands assistance focused on three main sectors: water management and drainage (22.6 per cent), agriculture and animal husbandry (22.6 per cent) and infrastructure and transport (20 per cent). Jointly, these received two-thirds of total disbursements. Another 25 per cent was disbursed to drinking water and sanitation, and health and population (13.5 and 12.4 per cent respectively). The activities supported in each sector were quite diverse. Over the twenty years period disbursements for activities outside the main sectors gradually went up to about one-quarter of total expenditure, principally for manufacturing industries, environment, credit programmes and cultural activities.

The relative importance of the sectors varied quite strongly over time. During the period 1975–85 support to economic infrastructure and agriculture/animal husbandry predominated, but decreased sharply from the mid-1980s onwards. Disbursements for drinking water and sanitation rose considerably after the mid-1980s. The programme was also characterised by a permanently high share for water management and drainage, which increased to more than a quarter of total disbursements after the mid-1980s. The share of the health sector went up during the 1980s, chiefly due to the supply of modern hospital equipment, and decreased again after 1990 when the focus shifted to technical assistance to primary health care.

The Netherlands aid programme also showed a shift from the supply of technologically advanced capital goods to technical assistance. The former dominated the aid programme up to the mid-1980s, after which the largest share of disbursements was for technical assistance. Initially, technical assistance was provided chiefly in combination with commodity supplies, later increasingly as free standing technical assistance.

8 Priority themes

During the 1970s, the promotion of economic self-reliance and of poverty alleviation became the main objectives of Netherlands development co-operation. The former implied that aid would focus on strengthening economic activities and stimulating economic growth. The latter involved that aid was to help the poorest countries and the poorest groups in those countries, and that it should preferably go to countries whose governments accepted redistribution as central to their development policies. This focus on economic self-reliance and poverty alleviation has been labelled the two-track policy. In the early 1980s, the two tracks were integrated into a single objective: the structural reduction of poverty. This implied that sustainable improvements in the living conditions of the poor would not be possible without strengthening a country's productive capabilities.

In the late 1970s two new priority themes were introduced in Netherlands aid, i.e. improvement of the position of women and environmental conservation. Together with poverty alleviation, these policy themes became the principal criteria in the appraisal of project proposals from the mid-1980s onwards.

From the perspective of development aid, Egypt was selected as a priority country because of the high degree of poverty among its population. In actual practice the aid programme focused on encouraging economic growth and economic self-reliance mainly due to Egypt's preference for the supply of technologically advanced capital goods for the economic infrastructure and production-oriented activities in the agricultural

sector. During the 1980s disbursements for the social sectors (health and drinking water) gradually increased to over one-third of total aid to sectors. This was chiefly the effect of capital goods supplied in the form of programme aid. Expenditure for the social sectors decreased to one-quarter of total aid for sectors in the 1990s.

With regard to women and development three periods may be discerned in development assistance to Egypt. During the first decade, some incidental activities were financed, the principal being a research project to provide background information on the position of women in Egypt and to advise on an effective aid approach. During the period 1985–92 women and development was given separate mention in policy plans, but actual activities were limited to a few special projects. In the period since 1992 a sector specialist for women and development has been attached to the Netherlands Embassy, the concept of women's autonomy has been introduced in policy plans, a Local Fund for Women has been created to allow the sector specialist to operate swiftly and to support local women's organisations, and attempts have been made to integrate the theme into on-going projects.

The tackling of environmental concerns has always been an implicit part of Netherlands aid to Egypt. Throughout, the Netherlands has supported research, planning and management capabilities in irrigation and drainage. Assistance to sanitation has focused on improving the rapidly deteriorating urban living environment. More explicit co-operation in environmental matters was initiated in 1989, when a special mission reviewed environmental aspects of the on-going aid programme. Egypt faced massive environmental problems, but in view of the large support already provided by other donors, the Netherlands did not embark on a special programme for the environment. Apart from growing emphasis on environmental matters in water management and drainage, the Netherlands assistance focused on environmental profile studies and participation in formulating the National Environmental Action Plan.

9 Programme aid

The Netherlands policy on programme aid originated in the balance of payments support instrument introduced in 1975. A special budget account was then opened for assistance to the poorest countries and to groups hit by the economic crisis of the mid-1970s. Initially, the aid was meant to bridge temporary shortfalls in foreign exchange. From 1986 onwards it was tied more closely to countries that implemented structural adjustment policies, and to support of those policies.

Over the years some Dfl. 333 million, or roughly one-third of total Netherlands aid to Egypt, has been disbursed in the form of programme aid. Two main categories of

about equal importance in financial terms, commodity import support and debt relief, represented almost 75 per cent of disbursements. The remaining 25 per cent was chiefly devoted to direct balance of payments support (during the late 1980s), and to the co-financing of structural adjustment, including the Social Fund for Development (during the early 1990s).

Although there was no deliberate policy to restrict the eligibility of commodity import support to specific economic sectors, in practice the funding of commodity imports concentrated on sectors that also benefited from project aid. Debt relief was provided for loans made available during the initial period of the aid programme and for mixed credit. The Netherlands took part in major multi-donor debt rescheduling operations in 1987 and 1991. In both cases it announced its intention to remit arrears in debt services before agreement had been reached in the Paris Club of creditors, the framework for donor negotiations on debt rescheduling. This early announcement was intended to indicate the significance that the Netherlands gave to debt relief. After agreement was reached in the Paris Club meetings, the Netherlands adjusted its arrangement to accord with that of other donors.

Representing less than 1 per cent of macro-economic aid, the effectiveness of the Netherlands contribution must be assessed in the wider framework of overall donor support. In this wider context the effect of programme aid on Egypt's fiscal accounts and balance of payments was highly positive. In the late 1980s commodity import support helped to overcome the balance of payments crisis. In the 1990s debt relief reduced the country's debt service obligations. Savings in total debt service as a ratio to GDP was about 8–10 per cent and savings in interest payments represented 3–4 per cent of GDP per annum. Debt service in relation to external current account receipts was reduced from more than 25 per cent in 1988/1990 to 12.6 per cent in 1996. The debt service reduction made it possible to avoid a rapid devaluation of the Egyptian pound and helped to stabilise the economy. Foreign exchange reserves increased from minimum levels to over US\$ 18 billion. Economic growth slowed down in the first two years of the stabilisation programme, but resumed from 1993/94 onwards.

Activities financed under the Social Fund for Development proved positive in terms of employment generation, improvement of infrastructure and expansion of private enterprise. The Fund experienced difficulties in targeting activities towards poor groups and in ascertaining sustainability of results. The impact on poverty alleviation has been modest in so far as the incidence of poverty is still rather high with 25 per cent of the population living below the poverty line. This percentage remained at that level since the mid-1980s.

General macro-economic assistance in the form of debt relief and direct balance of payments support had immediate effect and was therefore an efficient factor in restoring

the country's external financial balance. The set-up of the Social Fund for Development was laborious. After some two years of preparation, the Fund became operational in mid-1993 and worked at a reasonable level of efficiency. It has a highly competent staff and is well-equipped to administer the diversified programme of activities.

In the final analysis, programme aid to Egypt, including that of the Netherlands, contributed to Egypt's economic self-reliance and helped to restore the major trade and external payment imbalances and to put the country back on the track of economic growth.

10 Water management and drainage

10.1 General

The Egyptian irrigation system is one of the oldest in the world. Being dependent on a single source, the Nile, it has always been centrally controlled. Technological innovations led to expansion of the system and the institutions involved became increasingly complex. Drainage became urgently necessary when perennial irrigation was introduced following the construction of the Aswan Dam and a series of barrages during the first half of this century. In the late 1930s experiments started with covered field drainage, which began to be introduced on a large scale during the 1960s.

The most pressing technical problem that confronts the irrigation system is the limited control over water supplies: many structures are only partly functional and there are deficiencies in system management. Improved management of the irrigation system would reduce the need for drainage. With regard to drainage, the Egyptian Government has progressively developed design criteria adapted to the country's specific conditions. Further improvements are still needed, particularly in technical design capability, construction management, quality control, rehabilitation techniques, and monitoring and evaluation of operation and maintenance. Several institutional constraints also affect efficient water management, such as the fragmentation of functions among many ministerial units, duplication of resources and activities, deficiencies in the communication of needs to researchers, the bureaucratic and centralised system of decision-making and hierarchical staffing and career development policies.

Foreign assistance to water management and drainage has been substantial, with the USA and the World Bank being the principal donors. USA support focused on irrigation improvement, financing massive investments in irrigation and drainage infrastructure. The World Bank has been heavily involved in the formulation and implementation of Egypt's

national field drainage programme. Netherlands aid was a small proportion (10–15 per cent) of that provided by these main donors. Netherlands support to water management and drainage has been in essence a technical assistance programme intended to improve the performance of key research institutions and of governmental agencies involved in water resources management.

Disbursements under Netherlands aid totalled some Dfl. 160 million over the two decades. Slightly less than half of that amount represented support to four research institutes under the National Water Research Centre (Dfl. 73 million). The balance was spent on general and direct advisory support to the Egyptian Public Authority for Drainage Projects (EPADP) to improve the national drainage execution programme (Dfl. 19 million), and to the Fayoum Governorate/Irrigation Department to improve water management (Dfl. 33 million). Finally, aid to water management and drainage included three capital investment contributions (Dfl. 23 million), strengthening of the planning sector of the Ministry of Public Works and Water Resources (Dfl. 3 million), and the Advisory Panel on Land Drainage, an advisory body of high level Egyptian and Dutch experts (Dfl. 7 million).

Netherlands assistance consisted basically of separate projects which materialised on the basis of individual initiatives and requests. In all cases, emphasis was placed on the transfer of technical know-how with little attention being given to a broader type of institutional strengthening. During recent years, support has given greater attention to general manpower development and management issues. The relatively late heed for a broader approach to institutional development was due to the technical nature of the support programme and to Egyptian disinclination for donor interference in institutional matters. Technical assistance packages have invariably consisted of a relatively large consultancy component, including on-the-job training (some 65–75 per cent of disbursements), infra-structural investment, such as cars, computers and measuring equipment (some 20–25 per cent), local operational cost financing, which also covered salary supplements for Egyptian staff involved (10–15 per cent), and general training support (2–5 per cent). The majority of such packages were contracted out to Dutch consulting firms.

10.2 Support to research institutes

The four research institutes supported were the Drainage Research Institute (Dfl. 27 million), the Channel Maintenance Institute (Dfl. 16 million), the Research Institute for Groundwater (Dfl. 20 million) and the Hydraulics Research Institute (Dfl. 9 million). Support to the Drainage Research Institute focused on two main programmes: drainage technology and re-use of drainage water. The former included research on design criteria, specifications for materials, and installation techniques. The latter involved setting-up

a drainage water monitoring system and developing a mathematical model for the Nile Delta. Assistance to the Channel Maintenance Institute comprised research on mechanical weed control, biological weed control through grass carp and the establishment of a grass carp breeding station. Support for the Research Institute for Groundwater concerned staff training in the preparation of hydrological maps, the establishment of a geo-hydrological data base, the execution of a series of groundwater development and management studies, and groundwater pollution monitoring. In addition, support was given to a vertical drainage research programme. Assistance to the Hydraulics Research Institute comprised various types of technical training, provided mainly through short-term missions in relation to client-oriented research.

Research support consisted basically of a series of separate technical assistance projects, based on initiatives taken by the Advisory Panel and consultants. Emphasis was placed on the transfer of technical know-how. During recent years, and for both the Drainage and Groundwater Research Institutes support has given more attention to general manpower development and management issues.

The support has contributed to the technical strengthening of the institutes, which have become leading organisations in their respective fields and have gained stature in the international scientific community. The research brought a wealth of data and an impressive number of publications. Several research activities, such as the design of computer models, the re-use of drainage water and biological weed control, were of an innovative nature in the Egyptian context.

The ultimate yardstick by which to assess the effectiveness of research is the application of its results to the concrete policies and activities of executing organisations. The effectiveness of research support was good in the case of contract research, which was demand-driven and responded to explicit requests from end-users. This applied to 30 per cent of disbursements, and those of the Hydraulics Research Institute in particular. Some 70 per cent of the supported research programmes were not contracted and their effectiveness was rather low, mainly due to deficiencies in co-operation between the research community and (potential) clients.

10.3 Support to drainage execution

The Egyptian Public Authority for Drainage Projects (EPADP) is charged with constructing and maintaining the country's drainage infrastructure. The Netherlands technical assistance support is supplementary to the massive investment component covered under World Bank financing. During 1976–82 technical assistance was provided through

short-term consultancy missions. Since 1983 a long-term training-cum-manpower development effort has been made. Technical assistance has been complemented with direct investment support for drainage construction machinery, a pvc pipe production unit and spare parts. Disbursements have totalled Dfl. 19 million.

Since its establishment in 1973, EPADP has evolved into a technically capable and relatively well-managed authority for constructing and maintaining the national drainage network. The Netherlands support provided between 1976 and 1982 was too dispersed to have any lasting effect on performance. After 1983, technical assistance became instrumental in training substantial numbers of engineers and contractors' personnel. Until recently, the focus has been on the transfer of technical know-how. The most important achievement has been the establishment of a sustainable in-house technical training facility.

The goal of speeding-up the implementation rate of the field drainage programme has been partially achieved: since 1992 there has been a gradually upward trend in the area annually brought under drainage (from 70,00 to 76,000 ha) although the annual implementation rate remains well below the original target of 120,000 ha. The increase is largely the result of the massive investment in equipment. Conclusions with respect to quality improvement are hindered by the lack of uniform standards of quality control.

The ultimate objective of sub-surface drainage has been to increase yields through lowering groundwater tables and decreasing salinity problems. Various studies and farmers' demand for drainage works indicate increased yields and farm incomes in areas with field drainage. Attempts to assess economic benefits more accurately have not been successful. The question of the financial and economic viability of the national drainage programme can therefore not be answered.

10.4 *Fayoum water management*

The Fayoum is a depression in the western desert, 90 km south-west of Cairo. It is inhabited by almost two million people who are largely dependent upon agriculture. Land distribution is rather skewed: 10 per cent of holders own 45 per cent of the land. The remaining 90 per cent have no more than 0.6 ha on average, and over one-third of rural households are landless.

Up to 1970 Fayoum's water balance was largely in equilibrium. The water and salt balance then started to deteriorate as the annual intake of irrigation water was increased to meet the demands of reclaimed additional land and to stimulate cropping intensity.

The complex water allocation system resulted in an uneven geographic distribution of irrigation water, partly due to the poor condition of canals and other structures, and partly to system management. Irrigation efficiency was low as much of the additional water ended-up in the drainage system.

Netherlands assistance was intended to help the Fayoum Irrigation Department and the Fayoum office of the Ministry of Public Works and Water Resources to improve water management with a view to increasing irrigation efficiency and, consequently, agricultural production and farm income. The aid programme comprised support to the construction of a large pumping station for the re-use of drainage water, setting-up a water monitoring network and designing computer models for different water management scenarios. Subsequent activities focused on establishing a more equitable water distribution system, improved irrigation efficiency and better weed control. Recently, activities have addressed institutional development through technical training and through experiments with establishing and strengthening water users' organisations in two pilot areas.

Since its completion in 1993 the pumping station has been kept in good operational condition. It has been operating at some 50–65 per cent of its capacity during the summer period and at some 30 per cent during the rest of the year when water demand is low. Technical assistance projects addressed the more technical aspects of inequity and effectiveness of water distribution. The monitoring process has been refined and now allows for timely adjustment of the water flow to crop demand. The computer model is now a valuable instrument for water management and large numbers of staff have received valuable technical training. Through the rehabilitation of works, physical conditions for more equitable water distribution are met, but inequities in actual distribution of water persist. Furthermore, financially-viable mechanical and manual weed control technologies have been introduced, but institutional problems for application on a wider scale still have to be solved. Finally, assistance was instrumental in indicating the potential for increased farmer participation in water management.

Irrigation efficiency has improved, although mainly through the increased re-use of low quality drainage water, thus creating substantial risks of soil salinisation. An overall judgement on the ultimate impact of the assistance in terms of increased yields and higher farm incomes is hampered by the non-availability of comparative (i.e. before and after project) socio-economic information.

10.5 *The Advisory Panel*

From 1975 to 1983 the Advisory Panel on Land Drainage assisted in setting-up the Drainage Research Institute and advised EPADP on the implementation of the drainage programme. In 1983 the scope of its work was narrowed to discussing the Egyptian-Netherlands co-operation in water management and drainage. By the end of 1996 the Panel had met 30 times. The meetings consisted of 3-4 days of discussions on technical and progress reports and on consultancy reports directly commissioned by the Panel.

During the initial period the Panel advised on issues affecting the execution of the World Bank financed drainage programme. Its impact was limited: throughout the period, the execution of drainage works was affected by massive delays in procuring and commissioning equipment, by the shortage of complementary national funding and adequately trained staff, and by poor contractor performance. The Panel's main achievement was the building-up of a national drainage research capability. It had insufficient leverage on the EPADP to allow it to make effective use of research results.

Between 1983 and 1996, the Panel provided a framework for monitoring, guiding and co-ordinating projects financed by the Netherlands. As such, it was instrumental in creating a conducive policy environment. Its potential was not fully used, however, due to the dual functions of some of its members who had a direct interest in the execution of the programme, and to restriction of the scope of work to activities financed by the Netherlands. Although many policy issues were discussed and the meetings may have played a role in getting ideas accepted, the actual policy framework for water management and drainage was set under World Bank/USA assistance covenants.

The position of the Ministry of Public Works and Water Resources is that the Panel is a unique institution in the Netherlands development co-operation with Egypt, which, because of its permanency and wide expertise, is a valuable advisory body for Egyptian policy makers. The Ministry also considers, that the combination of advisory and executive responsibilities of Panel members has obvious advantages.

10.6 *Assessment*

The selection of the water management and drainage sector has been in line with Egyptian priorities. The water sector is crucial for Egypt's economy, food production, and the living conditions of a large proportion of its population. The focus on drainage addresses a crucial problem and complies with Egyptian priorities to restore the deteriorating water and salt balance and to improve the management of scarce water resources.

The main trends in the twenty years of the support were a doubling of annual expenditure from Dfl. 5 million to Dfl. 10 million, a decrease in the share of research in total disbursements from 60 per cent in the early years to 40 per cent after the mid-1980s, more emphasis on governorate level and integrated water management, and a broadening of objectives from purely technical issues to general institutional strengthening.

The overall picture of effectiveness is mixed. Assistance has been instrumental in training substantial numbers of staff and strengthening the technical capabilities of recipient organisations. In the process all supported organisations have produced a massive number of technical papers which have provided further insight into the country's water and salt balance and drainage problems, groundwater development potential and the scope for increasing water management efficiency. Research results have been insufficiently used by implementing agencies for concrete improvements.

The goal of speeding-up the implementation rate of field drainage has been partially achieved: there was a gradually upward trend from 1992 onwards although the rate remains well below the original target. Technical assistance has positively influenced performance, but the lack of uniform criteria for quality control of drainage works makes it difficult to draw firm conclusions as to the improvement of construction standards. Farmers' demand and various studies both indicate increased yields and farm incomes in areas with field drainage. The contribution of improved drainage to higher levels of agricultural production is not accurately known. In the absence of more accurate data on economic benefits, the question of the financial and economic viability of the national drainage programme cannot be answered.

Institutional and managerial problems have affected effectiveness. In general, assistance has not been sufficiently embedded in institutional development plans to enable the pertinent organisations to gain optimal benefit. Broader organisational strengthening programmes have recently been introduced in Netherlands aid to water management and drainage; at the time of evaluation their effect on organisational performance could not yet be established.

Efficiency has been problematic. Project formulation required a substantial amount of time. The programming of activities focused on technical constraints with little attention being given to the wider socio-political and institutional context. The identification and formulation of the three investment projects was particularly scanty: no cost-benefit analysis (East Bahr Saft), several revisions in equipment during implementation (Drainage V), and changes in design and construction modalities (Batts pumping station). Few projects were implemented within the originally planned time, largely due to problems in the mobilisation of consultants, contract approval, recruitment and training of local

staff, procurement of goods and civil works and co-operation with other governmental or donor agencies. Delays in preparation and implementation reflected differences of opinion about priorities and methods between the Egyptian organisations involved and the donor.

Sustainability of results differs for the various components of support to water management and drainage. For the drainage executing agency the sustainability of achievements under the aid programme is fairly secure. In view of the high priority given to the field drainage programme, operational and investment support for the agency is certain, while operational costs are recovered from the farmers. With respect to research institutes, sustainability is high for the Hydraulics Research Institute because of its client orientation and contract research. Other research institutes are still highly dependent on the government budget. In Fayoum prospects are uncertain: activities are not yet wholly integrated into regular structures, and substantial budget increases for the Irrigation Department are required.

11 Agriculture and animal husbandry

11.1 General

The Egyptian economy has traditionally relied heavily on the agricultural sector as a source of growth. Although the share in GDP decreased from 30 per cent in the early 1970s to less than 20 per cent in the mid-1990s, it contributed about 25 per cent to the value of merchandise exports, while another 25 per cent of those exports are manufactured products of agricultural origin. The sector faces several serious problems. Water is the scarcest production factor, which calls for two types of measure: the reduction of on-farm and system water waste, and the cultivation of crops with the highest production value per unit of water. Donors advocate the introduction of water fees as a principal instrument for economic water use, but Egypt resists this on financial, social and political grounds. Another problem is the continuous size reduction and fragmentation of land holdings as a result of population growth and insufficient employment creation outside the agricultural sector. Recently, abolition of the provisions of the 1952 land reform has recreated a substantial number of large farms, which are mechanised and employ little labour. Furthermore, product losses in storage, processing and marketing are substantial, partly due to control by public companies over these stages of the production cycle. Finally, the highly-intensive agricultural system requires a constant input of fertilisers and chemicals in order to maintain and increase yield levels. This has serious environmental consequences as residues enter the drainage system, with adverse effects on irrigation and drinking water supply.

The USA, EU and World Bank are the principal donors in the sector. Netherlands support over the period 1975–96 totalled Dfl. 160 million, and consisted of 40 to 45 highly diverse activities. Disbursements included some Dfl. 30 million of programme aid, often combined with project aid. A substantial proportion of commodity supply was included in the support, ranging from capital goods such as hatcheries, greenhouses, milk factory equipment and a grain silo, to agricultural inputs such as several types of sprayer, fertilisers and vaccines. The support shows a concentration on three sub-sectors: poultry, dairy and horticulture, with 19 per cent, 38 per cent and 32 per cent respectively of total disbursements for the sector.

11.2 Poultry

The Netherlands has supported four activities intended to strengthen the poultry industry, all by means of the supply of modern equipment and prefab buildings. The objective of all these activities was to stimulate domestic egg and meat production in order to reduce dependency on imports, and involved the supply of stock to farmers. Equipment was provided to large-scale public companies without being accompanied by technical assistance. In fact, they were all turn-key projects with standard equipment provided by Dutch firms already operating in Egypt.

The present state of the equipment is quite satisfactory: the hatching equipment, although 10–15 years old, is in good working condition, mainly thanks to after-sales services of well-stocked representatives in Cairo. The results of the support have been quite good. Performance and capacity utilisation have been positively influenced by a favourable government policy, a high demand for stock from farmers, and by the possibility to use revenues for running costs and topping-up of salaries.

11.3 Dairy

Support to the dairy industry consisted of seven activities, two of which represented some 80 per cent of total disbursements: the Damietta Dairy Project and the renovation of two milk factories. The former, implemented between 1975 and 1988, combined commodity supply (Frisian dairy cattle, building materials and agricultural and teaching equipment) with technical assistance (courses in animal husbandry, a credit programme, technical support to a large-size pilot farm). In the latter, commodity supplies for the milk factories in the 1980s were followed by technical assistance (for improved operations and maintenance, spare parts handling in particular) in the 1990s.

The goods supplied to the dairy industry ranged from vaccines to fodder seeds, to dairy processing equipment and vehicles, to equipment for artificial insemination, and breeding stock of pure-bred Frisian cattle. All recipient organisations were public entities. The implementation of activities was often affected by substantial delay due to differences of opinion between Egypt and the Netherlands and to complex rules and regulations on both sides.

The direct results of activities differed considerably for projects and project components. In the Damietta Dairy Project (DDP) the large-scale pilot farm has been characterised by extremely low milk yields and over-staffing. It is a non-viable enterprise and has recently been put up for sale. The large-scale parastatal farm, another component, operates far below capacity, is overstaffed and has been unable to replace worn-out machinery because of lack of funds. A third component, the training centre, had a useful function during the ten years of its existence. Many smallholders, extension officers and veterinarians were trained, but the number remained well below the original target. Activities were discontinued when donor funding ended. The smallholder component was quite successful: 500 farmers were supplied with dairy cattle and their training resulted in improved animal husbandry. This had a positive effect on their output and incomes, an effect that in many cases still lasts today.

The other major project in the dairy industry, renovation of the milk factories, was conceived at the time of pervasive state control of the economy. The factories suffer from frequent breakdowns, low fresh milk intake and shortage of spare parts. They operate at less than 25 per cent of capacity, and due to this and to overstaffing the company is incurring losses. Possibilities of privatising the factories are now being studied.

The results of input supplies were generally positive, especially of vaccines against foot and mouth disease, which fitted into a broadly-supported vaccination campaign. Furthermore, Netherlands support helped to establish production facilities in Egypt which presently cater for total domestic demand.

11.4 Horticulture

Support to horticulture comprised six activities, three of which represent over 70 per cent of total expenditure, i.e. the supply of greenhouses (about 30 per cent), the Fayoum horticultural project (about 25 per cent), and the supply of soluble fertilisers (20 per cent). Other activities involved the supply of a potato cold store, hand-operated and tractor-pulled sprayers and other agricultural inputs, and technical assistance to potato cultivation.

The greenhouse project consisted of the supply of some 210 fully-equipped greenhouses and two packing stations, followed by technical assistance. After delivery, doubts arose about water quality and about the scope for large-scale production at the original site (El-Qassasin near Ismailiya); Egypt, therefore, decided to shift part of the greenhouses to another location (Bossailly near Rosetta). The El-Qassasin complex was transferred to a private firm which left the installations in ruins; in 1996 a new owner started to rehabilitate some of the greenhouses. In Bossailly all greenhouses are in production, although the climate control system is out of order and there is a backlog in maintenance. The complex is in use for production, training and applied research. Technical assistance has suffered from lack of clarity about the actual purpose of the project: large-scale production, research, or the training of young graduates.

The Fayoum horticulture project assists horticultural production, in particular tomatoes, by providing technical assistance and equipment. The project's main achievements have been the screening of tomato varieties resistant to a serious disease, the adoption of these varieties by growers, work on pest and disease management, which may lead to the use of ecologically less harmful biocides, and the training of specialised staff.

Soluble compound fertilisers were made available as programme aid and on a grant basis to public agencies, which sold the goods to state farms and to medium and large private farmers. Since then, the use of soluble fertilisers has become widespread. The introduction has been successful from the point of view of satisfying a demand shown to be technically, economically and environmentally sound. At present, these fertilisers are imported on commercial terms.

On-going technical assistance to potato cultivation started in 1982 and concentrated on technical research and training. Research into varieties and storage was effective in producing new findings, but it is not known to what extent it has affected the potato industry due to lack of information on innovation adoption rates. Mechanisation research has enhanced the local production of machinery adapted to Egyptian circumstances, and mechanisation is now fully accepted on larger farms. The effects of training on the production and income of growers have not been monitored, but recently more attention has been given to the socio-economic aspects of potato cultivation.

11.5 Other

Support to the agricultural sector has included one major activity outside the three sub-sectors, i.e. the Fayoum grain silo (Dfl. 12.2 million). This project consisted of the supply and construction of a 23,000 ton grain storage facility, the supply of seven dump trucks

of 30 ton capacity, accompanied by assistance in the design, tendering and supervision of construction. The activity fitted into a World Bank-sponsored master plan for a country-wide network of silos.

The principal objectives of the project were to improve the quality of storage and to reduce storage costs by introducing bulk transport as part of a chain in which imported wheat would move from ship to mill in bulk by train instead of by bagged road transport. Storage quantity objectives have been largely achieved, but the advantages of bulk rail transport have not yet materialised. Savings from handling in bulk rather than in bags have partly been achieved, also due to increases in local wheat production in Fayoum. There is no information on changes in storage losses before and after the project.

11.6 *Assessment*

Activities supported under Netherlands aid have addressed relevant priorities: the need for increased food production, animal proteins in particular, in support to the poultry and dairy industry; and the need to make more effective use of land and water resources in the aid to horticulture. The focus on state organisations disregarded the context of overstuffed and under-financed public companies. The shift to horticulture was a rational choice as it draws maximum value added from scarce resources and was not subject to much state control.

The overall effectiveness of support to agriculture and animal husbandry has been rather disappointing. One-third of the activities, representing over 40 per cent of total disbursements, only marginally achieved their objectives if at all, including most of the larger projects. Support to the poultry industry was largely successful mainly because of a favourable government policy and the supply of good quality commodities. Several horticultural activities were also successful largely due to adequate technical assistance. The favourable outcome of technical assistance was mainly caused by its orientation towards prevailing problems, such as effectively using the capital goods provided, addressing a serious disease in tomato growing and storage problems in potato cultivation. In addition, it had positive effects on the motivation of Egyptian staff through salary supplements from donor funds and it facilitated access to auxiliary equipment and funds for operational costs.

In support to the dairy industry objectives were achieved only to a minor extent. The most successful activities were the supply of vaccine against foot and mouth disease and the support to smallholder dairy farmers in the Damietta project. The focus on weak public sector agencies largely explains the low effectiveness of support to the dairy industry.

Efficiency in the support to agriculture was problematic, both as regards the straightforward supply of goods and more elaborate forms of support that involved recruitment of staff, and the organisation of long-term collaboration between host country and donor institution/consultant. Project preparation was often prolonged over several years. This was due to communication problems between the two parties, and delays in decision-making caused by differences of opinion about objectives, which were temporarily overcome by compromises. A frequent source of disagreement was the magnitude and duration of resident technical assistance. Implementation was also hampered by differences of opinion about the quality of goods.

The sustainability of aid achievements in the agricultural sector is mixed. Several activities for which Netherlands aid has been terminated, still continue: all supplies to the poultry sector, and part of the greenhouses in particular. The sustainability of inputs, mainly illustrated by continuation of their use, is high for soluble fertilisers, for vaccines against foot and mouth disease and for insecticide sprayers. Other activities appeared to be non-sustainable, i.e. units that are financially non-viable with capacity utilisation rates of below 25 per cent: the milk factory renovations, public dairy farms and training centre, the Qassasin greenhouses, and the potato cold store.

Technological, financial and institutional factors influence sustainability. Many commodities were technologically advanced and sometimes new to Egypt. Part of the technologically-advanced equipment is still in use, particularly in the poultry industry, where an appropriate after-sales service contributed to the long lifespan of capital goods. Institutional and financial sustainability largely depend on demand for the products offered, on the possibility to charge realistic prices, and on the autonomy of public sector institutions in using revenues for operations and maintenance and for salary improvements.

12 **Drinking water and sanitation**

12.1 *General*

Drinking water supply conditions in Egypt differ substantially between urban and rural areas. In Greater Cairo and Alexandria, where about one-third of the country's population lives, almost all households are served by house connections. In other parts of the country urban house connection coverage varies between 40 and 70 per cent. In rural areas, where people are concentrated in villages, some 60 per cent of households is currently estimated to receive water from a piped public system, including public standpipe users. In the main cities, water is generally of adequate quality and provided 24 hours per day. In other cities,

the service is of lower quality. In rural areas, systems providing 24-hour supplies are rare, and deficient treatment facilities often render the water unsuitable for drinking purposes.

Industrial development, population growth and use of chemicals in agriculture over the last three decades have caused increasing pollution and water quality deterioration. While little has been done to curb industrial discharge, enormous efforts have been made to address pollution from domestic sewage. Nevertheless, improvements in sewerage services and sanitation have lagged far behind progress in drinking water supply. With about 85 to 90 per cent of the population connected, Cairo and Alexandria have the best sewerage service. Coverage in smaller towns is much less and large quantities of collected wastewater are discharged into the drainage system without proper treatment. In rural areas the situation is alarming, as sewerage service coverage is as low as 5 per cent of the population.

Over the years, the Government's objective has been to provide an acceptable level of water supply and sanitation service at low cost for the population. The rapid growth in service levels has been made possible through enormous investments. This growth of service coverage, however, has not been accompanied by an equal advance in creating a strong water supply and sanitation industry. The most critical problems are deficient construction management and operation and maintenance practices, shortage of skilled staff and hierarchical management systems. Through new legislation (Presidential Decree of 1995) the Government has embarked on a policy reform that promises a better sector performance in the near future. Greater organisational and administrative autonomy allows the newly-established Economic Authorities to manage and operate systems more in accordance with commercial principles.

Foreign funding agencies provided almost 60 per cent of all resources for the improvement of water and sanitation utilities. With disbursements in the order of US\$ 2.5 billion, the USA has been by far the largest contributor. Netherlands aid to the sector totals about Dfl. 95 million, and consists largely of programme aid: two-thirds has been spent on support of drinking water supplies, the remainder on sanitation improvements. The main drinking water supply activity has been the support for the Alexandria Water General Authority (AWGA), which received some two-thirds of total disbursements in that sector. Some 20 per cent was disbursed on Fayoum's water supply. Support to sanitation consisted mainly of mechanical and electrical equipment for the rehabilitation and expansion of sewerage systems in Greater Cairo.

In sum, Netherlands aid to the sector has been characterised by commodity supply for (semi-) public institutions in urban areas. About 85 per cent of disbursements was spent on utilities in Cairo and Alexandria and almost 80 per cent was spent on commodity

supplies. The 20 per cent of disbursements for technical assistance was for AWGA, Fayoum drinking water supply and a national level management training project.

12.2 Alexandria water supply

Assistance to drinking water supply in Alexandria started in 1977 with a grant for the procurement of pumps and spare parts. This was part of a wider investment programme implemented with financial assistance from the World Bank. Later, the Netherlands committed Dfl. 30 million in import support for the supply of pumps, valves, spare parts and air blowers. Contracts were awarded directly to Dutch suppliers. After an evaluation mission had confirmed in 1991 that large quantities of the equipment were kept in store, supplies were complemented with technical assistance focused on improving operations and the maintenance and efficiency of water treatment. AWGA also received technical assistance through a German-funded project.

The commodity supplies helped to increase water production capacity, to expand the network and to improve services. Data on water production and revenue performance show the difficulties involved in reducing the share of water production which is unaccounted for and the heavy reliance on production expansion in order to cover increasing demand. The percentage of water production billed to customers decreased from 69 per cent in 1977 to 55 per cent in 1985 and subsequently rose to 62 per cent in 1996. From the financial point of view, this billing rate allowed the Authority to recover almost operations and maintenance costs and to secure supplies throughout the year and service area. Technical assistance funded by the Netherlands reduced the number of breakdowns at the level of a single plant, but lessons learnt at that level were not applied at authority level.

12.3 Fayoum drinking water and sanitation

The Fayoum project focused on improving drinking water and sanitation in the Governorate to such an extent that it would have a long-lasting impact on public health and the well-being of the rural population. Disbursements totalled almost Dfl. 14 million. Activities involved the surveying and mapping of the water distribution network, setting-up customer information and maintenance centres in the five district capitals, and strengthening the technical and financial departments of the water utility for rural areas, El Azab. Inventories and surveys provided the basis for a master plan, for the formulation and implementation of an emergency pipeline and a public standpost rehabilitation programme, and for designs for three village sewerage schemes. The USA supported the improvement of the water utility for Fayoum City.

In 1995 the Fayoum Economic General Authority for Water and Sanitation (FEGAWS) was established. This integrated the two drinking water utilities (El Azab and Fayoum City) and the Sanitation Department into a new Authority with greater organisational and administrative autonomy. The new Authority was assisted in drawing up an action plan for further organisational development.

The Fayoum project was instrumental in introducing a computerised billing system, and in rehabilitating and upgrading a treatment plant and the main pipeline network. Moreover, it helped to increase household connection coverage from 40 to 55 per cent and to rehabilitate the public standpost system in two of the five districts, covering about one-fifth of public tap users in the Governorate. Performance of the El Azab utility did not improve in terms of revenue collection and cost recovery. In 1996 only some 27 per cent of gross water production was sold commercially and revenues covered only 30 per cent of nominal operation and maintenance costs.

With regard to sanitation, the project supported a series of studies and experiments for a cost-effective on-site sanitation strategy and sewerage schemes.

12.4 Greater Cairo wastewater

The wastewater system for Greater Cairo consists of three sub-systems, for the west bank of the Nile, the east bank and Helwan respectively. Following the completion of master plans in the mid-1970s, Egypt reached agreements for donor support: with the United Kingdom for the east bank, with the USA for the west bank, and with a consortium consisting of the EU, Italy and the Netherlands for Helwan.

For the east and west banks Egypt made extensive use of additional soft loan and grant allocations, amongst others from the Netherlands, to meet its obligations to fund part of the construction work. In total the Netherlands financed four major procurement contracts for various type of equipment (Dfl. 18 million). One contract was financed under the regular country programme, the others under the mixed credit programme. All contracts were awarded to Dutch suppliers, either directly or through international tender and after lengthy negotiation.

For Helwan, the Netherlands became involved in the co-financing (with the EU) of three of the nine contracts. Its contribution covered the costs of supplying and installing mechanical works and electric control panels of the main network pumping stations. All commodities were supplied by Dutch firms. Slow progress and laborious working relations with the parties concerned caused the Netherlands to decide in 1992 to discontinue

its support and to transfer the undisbursed balance to the EU for co-financing another of the nine contracts.

Donor support helped to bring about a dramatic drop in sewage flooding and the sewage schemes yielded important health and environmental benefits to the city dwellers, including the poorest groups. Taking the volume of disbursements as a yardstick, the Netherlands contributed modestly to these improvements.

12.5 Assessment

Netherlands aid to the drinking water and sanitation sector addressed serious problems that faced Egypt and the living conditions of its population. The priority given to urban areas was justified because of the massive environmental health hazards that threatened the quality of life of one-third of Egypt's population. By taking up the Fayoum project, the Netherlands addressed the even more alarming environmental health problems in rural areas in a priority governorate. The need for institution building has been mentioned in several master plan studies. The aid programme started to give attention to institution-building activities in the late-1980s, i.e. when Egypt recognised the urgency for such support.

In terms of immediate project outputs, the overall effectiveness of commodity supplies was rather good. By and large, funds were disbursed on goods that were needed, were not locally available and for which Egypt lacked the foreign exchange to import on commercial terms. Moreover, commodities were generally of good quality. The effectiveness of the technical assistance is more difficult to gauge. Whereas the overall objective was to improve the operational performance of recipient organisations, no performance indicators were set against which effectiveness of the programmes can be assessed. The effectiveness of technical assistance for the Alexandria drinking water utility was reduced because it operated at plant level rather than at strategic management level and there was little co-ordination with a similar project supported by Germany.

In Fayoum, where the technical assistance operated at authority level, it was a definite benefit to the organisation. Apart from heightening awareness of the need for institutional reform, it strengthened financial management and improved technical skills and maintenance practices. In spite of these improvements, little progress was made towards establishing a viable economic authority. As of 1996/97, more than two-thirds of water production was not sold commercially and only one-third of El Azab's regular operation and maintenance costs was recovered from consumers.

Efficiency requires improvement. During the initial period, characterised by commodity supplies, project identification and appraisal efforts were minimal and implementation was inefficient. Procurement processes were slow and did not adhere to agreed deadlines on decisions and payments. The execution of supply contracts took much longer than envisaged. Equipment supplies are reported by recipient organisations to have been 'good value for money'. Equipment is used at a reasonable level of efficiency, but organisations experienced operational and maintenance problems.

There were also inefficiencies in the two technical assistance operations. Preparation missions and consultants experienced problems in formulating technical assistance packages with clearly identifiable outputs. For Fayoum, identification and formulation took almost four years and implementation time was substantially longer than originally planned.

Monitoring intensified when a sector specialist was attached to the Netherlands Embassy. External monitoring focused on inputs and on consultant's performance rather than on achievements with regard to objectives. The first comprehensive sector evaluation was not carried out until 1990 and evaluation reports focused on implementation modalities rather than on effectiveness.

With regard to sustainability, until 1995 there was widespread consensus among donors that the results of massive investments were threatened by insufficient funding for operations and maintenance and by institutional weaknesses of the water and waste water utilities. The latter were responsible for the provision of services but had little authority and control over their own financial and organisational affairs. New legislation has drastically improved the situation, allowing regional authorities to set up their own personnel regulations, to retain collected tariffs and to utilise revenues to meet costs for operations and maintenance. The new policy is particularly relevant for the Fayoum project. The process is likely to be time-consuming in the face of strong opposition that seeks to preserve central government control. Sustainability of the results of wastewater programmes is doubtful unless tariffs and revenue collection increase tenfold and/or subsidy levels are maintained.

The overall outcome of assistance to the sector is fairly positive. The aid effort has contributed to rehabilitation and expansion of utilities, to improving the quality of services and to strengthening recipient organisations. The aid has also contributed to better living conditions, particularly those in the urban areas of Cairo and Alexandria. The impact of the assistance has been hampered by a problematic institutional and policy environment, but this has recently started to change.

13 Health and population

13.1 General

Health conditions in Egypt have improved significantly in the last few decades. Family planning programmes have brought a spectacular growth of contraceptive usage, especially since the 1980s, and lower birth rates. Mortality rates have declined as a result of increased health services, effective public health measures and better living conditions. Mortality among infants and children has also declined, but improvements in maternal health are less impressive. However, general data on health conditions conceal substantial differences between rural and urban areas and males and females, and among governorates and various segments of the population. In general, the situation is better in urban than in rural areas, and women are exposed to higher risks of morbidity and mortality than men.

Health services are provided by a wide range of public and private institutions, of which the Ministry of Health and Population is the most important. It runs about 60 per cent of hospital beds, and a national network of ambulatory health facilities and public health programmes. The Ministry of Education provides specialised health services in urban areas through university hospitals. Other ministries and public agencies also operate services for their own staff. Finally, private sector health services have considerably increased in importance since the mid-1980s.

During the last two or three decades great progress has been made in increasing the physical accessibility of basic health services. Almost the whole population lives within a four kilometre radius of a health centre, and the ratio of physicians and nurses to population is high. However, there is much need for improvement in the quality of health services.

Government policy focuses on improving the health of the population by enhancing the accessibility, availability, quality and affordability of services, in particular curative services. The expansion of the health system gained momentum during the period of state socialism, when services were financed almost exclusively by government and health care was provided free of charge. By the end of the 1970s it had become clear that the prevailing policy of free medical services could no longer be continued. As part of economic reform policies, the Government started to emphasise cost recovery and a greater participation of the private sector. The outcome of this policy has been a very thin spread of public resources, resulting in a generally low quality of care and low utilisation of public health facilities. Very recently, the Government decided to embark upon a health sector reform strategy in close co-operation with its main donors for the sector. The long-term objective

of this reform is universal coverage of the population with a defined package of benefits financed through a national health insurance scheme.

The Netherlands has been one of several donors supporting the health sector, of whom the USA, the World Bank, the EU and Unicef are the most important. Netherlands' support dates from the beginning of its development aid to Egypt. At first, it was based on answering requests for separate projects involving the supply of technologically-advanced equipment for specialised medical institutions. After the mid-1980s the focus shifted to technical assistance to the public system for basic health care activities.

Over the period 1975–96, support to the sector totalled Dfl. 87 million. Although the activities supported are rather heterogeneous, three components may be distinguished. The first comprises the supply of materials to three types of recipient organisations: specialised hospitals (almost Dfl. 27 million), rehabilitation centres for the handicapped (Dfl. 12.5 million), and the pharmaceutical industry (almost Dfl. 22 million). Together, these represent 70 per cent of total disbursements to the sector. The second set, accounting for 19 per cent of disbursements, involved support to primary health care and reproductive health and covered three activities: assistance to the UNFPA for family planning (Dfl. 3 million), and two projects at governorate level, i.e. Damietta Primary Health Care (Dfl. 7.5 million) and Fayoum Rural Health and Family Planning (about Dfl. 6 million). Finally, the Netherlands supported the national tuberculosis control programme (Dfl. 7.6 million) and a number of relatively small research projects and studies. In terms of overall disbursements under the Netherlands aid programme, expenditures for the sector declined from 25 per cent in 1981 to 10 per cent in 1993, in close relation to the shift from equipment supply to technical assistance.

13.2 Supply of materials and equipment

There were two major recipients for the supply of equipment to specialised hospitals and clinics: the University of Mansoura and the Chest Disease Administration of the Ministry of Health. The former was given support for its urology clinic and its radiology department (Dfl. 21 million). Equipment for the urology clinic has been partly renewed (financed by another donor) because of rapid developments in medical technology. All equipment provided to the university has been intensively used and treatment is of high quality. The Chest Disease Administration received X-ray equipment and laboratory equipment for sputum research. When the equipment was supplied, sputum research was increasingly being considered a better method for the identification of TB patients. The equipment was under-utilised, however, partly due to insufficient training of staff in its use and partly to the staff's preference for X-ray equipment.

Another major component of commodity supplies involved those to the pharmaceutical industry aimed at the improved supply and higher self-sufficiency of essential drugs and vaccines. Activities were of two types: the construction of laboratory facilities for vaccine production, and the supply of bulk and intermediate materials for anti-biotics production. Both activities involved the support of public agencies. The assistance resulted in higher self-sufficiency of vaccine production against major children's diseases. By the time the Netherlands assistance was terminated it was clear that quality control required further attention, and this became a component of subsequent USA support. The supply of anti-biotic production materials substituted for commercial imports from regular Dutch suppliers in a period of foreign exchange shortage; it had little effect on prevailing unfavourable domestic production conditions.

A third major component of commodity supply involved equipment for improving the functioning of some twenty rehabilitation centres for the handicapped. The aim was to improve their living conditions by more effective treatment and to provide them with possibilities for suitable employment in the regular labour market. Disbursements covered physiotherapeutic equipment as well as machines and other materials to be used for vocational training and for production activities in the centres. In general, physiotherapy equipment was under-utilised due to inadequate training and the frequent absence of staff, while some equipment was insufficiently adjusted to the conditions of patients. Most equipment for vocational training and production was still operational in 1995 but capacity utilisation differed for the various types of machinery and among centres. Only a small proportion of trainees had obtained employment outside the centres. Most continued to work in the centres, which therefore operated as 'sheltered workshops' rather than as training institutes.

13.3 Primary health care

In the second part of the 1980s, Netherlands' policy regarding support for the health sector closely adhered to the approach adopted at the international conference of Alma Ata and focused increasingly on strengthening the primary level of socio-medical care. The two projects supported in Damietta and Fayoum Governorate originated in earlier contributions to UNFPA's Population and Development Programme (PDP) in these governorates. The PDP approach considered welfare improvement to be a pre-condition for effective family planning. Funds provided by the Netherlands to UNFPA were used for a broad range of production-oriented and social services activities.

Evaluations revealed several weaknesses in the Population and Development Programme as applied in Egypt: family planning promoters were overloaded with tasks and were

insufficiently trained and poorly paid; the organisational structure was highly complex; the programme had no links with the private sector, which was the main supplier of contraceptives; and economic activities lacked success. It was concluded that contraceptive use had not risen faster in these predominantly rural project areas than elsewhere in the country and that fertility rates were virtually unchanged.

The Damietta and Fayoum projects aimed at improving the health status of the rural population, in particular the poorer strata and including women and children. The projects adopted a process approach which included a variety of activities. The nucleus was a home visiting programme by health promoters, who were especially trained for the purpose. Rehabilitation of existing public health units was also a crucial component. By raising awareness for health problems, it was expected that the population would make more intensive use of these units.

The approach adopted in Fayoum shows several differences when compared to that in the earlier Damietta project. In Fayoum activities focus more on reproductive health and family planning and specially recruited health promoters live and work in the same village, while in Damietta home visits were made by skilled nurses employed in the public health service. Health promotion in Fayoum was combined with credit for economic activities; the project started to operate on a pilot scale in one district and has recently expanded its coverage to another district.

Both projects were successful in training large numbers of health promoters for home visits and in renovating public health units. In Damietta the management and planning component, which included an improved health information system and an integrated approach towards village health planning, was not successful and was shelved. In Fayoum coverage for the credit component was small (2 per cent of the population) but results were generally good at the level of individual households. The effects of home visits on use of the public health units, on family planning and on the health conditions of households are not known, mainly due to deficiencies in the monitoring system. In general, the use of public health units in Egypt has declined, because of the population's preference for private practitioners.

13.4 Tuberculosis control

After supplying equipment for tuberculosis control in the early 1980s, Netherlands support to the National Tuberculosis Programme continued in 1988 by funding a technical assistance project. The main objective of this was to upgrade the overall organisation and management of the Programme, including the introduction of necessary changes in diagnostic and treatment methods. Concrete activities included inventory surveys, training

of personnel, supply of equipment for sputum analysis, and the supply of special drugs for a short-term drug-intensive regimen which was expected to reduce defaulting. The initial strategy was to improve the quality of specialist chest clinics, which allowed the Programme to expand fairly quickly; in 1996, it was decided to expand the project to other health providers that also deal with tuberculosis.

By 1996 the activities covered 18 of the 21 governorates where staff have been trained, new treatment regimes introduced and a surveillance system established. Overall treatment results are below expectations: in 1995 the cure rate was 40 per cent and early discontinuation of treatment was still fairly prevalent.

13.5 Assessment

In the twenty years during which the Netherlands has supported the health sector, two distinct phases can be discerned. Until the mid-1980s, emphasis was on the supply of advanced medical equipment, largely congruent with the Netherlands health sector support policy and in line with Egypt's priorities for the improvement of specialist curative health care. Activities in the second phase, i.e. since the mid-1980s, have been targeted towards the primary level of socio-medical care covering a large part of the poor population. These projects have formally complied with Egypt's priorities as reflected in the country's acceptance of the Alma Ata Declaration, but not with expenditure patterns which continued to focus on specialist curative care at secondary and tertiary levels.

The effectiveness of the support differs for the three main components: supply of equipment, technical assistance to primary health care/reproductive health, and support for TB control. Effectiveness regarding the supply of equipment was mixed. It was high for supplies to specialised hospitals and support for vaccine production. Equipment was relevant for serious diseases, was intensively used and was effective in treating patients and producing vaccines. The supply of anti-biotics and equipment for rehabilitation centres was marginally effective. The drug supply objectives, i.e. to help to improve health conditions and to enable the pharmaceutical industry to sustain domestic production, were not achieved. The support did not and could not contribute to required changes in high drug use, in the preference for expensive brand names, and inefficiencies in production. Equipment supplied to rehabilitation centres mainly resulted in 'sheltered employment' for a limited number of handicapped people. The training programme did not lead to their employment in the regular labour market.

The Damietta and Fayoum projects were effective in terms of improving the physical infrastructure and of staff training. The home visit system raised awareness of health issues

among the rural population and, in Fayoum, especially among women in the reproductive age categories. The projects were less successful in strengthening management and planning capabilities. There is no conclusive evidence regarding the impact of the work of health promoters, making it impossible to judge effectiveness in terms of increased family planning and improvement in the overall health situation.

The tuberculosis project helped to improve treatment methods and increased cure rates to 40 per cent. This is still insufficient as it is generally accepted that TB control can only be effective when measures reach 80–85 per cent cure rates. In addition, better integration into the basic health system is necessary to reduce the generally late detection of cases. Recent changes in the project's strategy are expected to improve effectiveness.

The overall efficiency of supported activities needs further improvement. Projects have been characterised by long periods of preparation. The supply of equipment experienced delays due to differences of opinion about type and quality and to the late completion of civil works. Projects have differed widely in coverage and there was little relationship between coverage and costs. The main factors that hampered efficiency included the absence of a joint sectoral policy framework for Netherlands assistance, differences of opinion between donor and host country about needs and priorities, and deficiencies in project design with little attention for institutional constraints.

In general, the materials and equipment supplied represented a good and sustainable investment, in particular those to Mansoura university and the vaccine production agency. The sustainability of projects in Damietta and Fayoum is determined largely by their integration into governorate health policy and priorities, which has not yet materialised. The main factors that negatively influence the overall sustainability of health care support are the institutional and financial conditions of Egypt's public health system. The planned reform agreed upon between Egypt and the main donors for the sector will determine the sustainability of project results.

14 Geographical concentration

The geographical concentration of aid at the governorate level has received attention since the inception of the aid programme. The principal arguments in favour of such a concentration included higher efficiency and effectiveness, the possibility of reducing bureaucracy in project preparation by operating at Governorate level, the importance of developing rural areas and diminishing urbanisation, and the opportunities to stimulate an integrated approach to development planning and to increase the effects of individual projects.

In 1986, Egypt and the Netherlands agreed on Damietta and Fayoum Governorates as concentration areas; no special programmes materialised for Damietta, however, and since 1988 it is no longer considered a concentration area. Four reasons have been given for the selection of Fayoum: the high incidence of poverty, the keen interest of the Governorate administration in aid from the Netherlands, the number of on-going projects supported by the Netherlands, and the proximity to Cairo which would facilitate supervision by the Netherlands Embassy. In 1996 Egypt and the Netherlands agreed that Aswan Governorate would become a second concentration area.

Fayoum is one of Egypt's poorer Governorates. In the early 1990s almost half of all households were estimated to be poor. This high incidence of poverty emanates from the scarcity of land, the unfavourable employment situation and the consequent lack of opportunities to earn an adequate cash income, and the limited availability of basic social services.

Fayoum faces a number of serious obstacles for development. It has a high rate of population growth relative to a weak economic base. Development of the agricultural sector through land reclamation and improved resource management is costly in both financial and ecological terms due to the limited land and water resources. The expansion of manufacturing industries is hampered by the shortage of skilled labour and by the limited possibilities for attracting investment, partly because it has to compete with other locations.

The Governorate tries to create an environment conducive to further development by improving the physical infrastructure. Allocations to infrastructure consistently dominate development plans and public investment. Decreasing government budgets under the economic reform programme, however, entail that public funds are increasingly needed to meet recurrent expenditure. Consequently, donor contributions, representing one-third of public investment, continue to be important for further development.

Netherlands development aid to Fayoum totalled about Dfl. 90 million over the twenty-year period. Average annual disbursements rose from Dfl. 1.3 million in 1975/85 to Dfl. 9.5 million in 1991/96, the latter being in accord with the volume agreed upon with Egypt. Netherlands aid to Fayoum has been provided in the form of some twenty projects. Over 90 per cent of total expenditure went to nine major projects in four sectors: three in agriculture (37 per cent), four in water management (33 per cent), one in drinking water and sanitation (15 per cent) and one in health and population (7 per cent).

Aid was for 60 per cent in the form of technical assistance, while the other 40 per cent was mainly spent on commodity supplies for three major projects: a pumping station for the re-use of drainage water, a grain silo and a poultry unit.

The Netherlands-funded projects in Fayoum constitute separate activities. The selection of Fayoum as a concentration area was based implicitly on the assumption that closer co-operation would lead to a more integrated set of activities. Suggestions from the Netherlands that technical assistance should be provided for planning and implementation co-ordination were not accepted by Egypt, which preferred a sector-wise support. The gradual expansion of projects since the mid-1980s reflects the growing emphasis placed on the environment, institutional development and improvement in the situation of women.

Evaluations of the various sectors provide an overall picture of rather positive results for projects in Fayoum. Commodity supplies were quite successful for the poultry project but less so for the pumping station and feed mill in terms of capacity utilisation and for the silo in terms of realising the advantages of bulk rail transport. Technical assistance was successful in horticulture and water management. Reasonable progress was made in drinking water and sanitation and in reproductive health care in terms of the rehabilitation of infrastructure and staff up-grading. Institutional strengthening mainly occurred in terms of improving technical capabilities, but the basic problems of public institutions could not be solved at the level of individual projects. Sustainability of the results of the aid effort is therefore still uncertain. Unfortunately, the absence of socio-economic baseline studies and deficiencies in monitoring prevent any assessment of the effects of the assistance on living conditions of various segments of the population, particularly regarding income improvement and poverty alleviation.

The overall perception of government officials with regard to the relevance and effects of Netherlands aid is overwhelmingly positive. It is acknowledged that the support was based on a pragmatic approach, that it supplemented the efforts of the governorate's administration and contributed to the development of the area. The sustainability of project results is generally seen to be problematic. Differences of opinion occur between departments and with regard to various projects. Staff of departments included in implementation of the aid programme were much more positive than those not involved.

Substantial differences occurred in the perceptions of respondents in the village communities and those of government officials. Villagers emphasised the need for improved living conditions (food security, access to affordable education, better curative health facilities) compared to improvement of infrastructure advocated by officials at the governorate level. Perceptions of needs and priorities also differed within the community, reflecting socio-economic status and gender variation. Moreover, communities did not directly link development activities to individual donors.

In general, activities supported by the Netherlands are related to perceived needs and priorities with regard to agricultural production and living conditions. They were less

relevant to the most urgent priorities of the poor: access to productive resources and gainful employment. Villagers had great difficulty in relating individual projects supported by the Netherlands to their own needs and priorities. This is in all probability caused by the rather technical nature of the support, which is channelled through regular government structures and focused on the improvement of public services. Moreover, the poorer groups are confronted with prevailing power relations, which hamper their sharing in the effects of the support.


The concentration of aid in Fayoum Governorate had several advantages. The assistance has helped to gain more in-depth knowledge of development problems at the level of projects and sectors. Aid management has been influenced favourably by frequent contacts between governorate administration and embassy staff which, together with good relations between the parties involved, have facilitated open discussion and the timely addressing of implementation problems.

Several potential advantages have not yet been realised. The support to Fayoum Governorate was not preceded or accompanied by a comprehensive analysis of needs and priorities, including a thorough analysis of the poverty situation and the position of women. Linkages among the various projects are limited and contacts between implementing bodies have so far been incidental rather than structural. Nevertheless, concentration of a substantial proportion of aid in Fayoum Governorate was more efficient than a wider distribution of projects over the country.

In sum, Netherlands aid to Fayoum Governorate has contributed positively to improving the physical and economic infrastructure of the Governorate, to strengthening the technical capabilities of public institutions and to the provision of services. The effects of Netherlands aid on the living conditions of the population are not accurately known.

“Evaluation of the Netherlands Development Programme with Egypt,
1975-1996” consists of three volumes:

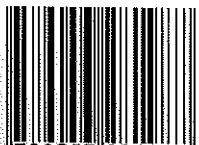
1. Summary Report
2. Main Report
3. Sub-Report



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