

NEWS FEATURE

North exploits excess water

AGRICULTURAL development in Nineveh governorate's Jezira plain received a further boost with the recent signing of the Mosul dam contract (MEED 30:1:81, page 20). For, in addition to power generation and flood control, the dam — to be built by a West German-Italian consortium — is to irrigate 100,000 hectares of the plain. The \$300 million irrigation scheme, one of the biggest in the north, is described by First Deputy Premier Taha Yassin Ramadan al-Jazrawi as "an important step in developing the agriculture sector," which would "save Iraq from a future food crisis."

It is one of 22 flood control, water storage and irrigation schemes for the north which the Irrigation Ministry announced were being studied in August 1980. Among these are dams and associated storage schemes designed to exploit the region's high rainfall. This ranges from 400 millimetres a year in Mosul to an annual 1,200 millimetres in the mountains.

At present, the Jezira plain's main agricultural activities are cereal, fodder and sugar beet production, and sheep farming.



However, developments will include introducing highly intensive irrigation methods, rather than the present dry farming techniques. Summer crops of cotton, maize, sunflowers and chick-peas are planned, in addition to the traditional winter programme. Vegetable and fruit production, and dairy farming, are to be introduced. Existing social services — transport, education, hospitals and drinking water supplies — will also be improved.

The Irrigation Ministry has divided the scheme into three areas around Mosul city. The first — to the west of Mosul — is South Jezira, which extends over 32,500 hectares south from Tall 'Afar. A 17-kilometre tunnel and a 70-kilometre canal, with a 150-cubic metre capacity, will carry water from the Mosul dam to the region. A joint venture between Switzerland's Motor-Columbus and Haskoning of the Netherlands heads the Swiss Consultants consortium which is preparing the designs. The initial feasibility study included proposals for mechanising all crop farming, detailed farm budgets, market demands and forecasts, and farm and field planning for every crop for the

scheme's first 20 years. Livestock and crop costing was done by the UK's Minister Agriculture; surveys are being carried out by the local State Establishment for Surveys. Tender documents for reclamation work are expected to be ready in autumn 1981 and April 1982.

Spain's Tecniberia is consultant for East Jezira, southeast of Mosul — a 37,000-hectare area along the right bank of the Tigris river, from Khorasabad, south to Bartallah, Karmalia and Qaraqash. The company was awarded the \$2.3 million contract in February 1980 and is studying water sources, comparing crop patterns, and preparing final designs for canals, pumping stations, irrigation and drainage. Tender documents should be ready by August 1982.

Nedeco of the Netherlands began similar studies for North Jezira — or Shamal — in March 1980. Preliminary surveys have been completed and designs will include a large pumping station. Tenders are expected to be called at the end of 1981.

All three consultants have carried out similar schemes in Iraq. In 1957, Nedeco — which is also responsible for the Abu Ghraib scheme (MEED 29:8:80) — began preliminary studies for the 400,000-hectare Hilla-Diwaniya project, for which it also did final designs and supervised work. In 1966, Tecniberia started work on studies and designs for the 107,000-hectare Ishaqi project. Swiss Consultants, which is also consultant for the Mosul dam, has nearly completed a two-year feasibility study for the 420,000-hectare Middle Tigris irrigation scheme.

Other schemes in the north include the smaller Makhmour multi-purpose project. This includes building a power station and a dam on the Greater Zab river and irrigating 40,000 hectares between the Greater and Lesser Zab rivers. Nedeco is believed to be favourite to win the consultancy contract, which is expected to be awarded in early 1981. A similar scheme near Dohuk — for which designs were done by Bulgaria's Agrocomplect — is being carried out by Dubai-based Engineering Services International (MEED 19:9:80). A second scheme, in Arbil governorate in the northeast, is also planned for the Greater Zab. The Bekme dam, similar in size to the Mosul project, will store 8,000 million cubic metres of water, which will be used to irrigate 80,000 hectares. The technical consultant, Japan's Electric Power Development Company, was appointed in 1979, while Hazama-Gumi, also of Japan, is doing the site investigations (MEED 26:9:80).

Tecniberia is also working on the Rizga dam scheme in Arbil governorate. The company won a \$1.5 million contract in early 1979 to design and supervise construction of a 75-metre high rockfill dam, pumping stations, and irrigation and drainage networks. The \$30 million project aims to regulate the Rizga valley's river flow to irrigate 4,000 hectares of the Harir plain. Existing springs in the plain will also be used. Tender documents for the scheme are expected to be ready in May 1982.

JONATHAN CRUSOE

phone system in the 1981-85 development plan. Stage three of the communications improvement programme will involve building 10 electronic exchanges in Baghdad. Those at Al-Aadhamiya, Al-Alwiya, Bab al-Muatham, Al-Salhiya, Al-Thawra, Al-Kadhimiya and central Baghdad will each have capacity for 20,000 lines, while those at Al-Kamaliya and new Baghdad will have 10,000 lines each. Contracts to improve exchanges in rural areas and cities were recently awarded to Invest-Import of Yugoslavia and Thomson CSF of France (MEED 5:12:80; 21:11:80). A communications complex is to be built for the ministry in Baghdad's Al-Rashid street. The complex will comprise one 10-storey and one three-storey building — incorporating a 20,000-line telephone exchange and a telex exchange — and a 110-metre communications tower. Completion is for mid-1983.

JORDAN

Bids invited for road design

The Public Works Ministry has invited international and local firms to submit design proposals and prequalification data for building and upgrading three main highways (see TENDERS). The first is the Zarqa bypass. This involves building 15 kilometres of four-lane highway with two major interchanges and several underpasses. It is to be financed by an Iraqi government loan (MEED 4:7:80). The second scheme is to upgrade 55 kilometres of two-lane road between Juwaida and Suwaga to a four-lane highway with major drainage structures. The third is to upgrade 74 kilometres of the desert highway between Maan and the Wadi Rumm junction from two to four lanes, with three major drainage structures.

The companies are being asked to submit design, technical and financial proposals, and prequalification data both for this contract and possibly for further highway design work. The ministry proposes to tender this in 1981. International consultants will have to work with a local partner. A "pre-proposing" conference for interested companies is to be held at the Public Works Ministry in Amman on 24 February. Closing date for the contract is 9 March.

At the same time, the Transport Ministry is assessing prequalification proposals submitted at the end of 1980 for a national transport masterplan.

The draft terms include an overall survey to 2000 of all transport, except that in urban areas. This will form the basis of detailed proposals for transport investment by sector for 1981-85, and a more general 1986-90 investment programme. Also included are studies and recommendations on managing and organising transport companies, and recommendations on overall government policy, transport co-ordination and financing.