

**SOUTH EAST JOHOR PROJECT TANJONG PENGGERANG AND
JOHOR TENGAH REGIONAL MASTER PLAN**

FOR
THE GOVERNMENT OF MALAYSIA
AND
THE STATE OF JOHOR

PROGRESS REPORT

No. 3

FEBRUARY 1970

● HUNTING TECHNICAL SERVICES — LAND USE AND AGRICULTURAL CONSULTANTS ●

BINNIE AND PARTNERS
CONSULTING ENGINEERS ●

OVERSEAS DEVELOPMENT GROUP
UNIVERSITY OF EAST ANGLIA
SOCIO ECONOMIC STUDIES ●

SHANKLAND COX OVERSEAS
PLANNING CONSULTANTS

SOUTH EAST JOHOR PROJECT TANJONG PENGGERANG AND
JOHOR TENGAH REGIONAL MASTER PLAN STUDY
FOR THE
GOVERNMENT OF MALAYSIA & THE STATE OF JOHOR

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FOR THE
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PROJECT MANAGEMENT

1. STAFF: additional to Report No. 2.

<u>Post No:</u>	<u>Name:</u>	<u>Designation:</u>	<u>Chargeable Dates:</u>
10	L.E. Palmer	Irrigation Agronomist	14-17.1.70
20	A.S. Mackintosh	Supervising Economist	28.1.70
23	C.R. Smith	Associate Development Economist	11.1.70
29	R.J. Spooner	Area Manager	6-15.1.70
32	F.W. Collier	Soils Specialist	9-22.1.70
*	A. Proudlove	Planning Specialist	3-17.1.70
*	D. Walton	Resident Planner	3-29.1.70

*Specialist Consulting Firm

COUNTERPART SPECIALISTS

Collin Abraham, Ministry of Social Welfare will be joining the project on 1st March.

Ishak bin Ariffin, Senior Assistant Commissioner, Federal Department of Town and Country Planning was attached to the project on 17th February 1970.

VISITORS

The Director General and other members of the Economic Planning Unit (EPU) visited the project during the period under review. Other visitors included Members of the Steering Committee, Mr. Bevan of Federal Land Development Authority (FLDA), the British Deputy High Commissioner, Mr. Turner of the High Commission and the Assistant Agricultural Advisor to the Ministry of Overseas Development (United Kingdom).

2. ADMINISTRATION & FINANCE

(a) Housing: Satisfactory.

(b) Offices: Rewiring and airconditioning have been completed.

(c) Transport: Additional to Report No. 2.

1 ¼-ton Trailer: ex-Military

3 wooden boats

2 4HP Outboard Motors

(d) Equipment: Satisfactory.

(e) Communications: A further Marconi Transceiver CP24 has been obtained. Regular radio contact is maintained with field parties.

(f) Staff: Excluding counterpart specialists, the project currently employs 60 professional, technical, field and office staff on a full time basis. Additional temporary staff are recruited for specific field surveys. Local villagers are also employed in the cutting of some 650 miles of rentis in the work areas.

(g) Funds: The fourth and fifth deposits of local funds have been received. Approval of Sterling payments to 31.12.1969 has been given.

(h) Accounts: The fourth and fifth Statements of Dollar Costs were submitted to the Economic Planning Unit on the due dates. An analysis of expenditure ranking for Aid Reimbursement to 31.1.1970 has also been submitted.

3. SCHEDULE OF WORK

The programme of work for the next report period is as set out in progress chart at cover.

4. SURVEYS, MAPS & REPORTS

The survey for the two base lines in the Tanjong Penggerang area is now complete and the field work plotted on to the 1:25,000 office base maps.

The copy negatives of the 1:63,360 scale maps covering the project areas have been received as requested, from the Federal Survey Department Kuala Lumpur. These have been cut and re-assembled to form four base maps covering the project areas and will constitute the base maps for all final mapping. They will now be returned to the Survey Department for further processing and for the use of the Soil Science Division Department of Agriculture when fair drawing the Johor Tengah soils maps.

Work is in hand on preparing the base maps for inclusion in the body of the report, this forms part of the preliminary assessment of the report format now under consideration. The guidance of the Economic Planning Unit (EPU) is being sought on the number of copies of the various reports that will be required in order that this assessment can be carried a stage further.

It has now been agreed by the State Government that no further alienation of land will take place until the Master Plan study has been completed. The land alienation maps are now being finalized and copies are to be made available to Consultants.

SECTION A: NATURAL RESOURCE STUDIES

1. SOIL SURVEY

Soil Correlation

Mr. Law Wei Min of the Soil Science Division (Department of Agriculture) arrived on the project on 24th February and spent a week with the team. It is hoped that after this correlation trip soil mapping can start in the northern part of the Penggerang Area where field work has been completed.

Trace Line (Rentis) Cutting

Progress is satisfactory, for the period under review a total of 131 mile of survey rentis lines were cut. The total mileage cut to date is 233.5, including 8 miles of access lines.

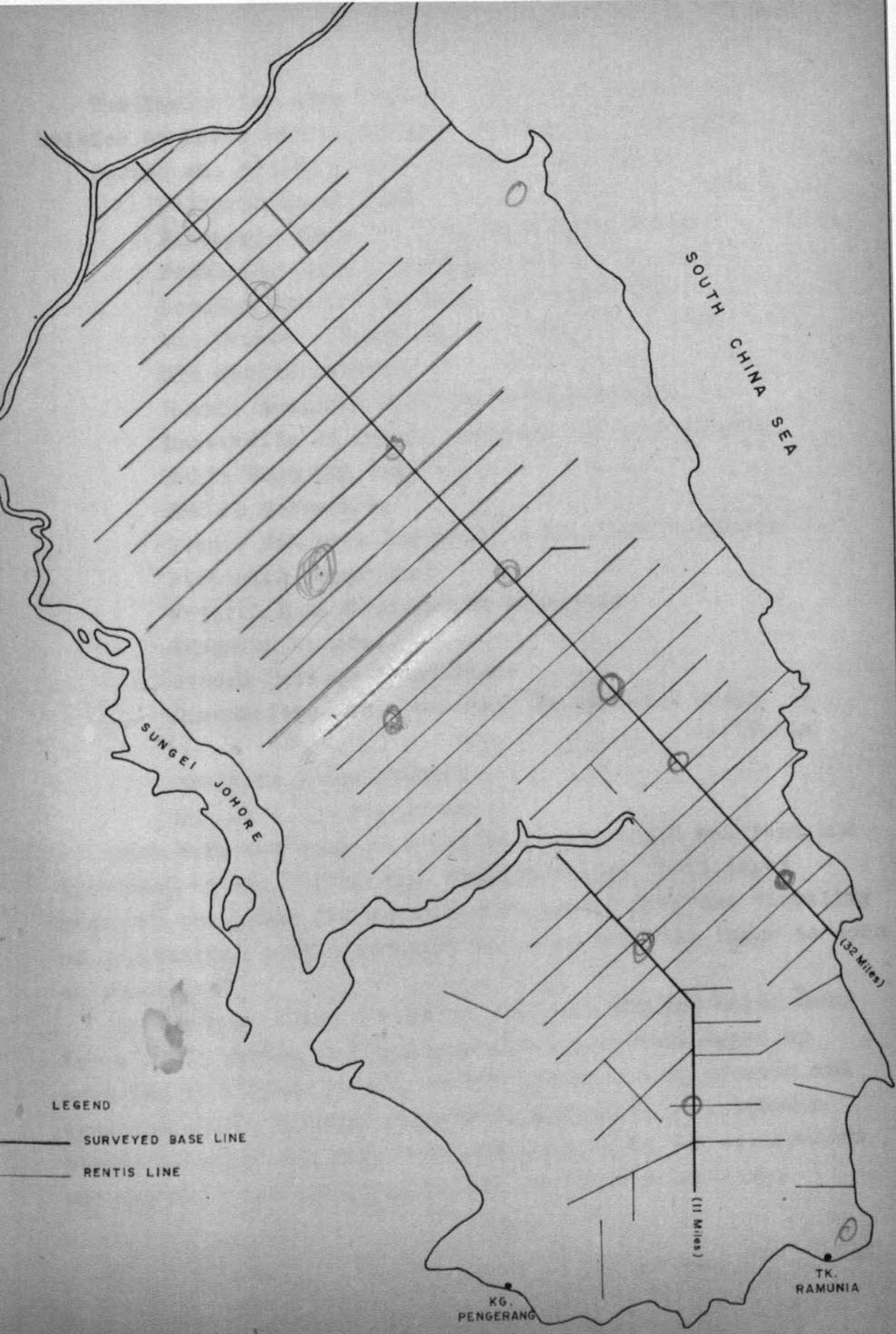
Soil Survey

A total of 87 miles of rentis was surveyed which needed 391 observation sites; 21 soil pits were described and 92 samples collected for chemical and mechanical analyses. Also 9 undisturbed soil samples for soil moisture analyses were collected.

Note: Progress in the Tanjong Penggerang area is also recorded on the map overpage.

2. AGRICULTURE AND LIVESTOCK

Data collection and analysis continued throughout January and February. Field trips were made with the Chief Soils Chemist from Hunting Technical Services, F. Collier and the soils survey team to familiarise with range of soils and their possible potentials and problems.



SOUTH CHINA SEA

SUNGEL JOHORE

(32 Miles)

(11 Miles)

LEGEND

SURVEYED BASE LINE

RENTIS LINE

KG. PENERANG

TK. RAMUNIA

The Irrigation Agronomist visited the project and was briefed on local conditions and possible developments.

During the report period visits were made to:-

Malaysia Dairy Farm
Pineapple Research Station - Pekan Nenas
Pineapple Canning Factory - Pekan Nenas
Coconut Research Station - Parit Botak
Van Houten - Chocolate Factory
Sri Gading Estate
Rubber Research Institute - Sungei Buloh
University of Malaya - Faculty of Agriculture
Robin Woon Kim Yam
Howard Rotavators
Rubber Research Institute - Economics Division
Fisheries Department
Federal Land Development Authority
Kompulan Guthrie
Johore Tapioca Plantations
Discussions on beef with President - Santa Gertrudis
Breeders International
Sungei Danga Fishponds

Much work was done on a cattle paper, which was read and discussed at the fortnightly staff meeting. This paper provides the basis for further work on the form and viability of a potential cattle industry and a report will issue as soon as possible.

On the home economics front arrangements are being made for a field survey and questionnaires have been drawn up covering household income, credit requirements, sources and interest rates, coconut marketing, agricultural extension services, vegetable marketing and production and enumerators are expected to start work in two or three weeks time.

3. FORESTRY

The rentis cutting and enumeration parties continue to make good progress and the work is on schedule in the Johor Tengah area. To date $22\frac{1}{2}$ blocks have been completed as shown on the map overpage and the records despatched for conversion to paper tape for statistical analysis.

In addition, defect sampling has commenced on 18th February, 1970 by two Forest Guards. Kepong also kindly made available two Research Assistants from 18th-23rd February to get the work started. Our activities are presently confined to an area being logged by the Rengam Sawmill. (Mile 59 Rengam-Kluang Road)

4. MINING & GEOLOGY

The Geological Survey has kindly prepared a number of maps and made available data as follows:

(a) A map, on the scale of 4 miles to 1 inch together with tables, denoting areas mapped and type of reports available.

(b) A composite geological map of the project area on the scale of 4 miles to 1 inch.

(c) Geological maps, on the scale of 1 inch to 1 mile, of the individual map areas.

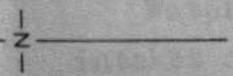
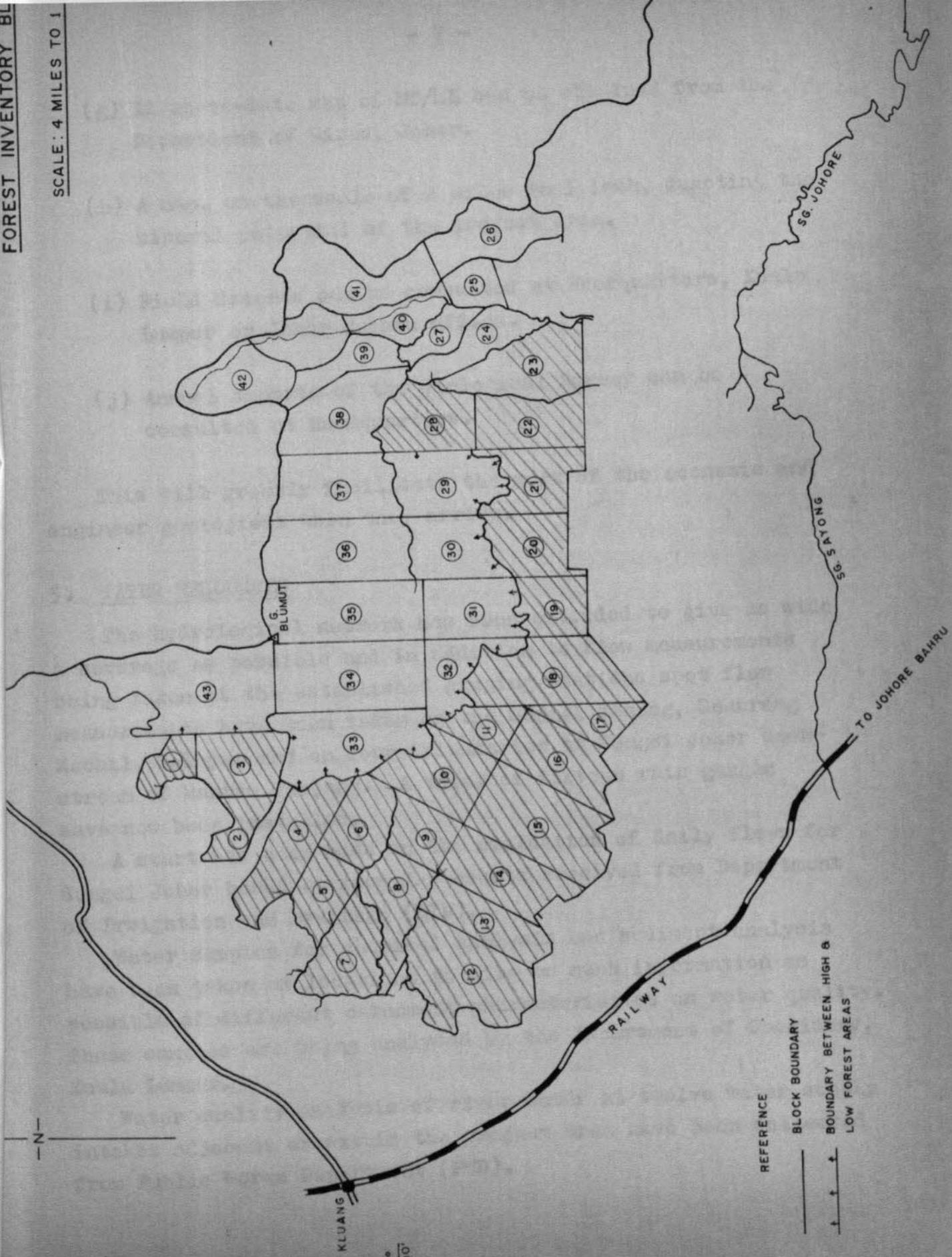
(d) Write-up of the mapped areas.

(e) Aeromagnetic data over $\frac{2}{3}$ the project area.

(f) A map showing outline of all prospected areas. The prospecting results can be obtained from the Department of Mines, Johor, or from the Geological Survey Headquarters, Ipoh.

FOREST INVENTORY BLOCKS

SCALE: 4 MILES TO 1



KLUANG

BLUMUT

RAILWAY

Sg. JOHORE

Sg. PAYONG

TO JOHORE BAHRU

REFERENCE

BLOCK BOUNDARY

BOUNDARY BETWEEN HIGH & LOW FOREST AREAS



2° 00'

- (g) An up-to-date map of MC/ML can be obtained from the Department of Mines, Johor.
- (h) A map, on the scale of 4 miles to 1 inch, denoting the mineral potential of the project area.
- (i) Field Records can be consulted at Headquarters, Kuala Lumpur or Johor Baharu office.
- (j) Annual Reports of the Geological Survey can be consulted at Headquarters.

This will greatly facilitate the work of the economic and engineer geologists when they arrive.

5. WATER RESOURCES

The hydrological network has been extended to give as wide a coverage as possible and in addition to flow measurements being taken at the established gauging stations spot flow measurements have been taken on the Sungei Kahang, Sembrong Kechil, Seluyut and on four tributaries of Sungei Johor downstream of Rantau Panjang. A total of fifteen rain gauges have now been installed.

A start has been made on the evaluation of daily flows for Sungei Johor based on recorder charts received from Department of Irrigation and Drainage (DID).

Water samples for chemical analysis and sediment analysis have been taken at locations to give as much information as possible of different catchment characteristics on water quality. These samples are being analysed by the Department of Chemistry, Kuala Lumpur.

Water quality analysis of river water at twelve water supply intakes adjacent or within the project area have been collected from Public Works Department (PWD).

A preliminary study of geological maps at the lower dam site on the Sungai Linggiu has been done and studies of reservoir capacities and dam costs for possible dams on the upper Linggiu and Sungai Kahang are in hand. Rentis plans have been prepared for these dam sites to enable initial geological and ground survey to be carried out.

Unit costs for irrigation, drainage and water supply schemes have been collected from DID and PWD.

Supplementary Water Resources - Johor State

Since the Inception Report additional information has come to light regarding availability of water and possible future requirements. A meeting was held in the project offices on 11th January when the Project Engineer explained the situation. Those present were Mr. Panton (EPU), Mr. Hamid (State Engineer), Mr. Nesadurai (Federal DID), Mr. Tay (State DID) and Mr. Selvanathan (Prime Minister's Department).

The Project Engineer explained that all rainfall data in Johor State had been collected and was being analysed. Regarding existing DID river gauging stations a study of their records had been made and selected stations within and outside of the project area would be processed as part of the present study.

An extensive hydrological network of rain gauges and river gauges had been set up in the project area and when the short term flow data derived from this network is correlated with the existing DID records then it will be possible to estimate the flow available at any point, including existing PWD abstraction points, in any catchment within or adjacent to the project area.

Regarding water requirements outside the project area it is understood that there are two projected irrigation schemes, one near Endau and one near Ayer Hitam, (a map showing the location of the schemes has since being furnished), and that storage facilities will probably be provided to regulate the flow to these schemes. It therefore seems unlikely that water will have to be transferred from the project area in order to meet the demands of these schemes. Also, the agricultural study of the project area to date suggests that it is doubtful if there will be any large irrigation schemes within the project area and therefore transfer of water into the area is unlikely.

The water supply in the State over the next 30 years will probably be about 200 million gallons per day (mgd) and the only demand area that could appreciably affect the water balance account in the project area, is Johor Baharu. This is being studied at present. The Project Engineer further stated that although the minimum flow in the Sungai Johor could drop well below 100 mgd the average flow was probably not less than 700 mgd at Kota Tinggi and provided storage facilities were feasible and constructed then a fair proportion of this could be made available to meet future requirements. However, other schemes, such as the Tebrau Barrage Scheme will have to be considered.

Therefore, as all pertinent existing hydrological data was being analysed, future water requirements were known with more certainty and it was doubtful if massive transfers of water over catchments would be necessary and the Project Engineer concluded that there would be no need to put in hand a supplementary water resources study of the whole State.

SECTION B: INFRASTRUCTURAL URBAN AND INDUSTRIAL DEVELOPMENT STUDIES

During the report period Shankland Cox Associates representatives visited the project to familiarise themselves with the scope of work, make field trips and finalize their study programme. Discussions were held with the appropriate Ministries, Departments, the Economic Planning Unit and State officials.

Pending the Resident Planner taking up his assignment a Senior Assistant Commissioner of the Federal Department of Town and Country Planning has been attached to the project with effect 17th February, 1970. A most welcome appointment.

Penggerang Highway

Following on the discussion at the last Steering Committee a special meeting of representatives from EPU, Ministry of National and Rural Development, FLDA, Jabatan Kerja Raya (JKR), the State Government and the National Operations Council Secretariat was held in Johor Baharu on 14th February, 1970. It considered, inter alia, the question of alternative road alignments to serve the future roads of this region. At that meeting we were requested to advise, as a matter of urgency, on a possible alignment within two weeks in view of the fact that we had been working in the area for some five months. This was done in consultation with our physical planning associates and the green route ABC shown on the sketch map over is strongly recommended with extension from B to D and an eventual realignment of existing track D to E for a scenic/tourist road. Roads shown in red GHJ and FE already exist with GK under construction for access to the new FLDA schemes. A more detailed appreciation has been submitted to the State Secretary and the EPU.

TO JAMALUANG.

Kg SEDIH BESAR

TANJONG PENERANG PROPOSED DEVELOPMENT REGION

SCALE: 4 MILES TO 1"

LAND USE CLASSIFICATION 1964 SOIL SURVEY

ACRES	CLASSIFICATION
80,000	ALIENATED AGRIC & MINING
150,000	VARYING SUITABILITY FOR TROPICAL TREE CROPS & SHORT TERM ANNUAL & PERENNIAL CROPS
*	UNSUITABLE AGRIC DEVT BUT HAS A PERMANENT PRODUCTIVE / PROTECTIVE FOREST POTENTIAL
100,000	
230,000	TOTAL ACRES

? MINING POTENTIAL ON S SIDE & TOURISM ON EASTERN COASTLINE

* includes land already allocated

EASTERN BOUNDARY

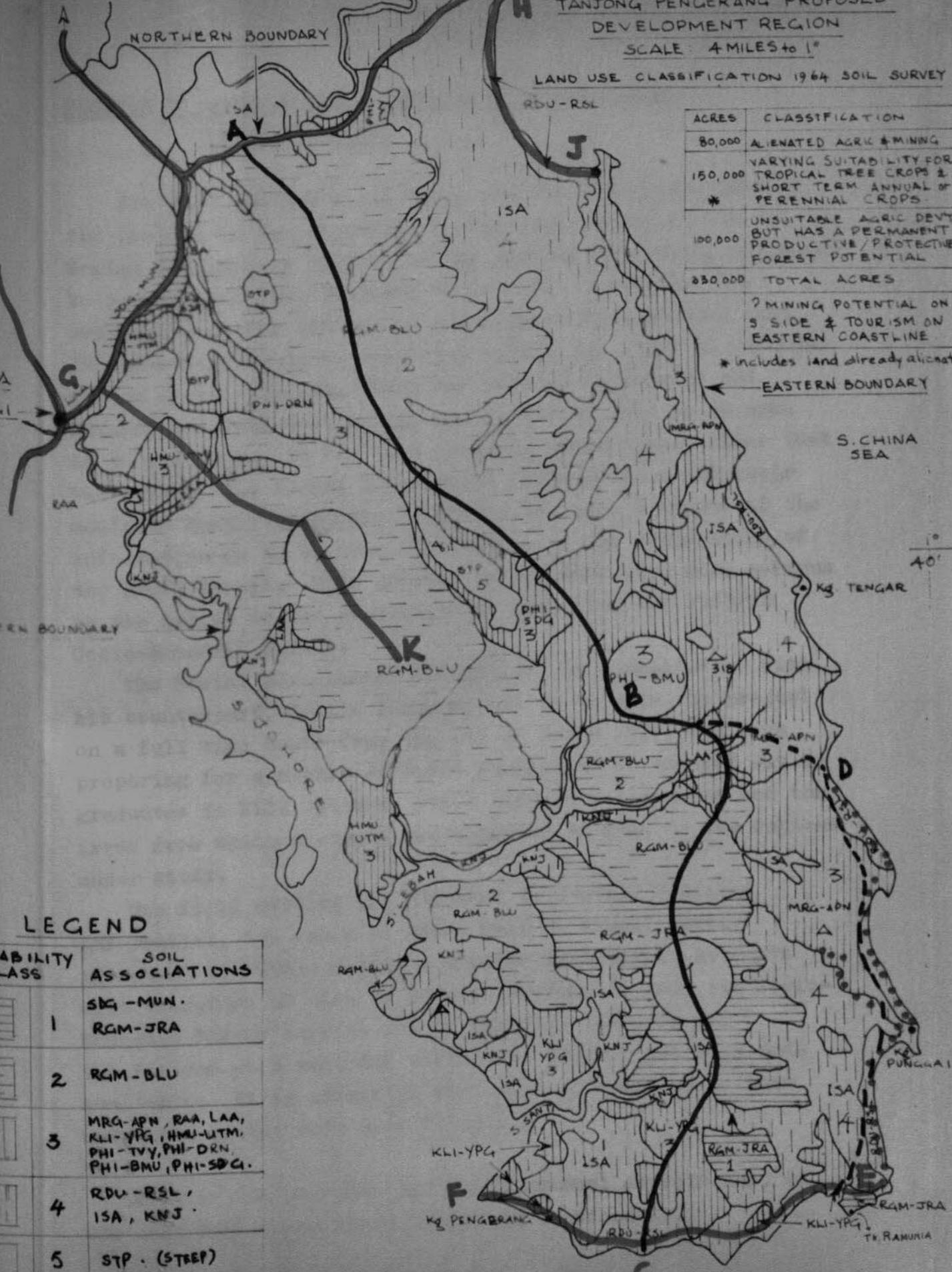
S. CHINA SEA

Kg TENGAR

40'

PUNGGAI

Kg RAMUNIA



LEGEND

ABILITY CLASS	SOIL ASSOCIATIONS
1	SDG - MUN. RGM - JRA
2	RGM - BLU
3	MRG - APN, RAA, LAA, KLI - YPG, HMU - UTM, PHI - TV, PHI - DRN, PHI - BMU, PHI - SDG.
4	RDU - RSL, ISA, KNJ
5	STP. (STEEP)

SECTION C: SOCIO-ECONOMIC ASPECTS & INSTITUTIONAL
INFRA-STRUCTURE

The main problem still facing the Socio Economic part of the project is the shortfall in the time available for the Social Development work below the amounts originally estimated to be required (see Progress Report Nos. 1 and 2). The original plan for the Social Development work assumed that 30 man-months would be available within the first 15 calendar months of the project. With the present expatriate and Malaysian counterpart staff, the shortfall will be as much as 30 per cent. It has been becoming increasingly clear that the bulk of the Social Development field studies and their analysis should be completed within the next 8 months if the information is to be used effectively in the preparation of the Draft Report. This problem is now made even more serious by the delays in the production of data from the 1967/68 Socio-Economic Survey.

The Social Development Specialist, in consultation with his counterpart, Collin Abraham, who is to join the project on a full time basis from the 1st of March 1970, has been preparing for a number of field studies to be carried out by graduates in FLDA schemes, other planned settlements and the areas from which migrants are expected to come to the regions under study.

The field studies are intended to provide detailed information, the value of which will be significantly increased if fitted within a broader framework. Attempts will therefore be made to obtain information from the Socio-Economic Survey carried out in 1967/68. None of the tabulations on a regional basis have however yet been made available. It is essential that this information be made available in the very near future.

Work on the economic and institutional aspects has, on the hand been going ahead according to schedule.

The Development Economist in conjunction with the Agricultural Economist has begun work on the evaluation of projects with a view to identifying high priority projects for the next Malaysian Plan. The work on agricultural institutional studies (extension services, agricultural credit, etc) will be starting this month (March). The Federal Agricultural Marketing Authority (FAMA) counterpart, who will be joining the project on the 1st of March, will initially be assisting in the more detailed studies of livestock marketing.

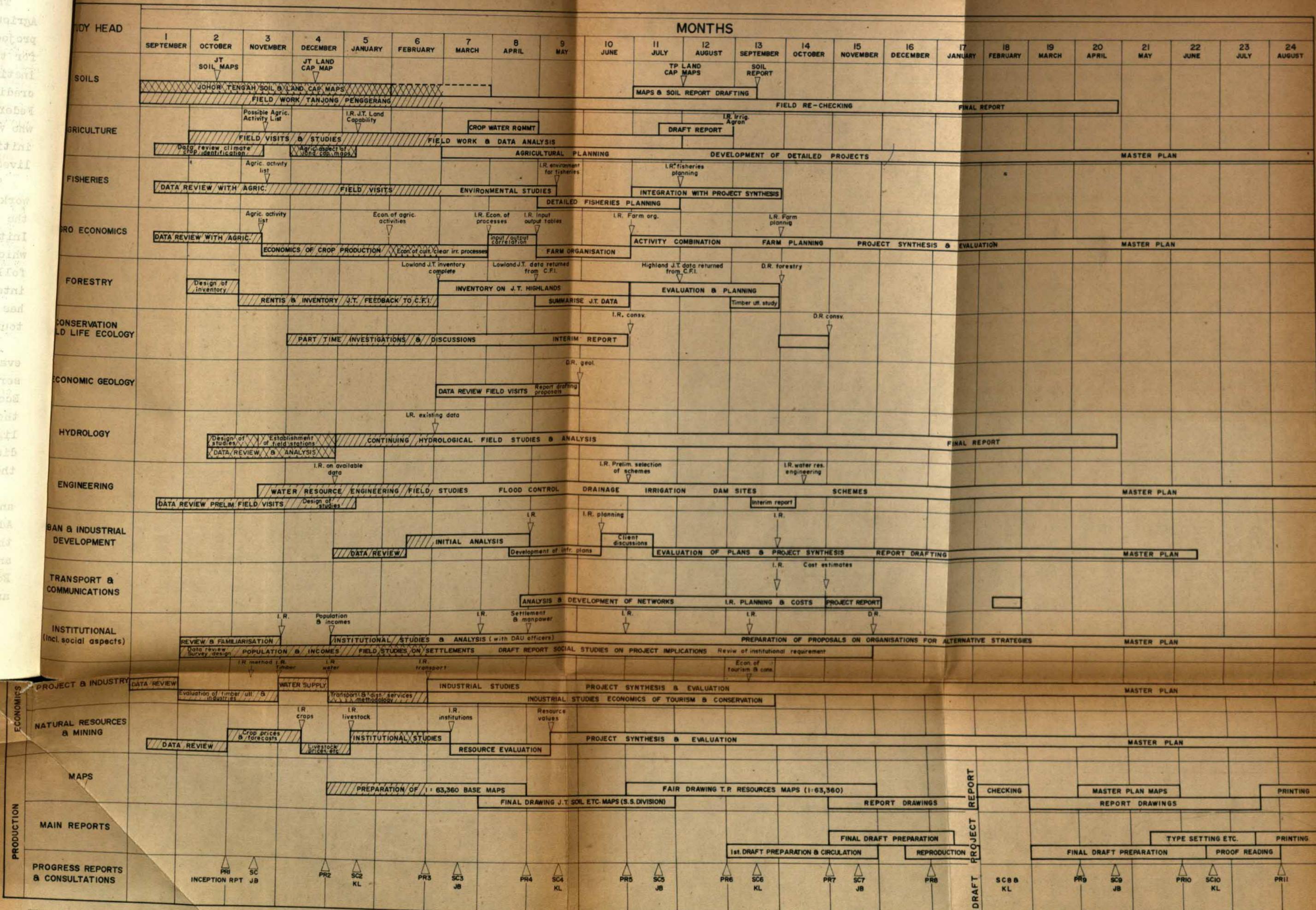
The Associate Development Economist arrived and started work in mid-January. He has begun work on the assessment of the potential for industrial development in the project areas. Initially, attention is being focused on those industries which process the major primary commodities. This will be followed by a study of industries producing consumption and intermediate goods. The Associate Development Economist has also started making a preliminary assessment of the tourist potential within the study areas.

The Project Economist has been assisting in the evaluation of projects. The work on transport and distribution services will begin at the end of March 1970. The Project Economist has also prepared a paper which attempts to establish the criteria to be used in the evaluation of projects in the light of National and State objectives. This has been discussed by the consultancy team and will be discussed with the EPU in the near future.

A detailed work programme for the institutional studies and analysis, has been discussed with the Development Administration Unit (DAU), and detailed responsibilities of the DAU counterpart (who joined the project in mid-January) and the Consultants have been agreed. The Supervising Economist returned to Johor Baharu at the end of February and is proceeding with the work on institutional infra-structure.

PLAN OF OPERATION & MONTHLY PROGRESS CHART

SOUTH EAST JOHOR PROJECT



IN HAND

DELAYED

IR - Internal report DR - Draft report PR - Progress report SC - Steering committee

DRAFT PROJECT REPORT

