

WOSSAC: 3535
631
(595)

MIRI-BINTULU REGIONAL PLANNING STUDY

FOR

THE GOVERNMENT OF MALAYSIA

AND

THE STATE OF SARAWAK

PROGRESS REPORT

No. 5

FEBRUARY 1973

HUNTING TECHNICAL SERVICES
LIBRARY

251115
Purple
Library

MIRI-BINTULU REGIONAL PLANNING STUDY
FOR THE
GOVERNMENT OF MALAYSIA & THE STATE OF SARAWAK
PROGRESS REPORT NO. 5

C O N T E N T S

	<u>Page</u>
INTRODUCTION	1
PROJECT MANAGEMENT	
1. Staffing	2
2. Administration and Finance	2
3. Schedule of Work	2
4. Survey Maps and Reports	3
PROGRESS	
<u>SECTION A: NATURAL RESOURCE STUDIES</u>	
1. SOILS	4
1.1 Study of Soil Erosion	4
1.2 Sample Areas	4
1.3 Semi-Detailed Master Plan Area	5
2. AGRICULTURE AND LIVESTOCK	6
3. AGRICULTURAL ECONOMICS	7
4. AGRICULTURAL EXTENSION AND CREDIT	8
5. FISHERIES	8
6. FORESTRY	8
7. MINING	8
8. WATER RESOURCES	9
<u>SECTION B: POPULATION AND PRODUCTION</u>	
1. POPULATION AND LABOUR	10
2. PRODUCTION AND TRADE	10
3. INCOME AND CONSUMPTION	10
<u>SECTION C: TRANSPORT AND COMMUNICATIONS</u>	12

	<u>Page</u>
<u>SECTION D: SETTLEMENTS AND INSTITUTIONS</u>	
1. PUBLIC FINANCE AND ADMINISTRATION	13
2. SETTLEMENTS AND INFRASTRUCTURE	13
3. SOCIOLOGICAL ASPECTS	13
APPENDICES	
APPENDIX I WORKING PAPER INDEX	15
APPENDIX II Progress Chart	at cover

INTRODUCTION

This report covers the period from the 8th December, 1972 to the 31st January, 1973. This stage of the Study is characterised by two simultaneous lines of action; the first is collation and synthetising of facts and ideas of importance to the Perspective Planning; the second is work on more detailed studies necessary for the Phase II of the Study.

The first line has included the preparation of four Interim Reports:-

- Development Strategies;
- Alternative Strategies for Rural Development;
- The Human Factor in Development;
- Present State - Characteristics of the Study Area.

The first of these reports was discussed with the Steering Committee at the meeting in Kuching on the 18th January, 1973. The results of this discussion are being included in the Perspective Plan report now under preparation.

A list of Working Papers for the period from the beginning of the Study until 31st January, 1973 has been attached to this Progress Report.

PROJECT MANAGEMENT

1. Staffing - additional to Report No. 4.

<u>Position and name</u>	<u>Chargeable dates</u>
19. T. V. Andersen, Agricultural Extension/Credit	to 13.12.72
20. H. A. Rancom, Administrative Manager *	(to 13.12.72 (from 8.1.73
21. V. C. Robertson, Managing Director, HTS	15-20.1.73
25. S. Hoff, Principal H & O	13-21.1.73
03. W. Payne, Livestock Specialist	from 27.1.73

Mr. Tuton Kaboy of the Sarawak Museum was attached to the Study on 15.1.73. The Project acknowledges the kindness of the Ministry and the Curator in making this attachment possible.

* Granted special leave of absence 14.12.72 to 7.1.73.

2. Administration and Finance

- a) Supplies and Services - satisfactory.
- b) The seventh and eighth Statements of Account were submitted on the due dates.
- c) The fourth and part of the fifth deposits of local funds have been received.

3. Schedule of Work

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

4. Survey Maps and Reports

The topographic base maps for the Soil Survey sample areas have been prepared and work is in hand on the fair drawing.

The programme of mapping for the resources maps is at present under discussion and it is intended that a draft series of resource map titles will be prepared. It is intended that the format that these maps will take in the final report will be discussed with EPU and the Directorate of National Mapping in order that a preliminary estimate can be made of the costs and production timings.

The following correction should be noted to Progress Report No. 4 - Section 1 Soils, figure 1 Location of Soil Survey sample areas. The areas shown for sample areas A, B and C are not 10 800 acres as shown in the figure but should be 5 200, 4 800 and 4 950 acres respectively.

P R O G R E S S
SECTION A
NATURAL RESOURCE STUDIES

1. SOILS

The delay recorded on the Progress Chart under the Study Heading Soils, is the result of a combination of factors. Due to scale differences and other unavoidable difficulties during the compilation and mapping stage of the Zonation Plan the actual time used considerably exceeded the time estimated. The soil classification and mapping of the Sungai Karabungan Sample Area ran into unexpected technical difficulties, which have since been solved. Also the formal decision concerning the areas(s) to be covered by a broad transect soil survey was not received until the end of November, 1972. However, it is expected that the soil team will be on schedule again during the broad transect survey of the Semi-Detailed Master Plan Area.

1.1 Study of Soil Erosion

The erosion trials have been checked and maintenance carried out where required. Regular spraying of the plots at Bukit Peninjau with herbicides is being carried out. The object is to determine the rate of erosion under bare soil conditions because such conditions are expected to arise due to the closing of the canopy of tree crops such as rubber and oil palm.

1.2 Sample Areas

Soil Survey

During the period under review the soil surveys of Sample Area B and C have been completed. Sampling density was at a detailed to semi-detailed level. The area surveyed and the number of observation

sites are as follows:-

	Acres	Number of Bore Sites	Sampled Profile Pits	Total Observation sites
Sample Area B	4 800	325	13	325
Sample Area C	4 950	326	13	331
Total	9 750	651	26	656

All profile pits were sampled for a wide range of analysis including available water holding capacity and sub-soil permeability.

Mapping

Soil and terrain class mapping of Sample Areas A, B and C have been completed and report writing is in hand, this is expected to be completed by the end of January. Mapping of the Sungai Karabungan area is in hand. It is hoped that mapping and report drafting for this area will be completed during February.

Discussions were held in Miri and Kuching with members of the Soil Survey Division concerning possible modification of the soil classification system presently used in Sarawak. This need has arisen from the findings of the Sample Area surveys and from the desire, expressed in the Agreement, for crop diversification. The discussions are continuing and it is hoped that a satisfactory classification can be decided upon during February.

1.3 Semi-Detailed Master Plan Area

Rentis Cutting

A total of 111 km of trace lines have been cut in the area selected for Semi-Detailed Master Plan Study. Locations are shown on Figure 1.

SOIL SURVEY PROGRESS

Sample Area



Rentis cut

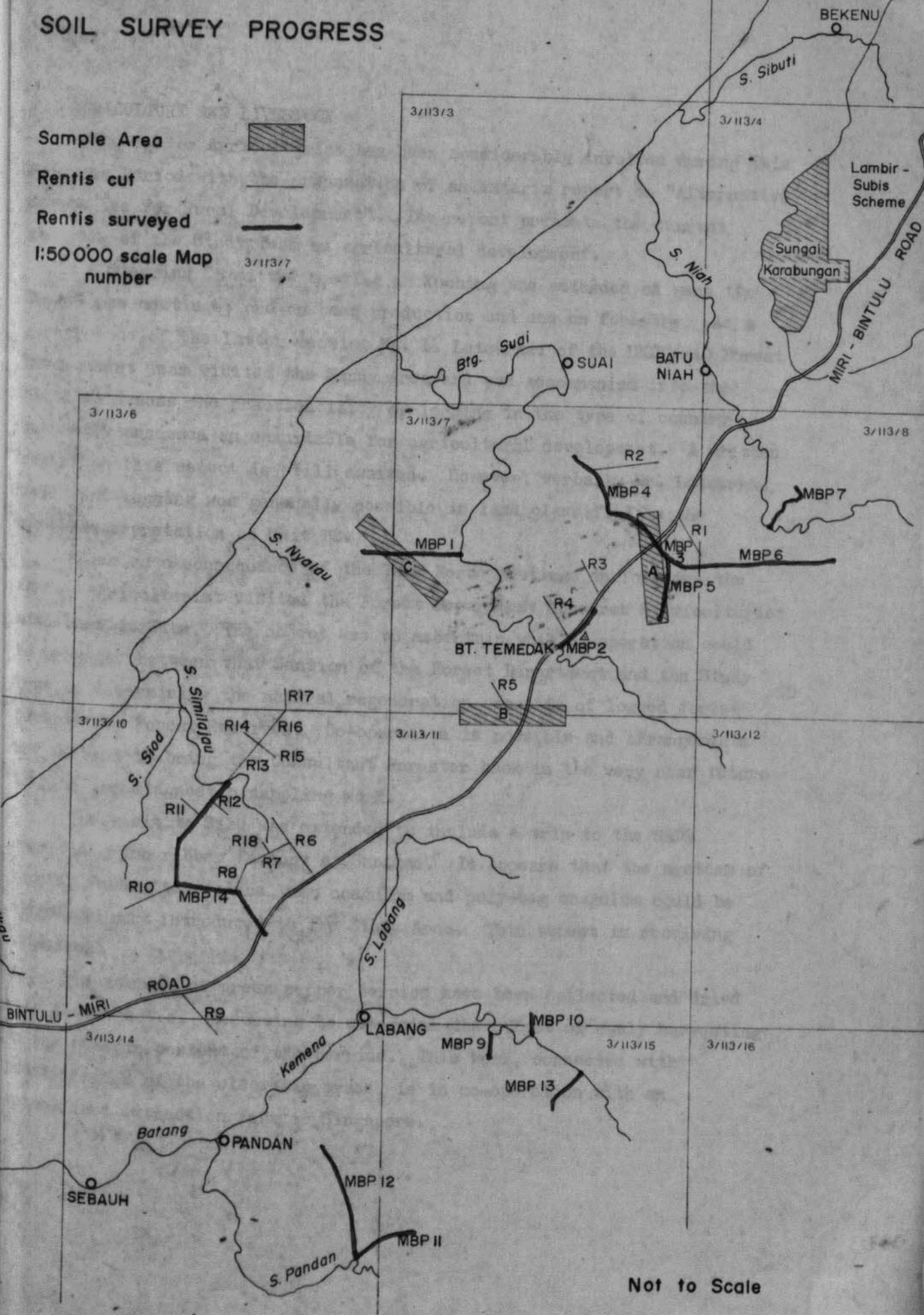


Rentis surveyed



1:50 000 scale Map number

3/113/7



Not to Scale

2. AGRICULTURE AND LIVESTOCK

The Senior Agriculturist has been considerably involved during this Progress Period with the preparation of an interim report on "Alternative Strategies for Rural Development". The report presents the current thoughts of the Study Team on agricultural development.

A Steering Committee meeting in Kuching was attended as were two Task Force meetings; one on beef production and one on forestry. As a consequence of the latter meeting Mr. L. Letournau of the UNDP/FAO Forest Development Team visited the Study Area and was accompanied into the field to assess the practicability of logging in the type of country currently assessed as unsuitable for agricultural development. A written report on this aspect is still awaited. However, verbally Mr. Letournau said that logging was generally possible in land classified in the photo-interpretation as Unit B2.

Also as a consequence of the Task Force meetings on forestry the Senior Agriculturist visited the Forest Department Research Silviculturist stationed at Sibü. The object was to ascertain what co-operation could be arranged between that Section of the Forest Department and the Study Team in determining the natural regeneration capacity of logged forest outside the Forest Reserves. Co-operation is possible and arrangements are in hand to bring the Consultant Forester back in the very near future to plan the diagnostic sampling work.

The visit to Sibü was extended to include a trip to the SLDB operated crumb rubber factory at Sarikei. It appears that the systems of tapping rubber to produce lump coagulum and poly-bag coagulum could be advantageously introduced to the Study Area. This aspect is receiving attention.

Two samples of green pepper berries have been collected and dried with the object of attempting to determine the effect of early harvesting on the piperin content of the berries. This work, connected with possibilities of the oleoresin trade, is in co-operation with an established extraction firm in Singapore.

3. AGRICULTURAL ECONOMICS

The preliminary assessments of crop production economics have been refined following a number of field visits made to farmers in the Study Area to collect local information on crops, pigs and poultry enterprises.

Processing prospects for the range of crops which are likely to have production potential in the development programme of the Study Area have been examined and a draft working paper prepared. In connection with rubber processing a visit was paid to a crumb rubber factory in the Third Division as well as to smoke houses in the Study Area, and on the basis of these observations the prospects for rubber processing developments will be examined in some detail.

The crop selection list prepared in the previous report period was refined in the light of additional information on soils and market potential. On this basis preliminary thoughts have been formulated on possible development alternatives and cropping patterns for the Study Area.

The review of pepper marketing channels was completed and a working paper prepared. Pepper exporters in Sibuh were interviewed to obtain additional information on current marketing practices. At the same time information was also obtained on sago and illipe nuts marketing.

The analysis of land tenure patterns in titled areas has progressed slowly due to difficulties encountered in tracing information in certain recently surveyed areas.

Plans for the farm-type survey were further advanced in consultation with the Agricultural Economics Section of the Department of Agriculture. For this purpose Kampong and longhouse lists and maps were prepared using data from the 1970 Census, from Medical Department maps and from a one per cent sample drawn after simple stratification on the 1968 Sarawak land use map. Arrangements are in hand to visit the selected villages and longhouses after padi harvesting is completed.

Other activities during the period have included the following:-

- a) Attending a meeting of a Task Force to discuss the working paper on beef production prospects;

b) Discussions with Staff of the Department of Agriculture, FAMA and the SLDB on production and marketing prospects for various crops;

c) Discussion of trade statistics and the national padi crop cutting survey with the Statistics Department and the Department of Agriculture.

4. AGRICULTURAL EXTENSION AND CREDIT

The information and ideas contained in papers written by Mr. Andersen before he left the Study were incorporated in the interim report on Alternative Strategies for Rural Development.

5. FISHERIES

Plans are being made for the Fisheries Specialist to return in May or June 1973 to carry out studies to integrate fresh water fish culture into the rural development pattern.

6. FORESTRY

As reported under Section 2, Agriculture and Livestock, the forestry work has been aimed at planning a study to assess the possibilities of forestry on land unsuitable for agriculture outside the existing Forest Reserves and Protected Forests.

7. MINING

Further information on oil production has been obtained from Sarawak Shell Berhad.

The future possibilities for liquified natural gas (LNG) production within the Study Area have been investigated. This work included a valuable visit to the management of Brunei Shell Berhad and Coldgas in Brunei which clarified some of the outstanding problems.

8. WATER RESOURCES

SECTION 8

All of the basic hydrological data and climatological data being collected by the counterpart Hydrologist is being remitted to the Consultant Hydrologist for analyses in the United Kingdom.

The standard and automatic rain gauges ordered from West Malaysia have been delivered and the standard rain gauges installed on site.

Progressive Plans have been completed and presented in the Appendix to the Report "General Study - Characteristics of the Study Area" and in three Working Papers:-

- Working Paper No. 121: Employment and Population Statistics
- Working Paper No. 122: Population and Labour "Use Figures"
- Working Paper No. 123: Population Growth and Urbanization.

These papers will be available in duplicate form to members of the Working Committee who wish to read them.

9. ELECTRICITY AND TRAINS

The work on establishing an adequate network of the National Grid has been continued. The basic information has been completed and is being detailed to provide input-output estimates for the Study Area. The input-output model has calculated estimates of the requirements of future development and of assessing the requirements of the existing economic sector. The technical specifications of the power system have been developed and are being reviewed by the relevant authorities for the future.

10. ENERGY AND CONSUMPTION

The input-output model has been used to estimate the requirements of the Study Area for electricity and other energy services. The model has been used to estimate the requirements of the existing economic sector and to assess the requirements of future development. The technical specifications of the power system have been developed and are being reviewed by the relevant authorities for the future.

SECTION B
POPULATION AND PRODUCTION

1. POPULATION AND LABOUR

Population and labour data and considerations necessary for the Perspective Plan have been completed and presented in the Association Paper: "Present State - Characteristics of the Study Area" and in three Working Papers:-

- Working Paper No. 32: Employment and Population Multipliers;
- Working Paper No. 33: Population and Labour "Key Figures";
- Working Paper No. 34: Population Growth and Urbanisation.

These papers will be available in duplicated form to members of the Steering Committee who wish to read them.

2. PRODUCTION AND TRADE

The work on establishing an acceptable estimate of the Regional Product has been continued. The basic information has been considered sufficiently detailed to compile input-output matrices for the Study Area. The input-output model thus calculated constitutes the basis for forecasting of future development and of assessing the importance of the different economic sectors. The technical coefficients of the model have been modified using experiences from more developed economies in order to obtain a tool for the forecasts.

3. INCOME AND CONSUMPTION

The input-output model describes both the composition of the regional product and its use thus a schematic explanation of total regional income and consumption has been estimated. However, to estimate personal incomes certain additional information has been obtained from consumption surveys worked out by the Department of Statistics in Kuching.

Problems concerning the application of different forecast tools, for example shadow pricing of specific production factors, have been discussed among the Consultants and some view points on the subject have been presented in a working paper.

SECTION C
TRANSPORT AND COMMUNICATIONS

The collection of information has continued in this period with trips to Bintulu and Sabah. In Bintulu discussions were held with the Senior Administrative Officer, the Custom Officer and with the Sim Swee Joo Shipping Company. In Sabah discussions were held with the Sabah Port Authority, the Department of Civil Aviation and the Regional Director of Malaysian Airline System.

A report on the Origin-Destination Surveys carried out in July 1972 has been completed and is being reproduced. The report gives an indication of the long distance transport within as well as to and from the Study Area. It covers the traffic characteristics and the traffic and transport patterns.

Other aspects which are under evaluation are the cost of road and water transport and the transport demands. The results will be reported in working papers and incorporated in the Perspective Plan Report.

working paper. A second working paper has been prepared on the Commonwealth Development Corporation estate dealing with the background and stability of the existing work force. Mr. Tuton Kaboy of the Sarawak Museum joined the Team and will begin shortly a series of longhouse surveys within the Study Area. Study has begun of Kampong Dagang, an urban Malay community, located adjacent to the Miri bazaar. The Interim Report, "Human Factor in Development" was completed.

No.	Author	Title	Date
16.4.72	P.A. Solo	Demand for rice in Sarawak	16/4/72
17.6.72	L. Solo	Health Services in Fourth Division	17/6/72
18.8.72	P.A. Solo	Demand of beef in Sarawak	18/8/72
19.1.72	P.A. Solo	The market for oil palm produce	19/1/72
20.7.72	P.A. Solo	Market survey for rubber	20/7/72
21.1.72	L. Solo	Educational facilities in Fourth Division	21/1/72
22.7.72	P.A. Solo	Standards for beef cattle production	22/7/72
23.1.72	P.A. Solo	The market for wood	23/1/72
24.7.72	P.A. Solo	The market for sugar	24/7/72
25.3.72	C.K.K. Ngai	Market survey for oil palm produce	25/3/72
26.7.72	P.A. Solo	Market survey for rubber	26/7/72
27.1.72	N. Inai	Opportunity cost of land	27/1/72
28.7.72	C.K.K. Ngai	Market for essential oil crops	28/7/72
29.3.72	C.K.K. Ngai	The rice marketing chain in Fourth Division	29/3/72
30.7.72	C.K.K. Ngai	Rubber marketing chain in Fourth Division	30/7/72

APPENDIX I
WORKING PAPER INDEX

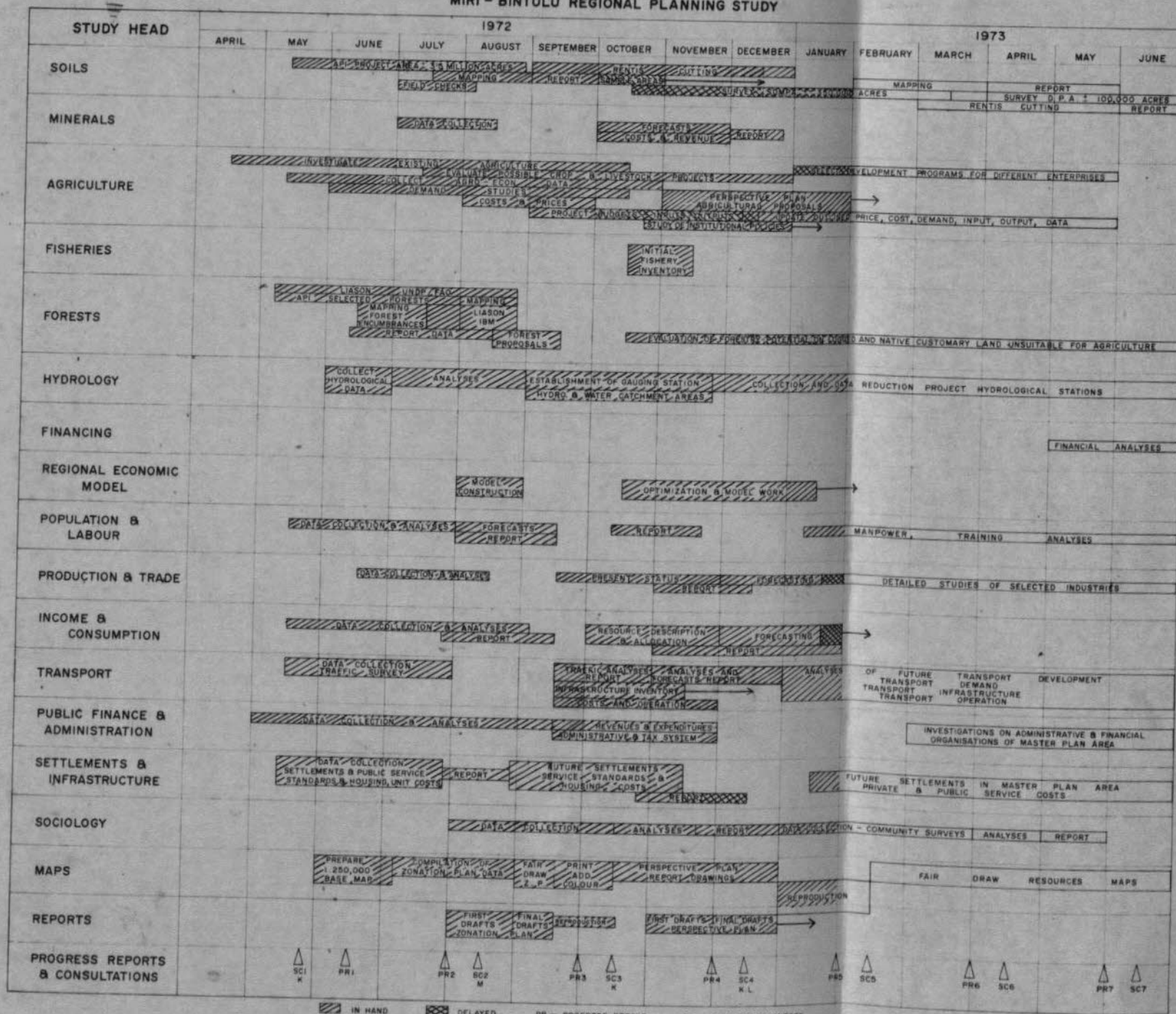
No.	Date	Author	Subject	File Reference
1	9.6.72	S. Jorgensen	Population figure 1964 and Enumeration Area, 1970 in the Study Area	MB/3/DEMO/1
2	20.6.72	F.A. Sole	Demand for rice in Sarawak	MB/3/AGRIC/RICE/14
3	27.6.72	L. Skule	Health Services in Fourth Division	MB/3/PUB/HEALTH/2
4	29.6.72	F.A. Sole	Demand of beef in Sarawak	MB/3/AGRIC/CATTLE/17
5	29.6.72	F.A. Sole	The market for oil palm products	MB/3/AGRIC/OIL PALM/14
6	5.7.72	F.A. Sole	Market review for rubber	MB/3/AGRIC/RUBBER/16
7	8.7.72	L. Skule	Educational facilities in Fourth Division	MB/3/PUB/EDU/1
8	7.7.72	F.A. Sole	Standards for beef cattle calculation	MB/3/AGRIC/CATTLE/32
9	21.7.72	F.A. Sole	The market for cocoa	MB/3/AGRIC/COCOA/6
10	29.7.72	F.A. Sole	The market for Sugar	MB/3/AGRIC/SUGAR/10
11	2.8.72	C.K.K. Ngui	Illipe nuts	MB/3/AGRIC/ILLIPE NUTS/1
12	2.8.72	F.A. Sole	Pepper	MB/3/AGRIC/PEPPER/17
13	12.8.72	M. Iuul	Opportunity cost of capital	MB/3/FINC/6
14	18.8.72	C.K.K. Ngui	Market for essential oil crops	MB/3/AGRIC/ESSENTIAL OILS/1
15	18.8.72	C.K.K. Ngui	The rice marketing chain in Fourth Division	MB/3/AGRIC/RICE/21
16	21.8.72	C.K.K. Ngui	Rubber marketing chain in Fourth Division	MB/3/AGRIC/RUBBER/24

No.	Date	Author	Subject	File Reference
17	11.9.72	M. Iuul	Liquefaction of natural gas or liquified natural gas (LNG)	MB/3/MIN/LNG/2
18	30.9.72	M. Iuul	Interest - Criteria for Project evaluation	MB/3/ECON/7
19	3.10.72	T.E. Wetteland	Water transport	MB/3/TRAN/WATER/3
20	6.10.72	T.E. Wetteland	Land transport	MB/3/TRAN/LAND/6
21	13.10.72	R. I'ons	Preliminary report on the prospects for beef production in the Study Area	MB/3/AGRIC /CATTLE/12
22	1.11.72	M. Iuul	Price Development 1967-71	MB/3/ECON/9
23	16.11.72	R. I'ons	Pork consumption and production	MB/3/AGRIC/PIGS & POULTRY/1
24	22.11.72	R. I'ons	Poultry production prospects and feed requirements in Sarawak	MB/3/AGRIC/PIGS & POULTRY/2
25	22.11.72	R. I'ons	Market prospects for bananas	MB/3/AGRIC /BANANAS/2
26	22.11.72	P.C. Chia	Occupation structure in the Study Area 1970	MB/3/DEMO/LABOUR/6
27	2.1.73	C.K.K. Ngui	Review of internal marketing channels for Sarawak Pepper	MB/3/AGRIC /PEPPER/30
28	10.1.73	R.A.J. Harrison	Prospects for fishery development	MB/3/FISHERIES/6
29	11.1.73	M. Iuul	Price development 1967-71	MB/3/ECON/GEN/14
30	10.1.73	H. Solhee	Report on the Socio-economic survey of a Kedayan community at Kampong Selanyau	MB/3/SOC/ECON/15

No.	Date	Author	Subject	File Reference
31	23.1.73	H. Hj. Drahman	Wage structure in the public sector	MB/3/FINC/12
32	24.1.73	S. Jorgensen	Employment and population multipliers	MB/3/DEMO/POP/28
33	24.1.73	S. Jorgensen	Population and labour key figures	MB/3/DEMO/POP/29
34	24.1.73	S. Jorgensen	Population growth and urbanisation	MB/3/DEMO/POP/30
35	30.1.73	G.A. Sather	Commonwealth Development Corporation Labour Force Survey	MB/3/SOC/ECON/18
36	30.1.73	H. Hj. Drahman	Public sponsored investment incentives in Sarawak	MB/3/IND/DEV/2

PLAN OF OPERATIONS & MONTHLY PROGRESS CHART

MIRI - BINTULU REGIONAL PLANNING STUDY



IN HAND

DELAYED

PR - PROGRESS REPORT

SC - STEERING COMMITTEE

