

As regards utilization of river areas, the most notable form may be seen in inland navigation. Most rivers in Sarawak provide the major means of transportation, as roads or railways have not been well developed. In case of Sabah, traffic of forest produce is dependent on rivers in its eastern areas. Land adjacent to rivers are also utilized for agricultural and residential purposes. At certain places, settlements are found in river areas. These are the so-called "Kampong Air (water village)".

10.2 Legal Provisions

The Land Ordinance of Sabah and the Land Code of Sarawak have provisions for controlling the use of river areas. The most important provisions are those for river reserves. According to section 26 of the Land Ordinance, the Government has the power to reserve portion of land as may deemed advisable along the banks of rivers, streams or creeks. Section 38 of the Land Code states that the Government shall reserve all unalienated land "within 66 feet" on each side along the banks of all navigable rivers, streams, canals, or creeks; if the width is less than 33 feet, the reserve on each bank shall be "twice its width". In case of Sabah, the bounds of river reserves are not fixed legally.

The Land Ordinance and Land Code also provide for other governmental reserves in Sections 26 and 38, respectively. In Sabah, the State Government has the power to reserve portion of land along the seashore above the high water mark, or along the hill ridges. In Sarawak, governmental reserves include all land adjoining the sea coast "within 66 feet" of the mean high water mark and all land "within 33 feet" on either side of all roads maintained by the Government or Local Authorities.

Land reserved under the above-mentioned provisions cannot be alienated for other purposes. Section 28 of the Land Ordinance notes:

"When any land has been reserved under this Ordinance and such reservation has not been revoked, every disposition thereof, except for the purpose for which such reservation was made, shall be void."

Similarly, the Land Code prescribes in Section 7 with regard to governmental reserves:

"In any case it is considered that the area should not be available for alienation, the Director may by notification in the Gazette declare such area to be a Government Reserve whether the public purpose for which the land may be used is stated in the notification or not."

The Mining Ordinances of both the States have provisions for the preservation of river areas, with the enforcement of the licensing systems. The Mining Ordinance of Sabah provides that:

"A prospecting permit or licence shall convey to the holder or licensee no right to interfere with the flow or with the banks of any river, creek, stream, watercourse or the seashore or to undertake any work within five chains of any public railway, road, canal, navigable river, reservoir, irrigation work, aqueduct, building, garden or burial ground without the consent in writing of the Director and in accordance with such terms and conditions as the Director may impose (§11)."

In Sarawak, the Mining Ordinance also prohibits the erection, cutting or construction upon or through any State land for the purpose of mining without licences.

For the matters pertaining to the planning of regional development, the Town and Country Planning Ordinances of both the States regulate the procedures and provide Local Authorities with their responsibilities. Such provisions are partly shown as follows:

"A Local Authority may by resolution:

- (a) decide to prepare a draft scheme with respect to any land within the area specified in the resolution and within the jurisdiction of such Authority; or
- (b) adopt, with or without modifications, a draft scheme proposed by all or any of the owners of any such land;
- (c) require a developer to prepare a draft scheme for any land within the jurisdiction of such Local Authority and all land contiguous to such land (Sabah, §6),"

"The Governor in Council may, on the request of the Authority or Authorities having jurisdiction over any area, declare by notification in the Gazette, such area or a part thereof to be a Planning Area (Sarawak, §3)," and

"Until a draft scheme for the Planning Area is approved, no person shall carry out any development of land or any construction, repair, demolition of any building within the Planning Area except with the permission in writing of the Authority having jurisdiction over that area (Sarawak, §4)."

The Local Authority must prepare a draft scheme which includes maps, plans and description of roads, communications, building lines, drainage, water supply and other public works. Fig. 6 shows the procedure prescribed in the Town and Country Planning Ordinance of Sabah.

The Land (Control of Sub-division) Ordinance of Sarawak has provisions for land use control in "development areas" which are enumerated in the Schedule. A land owner, who intends to subdivide his land, is required to submit a draft plan to LSD with regard to the proposed roads, accessways, sewers, drains and the situation of any land to be affected by easements. LSD may approve, refuse or require a new draft plan, considering that it is expedient in the interests of the proper planning and development of the development area to do so. The last part of this Ordinance stipulates that the provisions of this Ordinance shall cease to apply to any area declared to be a Planning Area under the Town and Country Planning ordinance, upon the date of publication in the Gazette.

10.3 Administration of Utilizing River Areas

Land reservation is in the charge of LSD in each State. As a part of its normal activities, LSD actually controls the utilization of river areas. It takes the form of the administration of river reserves, which is provided by the Land Ordinance of Sabah and the Land Code of Sarawak.

In the State of Sabah, the width of river reserves is, as a rule, to be 20 m on each side of the river banks. In some cases, when the river meanders or is very wide, it should be 60 m. All land within 20 to 60 m from the banks of the rivers are administered by LSD. LSD calls them riparian reserves. Although the width of river reserves is not clearly stated in the Land Ordinance, the range is administratively determined. For almost all rivers, the river reserve has already been established and the land has actually been reserved. In the registration, river reserves are to be placed on maps, so that the width of river reserves can be changed as the course of the river changes. The registration maps of such river reserves, sometimes, do not coincide with the actual situation. Within the river reserves, no activity is permitted; basically, any river reserve may not be alienated. Practical enforcement is carried out by the District Officer concerned who takes, at the same time, office of the Assistant Collector of Land Revenue.

In case of Sarawak, the width of a river reserve is 66 feet (\approx 20 m) as specified in the Land Code. The administration of river reserves is also carried out by LSD. LSD calls it "river bank reserve". On maps, river reserves are registered in the same manner as in Sabah. The land within 1 chain (66 feet) from the river bank, is automatically reserved. If bank erosion has occurred in the area, the reserved land may be altered. The discrepancy between the actual and registered reserve areas often takes place. The Minister of Land and Mineral Resources only has the power to permit the rescission of reservation. The rescission is necessary in the case of transference of land to the other governmental reserves or at the time of alienation. In Sarawak, the river reserve is, in some cases, alienated for the purpose of navigational use such as construction of private jetties or wharves. Inside the river reserve areas, any activity is prohibited. Utilization of river reserves, whether for public or for private purposes, shall require an application to be made to LSD and its approval to be gained. LSD consults with the Marine Department and other relevant agencies as to whether such activity will affect the river navigation or not. The decision of the Marine Department

is conveyed to LSD, and LSD permits or rejects the application, in accordance with the opinion of the Marine Department. Inside the organization of LSD, inspection in view of land use is carried out; however, the importance of such land use inspection is little in the judgement of LSD. Thus, in the State of Sarawak, administration activities for the utilization of river areas are undertaken by LSD together with the relevant agencies for the sake of navigation activities.

10.4 Land Use Control and Regional Planning

For the States of Sabah and Sarawak, regional planning is equivalent to land use planning in urban areas. This is due to scarcity of the need for planning in rural areas. The practical situation shows the difference between Sabah and Sarawak in terms of procedure and responsible agencies. In Sabah, the role of Local Authorities is significant in regional planning. On the contrary, Sarawak LSD has the Planning Branch in the headquarters and divisional offices, and this Branch plays the key role in urban development planning in the State of Sarawak as given in Table 41. The Town and Country Planning Ordinance prevails in Sabah, while that of Sarawak has no practical effect. In Sarawak, the Land Code and the Land (Control of Sub-division) Ordinance are applied to land use control in major urban areas.

In Sabah, land use in urban areas is controlled under the Town and Country Planning Ordinance. Regional planning is undertaken by Local Authorities together with the Ministry of Town and Country Development. For instance, the planning for Sandakan and its surrounding areas was undertaken by the Sandakan Town Board and Sandakan Rural District Council as well as the Department of Town and Country Planning under the Ministry of Town and Country Development. The Draft Scheme was prepared by these organizations jointly and later approved by the Central Board. In the Draft Scheme, land was classified into six categories; i.e., residential, commercial, industrial, open spaces drainage basin and rural. Under the Town and Country Planning Ordinance, land use is controlled according to these categorization. As for the area in the vicinity of rivers, the Ordinance provides for drainage basin. Similarly, swamps are zoned as drainage basin.

In the State of Sarawak, the Town and Country Planning Ordinance has not been practically enforced. Local Authorities do not carry out regional planning. Land use in urban areas is completely controlled by LSD based on the Land (Control of Sub-division) Ordinance. The Land Code also has power to legislate in the administration activities. For the major urban areas, the proclamation of "development areas" has a practical effect, which is provided by the Schedule to the Land (Control of Sub-division) Ordinance. The Planning Area in the Town and Country Planning Ordinance has not proclaimed in Sarawak. Up to now, "development areas" have been designated in: KMC Area, Sibu Municipal Council Area, Miri Municipal Council Area, Kuching Rural District Council Area, Sarikei District Council Area, Kapit District Council Area, Simanggan District Council Area, and Limbang District Council Area. Within these "development areas", any type of development affecting the sub-division of land requires the permission of LSD, since 1973. The function of LSD covers

a wide field, including the regulation of groundwater exploitation. Moreover, every landholder should make an application to LSD, when he intends to change the land use. Housing developers or Local Authorities are distributed with "Development Control Standards", and are obligated to follow it. LSD has a overall land use plan within the State of Sarawak, in particular, that relating to "development areas". Permission to the applications is made in the light of its own standard, taking such plan into consideration.

Besides these, the Bintulu Development Authority undertakes overall development projects, such as urban drainage works or sewerage systems, in the Bintulu Development Area. In this area, LSD also controls the land use.

11. GROUNDWATER USE

11.1 Background

In the State of Sabah, groundwater plays an important role as a source of D&I water. The Labuan water supply scheme depends completely on groundwater. The delivered water volume from treatment works was 5,000 m³/d in 1980. Similarly, in Sandakan, 75% of the total delivered volume which was 20,500 m³/d in 1980, comes from boreholes. Groundwater makes up about 20% in volume of all the supplied water throughout the State of Sabah.

On the contrary, in Sarawak, the use of groundwater for D&I purposes has been negligible. Out of 40 water supply schemes managed by PWD, only one scheme relies on groundwater in Belawai in 6th Division. However, the possibility of utilizing groundwater as a source of water supply is under investigation in the coastal areas, since it is difficult to supply surface water.

11.2 Legal Provisions

The main law related to groundwater extraction is GSA. Section 13 of GSA states:

"Any person who bores, drills, digs or otherwise develops a well for the purpose of searching for or extracting water therefrom shall notify the Director General of such details as may from time to time be prescribed."

The Water Supply Ordinance of Sabah, which is to be repealed by the promulgation of a new law, provides for the powers within the water supply areas as follows:

"If it appears to the Yang di-Pertua Negeri to be necessary for the purpose of conserving or protecting against pollution any water, whether on the surface or underground, in a water supply area he may make regulations to prohibit or regulate the doing within that area of any act specified in the regulations. (S4)"

However, the new law, the Saban Water Authority Enactment, has no similar provisions. It only stipulates the duty of the Sabah Water Authority to make the rules governing the abstraction of water. Part of these provisions are as shown in Table 17.

11.3 Agencies and Activities

GSD is responsible for the enforcement of GSA in each State. In practice, Sarawak GSD plays an important role in the survey field. However, in Sabah, the role of GSD is not so great since Sabah PWD has carried out groundwater surveys by entrusting to private consulting firms.

In either Sabah or Sarawak, GSD has not received the notification of groundwater exploitation activities, although such notification is required under GSA. Thus, management of groundwater has not been carried out by a single agency, but by each exploiting agency with its own aims.

GSD mainly deals with the survey of groundwater potential. In Sabah, GSD offered, up to 1970, technical assistance to PWD which had utilized groundwater resources largely for water supply purpose. However, recently Sabah PWD has undertaken its own survey projects for groundwater potential with the aid of outside consultants. Digging of private wells is not prohibited but borehole making is restricted where groundwater is utilized greatly for water supply such as in Sandakan and Labuan. These are regulated by the Local Authority concerned.

In Sarawak, GSD carries out groundwater surveys for its own purpose and for other agencies. As its own projects are financed by the Federal funds, GSD undertakes hydrogeological surveys around the deltas of the Sarawak and Rajang rivers. At the request of PWD, GSD has investigated groundwater potential by well digging. Up to now, at nine places, the potential has been investigated in terms of water supply sources. These places are concentrated on the coastal area where alternative sources of water are not expected to exist. Investigations by the request of PWD are implemented on PWD's funds. For the Inland Fisheries Division of the Department of Agriculture, GSD also gives technical aid. The possibility of utilizing groundwater as a water source for prawn culture has been studied.

In the State of Sarawak, any type of land use should be approved by LSD as described in Section 10.4. In reality, well diggings are not exceptional cases. With regard to the projects for the survey of groundwater potential, PWD or GSD firstly makes application for land use to LSD. After obtaining the permission from LSD, GSD can implement the investigations. For the same reason, large-scale exploitation of groundwater for industrial purposes may be controlled by Sarawak LSD as an extended measure for land development control.

12. WATERSHED MANAGEMENT

12.1 Background

Forests cover around and over three-quarters of the total land area in Sabah and Sarawak, respectively. Forest produce has traditionally formed major items of export and contributed greatly to the economies of both the States. Logging and other related activities are widely carried out throughout the forest land. Besides these, large tracts of forest land have been utilized for the purpose of shifting cultivation.

Logging activities and shifting cultivation denude the land of forest cover and cause soil erosion in forest land. Nowadays, land development for agricultural purposes, industrial estates and housing sites are in progress in both the States. In addition, road construction, whether relevant or irrelevant to forestry, has also largely been undertaken. These activities in the forest land further cause soil erosion problems. As such, the increase in sediment load is frequently seen in most of the rivers. The silt in the river flows is most noticeable in Sandakan, Tawau and Interior Divisions of Sabah where a flourishing forestry industry is being carried out.

Watershed management involves the preservation of forests in an orderly manner. It will do a great deal for securing surface water as well as groundwater. In order to maintain the volume of water intake, watershed management is thus indispensable. Such activities may be found in Sabah and Sarawak as the management of catchment areas in connection with water supply schemes.

12.2 Legal Provisions

Table 18 shows basic provisions of the laws which are related to watershed management.

The law directly prescribing the designation and management of catchment areas is the Water Supply Ordinance of Sarawak. It provides for the demarcation of catchment areas and the control of activities within such areas. Section 4 of this Ordinance states that the Water Authority may demarcate or survey any catchment area and "thereafter no unalienated land within such limits or areas shall be alienated, granted, transferred or sold within such limits or areas for any purpose whatsoever". In the same Section, after that, it is further stated that:

"When any alienated land situated within the limits or areas referred to above is required for any purpose connected with the waterworks, such purpose shall be deemed to be a public purpose," and

"A map or plan showing clearly the limits or areas of any catchment area surveyed or demarcated shall be made and open to public inspection."

The provisions in the Water Supply Ordinance of Sabah and the Sabah Water Authority Enactment bear no direct prescription of catchment areas. However, the Sabah Water Authority Enactment provides for the powers to acquire any immovable property, not being State land, for the purpose of water supply.

The Land Ordinance of Sabah also stipulates land reservation for public purposes, while the Land Code of Sarawak provides for the declaration of government reserves not to be made available for alienation for public purpose.

The above-mentioned provisions, which are directly or indirectly related to the establishment of catchment areas, are indicated in Table 42. Excluding these, no provision can be found with regard to catchment areas, in any other law of both the States. Neither the Drainage and Irrigation Ordinance of Sabah nor the Electricity Ordinances of both the States give such provisions.

Provisions for forest reserves under the Forest Enactment of Sabah and the Forests Ordinance of Sarawak incorporates wider viewpoints of watershed management. In case of Sabah, the Forest Reserves are classified into the following six categories:

- Class I ; Protection Forest,
- Class II ; Commercial Forest,
- Class III; Domestic Forest,
- Class IV ; Amenity Forest,
- Class V ; Mangrove Forest, and
- Class VI ; Virgin Jungle Reserve.

The definitions and their effects are as shown in Table 43. Tables 44 and 45 summarize the Permanent Forests in the State of Sarawak, which are composed of three types; that is, Protected Forest, Forest Reserve, and Communal Forest. Out of these, the Communal Forest is exclusively for the community use.

In both the States, the Forest Rules, involving minute regulations on forestry, has been enforced. The National Parks Ordinances of both the States specify national park areas and restrict activities within these areas. These are also indirectly related to watershed management.

12.3 Agencies and Activities

The management of catchment areas are to be firstly discussed below.

Catchment areas in Sarawak, which are provided by the Water Supply Ordinance, are demarcated by the respective Water Authorities including the Water Boards. Each Water Authority should establish its own catchment

area for water supply. According to the definition adopted by Sarawak PWD, the catchment area is the land reserved for recharging of water supply. After the demarcation has been carried out based on hydrogeographical data, PWD or the Water Boards request LSD to notify in the Gazette and to issue the necessary title for the reservation. Once notified, any activity other than those for water supply purpose may be prohibited within the catchment area. The Water Authority concerned is responsible for the administration of such area. However, as the control of activities is so strict, many complaints have arisen from the affected land owners. In consequence, only few catchment areas have been actually notified up to now. Without notification, any kind of activity such as logging, housing site allocation or road construction cannot be restricted in catchment areas. Only three Authorities of Bintulu, Miri and Sarikei under Sarawak PWD and the Kuching Water Board have established the notified catchment areas. Other Water Authorities have only nominal catchment areas where only demarcations are available. In case of the Sibuan Water Board, since the supplied water relies on water sources in the Rajang river, no necessity is felt for the establishment of the catchment area.

In the State of Sabah, the catchment area is called "water reserve". It is the land where the State Government reserves only for the purpose of water supply. The State Government carries out the designation of water reserves in the large over the State land. The designation is notified in the Gazette by the State Government, at the request of PWD. LSD carries out this procedure. The extension of a water reserve area is determined by PWD, taking into consideration the water supply volume and the lay of the land. Demarcation usually follows the contour lines. If alienated land is included within the proposed water reserve, such land will have to be acquired by LSD on PWD's funds. Only after the acquisition of such land can the area be reserved. Activities within the reserved areas are completely placed under the control of PWD. No activity is permitted other than water supply purposes.

The responsible agencies for the control of forestry operations and the protection of forest reserves are the Forests Department in Sabah and the Department of Forests in Sarawak. The difference in the importance of forestry in the State economy has resulted in the different positions of the respective Departments. Sabah Forests Department belongs to the Chief Minister's Office and the Chief Minister has the final responsibility, while, in Sarawak, the Ministry of Forestry is self-existent incorporating the Department of Forests. Each Department regulates forestry through the issuing of forest licences. According to the Forest Rules enforced in the respective States, Sabah has a more detailed licence system with regard to forestry operations. The actual situation of forest land and forest reserves in both the States is as shown in Tables 46 to 49.

Besides the Forests Department, the State Government of Sabah has established the Sabah Forestry Development Authority (SAFODA) since 1976 as a State statutory body. The activities of SAFODA cover planning and formation of forestry strategies, forestry resources development and industrialization of forestry. SAFODA has also undertaken forest settlement schemes and reforestation schemes. In case of Sarawak, in addition

to the Department of Forests, the Sarawak Timber Industry Development Corporation has been instituted under the Ministry of Forestry.

13. WATER QUALITY AND POLLUTION CONTROL

13.1 Background

At present, pollution of inland waters is only evident in very few areas in Sabah and Sarawak. This is because pollutant sources are limited in number and concentrated mainly along the coast. Identified as the major pollutant matters are the domestic sewage discharge, industrial effluent, effluent from the raising of pig and mining wastes.

Treatment of domestic sewage still largely relies on septic tanks in the most urban areas of both the States. In rural areas, direct discharge is common. Each State had only three large-scale rubber processing factories, while 13 palm oil mills were found in Sabah and four mills in Sarawak, as of the end of 1980. Pig farms are concentrated around Sandakan, Kuching, Sibu and Miri. Sawdusts from a number of sawmills sometimes cause the problems in Sarawak.

The Mamut Copper Mine in Sabah has become the only environmental issue among the mines throughout Sabah and Sarawak. The heavy rainfall during the period from 1977 to 1978 swept away deposited mining wastes to the downstream areas. Paddy fields were buried and considerable damage was brought on to the rice crop. Moreover, ceaseless operation has caused silting problems in the downstream waters.

13.2 Legal Provisions

EQA represents the major law that relates to water pollution control. It is a Federal law extended to Sabah and Sarawak, providing for the prohibition of the pollution of inland waters with the licensing system for prescribed premises.

The responsibility for water pollution control is vested in Local Authorities within their jurisdiction under the laws concerned. The Kuching Municipal Ordinance of Sarawak declares "any noxious matters or liquid flowing or discharging from any property", "into any watercourse, irrigation channel or bed" as nuisances. In addition, according to the 6th Schedule, KMC may make by-laws for preventing the pollution of any water. The Local Authority Ordinance of Sarawak also has similar provisions. The prevention of polluting water source is the duty of every Local Authority, which is stipulated in the Public Health Ordinances of both the States. The Local Government Ordinance of Sabah, however, has no provision directly related to water pollution control.

In Sarawak, the Merchant Shipping Ordinance and the Merchant Shipping (Ports and Rivers) Regulations alike prohibit the discharge of oil and oily bilge water into any river from any vessel.

The Mining Ordinance of Sarawak provides for the control of water pollution caused by mining activities. On the other hand, the Mining Ordinance of Sabah does not clearly regulate water pollution.

Part of the above-mentioned provisions are as shown in Tables 19 and 20.

13.3 Agencies and Activities

The enforcement of EQA lies in the hands of DOE under the Ministry of Science, Technology and Environment, Malaysia. Branch offices of DOE were established at Kota Kinabalu in Sabah and at Kuching in Sarawak and have become active from 1981. The functions of DOE in both the States are the same as those in Peninsular Malaysia. They are (1) licensing of prescribed premises, (2) monitoring of water quality, and (3) other matters pertaining to water quality management.

Rubber processing factories and palm oil mills form the major portion of the prescribed premises under EQA. Hitherto, DOE has issued licences to all of the existing rubber factories and two palm oil mills in both Sabah and Sarawak. The monitoring activities have just started in the respective States.

The State Government of Sabah has its own agency to undertake environmental control, which is the Environmental Unit under the Ministry of Resources Development. The main role of the Unit consists of the consultation and coordination with private firms. All plans of industrial, housing and business development by private firms are examined by the Unit in accordance with the State environmental policy. Since there exists no legal foundation, the functions of the Unit cover the private sector only. Besides, it deals with environmental complaints throughout the State. In the near future, this Unit will be expanded to a Department under the Ministry of Resources Development. Moreover, the enactment of a new law for environmental control is under consideration in the State Government.

In case of the Mamut Copper Mine, water quality of the connected rivers has been monitored by the Environmental Unit. The Unit acted as an arbitrator in the compensation talks with regard to the paddy fields damaged in 1977 and 1978. The compensation money was paid to the farmers through the arrangement of the Environmental Unit.

Besides DOE or the Environmental Unit, monitoring of river water quality is carried out by DID in each State. Monitoring activities of DID are usually irrigation-related and implemented as a part of the collection of hydrological data. The agencies which supply D&I water also monitor the water quality in the sources for their own purposes.

In spite of the minute legal provisions, Local Authorities are never active in water pollution control. They only supervise the installment of septic tanks in line with their own programs. Each Local Authority puts each household under an obligation to install the private septic tank. In some Local Authority Areas, communal septic tanks or package treatment equipment shall be additionally installed in large-scale industrial estates and newly-developed housing sites, which will be described in Section 16.3.

In rural areas, the Medical Department implements its sanitation program to provide simple discharge equipment to be described in Section 14.3.

The Marine Department of Sarawak has superintended the discharge from the vessels, in practice. Two enforcement units are now under formation inside the Department.

As for mining activities, the Mines Departments of the respective States supervise the actual operations of mining industries including pollutant discharge, while the issuing of the mining licences falls under the responsibility of LSDs in both the States.

The effluent discharge from animal husbandry such as pig farms is not regulated at all by any agency in both the States.

14. WATER SUPPLY

14.1 Background

In 1980, treated water of as much as 105,600 m³/d was served to an estimated population of 345,100, which corresponded to 34% of the total population in the State of Sabah. For the most part, supplied water has been dependent on river water intake. The exceptional cases may be found in Sandakan, Labuan, Kuala Penyu, Semporna, Kota Belud and Kudat, where water is extracted from boreholes, wells or impounding reservoirs. Previously in 1970 and 1971, Sabah experienced a critical situation with regard to public water supply. The consumption over the designed capacity brought about a water shortage. Although such condition has improved in these 10 years, some urban areas still suffers locally from water shortage.

As far as Sarawak is concerned, the volume of public water supply was 105,500 m³/d from records for the year 1980. The estimation of the served population in the same year was 475,000, making up 37% of the total population. At almost all works for public supply, water is fully treated or chlorinated. Sources of water include the majority of rivers and seven impounding reservoirs. Most of the newly-planned development projects under way aim at expansion of water supply in industrial areas.

In addition, many water supply schemes have been undertaken in rural areas in line with the plan or the program arranged by the Federal Government. If these rural schemes are included, piped water is supplied to 50% to 60% of the total population in both the States.

14.2 Legal Provisions

Table 22 shows the basic provisions of the laws relating to water supply. At present, the Water Supply Ordinances of both the States are enforced for this purpose. However, in Sabah, the Sabah Water Authority Enactment has been passed by the State Legislative Assembly and is to repeal the former Water Supply Ordinance.

The Sabah Water Authority Enactment provides for the establishment of a corporate body to manage water supply within the State of Sabah, as follows:

"There is hereby established a body corporate by the name of 'Sabah Water Authority' with perpetual succession and a common seal and may sue and be sued in its name and, subject to and for the purpose of this Enactment, may enter into contracts and may acquire, purchase, take, hold and enjoy movable and immovable property of every description and may convey, assign, surrender, yield up, charge mortgage, demise, reassign, transfer or otherwise dispose of, or deal with, any movable and immovable property or any interest therein vested in the Authority upon such terms as it deems fit (83)."

Duties or responsibilities of the Authority, transference of Government water undertakings and the establishment of a Fund are also stipulated. Moreover, this Enactment provides for the prescribed source of water for the purpose of water supply.

The Water Supply Ordinance of Sarawak provides that "Water Authority means the Director of Public Works, a Water Board or such other person, officer or authority to administer, manage or supervise a water works for the supply of water". Only such Water Authorities have the powers to manage water supply in the State of Sarawak.

Excluding this notable point found in the Ordinance of Sarawak, there is not much difference between the above-mentioned three laws and the Water Authority Enactments of Pulau Pinang and Melaka or the Water Supply Enactment of the other States in Peninsular Malaysia.

As shown in Table 22, the Local Government Ordinance of Sabah, Local Authority Ordinance of Sarawak and the Kuching Municipal Ordinance give the provisions in respect of water supply by Local Authorities. The Local Authority may undertake water supply within their jurisdiction. Furthermore, under the Public Health Ordinances of both the States, Local Authorities may carry out water supply for sanitation purposes.

14.3 Agencies and Activities

At present, water supply in urban areas of the State of Sabah comes under the charge of PWD alone. PWD also undertakes rural water supply schemes in the form of extension from urban areas or as an independent project. According to the definition by Sabah PWD, "rural water supply" means the water supply where less than 10,000 people reside in an unit supply area. Otherwise, it is called to be "urban water supply". The Medical Department carries out another kind of rural water supply, which will be referred to later. Supply areas of PWD may not overlap with those of the Medical Department. The Medical Department implements its rural water supply schemes in the more remote Kampongs or villages.

Inside the organization of Sabah PWD, the responsibility for water supply lies with the Hydraulics Branch of the headquarters as shown in Fig. 11. The Branch mainly takes charge of planning and preliminary design, while the other Branches of the headquarters are entrusted with tasks such as detail design and construction. The procedure of project implementation is summarized in Fig. 38. In total, Sabah PWD had 25 water works, as of the end of 1980. The operation and maintenance of such water works are undertaken by the Divisional Offices of PWD which have been set up at Kota Kinabalu, Kota Belud, Sandakan, Tawau, Keningau, Labuan, Kudat and Beaufort.

With the coming in force of the Sabah Water Authority Enactment, the above-mentioned functions of Sabah PWD will be substituted by those of the new agency. Public water supply throughout the State will be managed by the Sabah Water Authority. The establishment of the Authority is, for the present, scheduled within a year. The Authority will become a completely separate body from Sabah PWD, even if the transfer of

personnel from the Hydraulics Branch may be possible.

In the State of Sarawak, public water supply in urban areas has been managed by PWD as well as two Water Boards established under the Water Supply Ordinance. Sarawak PWD is responsible for water supply all over the State, with the exception of the Water Board Areas and rural areas where the Medical Department implements its program. The two Water Boards are the Kuching Water Board and the Sibu Water Board, both of which are State statutory bodies under the Ministry of Communications and Works. Both PWD and the Water Boards carry out rural water supply schemes in the same manner as that of Sabah PWD, other than in the areas under the charge of the Medical Department.

Fig. 39 illustrates the procedure of implementing water supply schemes of Sarawak PWD. District Offices or Resident Offices request the Ministry of Communications and Works to implement water supply schemes. The Ministry, after approving such requests, notifies in the Gazette the establishment of a Water Authority and declaration of the Water Supply Area, and then directs PWD to prepare a project plan. Project approval is afterward performed in accordance with the procedure of the 5-year Development Plan as described in Section 5.2. Implementation of a water supply scheme by PWD is thus equivalent to the establishment of the Water Authority specified in the Water Supply Ordinance. As of the end of 1980, 40 Water Authorities were existent under Sarawak PWD.

The distribution of functions inside the Sarawak PWD is rather different from that of Sabah PWD. The responsibility for water supply lies with the Water Supplies and Sewerage Branch as illustrated in Fig. 27. The Hydraulics Section of this Branch is directly in charge of planning and design, while the divisional organizations which include 40 Water Authorities and six Divisional Water Supply Sections, take charge of the supervision, construction and operation of water works.

In Sarawak, characteristic water supply schemes have been carried out by PWD. This is the "institutional water supply". Institutions such as schools and army camps are served with domestic water, usually free of charge, by PWD. The divisional organizations of Sarawak PWD execute the construction, operation and maintenance of water works, on behalf of the individual institutions. This kind of water supply schemes amounted to 15 in number, as of the end of 1980.

Rural water supply schemes of Sarawak PWD are carried out where the Federal Government has appointed. These areas are usually shown in the Malaysian Five Year Development Plan. The schemes take the form of the extension of Water Supply Areas, or the construction of new water works if unavoidable. The number of households served with water by these schemes is 100 to 1000. Sarawak PWD has maintained close contact with Federal PWD, while no direct relation is found between Federal PWD and Sabah PWD. Sarawak PWD may receive information services and advice from Federal PWD, especially those pertaining to rural water supply. Consultations have also been frequently held with each other.

The Kuching Water Board supplies water to all of the KMC Area and part of the Kuching Rural District Council Area. Water supply volume of the Board was 50,800 m³/d in 1980, which alone exceeded the total supply volume by PWD all over Sarawak. Served population by the Kuching Water Board was estimated to be 190,400 for the same year. As for water sources, the Board depends on river water in addition to an impounding reservoir.

The Sibul Water Board serves water to the Sibul Municipal Council Area and its environs. In 1980, the total supply volume of water was around 19,500 m³/d. Water comes from the Rajang river, extracted from the upstreams of the Sibul River Port.

Besides the two Water Boards, the possibility is to be pointed out that other Water Boards might be established in Miri and Sarikei due to the sufficient size of population. However, the State Government has a view that overall public water supply system should be managed by a single agency like Sabah. At present, this is still under consideration.

As mentioned repeatedly, in both the States, another kind of rural water supply schemes have been carried out by the respective Medical Departments which are, in essence, Federal agencies under the Ministry of Health (MOH), Malaysia. Rural water supply schemes by the Medical Department is usually undertaken as a part of the "Rural Environmental Sanitation Programme" issued by MOH (refer to Ref. 38). As a rule, supply areas are located in remote Kampongs where the water supplies of the respective State PWDs do not reach. Although the coordination with PWD is preserved concerning the demarcation of supply areas, further relations are rarely found. Fig. 43 shows the process of such schemes by the Medical Department. The field staff of the Medical Department first make contact with the Kampong people and simultaneously look for nearby streams to be considered as potential water sources. In order to receive the services of the Medical Department, it is necessary for each Kampong to form the Health Committee. This Health Committee formally requests the Medical Department to provide the water supply system; then it persuades people to make pit-privy type latrines and discharge treatment equipment. After confirming that these conditions are being satisfied, divisional offices of the Medical Department begin the full survey and planning. The headquarters of the Medical Department reviews such plans and gives technical approval. MOH usually supplies the requisite instruments and technical advice, as a Federal direct project. The sources of water are composed mainly of stream water from the neighbouring ridges. Water is supplied to each household by gravity pipeline without treatment. In case of Sarawak, the served population was estimated to be 295,000 of some 1,800 water works in 1980. By one scheme, served were about 170 household units, on an average. The number of schemes has been increasing year by year for both the States.

Hitherto, no water supply scheme has been undertaken by the Local Authority of each State, despite the provisions in the laws concerned. Land development authorities such as FELDA and SLDB neither carry out water supply schemes. A few cases can be found in each State, in which facilities such as hospitals and factories have been equipped with water works for their own use.

14.4 Financing and Charging System

Financing system of water supply projects does vary by type of water supply or by the implementing agency in the States of Sabah and Sarawak. Almost all urban water supply schemes of Sabah PWD are financed by State grants, while Federal loans are applied to several large-scale projects in Sarawak. Rural water supplies are, regardless of the agencies concerned, dependent upon Federal grants for the most part.

Water supply projects of Sabah PWD are as shown in Table 50. According to Table 50, the major part of the funds come from the State Government. The Federal Government revised the budget estimation for the year 1981, in which some reimbursable funds and loans were offered to Sabah PWD, as shown in Table 51. However, the amount of such Federal funds is rather small, if compared to that of State grants for urban water supply schemes in the State of Sabah.

In Sarawak, the situation is nearly the same in terms of small-scale water supply schemes in urban areas. As regards large-scale projects for urban water supply, Federal loans cover largely the expenditure of the projects. Examples may be found in those of Bintulu, Miri and Sarikei. The share of Federal funds in the expenditure for urban water supply is higher than that of Sabah PWD. The relationship between the number of Sarawak PWD's projects and the amount of various applied funds may be seen in Tables 52 and 53.

Besides the numerous Water Authorities under PWD, the Water Boards in Kuching and Sibul really supply a large quantity of treated water in the respective Water Supply Areas within the State of Sarawak. These two Water Boards are purely self-autonomous agencies, the financing systems of which are basically on a commercial basis. Being short in their own funds, they have accepted various loans from external sources. Federal, State, foreign and local loans are applied to the financing of development projects. Out of these, foreign loans must be received through the Federal Government, on account of the regulation provided by the Federal Constitution. Tables 54 and 55 show such financial aspects for the Kuching Water Board.

In the case of rural water supply projects implemented by PWD, the financing system is nearly identical in both the States. Development Expenditure for rural water supply is normally composed of:

Federal grants; 2/3 of the total amount, and

State grants ; 1/3 of the total amount.

The proportion of each funds may alter according to the circumstances. For both the States, Federal financial aids to rural water supplies have started in the Mid-term Review of TMP. Only in case of Sarawak, the whole amount of the expense will be covered by Federal grants in the near future. The two Water Boards in Sarawak have carried out rural water supply schemes, expending their own funds for one-third of the total amount. The remainder, two-thirds of the expenditure of development, is financed by Federal grants.

Rural water supply schemes by the Medical Department in each State are exclusively supported by Federal funds as Federal direct projects. Funds are allocated to the projects of MOH. MOH distributes the funds to the respective States in conformity with its "Rural Environmental Sanitation Programme". These Federal funds made up more than 70% of the total expenditure of the schemes in each State. The other funds come from the peoples' contribution and outside aids such as those from UNICEF. The Kampong people must share in the cost of water works at the provision of supply system, in addition to making latrines by himself. The amount of donation was M\$30 to M\$60 per each household, as of the end of 1981.

As regards the charging system in public water supply, Sabah and Sarawak are in contrast with each other. Sabah has a uniform charging system throughout the State. On the other hand, in Sarawak, diversified systems have been adopted by the Water Authorities under PWD and the Water Boards, as shown in Tables 56 and 57.

In Sabah, M\$2.00 per thousand gallon ($\frac{2}{3}$ 4.5 m³) subject to a minimum charge of M\$6.00 per quarter was the only charge system of water supplies by PWD up to 1981.

This value has been raised up to be double, recently in 1982.

Every Water Authority under Sarawak PWD has its own water charge. This is because the charge has remained as notified in the Gazette when the Authority was established. The water charges differ with the time of their notification. Furthermore, the existence of the Kuching and Sibul Water Boards makes the charging systems public water supply more complicated in Sarawak. The water charges of the two Water Boards are considerably higher than those of the Water Authorities under PWD. Differences of financial aid from the State Government and the adoption of commercial accounting systems have brought about such costly water charges of the Water Boards.

The water served by the Medical Department is completely free of charge in both the States. However, as stated before, some conditions are imposed on each houseowner.

15. IRRIGATION AND AGRICULTURAL DRAINAGE

15.1 Background

In 1980, wet paddy fields covered an area of 30,240 ha in the State of Sabah and 71,400 ha in the State of Sarawak. Irrigated paddy fields made up 20,780 ha in Sabah, which corresponded to 69% of the total wet paddy area. In Sarawak, irrigated paddy extended, in the same year, only to 6,030 ha, consisting of 4,350 ha of "control drainage schemes", 1,560 ha of pumping irrigation schemes and 120 ha of gravity irrigation schemes. The total irrigated paddy was equivalent to 8% of the total wet paddy area in Sarawak.

Irrigation of paddy fields has not been undertaken by private persons in each State, but all irrigation schemes are carried out by DID as governmental projects. As mentioned above, in Sarawak, the schemes include "control drainage schemes" which depend solely on rain water for irrigation purpose. This leaves a smaller portion of wet paddy fields actually irrigated by water pumped from the rivers.

In both the States, hill paddy cultivation has still formed the major part of paddy cultivation. The hill paddy grown under shifting cultivation is widely spread over the land other than wet paddy fields. In order to fulfill the increasing demand of rice, not only the improvement of existing wet paddy fields but the development of new wet paddy provided by irrigation and drainage works might be necessary. However, if compared to the states in Peninsular Malaysia, some difficulties are foreseen in Sabah and Sarawak. Of these, the inconvenience of land transportation and shortage of manpower may be pointed out as main constraints.

As regards agricultural drainage, the provision of the works can only be found in Sarawak. The stretch of areas with drainage facilities for agricultural purpose, most of which are coconut and wet paddy fields, extend to about 18,000 ha. In case of Sabah, agricultural drainage schemes have just reached the planning stage.

15.2 Legal Provisions

The Drainage and Irrigation Ordinance of Sabah is the major law relating to irrigation and drainage. It provides for:

- (1) Declaration of drainage areas and irrigation areas,
- (2) Establishment of Irrigation Committees,
- (3) Imposition of water rates, and
- (4) Management of drainage areas and irrigation areas.

The basic construction of this law is almost similar to the Drainage Works Ordinance and the Irrigation Areas Ordinance, both of which are Federal laws enforced in Peninsular Malaysia. However, the provisions for the establishment of the Irrigation Committee can be found only in the Drainage and Irrigation Ordinance.

The Local Government Ordinance of Sabah provides for the powers of Local Authorities in respect of irrigation as follows:

The Instrument shall provide that an Authority either shall perform or may perform to establish, maintain and control irrigation works in any area not being an irrigation area or a drainage area.

"Instrument" means a document issued in the Gazette by the Governor of the State of Sabah, containing the establishment of a Local Authority, name of the Authority, date of establishment, limits of area under the jurisdiction, functions of the Authority and others. The same Section of §49 also empowers the Local Authority with the services of agricultural improvement.

In case of Sarawak, no law has been promulgated that is directly concerned with irrigation and drainage. The only indirectly related provision is to be found in the Local Authority Ordinance whereby Local Authorities may make by-laws with respect to the improvement of agriculture. As such, the legal ground for irrigation and drainage is not so firm in Sarawak.

The above-mentioned basic provisions are as shown in Table 23.

Besides, the Land Ordinance of Sabah or the Land Code of Sarawak provides that, whenever any land has been alienated for agricultural purposes, the land shall not be used for any purpose other than agriculture. The rights of making drainage works in any land are reserved to the respective State Governments, under these two laws.

15.3 Agencies and Activities

Irrigation and agricultural drainage fall under the jurisdiction of DID in both the States. The functions of DID cover planning and construction as well as operation and management of irrigation schemes. The number of irrigation schemes by Sabah DID amounted to 25, of which 15 were of pumping irrigation and 10 of gravity irrigation in 1980. In addition, numerous small schemes are ongoing in the West Coast Division. The classification of irrigation schemes of Sarawak DID has already been mentioned in Section 15.1. These schemes have been implemented as governmental projects with a view to developing new paddy fields. Improvement of the existing irrigation works and the construction of drainage works for agricultural crops other than rice are also carried out by DID.

The time schedule for irrigation water supply is usually determined at District level. The Irrigation Committee is formed for this purpose in Sabah. In accordance with the provisions of the Drainage and Irrigation Ordinance, the Committee consists of the District Officer, representative from DID for the Executive Officer, representative from the Department of Agriculture for the Director of Agriculture and leading farmers. The additional members are attendant from the Sabah Padi Board. Similar committees at District level are formed also in Sarawak. The personnel of DID operates the gate of headworks or intakes and pumping stations, following the time schedule set up by this District level committee.

Fig. 37 shows an example of the procedure for developing irrigation schemes of Sabah DID. Project finding is usually carried out at District level by District DID offices or the District Offices. The project plan is raised up to the headquarters of DID after the deliberations in the District Action Committee. The headquarters formulates the final State-wide plan with regard to irrigation. As shown in Figs. 9 and 25, Sabah DID possesses ten District offices and Sarawak DID has six divisional offices. Feasibility studies for small-scale drainage projects are undertaken by these District or divisional DID offices, while the headquarters of the State DID handles large-scale schemes.

In Sabah, some irrigation schemes have been carried out by the Sabah Padi Board. However, by the end of the year 1981, some part of functions of the Board are to be transferred to Sabah DID.

In both the States, DID became separated from PWD in 1967. The Drainage and Irrigation Ordinance of Sabah authorizes PWD to take charge of drainage and irrigation. This is only because DID and PWD were not separate entities when the Ordinance was passed in 1956. Nowadays, Sabah PWD no longer handles the matters pertaining to agriculture, agricultural drainage or irrigation.

The relation between Sabah or Sarawak DID and Federal DID is limited to the fields of technical aid in design and planning. Officials of both the State DIDs are not transferable to Federal DID.

Although the Local Government Ordinance of Sabah and the Local Authority Ordinance of Sarawak provide for the responsibilities of Local Authorities, they have not taken upon themselves the practical implementation of any irrigation scheme in the respective States.

In line with the agricultural policy, each State Government has established some statutory bodies to promote land development. SLDB of each State is responsible for implementing land development schemes in terms of export crop plantation and resettlement. Sarawak Land Consolidation and Rehabilitation Authority implements schemes in native land for small holders. Furthermore, FELDA has started a few large-scale land development schemes in the State of Sabah. The activities of these agencies, however, have not been so significant in relation to irrigation and agricultural drainage.

15.4 Financing and Charging System

Almost all irrigation schemes, which are the projects undertaken by DID, are Federal reimbursable projects in both the States. The expenditure of projects, which means Development Expenditure of DID, is firstly paid by the State Government. Later, the amount of expenditure is reimbursed by the Federal Government. Besides, some State financed irrigation projects are found in Sabah, but not in Sarawak. Nevertheless, there has been no project that is financed both by Federal funds and by State funds.

The expenditure for operation and maintenance of these irrigation schemes has been financed by State funds in the respective States. It is channelled from the State Operating Expenditure.

Though the Drainage and Irrigation Ordinance provides for the imposition of irrigation water rates, it has not been enforced in reality in Sabah. As regards the State of Sarawak, such legal provisions is not even in existence.

16. SEWERAGE AND URBAN DRAINAGE

16.1 Background

At present, central treatment works of sewage can be found only in major cities of Sabah. Sarawak has not installed any sewerage system even in Kuching, the capital of the State. Provision of urban drainage works has not been so significant in the respective States, mainly being carried out in the form of road-side drains. Several plans of large-scale urban drainage projects are proceeding but still in the study phase.

In Sabah, Kota Kinabalu, Sandakan, Tawau, Lahad Datu, Labuan, Semporna and Kudat are the cities already provided with central sewerage systems. Besides these, in Tuaran and Keningau, newly-planned sewage treatment facilities by oxidation method are under construction and will come into operation in 1982. Existing systems only cover limited areas less than 3 km far from city centers. In many cases, treatment of sewage relies on direct discharge into the sea. Extension or improvement of the sewerage systems is thus considered for almost all the above-mentioned cities.

In case of Sarawak, by the end of the 5MP period, four cities will be provided with central sewerage systems. Studies are now under preparation for Kuching, Sibul, Bintulu and Miri. Treatment of sewage in most of the urban areas is still dependent on septic tanks.

16.2 Legal Provisions

The Public Health Ordinances of both the States are the representative laws in relation to sewerage and urban drainage services. According to these legislations, Local Authorities are responsible for the installation within their jurisdiction. The responsibilities are prescribed as follows:

"A local authority may and shall where so required by the Yang di-Pertua Negeri provide, repair and maintain such public sewers and public drains as may be necessary for effectually draining and cleansing its area, and make such provision by means of sewage disposal works or otherwise as may be necessary for effectually dealing with the contents of such sewers (Sabah, §112)," and

"A local council may, and shall where so required by the Governor in Council, provide, repair and maintain such public drains as may be necessary for effectually draining and cleansing its local area, and make such provision by means of sewage disposal works for effectually dealing with the contents of such sewers (Sarawak, §75)."

These duties are derived from those of sanitary services by the Local Authority, which are stipulated in the Public Health Ordinances as shown in Table 24.

The Local Government Ordinance of Sabah and the Local Authority Ordinance of Sarawak also have provisions similar to those of the Public Health Ordinances. It is to be noted that the Ordinance of Sabah provides for connection with regional planning by Local Authorities under the Town and Country Planning Ordinance, while no such provision can be found in Sarawak.

However, in case of Sarawak, the Public Health Ordinance provides that the Local Authority shall obtain the approval of the Director of the Medical Services of the Medical Department before the implementation of sewerage projects.

16.3 Agencies and Activities

Notwithstanding the legal provisions as mentioned above, practical implementation of sewerage projects and provision of urban drainage works has hardly fallen on Local Authorities in each State. The effectiveness of the Public Health Ordinances regarding sewerage and urban drainage is scarce, especially in the State of Sarawak.

The Hydraulics Branch of Sabah PWD takes charge of sewerage and urban drainage projects on behalf of Local Authorities throughout the State. An exception may be found within the Kota Kinabalu Municipal Council Area where the powers of operating and maintaining sewage treatment plants were transferred from PWD to the Municipal Council after 1979. Other Local Authorities only supervise the installment of septic tanks where central sewerage systems have not been provided. Fig. 40 shows the procedure of almost all sewerage projects within the State of Sabah. As understood from Fig. 40, Local Authorities rarely take the initiative in sewerage projects. The same situation is found in the provision of urban drainage works. Local Authorities of Sabah only assure the maintenance of small drainage works including housing estate drains and "five foot drains" in town centers. They play a limited role in the implementation of sewerage and urban drainage projects, only assenting to the plans which PWD has proposed.

Inside the organization of Sabah PWD, project implementation for sewerage and urban drainage is undertaken in the same way as other charged duties. This process is as shown in Fig. 38. The Hydraulics Branch in the headquarters carries out the basic planning and supervision. Detail design and construction are obligated to the other Branches of PWD in the respective technical fields. Divisional offices of PWD maintain almost all sewerage systems and undertake the protection of road-side drains. In Sabah, maintenance of sewerage systems is performed usually under the formal agreement of the Local Authority concerned. The Hydraulics Branch directs such divisional PWD offices technically and gives advice to Local Authorities on drainage and sewerage proposals made by private developers. In the areas where the existence and activities of Sabah PWD are insufficient, Sabah DID takes part in the provision

of urban drainage works. Moreover, DID by itself has been investigating the improvement of drains in a few major urban areas of Sabah.

In case of Sarawak, the practical role of PWD is only in sewerage projects. However, as mentioned before, a central sewerage system has not been installed anywhere. The Water Supplies and Sewerage Branch of PWD headquarters is in charge but the allocated personnel for such sewerage projects is only one person.

The funds for the construction of secondary or tertiary drainage works are allocated to the projects of LSD in Sarawak. LSD's function involves regional planning as described in Section 10.4. In major urban centers, usually designated to be "development areas" under the Land (Control of Sub-division) Ordinance, urban drainage works are constructed by PWD on LSD's funds. Sarawak DID carries out the provision of urban drainage works until trunk drains, as a part of flood mitigation measures. The Bintulu Development Authority implements urban drainage survey in its responsible areas.

Local Authorities of Sarawak, as such, execute more limited activities than those of Sabah with respect to sewerage and urban drainage services. They are merely able to supervise the installment of septic tanks to households and to carry out small-scale drainage works, piece by piece of the land lots.

The Medical Departments of the respective States distribute the standards of septic tanks together with samples to Local Authorities. In practice, legal provisions as described in Section 16.2 has not been enforced in Sarawak. Although consultations of sanitation problems between the Medical Department and Local Authorities are frequently held, any stronger relation or coordination may not take place.

16.4 Financing and Charging System

Almost all projects for sewerage and urban drainage in Sabah are financed by State grants to PWD. These funds are allocated directly to the projects of PWD in the State 5-Year Development Plan. The cost of planning, detail design and construction comes from these PWD's funds. This situation is clearly indicated in Table 58.

Sabah PWD receives the payment of an annual rent from Local Authorities in reward of the operation and maintenance of the sewerage systems. Local Authorities raise sewerage charges in the form of house assessment rate over the ordinary one within the areas where sewerage system is served. Each city has its own ascent of the assessment rate as sewerage charge; 4% in Sandakan, 6% in Tawau and 7% in Kota Kinabalu. It is imposed on the value of households after the valuation by LSD.

In Sarawak, the financing system is different between sewerage and urban drainage projects. Implementation of sewerage projects, only under preparation at present, is to be financed by PWD's funds, while those of LSD are allotted to urban drainage projects other than for flood mitigation works. Sarawak LSD requests PWD to provide urban drainage works

and supplies construction cost. Urban drainage projects of DID as a part of Flood mitigation measures are financed by Federal funds. These are Federal reimbursable projects.

Local Authorities of both the States are burdened with heavy responsibilities in spite of small amount of revenue. For this reason, State agencies undertake the projects for sewerage and urban drainage on behalf of them. In Peninsular Malaysia, Local Authorities receive Federal funds for sewerage projects through the channel of the Ministry of Housing and Local Government, Malaysia. However, such direct channels of loans from the Federal Government are not available in the States of Sabah and Sarawak. Therefore, Local Authorities of the respective States can do nothing but act a limited part in providing sewerage systems or urban drainage works.

The setting of a septic tank is the duty of each houseowner, estate or housing developer within the Local Authority Area. Any monetary assistance is not offered by the Authority towards such installment. In some Local Authority Areas, a charging system to maintain "communal" septic tanks is adopted. A typical example is found in KMC Area in Sarawak, which takes the form of raised house assessment rates like the sewerage charge system in Sabah.

17. HYDROPOWER GENERATION

17.1 Background

Electricity is the Federal matter generally under List I in the Ninth Schedule to the Federal Constitution. With a view to producing and distributing electrical energy, the National Electricity Board (NEB) has been instituted as a Federal statutory body. However, NEB functions only within Peninsular Malaysia. Electrical services of NEB extend to neither Sabah nor Sarawak. The States of Sabah and Sarawak have their own statutory bodies to manage electricity generation and supply. These electricity-managing agencies were established before Malaysia Day.

The Federal Constitution additionally provides for special arrangements of legislative and executive powers with regard to hydropower. List IIIA of the Ninth Schedule enumerates supplementary items belonging to the Concurrent List for the States of Sabah and Sarawak as shown in Table 1. Included in List IIIA are "the production, distribution and supply of water power and of electricity generated by water power (Clause 13)". Therefore, hydropower generation appertains to the Concurrent List in case of both the States.

Hitherto, water power has not been employed in electricity generation either in Sabah or Sarawak. Even at present, all electrical energy is generated by diesel power plants in Sabah, while, in Sarawak, gas turbine power plants are installed besides diesel plants. No hydropower station in operation is found in either State. However, an enlarging power demand for the future may indicate the requirement of utilizing water power effectively in the electricity generation.

One hydropower generation project is ongoing in each State; namely, the Tenom Pangi Project of Sabah and the Batang Ai Project of Sarawak. These two projects are both at the construction stage, and will begin operation by the end of the 4MP period. The Tenom Pangi power station with the capacity of 66 MW is scheduled to come into commission in 1984, and the Batang Ai power station with the capacity of 92 MW in 1985. Five or more other large-scale hydropower generation sites are identified in the two States, but all of them are still in the study phase.

In both the States, "mini-hydropower" schemes are in progress, as a part of the rural electrification program. In each State, 10 are at planning stage, which are to be constructed during the 4MP period. Installed capacity of each mini-hydropower station will be less than 1,000 kW.

17.2 Legal Provisions

The basic laws regarding electrical energy are the Electricity Ordinances of both the States. The respective Electricity Ordinances stipulate the necessity of licence for undertaking electrical services as follows:

"No public or local authority, company or person not being a licensee under this Ordinance shall generate or transmit a supply of electrical energy or construct, maintain or operate works for such generation or transmission of electrical energy (Sabah, §4)," and

"No person shall use, work or operate any installation or supply to or for the use of any other person energy from the installation except under and in accordance with the terms of a licence issued by the Governor authorizing such use or supply (Sarawak, §4)."

Though framed as State laws at their promulgation, later in 1965, both the Ordinances were declared as Federal laws. The transference was attained by Law Notice 199/65 relating to the Ordinance of Sabah, and by 200/65 on that of Sarawak, in order to coincide with the distribution of legislative powers under the Federal Constitution.

Each State has legislated the law by which the establishment of a statutory body to manage electrical services and its duties are provided for. In Sabah, the Electricity Board Ordinance was promulgated in 1956. On the other hand, Sarawak has the Sarawak Electricity Supply Corporation Ordinance which came into force on January 1, 1963.

The structure and involved provisions of the above-mentioned four laws are fundamentally the same as those of the Electricity Act which gives the legal ground of NEB in Peninsular Malaysia. However, one distinct provision is found only in the Electricity Act, relating to the source of water for hydropower generation.

As stated before, hydropower is a matter in the Concurrent Lists for the States of Sabah and Sarawak. Specific laws have not existed in the respective States, but the above-mentioned four laws can partly provide for the matters pertaining to hydropower generation. Table 25 shows such the provisions. The Land Ordinance of Sabah and Land Code of Sarawak also control land use for hydropower generation projects.

17.3 Agencies and Activities

Under the Electricity Board Ordinance of Sabah and the Sarawak Electricity Supply Corporation Ordinance, SEB are established in 1957 and SESCO in 1963, respectively. Electrical power generation and supply system are managed by SEB in Sabah and by SESCO in Sarawak. Hydropower generation likewise lies in the hands of SEB and SESCO. The Ministry of Infrastructure Development of Sabah or the Ministry of Communications and Works of Sarawak generally supervises each statutory body.

The activities of SEB and SESCO are nearly the same within the respective States. These are:

- (1) To manage and work electrical installations transferred to the Board or Corporation under the Electricity Board Ordinance or the Sarawak Electricity Supply Corporation Ordinance, and other apparatus as may be acquired;
- (2) To establish, manage and work such electrical installation as the Board or Corporation may deem it expedient;
- (3) To promote and encourage energy production with a view to economic development of the State, and, in addition, to extend electricity supply schemes to rural areas with the aim of improving the standard of living of rural inhabitants;
- (4) To secure the energy supply at reasonable prices; and
- (5) To advice the State Government on all matters connected with generation, transmission, distribution and management of electrical energy within the State.

In both the States, generated electrical energy is supplied to individual consumers as well as, in bulk, to large consumers. Included in such large consumers are industrial and housing estates, flats, shopping complexes and office complexes in urban areas. As for rural areas, both the extension schemes and electrification schemes are carried out by the respective agencies. Rural electrification program has been undertaken vividly by SEB and SESCO. The ongoing mini-hydropower schemes, as mentioned earlier, clearly show such activities.

The roles of SEB and SESCO with respect to hydropower generation have not been so active until now. However, the pressure of estimated future power demand has compelled each agency to plan big-scale hydropower generation projects involving dam construction. Examples of these may be found in the Tenom Pangi Project by SEB and the Batang Ai Project by SESCO.

SEB or SESCO has maintained the direct relations neither to NEB nor to the Ministry of Energy, Telecommunications and Posts, Malaysia. Indirect relations have been maintained in the form of ad hoc committees or by inter-personal relationships among the officials. The Federal Government will, however, take over the powers of SEB and SESCO which are scheduled to become Federal statutory bodies. The difficulty of financial aids has forced each State Government to part with the agency.

In the respective States, some private corporations are engaged in electricity generation, but none of them have so far involved itself in hydropower generation schemes.

17.4 Financing and Charging System

SEB and SESCO are both self-financing statutory bodies with an independent system of commercial accounting. The main sources of revenue are derived from the sales of electricity. All electricity charges are

fixed and regulated by SEB or SESCO with the approval of the Yang di-Pertua Negeri (Governor) of each State.

In general, Development Expenditure and Recurrent Expenditure of SEB or SESCO must accrue to the revenue earned. In other words, total revenue has to meet total expenditure. Hitherto, the State Government has not given any subsidy to each agency, even when it encounter a deficit. Only Governmental loans are available to be borrowed.

SEB and SESCO are not restricted in their domestic borrowing. As commercial loans have high interest rates, Development Expenditures usually rely on the governmental loans. On the contrary, direct foreign borrowing is restricted. Foreign loans are obtained from ADB, OECF and other sources through the Federal and State Governments. Most of these loans are used for financing of development projects. State or Federal funds expended for the purpose of development are required to appear in the budget estimate of each State Government. Tables 59 and 60 show loans and development funds of SESCO as an example.

Rural electrification schemes including mini-hydropower projects are financed by the grants from the Federal Government through the Ministry of National and Rural Development, Malaysia.

18. INLAND NAVIGATION

18.1 Background

Navigation is one of the major concerns to which the Federal Constitution gives special arrangements to both Sabah and Sarawak. Under the Constitution, it may be summarized that shipping under 15 registered tons belongs to the Concurrent List and that ports and harbours and regulation of traffic on rivers are State matters. In both the States, therefore, the State Government has typical legislative and executive powers with regard to navigation, which is different from the states in Peninsular Malaysia.

Inland navigation plays an important role among overall communication systems in Sarawak. Since roads have been developed mainly to connect major urban centers along the coast, areas in the interior cannot be reached by land transportation method. Most of the large rivers, flowing from the watershed areas near the Indonesian border, serve as convenient navigable waterways. In Sarawak, the river systems have formed traditional transport channels between the interior and coastal areas.

The Rajang river and its huge tributaries are the most frequently utilized river system for navigation in Sarawak. Sibu in the downstream is the commercial center of Sarawak, handling a great deal of the import and export trade for the State. Up to Kapit in the middle-stream areas, boats and vessels carrying goods and passengers frequently come and go. The situation is the same in the other navigable rivers. Coastal navigation is also brisk in Sarawak.

On the other hand, in the State of Sabah, river navigation is concentrated on the two largest river systems in the east - Kinabatangan and Labuk in the Sandakan Division. In the neighbouring areas of these rivers, transport of timber or forest produce, goods and passengers utilize river waterways due to the lack of road networks.

18.2 Legal Provisions

Three laws under the same name are applicable to regulate inland navigation in Sabah and Sarawak. They are the Merchant Shipping Ordinances, Federal and of the respective States. The Federal Ordinance has been extended partly to both Sabah and Sarawak. Sarawak possesses, under the State Ordinance, the Merchant Shipping (Ports and Rivers) Regulations which stipulates the minute rules for the regulation of navigation in and around ports and rivers.

The basic provisions of the four laws in force are presented in Table 26. The main principles are to secure the safety of vessels, seamen and passengers; which relate to oceanic navigation under the Federal Ordinance and to inland navigation under the State Ordinances. A licence or certificate shall be issued to each vessel owner to navigate in the respective waters.

A new law is in preparation by the Ministry of Transport, Malaysia. Integrating the above-mentioned three Ordinances, it will be promulgated in 1982 consisting of three major parts; that is, West Malaysia, Sabah and Sarawak.

The Forest Enactment of Sabah and the Forests Ordinance of Sarawak have other provisions regulating river traffic. According to the provisions of these laws, the Chief Minister of Sabah or the Conservator of Forests of Sarawak may make rules prohibiting or regulating transport of timber or forest produce which might cause obstruction of river navigation. As regards these navigation-related matters, legal provisions are more detailed in case of Sabah than that of Sarawak.

18.3 Agencies and Activities

In both the States, the enforcement agencies of the three Merchant Shipping Ordinances are the Marine Department, basically Federal agency, and the Port Authorities which have been established as State statutory bodies under by-laws. The jurisdictions of the Marine Department and the Port Authorities are entirely exclusive, not overlapped in their own dominating areas.

Being important to communication throughout the State, inland navigation is completely controlled by the Marine Department, Kuching Port Authority and the Rajang Port Authority in Sarawak. Any vessel without a licence cannot navigate in any waterways. The licence exemption is acknowledged only for the small boats without self-propelling powers purely for personal use. The Marine Department issues shipping licences for Sarawak Licenced Ships, comprising:

- (1) Trading ships over 15 net tons and tug-boats (for coastal use and river use),
- (2) Trading ships up to 15 net tons (most of all are river boats), and
- (3) Fishing boats.

Besides these, the management of river wharves or jetties, dredging of rivers, supervision of ship allocation in water surface, ruling ships' speeds and expressing opinions to LSD on the construction of river facilities in view of river navigation are the practical activities of the Marine Department. The consultation or liaison between the Department and the Port Authorities of Kuching and Rajang has been continually held.

In case of Sabah, the Marine Department is a name of complex agency comprising Federal part and State part, while Sarawak Marine Department is the Federal one. Port Offices of the Port and Harbours Department, belonging to the State Government, actually issue the shipping licences to Sabah Licenced Ships, over 15 tons, and Sabah Licenced Small Ships, up to 15 tons, for the use in the waters wholly within Sabah State. However, the activities of river traffic control by the Marine Department are not so acute in Sabah, if compared to those in Sarawak. The Sabah

Ports Authority provides services and facilities for ports, but almost all ports are for maritime equipment in case of Sabah. As such, the Sabah Ports Authority rarely handles inland navigation.

19. INLAND FISHERIES

19.1 Background

The Federal Constitution provides both Sabah and Sarawak with the special executive powers concerning fisheries, which are derived from Clause 12 of List IIIA. Maritime and estuarine fishing and fisheries, therefore, belong to the Concurrent List in Sabah and Sarawak, while those excluding turtles are Federal matters in Peninsular Malaysia. On the contrary, riverine fishing are wholly State matters, which is uniform all over Malaysia.

In both the States, inland fisheries have been not so prosperous except for aquaculture. Almost all products are merely for the use of home consumption. Inland fisheries are more developed in Sarawak, if compared to Sabah where the riverine fishes are rarely found in urban market places.

As regards aquaculture, the species cultivated in the two States are nearly the same; comprising chinese carps for export and the local species in freshwater culture, and mullets, milk-fishes and marine prawns in brackish water. Responsible agencies in each State promote fish culture in inland waters as a cheaper and nourishing source of animal protein to supply the local people.

19.2 Legal Provisions

The Fisheries Act has been partly extended to Sabah and Sarawak since the year 1972. Major provisions are shown in Table 27. The Act includes the provisions with regard to inland fisheries, as follows:

Subsidiary legislation made under the Fisheries Ordinance, 1963, of Sabah and the Sea Fishing and Kilong ordinance of Sarawak shall continue in force until replaced or revoked by subsidiary legislation made under this Act.

The Act authorizes the respective State Governments to administer inland fisheries in line with the special executive powers provided by the Federal Constitution. New subsidiary legislation has not been brought into existence in either State. Therefore, administration systems have still been preserved as they are since Malaysia Day.

The Fisheries Act is the only law that regulates the fishermen's activities in terms of both marine and inland fisheries, providing for regulations concerning the State matters and Federal matters at the same time. Prohibition or restricted areas of fishing shall be prescribed, which is supported by licensing systems. As far as riverine fishing is concerned, the Fisheries Act has not been adopted by the States of Sabah and Sarawak.

19.3 Agencies and Activities

The administrative agencies of inland fisheries are different between both the States.

In Sabah, the Department of Fisheries under the Ministry of Agriculture and Fishery Development is the single agency that carries out overall administration, management and supervision throughout the State including issuing of fishery licences. This Department is the State agency to handle inland fishing activities as well as the coastal and maritime fisheries. The Department of Fisheries regulates fish pond operations all over Sabah. Water intake from irrigation canals for dug-out type fish ponds is granted by the Department based on previous consultations with Sabah DID.

In case of Sarawak, there exist two different bodies; namely, the Inland Fisheries and Aquaculture Section of the Department of Agriculture under the Ministry of Agriculture and Community Development as a State agency, and the Marine Fisheries Department under the Ministry of Agriculture, Malaysia as a Federal agency. The Inland Fisheries and Aquaculture Section mainly supervises inland fishing activities involving brackish water fisheries. The Federal Department controls chiefly maritime fisheries and has powers to issue fishery licences.

However, in Sarawak, the allotment of responsibilities for fishing and fisheries in brackish waters is not clear. Firstly, estuarine fishing or fisheries is belonging to the Concurrent List. In addition, it is difficult to clarify the range of estuarine fishing and fisheries, since sea water intrudes on a large-scale in many rivers. This is a major controversial point at the moment, between the Department of Agriculture and the Marine Fisheries Department.

Furthermore, for the purpose of raising the standard of living among the fishermen, each State has a statutory body which provides the fishermen with necessary aids. They are MAJUIKAN of Sarawak as a Federal body and KO-NELAYAN of Sabah as a State body. The Marine Fisheries Department also gives the aids to fishermen in case of the State of Sarawak.

REFERENCES

FEDERAL LAWS

1. FEDERAL CONSTITUTION
2. MALAYSIA ACT
3. GEOLOGICAL SURVEY ACT (GSA)
4. ENVIRONMENTAL QUALITY ACT (EQA)
5. FISHERIES ACT
6. MERCHANT SHIPPING ORDINANCE

SABAH LAWS

7. LAND ORDINANCE
8. MINING ORDINANCE
9. LOCAL GOVERNMENT ORDINANCE
10. DRAINAGE AND IRRIGATION ORDINANCE
11. SABAH WATER AUTHORITY ENACTMENT
12. ELECTRICITY ORDINANCE
13. TOWN AND COUNTRY PLANNING ORDINANCE
14. FOREST ENACTMENT
15. PUBLIC HEALTH ORDINANCE
16. ELECTRICITY BOARD ORDINANCE
17. MERCHANT SHIPPING ORDINANCE

SARAWAK LAWS

18. LAND CODE
19. LAND (CONTROL OF SUB-DIVISION) ORDINANCE
20. MINING ORDINANCE

21. KUCHING MUNICIPAL ORDINANCE
22. NATURAL RESOURCES ORDINANCE
23. WATER SUPPLY ORDINANCE
24. SARAWAK ELECTRICITY SUPPLY CORPORATION ORDINANCE
25. TOWN AND COUNTRY PLANNING ORDINANCE
26. FORESTS ORDINANCE
27. PUBLIC HEALTH ORDINANCE
28. LOCAL AUTHORITY ORDINANCE
29. MERCHANT SHIPPING ORDINANCE
30. ELECTRICITY ORDINANCE
31. MERCHANT SHIPPING (PORTS AND RIVERS) REGULATIONS

GENERAL REFERENCES

32. FOURTH MALAYSIA PLAN, SARAWAK
33. FOURTH MALAYSIA PLAN, SABAH
34. FOURTH MALAYSIA PLAN, DID
35. PROJECTS FOR STATE OF SARAWAK (PHASE II) FOURTH MALAYSIA PLAN
36. STATE TASK FORCE ON THE FOURTH MALAYSIA PLAN, SPU, 1980
(Unpublished)
37. GENERAL INDEX OF ACTS, ENACTMENTS, ORDINANCES, ETC., Government
Press, 1980
38. RURAL ENVIRONMENTAL SANITATION PROGRAMME, 1973-1980, Division
of Engineering Services, MOH, 1981
39. THE LABUAN TOWN BOARD INSTRUMENT 1961 UNDER THE LOCAL GOVERN-
MENT ORDINANCE, 1961 (Unpublished)
40. AN INTRODUCTION TO THE CONSTITUTION OF MALAYSIA, Tun Mohamed
Suffian, Government Printer, 1976
41. THE CONSTITUTION OF MALAYSIA, ITS DEVELOPMENT 1957-1977,
EDITED BY Tun Mohamed Suffian, Oxford University Press, 1978
42. ANNUAL REPORT OF THE FOREST DEPARTMENT, Sarawak, 1979

43. ANNUAL REPORT OF THE FOREST DEPARTMENT, Sabah, 1979
44. ANNUAL REPORT, JKR, Sarawak, 1975
45. ANNUAL REPORT, JKR, Sarawak, 1978
46. ANNUAL REPORT AND STATEMENT OF ACCOUNTS, Sarawak Land Development Board, 1980
47. ANNUAL DEPARTMENTAL REPORT, DIRECTOR OF MARINE, SARAWAK, 1977
48. SABAH ANNUAL REPORT 1976/77, Federal Department of Information, Sabah, 1976
49. SEB ANNUAL REPORT, 1975
50. SESCO ANNUAL REPORT, 1975-1979
51. QUARTERLY REPORT (FOURTH QUARTERLY), MOH, 1979
52. REPORT OF THE INTER-GOVERNMENTAL COMMITTEE 1962, Government Press, 1963
53. ESTIMATE OF REVENUE AND EXPENDITURE, Sarawak State Government, 1976-1978
54. ESTIMATE OF REVENUE AND EXPENDITURE, Sabah State Government, 1976-1981
55. BUDGET ESTIMATE, DOE, 1981
56. ANGGARAN BELANJAWAN PROGRAM & PRESTASI (BUDGET ESTIMATE, PROGRAMMES & PERFORMANCE), Ministry of Finance, 1980
57. DEVELOPMENT EXPENDITURE ESTIMATES (REVISED) VOL. 1., Ministry of Finance, 1981
58. BELANJAWAN PERSEKUTUAN (FEDERAL BUDGET) 1982, Ministry of Finance, 1981 (Unpublished)
59. FINANCIAL STATEMENT OF KUCHING WATER BOARD, 1981 (Unpublished)
60. FINANCIAL STATEMENT OF KMC, 1981 (Unpublished)
61. ORGANIZATION CHART OF SABAH DID, 1980 (Unpublished)
62. ORGANIZATION CHART OF SEB, 1979 (Unpublished)
63. ORGANIZATION CHART OF SPU, SARAWAK, 1980 (Unpublished)
64. ORGANIZATION CHART OF SFS, 1981 (Unpublished)

65. ORGANIZATION CHART OF WATER SUPPLIES & SEWERAGE BRANCH OF SARAWAK JKR (AS OF OCTOBER 1, 1980) (Unpublished)
66. ORGANIZATION CHART OF SESCO, 1980 (Unpublished)
67. ORGANIZATION CHART OF SARAWAK LSD, 1979 (Unpublished)
68. ORGANIZATION CHART OF SARAWAK FOREST DEPARTMENT, 1980 (Unpublished)
69. ORGANIZATION CHART OF KMC (Unpublished)
70. ORGANIZATION CHART OF MINES DEPARTMENT, 1980 (Unpublished)
71. ORGANIZATION CHART OF MOH, 1980 (Unpublished)
72. ORGANIZATION CHART OF DOE, 1981 (Unpublished)
73. ORGANIZATION CHART OF SARAWAK GSD, 1981 (Unpublished)
74. ORGANIZATION CHART OF GSD, 1980 (Unpublished)
75. ORGANIZATION CHART OF SIBU WATER BOARD, 1981 (Unpublished)
76. ORGANIZATION CHART BY SECTION OF KUCHING WATER BOARD, 1981 (Unpublished)
77. ORGANIZATION CHART OF SABAH MARINE DEPARTMENT, 1981 (Unpublished)
78. FUNCTION CHART OF SARAWAK DID, 1981 (Unpublished)
79. FUNCTIONS & ORGANIZATION OF SARAWAK MARINE DEPARTMENT, 1981 (Unpublished)
80. A WRITE UP ON ITS FUNCTIONS, ACTIVITIES, AND PROBLEMS, Sarawak Land Development Board, 1979 (Unpublished)
81. MALAYSIA: FEASIBILITY STUDY FOR BELURU/LONG LAMA/LIMBANG TRUNK ROAD CONSTRUCTION PROJECT IN SARAWAK, Final Report Vol. 1, JICA, 1980
82. KOTA KINABALU, SANDAKAN & TAWAU SEWERAGE AND DRAINAGE MASTER PLAN AND FEASIBILITY STUDIES, Draft Final Report (Institutional, Management & Financial Studies), Engineering Science Inc., 1981
83. KOTA KINABALU WATER SUPPLY MASTER PLAN STUDIES, Watson, 1977
84. SABAH REGIONAL PLANNING STUDY, FINAL REPORT 3 (SERVICE SECTOR STUDIES), Hunting Technical Services Ltd.
85. SARAWAK TOURISM MASTER PLAN (Final Draft Report), Thompson Berwick Pratt, 1980

86. THE PUBLIC SERVICE HANDBOOK, State Administration and Management Modernisation Unit, Sabah, 1980
87. BUKU PANDUAN, PERKHIDMATAN KERAJAAN (PUBLIC SERVICE HANDBOOK) PUSAT PENGAJIAN PEMBANGUNAN MALAYSIA, (Centre for Development Research, Malaysia), Sarawak, 1980
88. NEGARA KITA: SEJARAH, PENTADBIRAN & DASARASAR PEMBANGUNAN (OUR COUNTRY: HISTORY, ADMINISTRATION & DEVELOPMENT POLICIES), Institute Tadbiran Awam Negara (Institute of Public Administration), 1980
89. INFORMATION MALAYSIA 1980/81, Berita Publishing, 1981
90. PEPERIKSAAN AM KERAJAAN (BARU) BUKU BAHAGIAN DUA, JENTERA PENTADBIRAN KERAJAAN (CIVIL SERVICE EXAMINATION, PART TWO, GOVERNMENT ADMINISTRATIVE MACHINERY), Harcharan Singh Khera, Joginder Singh Jessy, 1981
91. MALAYSIA 1978 - OFFICIAL YEAR BOOK, Government Printer, 1981
92. SARAWAK DRAINAGE & IRRIGATION DEPARTMENT: Proposals of Staff, 1982 (Unpublished)
93. SABAH FORESTRY DEPARTMENT AUTHORITY (Pamphlet)
94. LAND AND SURVEY DEPARTMENT, SARAWAK (Pamphlet)
95. SARAWAK LAND CONSOLIDATION & REHABILITATION AUTHORITY (Unpublished)
96. SABAH, A GENERAL GEOGRAPHY, Godfrey A. Chatfield, Eastern University Press in association with University of London Press, 1972
97. SARAWAK: A GEOLOGICAL SURVEY OF A DEVELOPING STATE, James C. Jackson, University of London Press Ltd., 1968
98. MEMORANDUM TO SANDAKAN TOWN AND ENVIRONMENT SCHEME, Town and Regional Planning Department, Sabah, 1971
99. ECONOMY AND FOREIGN TRADE OF SABAH AND SARAWAK (Japanese), JETRO, 1980
100. PLANNING PROCEDURE FOR DEVELOPMENT PROJECT IN MALAYSIA (Japanese), JETRO, 1980
101. FOCUS ON SABAH 1978/79, Focus Antara Sdn. Bhd.
102. FOCUS ON SABAH 1980/81 2nd Ed., Focusasia (M) Sdn. Bhd, in collaboration with Sabah State Government, 1981

TABLES

Table 1 DIFFERENCES OF THE WATER-RELATED LEGISLATIVE LISTS
BETWEEN PENINSULAR MALAYSIA AND SABAH/SARAWAK

Item	Peninsular Malaysia	Sabah and Sarawak	
	Federal List	Concurrent List	State List
1. Hydropower	Production, distribution and supply of water power; electricity (I-11(b),(c))	Production, distribution and supply of water power and of electricity generated by water power (IIIA-13)	
2. Fisheries	Maritime and estuarine fishing and fisheries, excluding turtles (I-9(d))	Maritime and estuarine fishing and fisheries. (IIIA-12)	
3. Navigation	Shipping and navigation on the high sea and in tidal and inland waters (I-9(a))	Shipping under fifteen registered tons, including the carriage of passengers and goods by such shipping (IIIA-12)	Ports and harbours, other than those declared to be federal; regulation of traffic by water in ports and harbours or on rivers wholly within the State (IIA-15)
	Regulation of traffic by water other than on rivers outside harbour areas wholly within State (I-10(d))		
4. Research	Social, economic and scientific surveys; scientific and technical research (I-12(b),(c))	Agricultural and forestry research (IIIA-14)	

Remarks; (): Lists in 9th Schedule to the Constitution and Clause number.

Source; Ref. 1

Table 2 SPECIAL PROVISIONS OF EXECUTIVE POWERS IN THE
FEDERAL CONSTITUTION FOR SABAH AND SARAWAK

Item	Additional Provisions
1. Acquisition of Land for Federal Purposes	The Federal Government may require the State Government to cause unalienated land to be made to the Federation if land is needed for federal purposes, after consultation with the State Government. (§ 88-(b))
2. National Policy for Land Utilization	The State Government shall not be required to follow the policy formulated by the National Land Council. (§ 95E-(2))
3. National Policy for Local Government	The State Government shall not be required to follow the policy formulated by the National Council for Local Government. (§ 95E-(2))
4. National Development Plan	No area shall be proclaimed a development area without the concurrence of the Yang di-Pertua Negeri. (§ 95E-(3))
5. Technical Assistance and Advice on Agriculture and Forestry	The agricultural and forestry officers in the State shall not be required to accept professional advice given to the Government of the State. (§ 95E-(4))
6. Water-related Concurrent List	<p>(1) Hydropower Production, distribution and supply of water power and of electricity generated by water power. (IIIA-13)</p> <p>(2) Fisheries Maritime and estuarine fishing and fisheries. (IIIA-12)</p> <p>(3) Navigation Shipping under fifteen registered tons, including the carriage of passengers and goods by such shipping. (IIIA-12)</p> <p>(4) Research Agricultural and forestry research. (IIIA-14)</p>
7. Water-related State List	Ports and harbours, other than those declared to be federal by or under federal law; regulation of traffic by water in ports and harbours or on rivers wholly within the State. (IIA-15)

Remarks; (): Articles in the Constitution or Lists and clauses in 9th Schedule.

Source; Ref. 1

Table 3 DIFFERENCES OF THE FINANCIAL PROVISIONS
IN THE FEDERAL CONSTITUTION BETWEEN
PENINSULAR MALAYSIA AND SABAH/SARAWAK

Item	Peninsular Malaysia	Sabah and Sarawak
1. Audit	<p>The Auditor-General shall submit his reports to the Yang di-Pertuan Agong.</p> <p>Any report relating to the accounts of a State or public authority shall be submitted to the Rural or Yang di-Pertua Negeri and the Legislative Assembly. (§ 107)</p>	<p>The Auditor-General shall submit his reports relating to the accounts of each State or accounts of any public authority to the Yang di-Pertuan Agong and to the Yang di-Pertua Negeri of each State and the Legislative Assembly. (§ 112A)</p>
2. Borrowing	<p>A State shall only borrow, under the authority of State law, from all the banks, with approval of the Federal Government. (§ 111-(2))</p>	<p>Power of each State to borrow is not restricted, under the authority of State Law within the State, if with the approval of Central Bank. (§ 112B)</p>
3. Grants to States	<p>The State shall receive from the Federation the following grants;-</p> <ul style="list-style-type: none"> . Capitation grant in accordance with the provisions of Part I of the Tenth Schedule. . State road grant in accordance with the provisions of Part II of the Tenth Schedule. (§ 109-(1)) 	<p>The State shall receive grants specified in Part IV of the Tenth Schedule and proceeds from taxes, fees and dues specified in Part V of the Tenth Schedule. (§ 112C-(1))</p>
4. Tax or Fee	<p>Parliament may by law provide that each State shall receive a prescribed portion of export duty on minerals (other than tin) produced in the State; whole or any portion of the proceeds of any tax or fee raised or levied by the Federation. (§ 110-(3A) and (4))</p>	<p>In Article 110, Clauses (3A) and (4) shall not apply to the State of Sabah and Sarawak. (§ 112C-(3))</p>
5. National Finance Council	<p>It shall be the duty of the Federal Government to consult the National Finance Council on financial and other matters as listed under Article 108, Clause (4). (§ 108-(4))</p>	<p>Clause (4) of Article 108 shall not apply in respect of matters arising under Article 112D. (§ 112D-(7))</p>

Remarks; (): Articles in the Federal Constitution

Source; Ref. 1

Table 4 SPECIAL GRANTS TO SABAH AND SARAWAK
PROVIDED BY THE FEDERAL CONSTITUTION

Sabah	Sarawak
<p>A grant of an amount equal in each year to two-fifths of the amount by which the net revenue derived by the Federation from Sabah exceeds the net revenue which would have been derived in the year 1963.</p>	<ol style="list-style-type: none"> 1. A grant of \$5,800,000 in each year. 2. A grant in the years after 1968 shall be fixed on a review under Article 112D.*

Remarks; (1): In either case, for any year before 1974, a grant equal to the cost to the State in the year of the State road transport department.

(2): *: Article 112D may be summarized as follows:

- a) The grants shall be reviewed by the Governments of the Federation and the States or State concerned, and if they agree, the related Part and Clause of the Federal Constitution shall be modified.
- b) Any review shall take into account the financial position of the Federal Government, as well as the needs of the States or State concerned.
- c) The period for which provision is to be made on a review shall be a period of five years.
- d) On the occasion of any review, the Government of the Federation give notice to the States or State concerned of their intention to vary the assignments of revenue under Part V of the Tenth Schedule.
- e) If on any review, the Federal Government and the Government of a State are unable to reach an agreement on any matter, it shall be referred to an independent assessor.

(3): Refer to Part IV of Tenth Schedule to the Federal Consitution.

Source; Ref. 1

Table 5 ADDITIONAL REVENUE SOURCES OF SABAH AND SARAWAK
STATES PROVIDED BY THE FEDERAL CONSTITUTION

1. Import duty and excise duty on petroleum products.
2. Export duty on timber and other forest produce.
3. Export duty on the minerals other than tin (but including mineral oils), so long as the royalty levied by the State does not amount to 10%.
4. For any year before 1970, in the case of Sabah, 30% of all customs revenue other than that mentioned in 1, 2 and 3.
5. For any year before 1974, fees from the licences connected with mechanically propelled road vehicles to carry passengers and goods by land.
6. For any year before 1974, fees from the registration of mechanically propelled vehicles.
7. State sales taxes.
8. Fees and dues from ports and harbours other than federal ports and harbours.

Remarks; Refer to Part V of Tenth Schedule to the Federal Constitution.

Source; Ref. 1

Table 6 EFFECTIVENESS OF WATER-RELATED FEDERAL LAWS
IN SABAH AND SARAWAK

Federal Laws/ <u>1</u>	Effectiveness in Sabah and Sarawak	Specific State Laws in Sabah and Sarawak
1. Constitution	0	(Special provisions for Sabah and Sarawak)
2. Drainage Works Ordinance	-	Drainage and Irrigation Ord. (Sabah)
3. Electricity Act	-	Electricity Ordinance*/ <u>2</u> SEB Ordinance/SESCO Ordinance
4. Environmental Quality Act	0	
5. Financial Procedure Act	0	
6. Fisheries Act	0**	
7. Geological Survey Act	0	
8. Irrigation Areas Ordinance	-	Drainage and Irrigation Ordinance (Sabah)
9. Land Acquisition Act	-	Land Acquisition Ordinance (Sabah) Land Code (Sarawak)
10. Land Conservation Act	-	Land Ordinance (Sabah) Land Code/Natural Resources Ordinance (Sarawak)
11. Local Government Act	-	Local Government Ordinance (Sabah) Local Authority Ordinance (Sarawak)
12. Merchant Shipping Ordinance	0**	Merchant Shipping Ordinance/ <u>2</u>
13. Minor Offences Ordinance	-	Minor Offences Ordinance/ <u>2</u>
14. National Land Code	-	Land Ordinance (Sabah) Land Code (Sarawak)
15. National Parks Act	-	National Parks Enactment (Sabah) National Parks Ordinance (Sarawak)
16. Padi Cultivators Act	-	Rice Cultivation Ordinance (Sabah)
17. Protected Areas and Protected Places Ordinance	0	
18. Protection of Wild Life Act	-	Fauna Conservation Ordinance (Sabah)
19. Road Traffic Ordinance	-	Road Traffic Ordinance/Road Vehicle Ordinance/ <u>2</u>
20. State Water Supply Fund Act	-	
21. Street, Drainage and Building Act	-	Local Government Ordinance (Sabah) Local Authority Ordinance (Sarawak) Public Health Ordinance/ <u>2</u>
22. Town and Country Planning Act	-	Town and Country Planning Ordinance/ <u>2</u>

Remarks; 0 : effective, -: not effective

1: In alphabetical order

2: Under the same name in both Sabah and Sarawak

* : Declared as Federal laws in 1965

** : Partly extended to both the States

Table 7 COMPARISON OF MAJOR WATER-RELATED STATE LAWS
BETWEEN PENINSULAR MALAYSIA AND SABAH/SARAWAK

Law in Peninsular Malaysia	Law in Sabah and Sarawak
1. State Constitution	State Constitution
2. Waters Enactment ^{/1}	-
3. Forest Enactment	Forest Enactment (Sabah) Forests Ordinance (Sarawak)
4. Mining Enactment	Mining Ordinance ^{/4}
5. Water Supply Enactment ^{/2}	Water Supply Ordinance ^{/4} Sabah Water Authority Ordinance (Sabah)
6. Town Boards Enactment	Local Government Ordinance (Sabah) Local Authority Ordinance (Sarawak)
7. River Launches Enactment ^{/3}	-
8. State Development Corporation Enactment	Sabah Economic Development Corpora- tion Enactment (Sabah) Perbadanan Pembangunan Ekonomi Sarawak (Sarawak)

Remarks; /1: Except for Kelantan State's Rivers and Drainage Enactment.

/2: In the State of Melaka and P. Pinang, Malacca Water Authority Enactment and Penang Water Authority Enactment were promulgated, respectively.

/3: Except for Kelantan State's River Traffic Enactment.

/4: Under the same name in both the States.

Table 8 WATER-RELATED STATE LAWS IN SABAH (1/2)

Law	Date of Promulgation	Summary of Content
Land Ordinance	Dec. 13, 1930	Alienation and occupation of Lands
Land Acquisition Ordinance	Jun. 28, 1950	Acquisition of land for public purposes
Town and Country Planning Ordinance	Jun. 28, 1950	Development of land, towns and other areas
Electricity Ordinance	Oct. 15, 1950 (Declared to be a Federal law, in 1965)	Supply of electricity for lighting and other purposes
Rural Administration Ordinance	Dec. 6, 1951	Administration of rural areas and establishment of Local Authorities
Drainage and Irrigation Ordinance	Sep. 29, 1956	Establishment and regulation of Drainage and Irrigation Areas
Electricity Board Ordinance	Dec. 22, 1956	Establishment of Sabah Electricity Board
Public Health Ordinance	Apr. 7, 1960	Maintaining of public health
Merchant Shipping Ordinance	Aug. 19, 1960	Administration of merchant shipping
Mining Ordinance	Oct. 11, 1960	Mining
Local Government Ordinance	Sep. 21, 1961	Administration of Local Governments
Water Supply* Ordinance	Sep. 21, 1961	Control and regulation of supply of water
Water Supply Regulations	Dec. 21, 1961	Control and regulation of supply of water
Forest Enactment	Aug. 20, 1968	Preservation of forests and regulation and control of dealings in forest produce

Remarks; *: Repealed by the promulgation of the Sabah Water Authority Enactment.

Table 9 WATER-RELATED STATE LAWS IN SABAH (2/2)

Law	Date of Promulgation	Summary of Content
Sabah Tourism Promotion Enactment	Aug. 28, 1976	Establishment of a Tourism Promotion Corporation
National Parks Enactment	Sep. 30, 1977	Provision and control of National Parks and National Reserves
Rural Development Corporation Enactment (Pembangunan Desa Sabah Enactment)	Sep. 30, 1977	Establishment of Koperasi Pembangunan Desa
Sabah Water Authority Enactment	Apr. 27, 1981	Establishment of Sabah Water Authority to manage water supply

Table 10 WATER-RELATED STATE LAWS IN SARAWAK

Law	Date of Promulgation	Summary of Content
Local Authority Ordinance	Jan. 17, 1948	Administration of Local Governments
Mining Ordinance	Jun. 1, 1949	Mining other than oil mining
Natural Resources Ordinance	Dec. 12, 1949	Conservation of natural Resources
Town and Country Planning Ordinance	Jun. 18, 1952	Development of towns, land and other areas
Kuching Municipal Ordinance	Jan. 1, 1953	Establishment of Municipal Government in Kuching
Forests Ordinance	Jan. 1, 1954	Protection and management of forests, regulation of taking of forest produce
Land (Control of Sub-division) Ordinance	Mar. 26, 1954	Regulation of development of land by sub-division
Electricity Ordinance	Jan. 1, 1956 (Declared to be a Federal law in 1965)	Control and regulation of electrical installations and supply of electricity
National Parks Ordinance	Feb. 16, 1956	Constitution, maintenance and control of National Parks
Land Code	Jan. 1, 1958	Administration of land
Water Supply Ordinance	Jan. 1, 1959	Control and regulation of supply of water
Water Supply Regulations	Jan. 1, 1959	Control and regulation of supply of water
Merchant Shipping Ordinance	Apr. 5, 1960	Administration of merchant shipping
Merchant Shipping (Ports and Rivers) Regulations	Feb. 10, 1961	Administration of merchant shipping
Public Health Ordinance	Dec. 21, 1962	Maintaining of public health
Sarawak Electricity Supply Corporation Ordinance	Jan. 1, 1963	Establishment of Sarawak Electricity Supply Corporation

Table 11

LAWS BY MAJOR CONCERN IN WATER RESOURCES
DEVELOPMENT AND MANAGEMENT (1/2)

Major Concern	Laws	
	Sabah	Sarawak
1. River Management	Land Ordinance Mining Ordinance Local Government Ordinance	Land Code Mining Ordinance Kuching Municipal Ordinance
2. Flood Mitigation	Land Ordinance Local Government Ordinance Drainage and Irrigation Ordinance	Natural Resources Ordinance Kuching Municipal Ordinance
3. River Water Use	Sabah Water Authority Enactment Electricity Ordinance Mining Ordinance	Water Supply Ordinance Sarawak Electricity Supply Corporation Ordinance Mining Ordinance
4. Utilization of River Areas and Land Use Control	Land Ordinance Mining Ordinance Town and Country Planning Ordinance	Land Code Mining Ordinance Town and Country Planning Ordinance Land (Control of Sub-division) Ordinance
5. Groundwater Use	Geological Survey Act (Federal) Sabah Water Authority Enactment	
6. Watershed Management	Land Ordinance Forest Enactment	Land Code Water Supply Ordinance Forests Ordinance
7. Water Quality and Pollution Control	Environmental Quality Act (Federal) Public Health Ordinance Mining Ordinance	Public Health Ordinance Kuching Municipal Ordinance Local Authority Ordinance Mining Ordinance Merchant Shipping Ordinance Merchant Shipping (Ports and Rivers) Regulations

Table 12 LAWS BY MAJOR CONCERN IN WATER RESOURCES DEVELOPMENT AND MANAGEMENT (2/2)

Major Concern	Laws	
	Sabah	Sarawal
8. Dam Construction	Sabah Water Authority Enactment	Water Supply Ordinance Kuching Municipal Ordinance Sarawak Electricity Supply Corporation Ordinance
9. Water Supply	Sabah Water Authority Enactment Local Government Ordinance	Water Supply Ordinance Local Authority Ordinance Kuching Municipal Ordinance
10. Irrigation and Agricultural Drainage	Drainage and Irrigation Ordinance Land Ordinance	Local Authority Ordinance Land Code
11. Sewerage and Urban Drainage	Local Government Ordinance Public Health Ordinance	Local Authority Ordinance Public Health Ordinance Land (Control of Sub- division) Ordinance
12. Hydropower Generation	Electricity Ordinance Electricity Board Ordinance	Electricity Ordinance Sarawak Electricity Supply Corporation Ordinance
13. Inland Naviga- tion	Merchant Shipping Ordinance (Federal) Merchant Shipping Ordinance	Merchant Shipping Ordinance Merchant Shipping (Ports and Rivers) Regulations
14. Inland Fisheries	Fisheries Act (Federal)	

Table 13 PROVISIONS OF WATER-RELATED LAWS (1/15)
(RIVER MANAGEMENT)

Sabah	Sarawak
<p><u>Land Ordinance (§ 26)</u></p> <p>(1) The entire property in and control of the waters of all rivers is vested solely in the Government.</p> <p>(2) The Government has power to reserve portion of land along the banks of rivers streams or creeks.</p> <p><u>Mining Ordinance (§ 23)</u></p> <p>The entire property in and control of all rivers is reserved to the State and no person shall in the course of mining operations interfere with the bank of any river, or otherwise interfere with the flow of any rivers without the consent of the Director (of LSD).</p> <p><u>Local Government Ordinance (§ 48)</u></p> <p>An Authority may divert, straighten, define and canalize the course of any canal, drain, stream or watercourse in any urban area, subject to the consent of the Governor.</p>	<p><u>Land Code (§ 12)</u></p> <p>The entire property in and control of State land and of all rivers, streams, canals, creeks and watercourses and the bed thereof is and shall be vested solely in the Government.</p> <p><u>Mining Ordinance (§ 4)</u></p> <p>The entire property in and control of all minerals, and of all rivers, streams and watercourses throughout Sarawak, is and shall be vested in the Crown (= State Government).</p> <p>No person shall divert or impound water for the purpose of mining operations except as provided in this Ordinance.</p> <p><u>Kuching Municipal Ordinance (§ 84)</u></p> <p>The Council shall have power to make, divert, straighten, define and control the course of any stream or watercourse, subject to the consent of the Governor.</p>

Source; Refs. 7, 8, 9, 18, 20 & 21

Table 14 PROVISIONS OF WATER-RELATED LAWS (2/15)
(FLOOD MITIGATION)

Sabah	Sarawak
<p><u>Land Ordinance (§ 171)</u></p> <p>Unauthorized interference or encroachment by breaking or injuring waterway or otherwise, shall be immediately abated and removed.</p>	<p><u>Natural Resources Ordinance (§ 10)</u></p> <p>The Natural Resources Board may order the owner or occupier of any land to undertake necessary measures to conserve natural resources.</p> <p>Such order may relate to:</p> <ul style="list-style-type: none"> (a) the preservation and protection of the source, course and banks of streams; (b) the control of water, including storm water; (c) others.
<p><u>Local Government Ordinance (§ 48)</u></p> <p>An Authority may divert, straighten, define and canalize the course of any canal, drain, stream or watercourse in any urban area, subject to the consent of the Governor.</p>	<p><u>Kuching Municipal Ordinance (§ 84)</u></p> <p>The council shall have power to make, divert, straighten, define and control the course of any stream or watercourse, subject to the consent of the Governor.</p>
<p><u>Drainage and Irrigation Ordinance (§ 12)</u></p> <p>The works in every drainage and irrigation area shall be in the charge of an Executive Officer (DID).</p>	
<p><u>Drainage and Irrigation Ordinance (§ 14)</u></p> <p>The Executive Officer (DID) may enter upon any land and fill up, construct, widen or drain any canal, watercourse, drain, ditch, pond or swamp whether within or without a drainage and irrigation area.</p>	

Source; Refs. 7, 9, 10, 21 & 22

Table 15 PROVISIONS OF WATER-RELATED LAWS (3/15)
(RIVER WATER USE)

Sabah	Sarawak
<p><u>Sabah Water Authority Enactment</u> <u>(§ 5)</u></p> <p>It shall be the duty of the Authority to make rules governing the abstraction and use of water.</p>	<p><u>Water Supply Ordinance (§ 28)</u></p> <p>The Governor in Council may make regulations to provide for the regulation, protection and control of the waterworks, including any river intakes connected therewith.</p>
<p><u>Sabah Water Authority Enactment</u> <u>(§ 32)</u></p> <p>The Minister (of Infrastructure Development) may declare any lake, river or waterway or any part thereof to be a prescribed source of water.</p> <p>No person shall dam up or otherwise interfere with any prescribed source of water without first serving notice on the Secretary of the Authority.</p>	
<p><u>Electricity Ordinance (§ 116)</u></p> <p>Nothing in the licence shall authorize the licensee to take or use water of lake, river, channel or creek, without the previous consent of the Governor.</p>	<p><u>Sarawak Electricity Supply Corporation Ordinance (§ 14)</u></p> <p>The Corporation may, subject to compliance with the provisions of any written law relating to the issue of water licences, abstract water from any lake, river, stream or other natural source.</p>
<p><u>Mining Ordinance (§ 23)</u></p> <p>No person shall in the course of mining operations divert, contaminate or diminish the flow of any river, creek or stream, without the consent of the Director (LSD).</p>	<p><u>Mining Ordinance (§ 57)</u></p> <p>It shall be lawful for the Senior Inspector (of Mines) to issue to any person who is mining or about to mine any land a licence to divert, make use of such water in such places, manner, quantities, by such means and on such conditions as he may think fit.</p>

Source; Refs. 8, 11, 12, 20, 23 & 24

Table 16 PROVISIONS OF WATER-RELATED LAWS (4/15)
(UTILIZATION OF RIVER AREAS AND LAND USE CONTROL.)

Sabah	Sarawak
<p><u>Land Ordinance (§ 28)</u></p> <p>The Yang di-Pertua Negeri may reserve any Crown (= State) lands which are required for any public purpose.</p>	<p><u>Land Code (§ 38)</u></p> <p>The Government shall reserve all unalienated land within 66 feet on each side along the banks of all navigable rivers, streams, canals or creeks; if the width is less than 33 feet, the reserve on each bank shall be twice its width.</p>
<p><u>Land Ordinance (§ 26)</u></p> <p>The Government has power to reserve portion of land as may deemed advisable along the banks of rivers, streams or creeks.</p>	<p><u>Land Code (§ 32)</u></p> <p>No person may remove any rock material or any manufactured commodities without a licence issued by the Superintendent (LSD).</p>
<p><u>Mining Ordinance (§ 11)</u></p> <p>A prospecting permit or licence shall convey to the holder or licensee no right to interfere with the banks of any river, creek, stream or watercourse without the consent of the Director (LSD).</p>	<p><u>Mining Ordinance (§ 61)</u></p> <p>It shall be lawful for the Director (LSD) to grant to any person a licence to erect, cut or construct upon or through any Crown (= State) or alienated lands for the purpose of mining.</p>
<p><u>Town and Country Planning Ordinance (§ 15)</u></p> <p>No person shall carry out any development of land until an approved scheme takes effect except with the permission of the Local Authority, within the jurisdiction of any Local Authority.</p>	<p><u>Town and Country Planning Ordinance (§ 4)</u></p> <p>No person shall carry out any development of land until a draft scheme for the Planning Area is approved except with the permission of the Authority having jurisdiction over the Planning Area.</p>
	<p><u>Land (Control of Sub-division) Ordinance (§ 3, § 5)</u></p> <ol style="list-style-type: none"> (1) Every area specified in the Schedule shall be a development area for the purpose of this Ordinance. (2) Whenever any person owing any land in any development area proposes to sub-divide such land, three copies of a draft plan shall be prepared and submitted to the Superintendent of Lands and Surveys.

Sources; Refs. 7, 8, 13, 18, 19, 20 & 25

Table 17 PROVISIONS OF WATER-RELATED LAWS (5/15)
(GROUNDWATER USE)

Sabah

Sarawak

(Federal) Geological Survey Act (§ 13)

- (1) Any person who develops a well shall notify the Director General (GSD) of such details as may from time to time be prescribed.
- (2) A well does not include what is less than 30 feet in depth without reaching bedrock or yield less than 500 gallons of water per day and is used only for the domestic purposes.

Sabah Water Authority Enactment

(§ 5)

It shall be the duty of the Authority to make rules governing the abstraction of water, and to undertake all works relating to the abstraction.

Source; Refs. 3 & 11

Table 18 PROVISIONS OF WATER-RELATED LAWS (6/15)
(WATERSHED MANAGEMENT)

Sabah	Sarawak
<p><u>Land Ordinance (§ 26)</u></p> <p>The Government has power to reserve portion of land as may be deemed advisable along the rivers or along hill ridges.</p> <p><u>Land Ordinance (§ 28)</u></p> <p>The Yang di-Pertua Negeri may reserve any Crown (= State) lands for any public purpose.</p>	<p><u>Land Code (§ 12)</u></p> <p>The entire property in and control of State land shall be vested solely in the Government.</p> <p><u>Water Supply Ordinance (§ 4)</u></p> <p>The Water Authority shall cause the limits or areas of any catchment area to be demarcated or surveyed.</p> <p>Thereafter no unalienated land within such limits or areas shall be alienated, granted, transferred or sold.</p>
<p><u>Forest Enactment (§ 5, § 6, § 7)</u></p> <p>(1) The Yang di-Pertua Negeri may constitute any State land to be a Forest Reserve.</p> <p>(2) Whenever it is proposed to constitute a Forest Reserve, the Chief Minister shall publish in Gazette a notice of the intention.</p> <p>(3) In Forest Reserves:</p> <p>a) no new title shall be issued without the specific approval;</p> <p>b) no new right or privilege shall be acquired;</p> <p>c) no new building/plantation shall be made;</p> <p>d) no fresh clearing for cultivation or other purposes shall be made.</p>	<p><u>Forests Ordinance (§ 3, § 4, § 5, § 6)</u></p> <p>(1) The Minister (of Forestry) may constitute any State land a forest reserve.</p> <p>(2) Where it is proposed to constitute any land a forest reserve, there shall be published in Gazette a notification declaring such intention.</p> <p>(3) Upon publication, the Resident shall issue a Proclamation.</p> <p>(4) In the forest reserve:</p> <p>a) no new right shall be acquired;</p> <p>b) no new home shall be built;</p> <p>c) no fresh clearing for cultivation and no tree cut or forest produce shall be taken.</p>

Source; Refs. 7, 14, 18, 23 & 26

Table 19 PROVISIONS OF WATER-RELATED LAWS (7/15)
(WATER QUALITY AND POLLUTION CONTROL)

Sabah	Sarawak
<u>(Federal) Environmental Quality Act (§ 25)</u>	
<p>(1) No person shall, unless licenced, emit, discharge or deposit any wastes into any inland waters in contravention of the acceptable conditions.</p> <p>(2) Without limiting the generality of (1), a person shall be deemed to emit, discharge or deposit wastes into inland waters if he does the actions specified.</p>	
<u>Public Health Ordinance (§ 39)</u>	<u>Public Health Ordinance (§ 28)</u>
<p>(1) It shall be the duty of every local authority to take all lawful, necessary and reasonably practicable measures for preventing any pollution dangerous to health of any water supply.</p> <p>(2) The (Medical Dpt.) Director may define minimum standards of purity of any water supply, and require the local authority or owner of supply to supply him with samples of any water supply.</p>	<p>(1) It shall be the duty of every local council to take all lawful, necessary and reasonably practicable measures for preventing any pollution dangerous to health of any well, river or other source of water supply.</p> <p>(2) The Director (of Medical Services) may define minimum standards of any water supply.</p>
	<u>Kuching Municipal Ordinance (Sixth Schedule)</u>
	The Council may make by-laws for:
	<p>(a) preventing the pollution of any water;</p> <p>(b) preventing the pollution of catchment areas, rivers, canals, wells, reservoirs, and so on.</p>
	<u>Local Authority Ordinance (§ 31)</u>
	A Local Authority may make by-laws for preventing the pollution of the water in any stream, watercourses or water-hole.

Source; Refs. 4, 15, 21, 27 & 28

Table 20 PROVISIONS OF WATER-RELATED LAWS (8/15)
(WATER QUALITY AND POLLUTION CONTROL)

Sabah	Sarawak
<p><u>Mining Ordinance (§ 18)</u></p> <p>There shall be implied in every lease (for mining):</p> <ul style="list-style-type: none"> - that the lessee will carry on all his mining operations in an orderly manner, so that the mine will not cause danger or damage to persons employed in or about the mine. 	<p><u>Mining Ordinance (§ 66)</u></p> <ol style="list-style-type: none"> (1) Every lessee of mining land shall make such provision as will ensure that all water shall be freed from all chemicals deleterious to animal or vegetable life. (2) No lessee of mining land shall allow effluent water containing solid matter in excess of the amount prescribed to discharge into any river or natural water course. <p><u>Merchant Shipping Ordinance (§ 50, § 52)</u></p> <ol style="list-style-type: none"> (1) No oil, oily bilge water or substance containing oil shall be discharged or allowed to escape from any vessel into any river or port. (2) No refuse, filth or excreta shall be discharged upon any portion of any wharf, jetty or landing stage. <p><u>Merchant Shipping (Ports and Rivers) Regulations (§ 50)</u></p> <p>No oily bilge water or substance containing oil of any description shall be discharged or allowed to escape from any vessel into any river or port.</p>

Source; Refs. 8, 20, 29 & 31

Table 21 PROVISIONS OF WATER-RELATED LAWS (9/15)
(DAM CONSTRUCTION)

Sabah	Sarawak
<p><u>Sabah Water Authority Enactment</u> <u>(§ 5)</u></p> <p>It shall be the duty of the Authority to construct reservoirs and all other buildings and works relating to the supply of water.</p>	<p><u>Water Supply Ordinance (§ 5)</u></p> <p>The Water Authority shall have the custody and administration of water works.</p>
	<p><u>Kuching Municipal Ordinance</u> <u>(§ 77, § 85)</u></p> <p>(1) The Council shall have power to make new dams within the municipality.</p> <p>(2) The Council may construct within the municipality dams, reservoirs, and other works for supplying and storing water, as may from time to time be necessary.</p>
<p><u>Electricity Ordinance (§ 6)</u></p> <p>The Government may grant licences comprising all or any portion of the works necessary for generating electric power either by fuel or by head of water, including the right to dam up lakes and rivers.</p>	<p><u>Sarawak Electricity Supply Corporation Ordinance (§ 14)</u></p> <p>The Corporation may construct buildings and works including the abstraction of water from any lake, river, stream or other natural source, subject to compliance with the provisions of any written law relating to the issue of water licences.</p>

Source; Refs. 11, 12, 21, 23 & 24

Table 22 PROVISIONS OF WATER-RELATED LAWS (10/15)
(WATER SUPPLY)

Sabah	Sarawak
<p><u>Sabah Water Authority Enactment</u> (§ 5, § 7, § 41, § 43)</p> <p>(1) It shall be the duty of the Authority:</p> <p style="margin-left: 2em;">a) to ensure/provide the supply water to the public;</p> <p style="margin-left: 2em;">b) to supply water at reasonable charges;</p> <p style="margin-left: 2em;">c) to make rules</p> <p>(2) The Authority may supply water to any person who undertakes to enter into a contract with it.</p> <p>(3) The Authority may within the Local Government area supply a private service of water for domestic purposes.</p> <p>(4) The Authority may outside a Local Government area supply a private service of water for domestic purposes.</p> <p>(5) The Authority may supply water to companies or persons for trade purposes.</p>	<p><u>Water Supply Ordinance (§ 2, § 3, § 5)</u></p> <p>(1) "Water Authority" means the Director of Public Works, a Water Board or such other person, officer or authority to administer, manage or supervise a water works for the supply of water.</p> <p>(2) The Governor in Council may establish a Water Board to administer any waterworks.</p> <p>(3) The Water Authority shall have the custody and administration of the waterworks and of the water therein, and the management of the supply and distribution of such water.</p>
<p><u>Local Government Ordinance (§ 83)</u></p> <p>The objects for which rates may be prescribed are</p> <p style="margin-left: 2em;">- the supply of water to the Authority and the cost of drinking fountains and pumping and the supply of water through public stand pipe.</p>	<p><u>Local Authority Ordinance (§ 17)</u></p> <p>The objects for which rates may be made are</p> <p style="margin-left: 2em;">- the supply of water to the local area and cost of waterworks, drinking fountains, tanks and wells.</p>
	<p><u>Kuching Municipal Ordinance (§ 85)</u></p> <p>The Council may establish/acquire/construct/equip/carry on works for supplying with water.</p>

Source; Refs. 9, 11, 21, 23 & 28

Table 23 PROVISIONS OF WATER-RELATED LAWS (11/15)
(IRRIGATION AND AGRICULTURAL DRAINAGE)

Sabah	Sarawak
<u>Drainage and Irrigation</u>	
<u>Ordinance (§ 3, § 4, § 5)</u>	
<p>(1) The Governor in Council may declare any land to be a drainage area or an irrigation area or both.</p> <p>(2) The Governor shall constitute a Committee comprising: District Officer (Chairman) Executive Officer Director of Agriculture Nominated persons (Not more than 5)</p> <p>(3) The Governor may impose water rates upon all or any land within a drainage or irrigation area.</p>	
<u>Local Government Ordinance (§ 49)</u>	<u>Local Authority Ordinance (§ 30)</u>
<p>The Instrument shall provide that an Authority either shall perform or may perform:</p> <p>(a) provide services for the improvement of agriculture;</p> <p>(b) establish, maintain and control irrigation works in any area not being an irrigation area or a drainage area.</p>	<p>A Local Authority may make by-laws with respect to the improvement of agriculture.</p>

Source; Refs. 9, 10 & 28

Table 24 PROVISIONS OF WATER-RELATED LAWS (12/15)
(SEWERAGE AND URBAN DRAINAGE)

Sabah	Sarawak
<u>Local Government Ordinance (§ 38)</u>	<u>Local Authority Ordinance (§ 30)</u>
An Authority may, in accordance with any Approved Scheme defined in the Town and Country Planning Ordinance, execute works of general advantage to the health, convenience or comfort of the inhabitants.	A local Authority may make by-laws with respect to the regulation of building and building operations, including the standard of construction, sanitation and drainage.
<u>Public Health Ordinance (§ 111, § 112, § 117)</u>	<u>Public Health Ordinance (§ 74, § 75, § 80)</u>
(1) It shall be the duty of the local authority to establish, maintain and carry out sanitary services.	(1) It shall be the duty of a local council to establish, maintain and carry out sanitary services.
(2) A local authority may and shall repair and maintain public sewers and public drains.	(2) A local council may provide, repair and maintain public drains, and make such provision by means of sewage disposal works.
(3) Where a person proposes to construct a private sewer or drain, the local authority may require him to construct in a manner to comply with its requirement.	(3) Where a person proposes to construct a private sewer or drain, the local council may require him to construct the sewer or drain to comply with its requirement.

Source; Refs. 9, 15, 27 & 28

Table 25 PROVISIONS OF WATER-RELATED LAWS (13/15)
(HYDROPOWER GENERATION)

Sabah	Sarawak
<p><u>Electricity Ordinance (§ 4, § 6)</u></p> <p>(1) No public or local authority, company or person without licence shall generate or transmit a supply of electrical energy, and construct, maintain or operate works.</p> <p>(2) The Governor may authorize those not within any licenced area and whose primary business /occupation is not the supply of electrical energy to supply such energy.</p> <p>(3) The Government may grant licences authorizing any public authority, company or person to supply electricity within any area.</p>	<p><u>Electricity Ordinance (§ 4)</u></p> <p>(1) No person shall:</p> <p style="padding-left: 2em;">a) use, work or operate any installation;</p> <p style="padding-left: 2em;">b) supply energy from any installation;</p> <p style="padding-left: 2em;">except under and in accordance with the terms of a licence.</p> <p>(2) Licences may be granted by the Governor.</p> <p>(3) It shall be lawful for a licensee to assign in whole or in part the benefit of any such licence and his liabilities.</p>
<p><u>Electricity Board Ordinance (§ 3, § 15)</u></p> <p>(1) There is hereby established a body to be known as the Lembaga Letrik Sabah (SEB) which shall be a body corporate and may sue and be sued in its said name.</p> <p>(2) The Board may generate, transmit, transform, distribute and sell energy either in bulk or to individual consumers.</p>	<p><u>Sarawak Electricity Supply Corporation Ordinance (§ 3, § 14)</u></p> <p>(1) There is hereby established a body to be known as the Sarawak Electricity Supply Corporation.</p> <p>(2) The Corporation may generate, transmit, transform, distribute and sell energy either in bulk or to individual consumers.</p>

Source; Refs. 12, 16, 24 & 30

Table 26 PROVISIONS OF WATER-RELATED LAWS (14/15)
(INLAND NAVIGATION)

Sabah	Sarawak
<p><u>(Federal) Merchant Shipping Ordinance (§ 5, § 6)</u></p> <p>(1) The Government may declare any port or place and any navigable river or channel leading into a port within the meaning of this Ordinance.</p> <p>(2) Every declaration by which any port or place is made a port within the meaning of this Ordinance, shall define the limits of such port and of any navigable river to be part thereof.</p> <p><u>Merchant Shipping Ordinance (§ 3)</u></p> <p>No ship shall trade in or from the waters of North Borneo (= Sabah) unless it is provided with a certificate or licence.</p> <p><u>Merchant Shipping Ordinance (§ 247)</u></p> <p>Every North Borneo (= Sabah) licenced ship shall be licenced in such manner and subject to such conditions as may be prescribed.</p>	<p><u>Merchant Shipping Ordinance (§ 3)</u></p> <p>No ship shall trade in or from the waters of Sarawak unless it is provided with a certificate or licence.</p> <p><u>Merchant Shipping Ordinance (§ 247)</u></p> <p>Every Sarawak licenced ship shall be licenced in such manner subject to such conditions as may be prescribed.</p> <p><u>Merchant Shipping (Ports and Rivers) Regulations (§ 3, § 4, § 11, § 26, § 30, § 40)</u></p> <p>(1) The areas specified in the 1st Schedule are hereby prescribed as ports.</p> <p>(2) Every vessel shall obey any signal by any marine department, police or customs launch, or any government signal station.</p> <p>(3) Every master of a vessel in a port shall obey all directions which may be given by the Port Officer as to berths and stations to be occupied.</p> <p>(4) No vessel shall anchor or lie in such manner as to obstruct or render less convenient the use of any pier, wharf, jetty, landing place or dock.</p> <p>(5) Every vessel shall, when in port or river, take all reasonable precautions to prevent damage being caused by her wash.</p> <p>(6) No log or timber raft shall be moored or beached in any port except at places approved by the Port Officer.</p>

Source; Refs. 6, 17, 29 & 31

Table 27 PROVISIONS OF WATER-RELATED LAWS (15/15)
(INLAND FISHERIES)

Sabah	Sarawak
<u>(Federal) Fisheries Act (§ 1, § 3, § 6, § 8, § 21, § 22, § 25)</u>	
(1) The provisions of this Act relating to riverine fishing shall not come into operation in any State in West Malaysia until they have been adopted by a law made by the Legislature of that States.	
(2) A licensing officer may issue to any person a licence, on such terms and conditions as he may specify.	
(3) The Yang di-Pertuan Agong may appoint a Director General of Fisheries and a Deputy Director General. The Director General shall have the general supervision of all matters relating to fisheries throughout Malaysia.	
(4) The State Authority may appoint Inland Fishery Officers and Deputy Inland Fishery Officers for the purpose of carrying out into effect those provisions of this Act which relate to riverine fishing.	
(5) The Minister (of Agriculture) may make regulations relating to estuarine fishing and fisheries.	
(6) The State Authority may make rules for the control of riverine fishing in the State.	
(7) Subsidiary legislation made under the Fisheries Ordinance, 1963, of Sabah and the Sea Fishing and Kilongs Ordinance of Sarawak (each of which is to be repealed by this Act), shall continue in force until replaced or revoked by subsidiary legislation made under this Act, and shall have effect with modifications.	

Source; Ref. 5

Table 28 DIVISIONS AND DISTRICTS IN SABAH

Division	Headquarters	District
West Coast	Kota Kinabalu	Kota Kanabalu
		Kota Belud
		Penampang
		Papar
		Ranau
		Tuaran
Interior	Keningau	Keningau
		Nabawan/Pensiangan
		Tambunan
		Beaufort
		Tenom
		Sipitang
		Kuala Penyu
		Labuan
Kudat	Kudat	Kudat
		Kota Marudu
		Pitas
Sandakan	Sandakan	Sandakan
		Kinabatangan
		Labuk/Sugut
Tawau	Tawau	Tawau
		Lahad Datu
		Semporna
		Kunat

Source; Ref. 86

Table 29 DIVISIONS AND DISTRICTS IN SARAWAK

Division	Headquarters	District
1st	Kuching	Kuching Bau Serian Simunjan Lundu
2nd	Simanggan	Simanggan Lubok Antu Seribas Kalaka
3rd	Sibu	Sibu Mukah Kanowit Oya/Dalat
4th	Miri	Miri Bintulu Baram
5th	Limbang	Limbang Lawas
6th	Sarikei	Sarikei Binatang Matu/Daro Julau
7th	Kapit	Kapit Song Belaga

Source; Ref. 88

Table 30 LOCAL AUTHORITY AREAS IN SABAH AND SARAWAK

Type of Local Authority	Number of Local Authority Areas	Name of Local Authority Area	
SABAH			
Municipal Council	4	Kota Kinabalu Tawau	Sandakan Labuan
District Council	17	Keningau Beaufort Penampang Papar Semporna Ranau Sipitang Pensiangan/Nabawan Labuk/Sugut	Tambunan Kuala Penyu Tuaran Lahad Datu Kudat Kota Belud Tenom Kinabatangan
SARAWAK			
Municipal Council	3	Kuching Miri	Sibu
Rural District Council	2	Kuching	Sibu
District Council	24	Bau Upper Sadong Lower Sadong Saribas Kalaka Dalat/Oya Mukah Baram Tatau Limbang Sarikei Julau Kapit	Lundu Batang Lupar Lubok Antu Balingian Kanowit Sebah Subis Lawas Binatang Matu/Daro Song

Source; Refs. 86 & 88

Table 31 MANPOWER ALLOCATION AMONG MAJOR WATER-RELATED STATE AGENCIES OF SABAH

Agencies	A	B	C	D	Total
1. SEPU	19	3	15	9	46
2. State Attorney's Chambers	7	2	5	6	20
3. LSD	37	87	455	1,273	1,852
4. Forests Dpt.	35	64	272	720	1,091
5. District Offices ^{/1}	29	57	247	318	651
6. JKR (Hydraulics Branch)	206 (4)	295 (16)	595 (22)	1,998 (17)	3,094 (59)
7. SEB	27	51	285	768	1,131
8. MFPD	48	111	248	113	520
9. Ministry of Town & Country Development (Dpt. of Town & Country Planning)	13 (4)	26 (7)	52 (23)	228 (19)	319 (53)
10. Dpt. of Agriculture	74	153	376	1,414	2,017
11. DID	16	14	94	734	858
12. Dpt. of Fisheries	17	26	74	201	318
13. Ports & Harbours Dpt. ^{/2}	7	8	33	370	418
14. Ministry of Resources Development ^{/3}	8	13	10	23	54

Remarks; A : Class A (Professional)
 B : Class B (Sub-professional & Technical Assistants)
 C : Class C (Clerical & Technicians)
 D : Class D (General Workers)
 (): Number of staff in Branch/Department
/1 : 18 District Offices in total
/2 : Under the Ministry of Infrastructure Development,
 a half of Sabah Marine Dpt. (Labuan).
/3 : Including the Environmental Unit

Source; Refs. SS 33 & 54

Table 32 MANPOWER ALLOCATION AMONG MAJOR WATER-RELATED STATE AGENCIES OF SARAWAK

Agencies	A	B	C	D	Total
1. Administration ^{/1}	127	109	223	445	904
2. DID	22	25	132	241	420
3. SFS	9	-	23	9	41
4. SPU	15	-	8	5	28
5. State Attorney-General's Chamber	1	1	6	5	13
6. JKR	188	174	735	3,133	4,230
7. Kuching Water Board	6	14	63	423	506
8. Sibiu Water Board	3	6	22	135	166
9. SESCO	100	54	502	571	1,227
10. Dpt. of Forests	53	46	193	797	1,089
11. LSD	78	165	653	1,255	2,151
(Planning Branch) ^{/2}	(19)	(23)	(61)	(-)	(103)
12. Dpt. of Agriculture	83	144	592	1,496	2,315
13. KMC	18	n.a.	n.a.	n.a.	1,101

Remarks; A : Class A (Professional)
 B : Class B (Sub-professional & Technical Assistance)
 C : Class C (Clerical & Technicians)
 D : Class D (General Workers)
 () : Number of staff in Branch
 n.a.: Not available
/1 : For overall administrative activities at Division, District, Sub-district and Village (Kampong) levels including Residents or District Officers.
/2 : The Branch is in charge of urban and regional planning.

Source; Refs. 32 & 53

Table 33 COMPARISON OF BUDGET SCALE BETWEEN
THE STATE GOVERNMENTS OF PENINSULAR
MALAYSIA AND SABAH/SARAWAK

Unit: M\$10⁶

Item	All States of Peninsular Malaysia	Sabah	Sarawak
REVENUE			
1. State Revenue	696	1,265	210
2. Federal Grant			
(a) Capitation	60	6	6
(b) Road	61	20	12
(c) Others	228	18	27
Sub-total	349	44	45
Total	1,045	1,309	255
EXPENDITURE	1,180	1,007	213
DEVELOPMENT FUND			
1. State Fund	480	364	123
2. Federal Loan	400	79	67
3. Federal Grant	396	23	28
Total	1,276	466	218

Remarks; Figures above are based on the estimation of revenue and expenditure in each State for the year 1980.

Source; Ref. 56

Table 34 REVENUE OF THE STATE GOVERNMENT
OF SABAH, 1976 TO 1981

Items	Unit: M\$10 ⁶					
	1976	1977	1978	1979	1980	1981
1. Forest Royalties	237.7	357.5	463.3	1,000.2	1,055.5	1,053.4
2. Lands & Mines ^{/1}	34.5	70.0	57.4	86.1	160.0	228.0
3. Licences ^{/2}	1.2	1.4	1.7	1.2	1.1	1.2
4. Fines & Forfeitures	—*	—*	—*	—*	—*	—*
5. Government Services	1.5	1.4	1.5	1.8	2.6	2.5
6. Sewerage	0.5	0.7	0.5	1.0	1.4	1.5
7. Receipts of Commercial Undertakings	2.7	3.0	2.8	4.1	4.4	7.0
8. Revenue from Government Property ^{/3}	22.2	34.9	45.7	63.0	118.6	128.4
9. Miscellaneous ^{/4}	51.3	26.1	12.1	47.7	12.1	13.2
10. Federal Contribution ^{/5}	15.1	18.9	19.2	15.4	28.5	15.3
11. Export Duty on Timber and Forest Products ^{**}	0.3	0.9	0.1	0.1	0.1	0.1
12. Import Duty and Excise Duty on Petroleum ^{**}	21.0	23.4	25.5	39.3	34.5	37.0
13. Driver Licences ^{**}	1.7	1.7	1.8	2.1	3.0	3.5
14. Vehicle Licences ^{**}	8.4	8.5	8.7	10.0	14.0	15.0
15. Ports & Harbours ^{**}	2.8	3.1	2.9	3.7	4.4	4.5
16. Special Grant ^{**}	26.7	26.7	26.7	26.7	26.7	26.7
Total	427.6	578.2	669.9	1,302.4	1,466.9	1,537.3

Remarks; 1976 - 1980: Based on Revised Estimates

1981: Based on Estimate

* : Negligible

** : Special sources of revenue provided by the Federal Constitution

^{/1}: Including receipts of land sales

^{/2}: Excluding items 13 and 14

^{/3}: Including interest

^{/4}: Including repayment of loans

^{/5}: Excluding item 16

Source; Ref. 54

Table 35 REVENUE OF THE STATE GOVERNMENT
OF SARAWAK, 1976 TO 1981

Items	Unit: M\$10 ⁶					
	1976	1977	1978	1979	1980	1981
1. Forest Royalties	29.5	28.8	34.5	47.5	45.0	50.0
2. Lands & Mines	78.5	55.6	64.5	53.3	119.3	123.3
3. Land Sales	2.5	5.2	3.5	4.2	3.5	53.5
4. Licences ^{/1}	0.8	0.8	1.0	1.6	1.2	1.2
5. Entertainment Duty & Unclaimed Deposits	2.6	2.8	3.2	3.9	3.2	3.3
6. Government Services	2.8	2.9	4.2	3.5	4.4	4.5
7. Water Sales	2.2	2.5	2.8	3.2	2.8	3.0
8. Gas Sales	0.4	0.4	0.5	0.5	0.5	0.6
9. Revenue from Government Property ^{/2}	9.2	10.5	8.9	11.9	7.7	9.0
10. Miscellaneous ^{/3}	3.5	4.8	12.8	16.4	13.8	14.6
11. Federal Contribution ^{/4}	10.0	38.2	22.5	27.2	29.5	30.6
12. Export Duty on Timber and Forest Products*	11.8	13.8	16.2	40.0	42.8	45.1
13. Import Duty and Excise Duty on Petroleum*	15.6	17.9	21.8	26.3	29.2	30.2
14. Driver Licences*	1.4	1.8	2.2	2.3	2.6	2.8
15. Vehicle Licences*	6.2	7.0	8.3	8.9	10.0	11.0
16. Escalating Grants*	16.0	8.0	32.0	16.0	16.0	16.0
17. Federal Loans	50.0	-	-	-	-	-
Total	243.1	201.0	238.9	266.7	331.5	398.7

Remarks; 1976 - 1979: Actual Figures
1980: Based on Revised Estimate
1981: Based on Estimate

* : Special sources of revenue provided by the Federal
Constitution

^{/1}: Excluding items 14 and 15

^{/2}: Including interest

^{/3}: Including repayment of loans

^{/4}: Excluding items 16 and 17

Source; Ref. 53

Table 36 EXPENDITURE OF THE STATE GOVERNMENT
OF SABAH, 1976 TO 1981

Unit: M\$10⁶

Items	1976	1977	1978	1979	1980	1981
Ordinary Expenditure						
1. Recurrent	135.7	207.5	311.8	452.8	549.1	432.4
2. Special	65.7	124.2	96.8	126.5	266.7	182.4
3. Contribution to Statutory Funds	140.7	225.0	229.0	346.7	413.0	501.0
Total	342.1	556.7	637.6	926.0	1,228.8	1,115.8
Development Expenditure	120.7	168.5	185.4	254.6	487.0	910.3

Remarks; 1976 - 1979: Actual figures
 1980: Based on Revised Estimate
 1981: Based on Estimate

Source; Refs. 54 & 58

Table 37 EXPENDITURE OF THE STATE GOVERNMENT
OF SARAWAK, 1976 TO 1981

Unit: M\$10⁶

Items	1976	1977	1978	1979	1980	1981
Ordinary Expenditure						
1. Recurrent	106.1	129.9	174.2	165.6	213.4	267.3
2. Special	2.9	4.7	8.4	8.0	8.4	10.2
3. Contribution to Statutory Funds	48.5	33.0	107.0	90.3	61.0	161.6
Total	157.5	167.6	289.6	263.9	282.8	439.1
Development Expenditure	110.7	78.8	91.6	94.7	192.3	362.2

Remarks; 1976 - 1979: Actual figures
 1980: Based on Revised Estimate
 1981: Based on Estimate

Source; Refs. 53 & 58

Table 38 REVENUE SOURCES OF LOCAL AUTHORITY (1/2)

Item	Sabah	KMC	Other Local Authorities in Sarawak
Revenue of Local Authority	<ul style="list-style-type: none"> - All rates levied by the Authority and payments in lieu thereof; - All fees, charges, dues and rents recoverable by the Authority or to which the Authority is entitled to; - All fines imposed in respect of any contravention of the provisions of this Ordinance or of any by-laws; - All charges or profits arising from any trade, service or undertaking carried out by the Authority; - Interest on moneys invested by the Authority; - All revenues accruing to the Authority from the Government as contributions, grants-in-aid, endowment or otherwise; - Such Government revenues as the Legislative Council may declare to be revenues. (§ 55) 	<ul style="list-style-type: none"> - All rates levied by the Kuching Municipal Council and payments in lieu thereof; - All licence moneys on licences issued by the Council and all market dues, pound fees and other fees; - All other fees, charges, dues, rents and moneys recoverable by the Council or to which the Council is entitled; - All charges or profits arising from any trade, service or undertaking carried out by the Council; - Proceeds of sales of by-products; - Interest on moneys invested by the Council; - All revenue accruing to the Council from the Government as contributions, grants-in-aid, endowment or otherwise; and - Such other receipts as the Minister may declare to be revenues. (§ 34) 	<ul style="list-style-type: none"> - Such rates, cesses, and fees as may be levied and collected by the local authority in the exercise of its powers; - Such proportion of any rates, taxes and fees collected by it on behalf of the Government; - Such grants-in-aid as may be paid to it by the Government; - Such profits and rents as may be received from the sale, or letting out on lease or hire, of property belonging to the local authority; - Interest on investments; - Such other receipts as the Governor may direct to be deemed to be part of the revenue of a local authority. (§ 13)

Remarks: Sabah: Provisions of the Local Government Ordinance.
 KMC: Provisions of the Kuching Municipal Ordinance.
 Other Local Authorities in Sarawak: Provisions of the Local Authority Ordinance.

Source: Refs. 9, 21 & 28

Table 39 REVENUE SOURCES OF LOCAL AUTHORITY (2/2)

Item	Sabah	KMC	Other Local Authorities in Sarawak
Obligatory Grants from Public Revenue	- The Government shall pay the Authority annually an amount in lieu of the rates equal to the amount which would be payable in respect of property in the occupation of the Government situated within any rating area. (§ 56)	- No provisions	- No provisions
Discretionary Grants from Public Revenue	- The Government shall pay the Authority annually a proportion of the costs of the construction, reconstruction or maintenance of public roads vested in the Authority and reimburse the Authority all or part of the costs of construction, reconstruction or maintenance of any other roads not responsible but constructed, reconstructed or maintained by the Authority. (§ 57)	- No provisions	- No provisions

Remarks; Sabah: Provisions of the Local Government Ordinance.
 KMC: Provisions of the Kuching Municipal Ordinance.
 Other Local Authorities in Sarawak: Provisions of the Local Authority Ordinance.

Source; Refs. 9, 21 & 28

Table 40 ESTIMATED REVENUE AND EXPENDITURE OF KMC
FOR THE YEAR 1981

Unit: M\$10³

<u>Revenue</u>		<u>Expenditure</u>	
<u>Items</u>	<u>Amount</u>	<u>Item</u>	<u>Amount</u>
1. General Revenue ^{/1}	8,718	<u>Recurrent Expenditure</u>	
2. Licences	468	1. Municipal Secretary's Office	1,920
3. Miscellaneous	1,235	2. Treasury	1,913
4. Statutory Grant ^{/2}	2,005	3. Rating & Valuation	280
5. Transfer from Reserves	360	4. Public Health	1,003
Sub-total	12,786	5. Public Services & Maintenance	3,831
<u>Development Fund</u>		6. Public Works	3,544
6. Capital Grant from Government	460	7. Fire Brigade	990
7. 4MP	2,740	8. Swimming Pool	149
8. Capital Loans	540	Sub-total	13,630
Sub-total	3,740	9. Special Expenditure ^{/3}	158
		10. Development Expenditure ^{/4}	4,070
<u>Total</u>	<u>16,526</u>	<u>Total</u>	<u>17,858^{/5}</u>

Remarks; ^{/1}: Most part comes from house assessment rates and parking fees.

^{/2}: From the State Government

^{/3}: Including expenditures for Council's library, rating & valuation, public health and public works.

^{/4}: For projects of public health and public works.

^{/5}: Total Estimated Deficit: M\$1,332,860

Source; Ref. 60

Table 41 DIVISIONAL FUNCTIONS OF LSD HEADQUARTERS
IN SABAH AND SARAWAK

Division or Branch	Functions or Responsibilities
<u>Sabah</u>	
Land	Registration of land ownership Acquisition of land Collection of land revenues Alienation of State lands Administration of land Enforcement of land
Survey	Cadastral surveys Aerial surveys Control surveys Data digitization Drawings
Training	
Valuation	Valuation of land for acquisition Valuation services to local authorities for rating purposes
Smallholders Development Planning	
Administration	
<u>Sarawak</u>	
Planning	Urban and regional planning Control of development Control of sub-division of land
Land Administration	Alienation of State land Administration of alienated land Investigation and registration of rights to land Registration of dealings affecting land Issue of prospecting licences and mining leases Valuation of land Acquisition of land for development purposes Revision of land rent
Survey	Topographical surveys Cadastral surveys Mining surveys Aerial photography and mapping Malaysia - Indonesia border survey
Training	
Administration	Finance Staff matters

Source; Refs. 67, 86, 87 & 94

Table 42 LEGAL GROUND OF CATCHMENT AREAS

Sabah	Sarawak
<p><u>Land Ordinance (§ 28)</u></p> <p>The Yang di Pertua Negara may reserve any Crown (=State) land which in his opinion are required for any public purpose. Such reservation shall fully describe the land and the purpose for which it is reserved and shall be conclusive evidence that the land is reserved for a public purpose.</p> <p><u>Sabah Water Authority Enactment (§ 81)</u></p> <ol style="list-style-type: none"> (1) When any immovable property, not being State land, is needed to be acquired by the Authority for the purpose of this Enactment, such property may be acquired in accordance with the provisions of any written law relating to the acquisition of land for a public purpose for the time being in force in the State. (2) The expenses and compensation in respect of any immovable property acquired shall be paid by the Authority. (3) When any immovable property has been acquired, the Authority shall extract the necessary document of title in respect of such property and shall pay any rent. 	<p><u>Land Code (§ 7)</u></p> <p>Where an area of State land is required for a Federal or State public purpose, or may be so required in the future, and it is considered that the area should not be available for alienation, the Director of Lands and Surveys may, by notification in the Gazette, declare such area to be a Government Reserve. This is irrespective of whether the public purpose for which the land may be used is stated in the notification or not. The Director may by a similar notification specify the public purpose for which the Government Reserve may be used.</p> <p><u>Water Supply Ordinance (§ 4)</u></p> <ol style="list-style-type: none"> (1) When the Governor in Council considers it expedient that the limits or areas of any catchment areas should be demarcated or surveyed, the Water Authority shall carry out such demarcation or survey, and thereafter no unalienated land within such limits or areas shall be alienated, granted, transferred or sold for any purpose whatsoever. (2) When any alienated land situated within the limits or areas referred to above is required for any purpose connected with the waterworks, such purpose shall be deemed to be a public purpose. (3) A map or plan showing clearly the limits or areas of any catchment area surveyed or demarcated shall be made and open to public inspection.

Source; Refs. 7, 11, 18 & 23

Table 43 FOREST RESERVE PRESCRIBED BY THE FOREST ENACTMENT, SABAH

Items Concerned with the Forest Reserve	Description
1. Constitution	The Yang di-Pertua Negara may constitute any land, other than land reserved for public or special purpose to be a Forest Reserve (§ 5)
2. Acts Prohibited	<p>Unless authorized under the Enactment, any person shall be guilty who:-</p> <ul style="list-style-type: none"> (a) trespass or pasture cattle (b) fell, cut, burn or remove any forest produce (c) collect or cause damage to any forest produce (d) clear any land for cultivation or erect any buildings
3. Reserve Maintained and Controlled by:-	The Conservator of Forests
4. Rights Admitted or Privileges Conceded	Quantity and nature of the forest produce taken or received should be stated.
5. Right or Privilege Controlled by:-	The Conservator of Forests
6. Permission or Licence for Taking of Forest Produce	Yes
7. Licence issued by:-	The Conservator of Forests
8. Royalties for any Forest Produce	Payable (As specified in the licence issued)

Remarks; Forest Reserves may be classified into the following Classes:-

- (a) Class I - Protection Forest - Maintenance of forest essential on climatic or physical grounds.
- (b) Class II - Commercial Forest - For supply of timber and other produce to meet the general demands of trade.
- (c) Class III - Domestic Forest - For supply of timber and other produce of local consumption.
- (d) Class IV - Amenity Forest - For local amenity and aboretum work.
- (e) Class V - Mangrove Forest - For supply of mangrove timber or other produce to meet the general demands of trade.
- (f) Class VI - Virgin Jungle Reserve - For forest research purpose.

Source; Ref. 14

Table 44 PERMANENT FOREST PRESCRIBED BY THE FORESTS ORDINANCE, SARAWAK (1/2)

Items Concerned	Protected Forest	Forest Reserve	Communal Forest
1. Constitution	The Minister (of Forestry) may constitute any State land a protected forest.	The Minister (of Forestry) may constitute any State land a forest reserve.	The Minister (of Forestry) may at a community request, constitute any State land other than a forest reserve, protected forest, etc. a communal forest.
2. Acts Prohibited	<p>Subject to provisions of Section 37, no person shall:-</p> <ul style="list-style-type: none"> - trespass or pasture cattle in the area concerned; - fell, cut, burn or remove any timber, firewood or charcoal. - collect or remove any forest produce; - clear any land for farming or erect any buildings. 	<p>Subject to provisions of Section 23, no person shall:-</p> <ul style="list-style-type: none"> - trespass or pasture cattle in the area concerned; - fell, cut, burn or mark any timber or cause other damage; - collect or remove any forest produce; quarry stones, burn lime or charcoal; - clear any land for farming or erect any building. 	<p>The District Officer and the Conservator may:-</p> <ul style="list-style-type: none"> - direct or regulate the method and extent of felling and other operations. (A community member may remove free of royalty or fee, any forest produce for own use)
3. Reserve Maintained & Controlled by:	The Conservator of Forests	The Conservator of Forests	The Community
4. Rights Admitted or Privileges Conceded	Quantity and nature of the forest produce taken or received should be stated.	Quantity and nature of the forest produce taken or received should be stated.	As specified in the notification in the Gazette.

Source; Ref. 26

Table 45 PERMANENT FOREST PRESCRIBED BY THE FORESTS ORDINANCE, SARAWAK (2/2)

Items Concerned	Protected Forest	Forest Reserve	Communal Forest
5. Right or Privilege Controlled by:-	The Conservator of Forests	The Conservator of Forests	The Community
6. Permits or Licence for Taking of Forest Produce	Yes	Yes	No
7. Licence issued by:-	The Conservator of Forests	The Conservator of Forests	-
8. Royalties on any Forest Produce	Payable	Payable	Not Payable (Free)

Source; Ref. 26

Table 46 AREAS UNDER FORESTS AND OTHER LAND USE
PURPOSES IN SABAH, 1978

Unit: 10³ km²

Land Use Purpose	Area
Forest Reserve	25.2
Other State Forest	27.1
Others	21.6
Total	73.9

Source; Ref. 43

Table 47 CLASSIFICATION OF FOREST RESERVES
IN SABAH, 1978

Unit: 10³ ha

Classification	Area	Proportion (%)
Protection Forest	429	15
Commercial Forest	2,292	81
Domestic Forest	15	—*
Amenity Forest	20	1
Mangrove Forest	74	3
Virgin Jungle Reserve	n.c.	n.c.
Total	2,830	100

Remarks; * : Negligible
n.c.: Not counted

Source; Ref. 43

Table 48 AREAS UNDER FORESTS AND OTHER LAND USE
PURPOSES IN SARAWAK, 1979

Unit: 10^3 km²

Land Use Purpose	Area
Settled Cultivation	4.6
Shifting Cultivation	22.5
Others	1.8
Sub-total (Not Forest land)	28.9
Forest	94.4
Total	123.3

Source; Ref. 42

Table 49 CLASSIFICATION OF PERMANENT FORESTS
IN SARAWAK, 1979

Unit: 10^3 ha

Classification	Area	Proportion (%)
Protected Forest	2,393	75
Forest Reserve	748	24
Communal Forest	30	1
Total	3,171	100

Source; Ref. 42

Table 50 FINANCING OF WATER SUPPLY PROJECTS CARRIED OUT BY
THE HYDRAULICS BRANCH OF SABAH JKR IN 4MP PERIOD

Unit: M\$10⁶

Name of Projects	Total Amount Allocated in 4MP Period	Development Funds for 1981		
		Federal Grant	Federal Loan	State Grant
1. Kota Kinabalu Water Supply, Phase II	6.0	-	-	5.0
2. Labuan Water Supply, Phase II	27.5	-	-	16.0
3. Lahad Datu Water Supply, Phase II	14.0	-	-	5.0
4. Reinforcement of Existing Trunk Mains	15.5	-	-	3.0
5. Rural Water Supplies	30.0	-	-	10.0
6. Kota Kinabalu Water Supply Extension Scheme, Stage I	77.0	-	1.0*	19.0
7. Sandakan Water Supply Extension Scheme, Stage II	55.0	-	-	6.5
8. Tawau Water Supply Extension, Stage I	10.0	-	1.1*	5.0
Total	235.0	-	2.1*	69.5

Remarks; *: ADB loans transferred through the Federal Government

Source; Refs. 33 & 54

Table 51 DEVELOPMENT FUNDS PROVIDED BY THE
FEDERAL GOVERNMENT FOR JKR'S WATER
SUPPLY PROJECTS IN SABAH AND SARAWAK

Unit: M\$10⁶

Name of Projects	Total Estimated Value	Amount Allocated in 4MP Period	Allocation for the Year 1981	
			Federal Reimbursable	Federal Loan
<u>Sabah JKR</u>				
1. General Water Supplies				
(1) Kota Kinabalu Water Supply Extension Scheme Stage I				
(2) Sandakan Water Supply Extension Scheme Stage I	124.3	45.0	-	2.1 (4.9)
(3) Tawau Water Supply Extension Schemes Stage I				
2. Rural Water Supplies	45.0	30.0	1.3 (3.7)	-
Total	169.3	75.0	5.0	7.0
<u>Sarawak JKR</u>				
1. General Water Supplies				
(1) Bintulu	165.0	100.0	-	5.2 (29.8)
(2) Niah/Subis Water Supply	15.0	2.4	-	0.8 (0.2)
(3) Mukah Oil Palm Complex	3.9	2.6	-	- (0.5)
(4) Miri-Major Extension	25.0	7.0	-	- (3.5)
(5) Suai Complex	8.0	5.0	-	- (0.3)
(6) Sarikei-Major Improvement	7.3	3.0	-	- (1.0)
2. Rural Water Supplies	54.0	36.0	3.3 (0.7)	-
Total	278.2	156.0	4.0	41.3

Remarks; (): Amount added by the revised budget estimation
for 1981.

Source; Refs. 32, 33 & 58

Table 52 PROPOSED AMOUNT OF FUNDS FOR WATER SUPPLY
PROJECTS BY THE WATER SUPPLIES & SEWERAGE
BRANCH OF SARAWAK JKR

Unit: M\$10⁶

Type of Projects (No. of Projects)	Total Sum of Project Value Estimated	Proposed Amount of Funds in 4MP Period	Proposed Amount of Funds for the Year 1981
<u>I. General Water Supplies</u>			
1. Continuation, wholly State funded (58)	76.1	52.0	21.1
2. New Projects, wholly State funded (14)	27.8	21.5	2.8
3. Federal and Federal & State funded (6)	172.2	144.6	45.2
Sub-total (78)	276.1	218.1	69.1
<u>II. Rural Water Supplies</u>			
1. Continuation (n.a.)	23.1	12.7	10.7
2. New Projects (45)	41.8	41.8	6.6
Sub-total (45+)	64.9	54.5	17.3
Total (123+)	341.0	272.6	86.4

Remarks; n.a.: Not available
+ : More than

Source; Ref. 35

Table 53 MAJOR WATER SUPPLY PROJECTS OF SARAWAK JKR,
FINANCED BY FEDERAL FUNDS OR BY BOTH FEDERAL
AND STATE FUNDS

Unit: M\$10⁶

Name of Project (Type of Funds)	Total Value of Project	Expenditure in TMP Period	Proposed Expenditure in 4MP Period
1. Bintulu (Federal Loan)	102.2	7.1	94.0
2. Niah/Subis Water Supply (State Grant) (Federal Loan)	15.0	7.4	5.3 1.1
3. Mukah Oil Palm Complex (Federal Loan)	6.7	2.8	3.9
4. Miri - Major Extension (Federal Loan)	30.0	5.0	25.0
5. Suai Complex (Federal Loan)	10.0	-*	8.0
6. Sarikei - Major Improvement (State Grant) (Federal Loan)	8.3	1.0	0.3 7.0
Total	172.2	23.3	144.6

Remarks; Figures above are prepared by Task Force on 4MP
of SPU, in August 1980.

*: Negligible (actual figure is M\$200)

Source; Refs. 35 & 57

Table 54 FINANCING OF WATER SUPPLY DEVELOPMENT
BY THE KUCHING WATER BOARD, SARAWAK

Unit: M\$10⁶

Sources of Funds ^{/1}	Amount	Proportion (%)
Loan	10.0	30.0
Federal Grant ^{/2}	7.0	21.0
Consumers Capital Contribution ^{/3}	8.5	26.0
Own Fund	7.6	23.0
Total	33.1	100.0

Remarks; /1: For all projects in the 4MP period carried out by the Kuching Water Board.

/2: Only for rural water supply schemes based on the Federal plan.

/3: Revenue from undertakings by the K.W.B., such as housing site development.

Source; Ref. 59

Table 55 LONG-TERM LOANS LENT TO THE KUCHING WATER BOARD

Name of Loan	Total Amount (M\$10 ⁶)	Rate of Interest (%)	Year of First Drawing	Final Year of Repayment
Government No. I ^{/1}	3.3	5	1961	1991
Government No. II ^{/2}	0.4	5	1963	1993
C.D.C. ^{/3}	2.6	10 ^{/6}	1968	1992
A.D.B. ^{/4}	12.5	7.5	1976	1998
A.C.B. ^{/5}	7.0	8.5	1977	1987
Total	25.8	-	-	-

Remarks; /1: Loan from the Federal Government.

/2: Loan from Sarawak State Government.

/3: Commonwealth Development Corporation Loan.

/4: Asian Development Bank Loan.

/5: Amanah-Chase Bank Loan (Local).

/6: As of August, 1981.

Source; Ref. 59

Table 56 WATER CHARGES IN SARAWAK STATE (1/2)

Unit: M\$/10³ gallons

Name of Scheme or Water Board/Authority	Basic Charge	Minimum Charge (Volume of Upper Limit in 10 ³ gallons)	Excess Charge (Conditions Varied in 10 ³ gallons)
Kuching			
Commercial Rate		18.00 (5)	3.50 2.00 (Up to 10)
Domestic Rate		5.25 (3)	2.25 (Over 10)
Sibu			
Commercial Rate		18.00 (5)	3.50 2.00 (Up to 10)
Domestic Rate		5.25 (3)	2.25 (Over 10)
Siburan		1.00 (1)	1.50
Tapak/Beratok		1.50 (1)	1.50
Kuching Rural District Area	1.50		
Serian		3.50 (2)	1.75
Upper Sadong District Council Area	1.50		
Lundu		1.50 (6)	0.60 (Up to 10) 0.50 (Over 10)
Simunjan		3.00 (2)	1.50
Lower Sadong District Council Area	1.50		
Sematan		3.00 (2)	1.50
Lundu District Council Area	1.50		
Triboh L.D.S.*		3.00 (2)	1.50
Tebakang		3.00 (2)	1.50
Upper Sadong District Council Area	1.50		
Sintiawan		3.00 (2)	1.50
Simanggang	1.50		
Betong		4.50 (3)	1.50
Saribas District Council Area	1.50		
Saratok		3.00 (2)	1.50
Kalaka District Council Area	1.50		
Melugu L.D.S.*		3.00 (2)	1.50
Skrang L.D.S.		3.00 (2)	1.50
Lubok Antu		3.00 (2)	1.50
Lubok Antu District Council Area	1.50		
Engkili		2.00 (2)	1.50
Lubok Antu District Council Area	1.50		
Lubok Antu Secondary School	0.75		
Roban		2.00 (2)	1.50
Kalaka Govt. Secondary School	0.75		
Kalaka District Council Area	1.50		

Remarks; *: Land Development Scheme

Table 57 WATER CHARGES IN SARAWAK STATE (2/2)

Unit: M\$/10³ gallons

Name of Scheme or Water Board/Authority	Basic Charge	Minimum Charge (Volume of Upper Limit in 10 ³ gallons)	Excess Charge (Conditions Varied in 10 ³ gallons)
Kanowit Kanowit District Council Area	1.25	7.00 (4)	1.25
Mukah Mukah District Council Area	1.50	3.00 (2)	1.50
Sibintek L.D.S.*		3.00 (2)	1.50
Balingan Balingan District Council Area	1.50	3.00 (2)	1.50
Dalat		3.00 (2)	1.50
Miri Commercial Rate		11.00 (5)	2.00
Domestic Rate		2.50 (2)	1.25
Bintulu Bintulu District Council Area	2.00	3.00 (2)	1.50
Marudi Baram District Council Area	1.25	7.00 (4)	1.25
Long Lama Baram District Council Area	1.50	3.00 (2)	1.50
Bekenu Subis District Council Area	1.50	3.00 (2)	1.50
Limbang Limbang District Council Area	1.50 (Plus Flat Charge \$125/month)	6.00 (4)	1.50
Lawas Lawas District Council Area	1.50	6.00 (4)	1.75
Sarikei Sarikei District Council Area	2.00 (Plus Flat Charge \$150/month)	3.00 (2)	1.50
Binatang Binatang District Council Area	1.50 2.00		
Maradong L.D.S.*		2.00 (2)	1.50
Julau Julau Government Secondary School	0.75	3.00 (2)	1.50
Kapit Kapit District Council Area	1.50	7.00 (4)	1.75
Song Kapit District Council Area	1.50	3.00 (2)	1.50

Remarks; *: Land Development Scheme

Table 58 FINANCING OF SEWERAGE AND URBAN DRAINAGE
PROJECTS CARRIED OUT BY THE HYDRAULICS
BRANCH OF SABAH JKR IN 4MP PERIOD

Unit: M\$10⁶

Name of Projects	Total Amount Allocated in 4MP Period	Development Funds for 1981		
		Federal Grant	Federal Loan	State Grant
<u>I. Sewerage Projects</u>				
1. Kota Kinabalu	18.0	-	-	3.0
2. Sandakan	26.2	-	-	3.2
3. Tawau	14.0	-	-	2.3
4. Minor Towns	24.0	-	-	4.1
Sub-total	82.0	-	-	12.6
<u>II. Urban Drainage</u>				
1. Kota Kinabalu	15.9	-	-	2.9
2. Sandakan	7.7	-	-	1.2
3. Tawau	7.7	-	-	2.2
4. Minor Towns	15.2	-	-	3.2
Sub-total	46.5	-	-	9.5
Total	128.7	-	-	22.1

Source; Refs. 33 & 54

Table 59 LOANS LENT TO SESCO, 1975 TO 1979

Name of Loan	Unit: M\$10 ⁶				
	1975	1976	1977	1978	1979
1. C.D.C.	1.1	0.8	0.6	0.5	0.3
2. C.D.C.	2.8	2.2	2.2	2.0	2.1
3. Chantiers de l'Atlantique	0.7	0.2	0.1	-	-
4. Federal	3.2	2.9	2.5	2.1	1.8
5. A.D.B.	6.4	5.0	5.1	4.8	4.1
6. A.D.B.	8.9	10.6	11.2	10.9	9.8
7. A.D.B.	-	2.7	33.2	45.8	45.0
Total	23.1	24.4	54.9	66.1	63.1

Remarks; C.D.C.: Commonwealth Development Corporation
A.D.B.: Asian Development Bank

Source; Ref. 50

Table 60 DEVELOPMENT FUNDS OF SESCO, 1975 TO 1979

Source of Funds	Unit: M\$10 ⁶				
	1975	1976	1977	1978	1979
Federal Grant ^{/1}	0.1	0.3	1.0	- ^{/2}	2.5
Consumers Contribution	5.0	5.3	7.1	7.3	9.8
External Borrowing	6.5	4.6	29.5	8.5	3.9
Sub-total (External)	11.6	10.2	37.6	15.8	16.2
Own Fund	11.3	14.4	14.9	19.3	25.1
Total	22.9	24.6	52.5	35.1	41.3

Remarks; ^{/1}: For rural electrification projects
^{/2}: Negligible (Actual figure is around M\$64,000)

Source; Ref. 50

