

Local Authorities and Environmental Management in Peninsular Malaysia

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ABSTRACT

In Malaysia, the management of the environment is not the sole responsibility of the Department of Environment but also the state and local authorities. This paper examines the role and responsibility of these local authorities in Peninsular Malaysia in managing the environment. The evaluation is based on a study of 25 local authorities consisting of a city hall, 9 municipal councils and 15 district councils. The study shows that there are several constraints which hinder an effective environmental management at the local level. Funding is a major factor. A number of the local authorities spent less than 10% of their annual income on the environment, and much of it was for garbage collection, maintenance of drains, parks and transport. This is further compounded by the inadequacy of the governing legislation and lack of training of enforcement officers. In the light of these shortcomings, the paper proposes that (1) the relevant legislation be reviewed to include criteria and standards which are currently non-existent, and (2) the enforcement units of the local authorities be enhanced. Failing this, the management of the local authorities should be left to the Department of Environment.

ABSTRAK

Di Malaysia, pengurusan alam sekitar bukanlah tanggungjawab Jabatan Alam Sekitar semata-mata, tetapi juga tanggungjawab kerajaan negeri dan penguasa tempatan. Kertas ini menumpukan perhatian kepada peranan dan tanggung jawab penguasa tempatan di Semenanjung Malaysia dalam mengurus alam sekitar. Penilaian dibuat berasaskan kepada kajian yang dilakukan terhadap 25 penguasa tempatan yang terdiri daripada sebuah dewan bandaraya, 9 majlis perbandaran dan 15 majlis daerah. Kajian ini mengenalpasti beberapa masalah yang menghalang pengurusan yang berkesan. Kewangan merupakan faktor penting. Beberapa penguasa tempatan membelanjakan kurang 10% daripada pendapatan tahunan mereka terhadap alam sekitar; kebanyakannya adalah untuk kerja-kerja pemungutan sampah sarap, membaikpulih longkang-longkang, taman dan pengangkutan. Keadaan ini menjadi bertambah buruk dengan terdapatnya beberapa kekurangan pada undang-undang dan latihan para pegawai penguatkuasa. Memandangkan

keadaan sebegini, kertas ini mencadangkan supaya (1) undang-undang yang berkaitan dikaji semula dengan mengambil-kira kriteria dan piawai yang kini tidak wujud, dan (2) unit penguatkuasaan penguasa tempatan dipertingkatkan. Sekiranya ini tidak boleh dilakukan, maka pengurusan alam sekitar tempatan itu hendaklah dikendalikan oleh Jabatan Alam Sekitar.

INTRODUCTION

The interaction between man and the environment results in either economic development or environmental deterioration. In order to preserve the quality of the environment it calls for a concerted effort in efficient and pragmatic management. The main administrative organization for environmental issues in Malaysia is the Department of Environment under the Ministry of Science, Technology and the Environment. However, the Department of Environment, with its ten regional offices, has limited number of staff and not fully equipped to carry out surveillance work on the environment alone because of the numerous and complex nature of the environmental problems, and the large areal extent to be covered. Furthermore, for the various environmental aspects there are some other government agencies such as the local authorities which are responsible for their administration under certain legislations. The Local Authorities are also bestowed with a lot of power from the view point of law in relation to the management of environmental problems. This is in fact a very good situation in complementing the works of the Department of Environment, especially in areas where the Department of Environment does not have jurisdiction. This paper looks at the environmental management by the local authorities through legislative measures in Peninsular Malaysia. It focusses on the environmental aspects in which the local authorities have jurisdiction on as stipulated in the Federal Constitution. An illustration of the effectiveness of the management efforts will be made based on a short questionnaire survey carried out on 195 enforcement officers from 25 selected local authority areas in Peninsular Malaysia (Figure 1).

ENVIRONMENT AND ITS MANAGEMENT IN PENINSULAR MALAYSIA

It is difficult to trace as to when the environment in Peninsular Malaysia started to degrade as there are no available records of such nature before Independence in 1957. However, judging by the number of environment-related legislations made prior to that date, environmental degradation in Peninsular Malaysia must have started as early as at the start of this century, if not earlier.

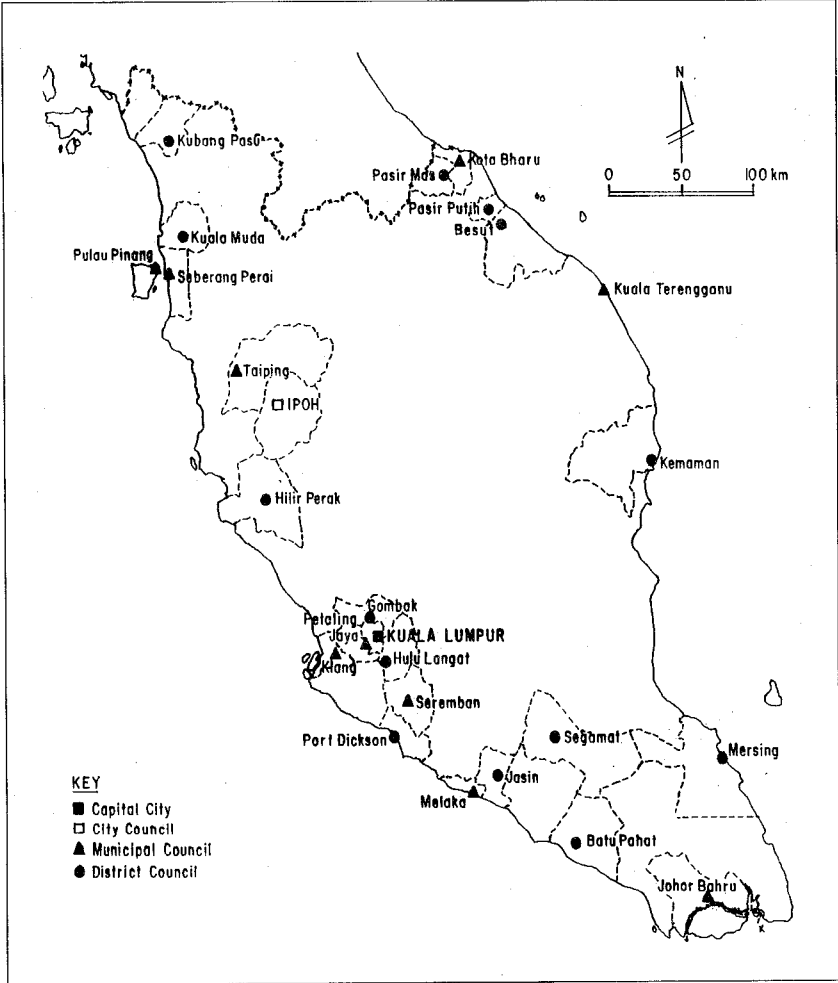


FIGURE 1. Study area

Before the coming of the British in the 18th Century nothing much can be said about either development or the environment because the pre-transition stage of population (Abdul Samad 1983) which only numbered around 374 000 (as noted by Newbold 1839), were engaged in fishing and small-scale subsistence agriculture which did very little to change the environment. With the coming of the British the economy shifted from subsistence agriculture to tin mining and commercial agriculture in estates and small-holdings.

After Independence in 1957, the already established mining and agricultural sectors were further developed together with increased development in service and other infrastructural sectors. Rapid urbanization especially in major towns where job opportunities were better, resulted in a number of environmental problems especially in and around urban-industrial centres.

Actually the management of the environment in Peninsular Malaysia is carried out through legislative and non-legislative measures. The legislative measures involve the enforcement of legislations especially through regulations, orders and licensing, while the non-legislative measures are mainly through environmental education, project planning, and the application of procedures and guidelines for implementing certain projects. Before the setting up of the Department of Environment in 1975 under the Environmental Quality Act, 1974 (Malaysia 1974a) the management of environment-related matters was carried out by a number of government agencies and the approach was sectoral in nature befitting the legislations governing them. The then local, town and municipal councils were actively involved in managing the environment especially in relation to sewage and garbage collection and disposal as an extension work of the original sanitary boards established in urban areas. After 1975, however, the management of the environment in general was under the charge of the Department of Environment while a number of other government agencies including the local authorities still continue to manage various environmental aspects which had been their concern.

According to the Department of Environment, the water quality of rivers in the country is generally improving in most of the rivers since the enforcement of a number of subsidiary legislations made under the Environmental Quality Act, 1974 and Environmental Quality Act (Amendment) 1985. This statement can probably be seen clearly in Table 1 through the organic pollutant discharges (in terms of Biochemical Oxygen Demand) by sectors in the past few years.

From the table, it is quite clear that in the agro-based industrial sector and manufacturing industries the organic pollutant discharge has improved up to 1989, but was expected to deteriorate for 1990. The expected decline in the quality of river water was due to the increase in the agro-based industries and manufacturing industries in the past few years. It can be said that the Department of Environment have been quite successful in enforcing the relevant legislations as the problem of river pollution due to agro-based industries (palm oil and natural rubber) and manufacturing industries is presently under control and could be considered as not being very serious as compared to the early 1970's.

However, not all water pollution aspect is under the surveillance and jurisdiction of the Department of Environment. The problem of water pollution due to silting, solid waste, human waste and municipal sewage

TABLE 1. Organic pollution discharge load according to sectors for 1986 - 1990

Sector	Agro-based industries (palm oil)	Manufacturing industry & rubber)	Agriculture (live-stock)	Domestic sewage	Total
<i>1986</i>					
BOD load 1	11	30	55	314	410
Population equivalent 2	0.22	0.6	1.1	6.28	8.2
<i>1987</i>					
BOD load	11	20	55	348	434
Population equivalent	0.22	0.4	1.1	6.96	8.7
<i>1988</i>					
BOD load	11	19	55	358	443
Population equivalent	0.22	0.38	1.1	7.16	8.9
<i>1989</i>					
BOD load	11	21	60	366	458
Population equivalent	0.22	0.42	1.2	7.32	9.2
<i>1990</i>					
BOD load	13	25	65	378	481
Population equivalent	0.26	0.38	1.3	7.56	9.5

(Source: Department of Environment, 1990)

Note: 1 BOD load (tonnes/day)

2 Population equivalent (in million) for estimating BOD load at 0.5kg/capita

and animal waste is handled by a number of other government agencies. The district offices and the local authorities, especially have the power to approve a certain project to be located in a particular district or within a local authority area. It will be observed from Table 1 that for the agricultural sector (livestock) and domestic sewage, the condition is deteriorating from 1986 to 1990. In fact, the Department of Environment (1992) mentioned that the major contributors to river pollution in Malaysia in 1991 were sewage and animal wastes. The management of urban and domestic sewage is under the jurisdiction of the various local authorities.

The problem of soil erosion and silting in Malaysian rivers due to various development activities is still very serious (Department of Environment 1992). The sources are numerous just like the types of land uses, and some

of the serious ones are under the jurisdiction of the local authorities such as erosion and silting from areas cleared for housing development.

There are a few major agencies involved as far as marine and coastal waters pollution is concerned. These are the Department of Environment and the district offices or local authorities. Most of the coastal waters of Malaysia, as far as marine pollution in terms of silting, domestic sewage and oil and grease are concerned, are well under control except for certain localities (Department of Environment 1989). The Department of Environment is always enforcing the legislations in their efforts at controlling marine pollution, especially oil pollution. However, in the efforts at controlling marine pollution, especially of the coastal waters, the Department of Environment should be assisted by the local authorities as these areas are within their jurisdiction too.

In terms of air pollution from stationary sources, enforcement work has been carried out by the Department of Environment under the Environmental Quality (Clean Air) Regulations, 1978. Although there was a big decrease of offences compounded in 1988 over 1987, there was a big increase for 1989 (Department of Environment 1990: 137). For the factories that violated the Regulations they were either fined or compounded.

Another source of air pollution from stationary sources is the open burning of solid wastes. Even though there is a provision against open burning under the Environmental Quality (Clean Air) Regulations, 1978, open burning is very rampant especially at the solid waste (garbage) disposal sites belonging to local authorities or district offices. In 1989 alone there were 13 complaint cases of open burning practices at solid waste disposal sites (Department of Environment 1990: 140). In fact during the earlier months of 1991 a number of local authorities were summoned by the Department of Environment for open burning offences. This incident should be considered very seriously because the local authorities is one of the government agencies empowered to deal with environmental problems, especially in relation to solid waste.

For mobile sources the problem is more acute especially in urban areas due to the rapid increase in the number of motor vehicles. In Kuala Lumpur alone, the pollution load based on the supply of fuel, was more than 187 000 tonnes emitted by motor vehicles in 1989 (Jamaluddin & Anuar 1992). The problem of air pollution which is in part contributed by the sheer number of motor vehicles and traffic congestion, especially in urban areas, could be reduced if the local authorities could plan road projects, reduce single occupancy vehicles from entering urban areas, upgrade traffic signal control system and integrate planning (New Sunday Times, April 4, 1993).

Noise pollution is another aspect of the environment which is fast becoming an environmental problem especially in urban-industrial areas. Studies by Tajuddin & Mansor (1979) and the Department of Environment

(1986; 1992) showed that traffic noise level in urban areas failed to comply with WHO recommended standard of 65 dBA for urban and commercial areas. Urban transport noise studies carried out in 1988-1989 period showed that noise level along major roads in Kuala Lumpur area exceeded the standard for urban commercial area for 94.4 percent of the samples (Jamaluddin 1993). Community noise or neighbourhood noise (which is under the jurisdiction of the local authorities) is also presently emerging as another problem in urban residential areas (Jamaluddin & Sham 1989a & b; Sham & Jamaluddin 1990).

Solid waste collection and disposal is another environmental aspect which is urban-based and has been handled by the local authorities even before Independence. Such specialisation should have made it a no-problem case, but until now the local authorities are still trying to minimize the problem as presently most of the disposal sites are nearing their life span and more and more residential estates are encroaching towards the local authorities' disposal sites. The problem is not only related to the increasing load of waste generated, but also the inability of the local authorities to coordinate planning and implementation of projects under their own jurisdiction. Very few of the local authorities' disposal sites are practising sanitary landfill and much less are using incinerators.

In managing the environment, the Department of Environment had come up with a number of procedures and guidelines especially for use in project planning and development. These include among others, "Guidelines for the Siting and Zoning of Industries", "Guidelines for the Prevention and Control of Erosion and Silting", "Suggested Procedural Code for the Disposal of Solid Waste on Land" and "Guidelines for Environmental Impact Assessment". Since the local authorities are also involved in planning for project development and approval for projects the procedures and guidelines are very handy in helping them to manage the environment.

LOCAL AUTHORITIES AND LEGISLATIONS IN PENINSULAR MALAYSIA

Malaysia practices the federal system of government in which the powers and responsibilities of the federal and state governments are clearly defined in the Federal Constitution. In each of the 13 states there exists a third level government called the local governments. Under the local government system there are local authority units which are actually local administration authorities empowered to carry out duties and responsibilities by legislations (Zahari 1991).

Under the Constitution, from the viewpoint of legislation, every state is independent and in most cases federal legislations are not binding at local

levels though the federal government may coordinate state activities. Therefore, although the Parliament is the supreme law-making body, it cannot make any law it pleases (Suffian 1976: 75). The Constitution prescribes what laws may be made by Parliament and what laws may be made by state legislatures. Environment-related matters regarding which laws may be made are divided by the Constitution into three lists (Table 2). Under list A and list B the power to enact law is very clear, but under the concurrent list laws could either be made by the parliament or the state legislative assemblies.

TABLE 2. Matters which are related to environment
under federal and state laws

A. *FEDERAL LIST*

- (1) Item 8 - Trade, commerce and industry, especially
 - (a) Item 8 (i) industries; regulation of industrial undertakings;
 - (b) Item 8 (j) subject to item 2 (c) in the State List: development of mineral resources; mines, mining, minerals and mineral ores; oils and oil fields; purchase, sale, import and export of minerals and mineral ores; petroleum products; regulation of labour and safety in mines and oilfields;
 - (c) Item 8 (k) factories; boilers and machinery; dangerous trades; and
 - (d) Dangerous and inflammable substances.
- (2) Item 9 - Shipping, navigation and fisheries.
- (3) Item 10 - Communication and transport.
- (4) Item 11 - Federal works and power.
- (5) Item 13 - Education.
- (6) Item 14 - Medicine and health including sanitation in the federal capital.
- (7) Item 15 - Labour and social security.
- (8) Item 20 - Control of agricultural pests; protection against such pests; prevention of plant diseases.
- (9) Item 27 - All matters relating to the Federal Territory, including the matters enumerated in items 2, 3, 4 and 5 in the State List and in the case of Federal Territory of Labuan, the matters enumerated in items 15, 16 and 17 of the Supplement to State List for States of Sabah and Sarawak.

B. *STATE LIST*

- (1) Item 2 - Land, especially
 - (a) Item 2 (a) land improvement and soil conservation;
 - (b) Item 2 (c) permits and licenses for prospecting for mines; mining leases and certificates.
 - (2) Item 3 - Agriculture and forestry.
 - (3) Item 4 - Local government outside the Federal Territories of Kuala Lumpur and Labuan, including
 - (a) Item 4 (b) obnoxious trades and public nuisances in local authority areas;
 - (b) Item 4 (c) housing and provisions for housing accommodation.
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TABLE 2. (Continuation)

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- (4) Item 5 - Except with respect to the Federal Territories of Kuala Lumpur and Labuan, other services of a local character.
 - (5) Item 6 - State works and water, especially Item 6 (c) Subject to the Federal List, water (including water supplies, rivers and canals); control of silt; riparian rights.
 - (6) Item 12 - Turtles and riverine fishing.

C. *CONCURRENT LIST*

- (1) Item 3 - Protection of wild animals and wild birds; National parks.
 - (2) Item 5 - Town and country planning except in the federal capital.
 - (3) Item 7 - Public health, sanitation (excluding sanitation in the federal capital) and the prevention of diseases.
 - (4) Item 8 - Drainage and irrigation.
 - (5) Item 9 - Rehabilitation of mining land and land which has suffered soil erosion.
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Actually not all aspects of the environment are covered by the Environmental Quality Act, 1974 (Malaysia 1974a) and the Environmental Quality (Amendment) Act, 1985 and their subsidiary legislations enforced by the Department of Environment. It is worth noting from Table 2 that issues related to land, water resources, forestry, mining, wildlife and fisheries are beyond the jurisdiction of the Department of Environment, which is a federal agency.

There are a number of legislations enacted by Parliament that can be used by local authorities such as the Local Government Act, Act 171, 1976 (Malaysia 1976a); Street Drainage and Building Act, Act 133, 1974 (Malaysia 1974b) and Town, and Country Planning Act, Act 172, 1976 (Malaysia 1976b). All the three acts are interrelated. The enforcement of these acts is through by-laws pertaining to certain local authorities made by the various state legislative assemblies. Therefore, the local authorities will have their own governing by-laws which differ, more often than not, only in terms of the name of the local authority in which the by-laws are to be used or in certain minor provisions required by the local authorities concerned. However, certain local authorities, such as a city council or a municipal council have more by-laws compared to district councils depending on their requirements of the by-laws.

The Local Government Act, 1976 was enacted in March 1976 and applicable only in Peninsular Malaysia. The Act spells out the powers and functions of the local authorities. Generally, under the legislation, the local authorities have the responsibility towards control and conservation of the environment, sanitation and public health, prevention of epidemial diseases

and the general welfare of the residents within the local authority area. The functions of the local authority, however, can be extended to other areas.

There are a number of provisions in the Local Government Act, 1976 which empowers the local authorities to act against polluters such as in Sections 69 and 70 of the Act which prohibits anyone from being a nuisance or to dispose of pollutants either into any stream or on the banks of the streams, channels, public drains or waterways within a local authority area. It is also an offence for anyone to pollute a river so as to block its flow or to pollute it by disposing of solid or liquid wastes from manufacturing processes. Some local authorities also have in their by-laws provisions prohibiting the indiscriminate disposal of effluents except at locations specified by the local authorities. Under Section 73 a (ii) of the Local Government Act, 1976, there is also a provision allowing the enactment of by-laws in relation to water pollution for prohibiting animals to be bathed or washed in any stream.

Insofar as air quality is concerned, the Local Government Act, 1976 contains provisions which enable the local authorities to take actions for nuisances from boilers and chimneys that emit smoke and also activities that are detrimental to health and the environment especially as regards dust from trade, business, manufacturing or process (Section 81). Section 82 (1) enables notices to be given to stop such nuisances, and failing to comply [Section 85 (5)] the offenders can be further fined or jailed or both.

As regards the management of the air quality, the local authorities have by-laws in relation to the collection, disposal of garbage, prohibiting the burning of waste materials to be burned except at places and only in accordance with the ways approved by the local authorities. In fact, some of the by-laws contain clearer provision prohibiting anyone from dispersing of dust and any other types of air pollutants (see e.g. Selangor 1987).

In the Local Government Act, 1976 there are provisions as regards prevention and offences related to the disposal of wastes. Section 42 of the Act prohibits anyone from placing building materials on the road without a written permission from the local authorities. In fact there is a provision in the act which requires the occupier of a premise to even clean the road in front of the entrance to the premise. Generally littering or disposing of unwanted materials at public places within any local authority area is prohibited by the Local Government Act and punishable through fines or jail, or both.

The management of noise pollution through legislative measures is mentioned generally in the Local Government Act, 1976 which could be effective if enforced. Sections 80 and 81 of the said Act contain provisions enabling the local authority to take action to stop nuisances due to human or domesticated animals. In a number of by-laws enacted for the licensing of trade, business and industries there are also provisions prohibiting disturbing noise from trade with mention of fines and jail for the offenders.

Street, Drainage and Building Act, 1974 was enacted on 13 June 1974. Duties of the local authorities as directed by the Federal Government through state acceptance among others are to construct drains, water and sewerage channels. Section 55 (3) of this act states that no form of trade effluents should be disposed of or allowed to enter any river, channel, ponds, lakes, sea or drains or public sewerage systems without written permission from the local or state authorities. Section 55 (2) prohibits direct disposal of human waste from lavatories into the river or other water bodies.

The functions of the local authorities under the Town and Country Planning Act, 1976 are to control and plan land development, places and buildings in their areas. Planners are reminded to be wary of activities within their areas so as not to disturb the environment. For the control of land development and economy for the purpose of environmental conservation, local authorities are required to prepare proposed landuse plans called a structure plan. The structure plan should be able to determine where an urban area, residential area, industrial area, agricultural area and recreation are to be located in the local area. There is also a provision in the Act where the public is invited by the local authority to review, make comments and suggestions and objections to the draft structure plan. After the structure plan is accepted, the local authorities can make local plans parallel to the structure plan. The local plan would show types of construction and landuse methods in greater detail.

Section 51 of the National Land Code, Act 56 (Malaysia 1965) classifies land into three broad categories, i.e. agriculture, building and industries, and Sections 115, 116 and 117 (1) to (4) mentioned that the land thus classified can only be used according to their classification. The provisions actually enable proper landuse planning to be carried out taking into consideration of the environment and control of silt in water bodies.

Beside these enabling legislations, a number of guidelines and procedures are made available by the Department of Environment to the local authorities for planning purposes as mentioned earlier.

EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT BY THE LOCAL AUTHORITIES IN PENINSULAR MALAYSIA

There are presently 104 local authorities in Peninsular Malaysia which includes one city hall, one city council, 14 municipal councils and 88 district councils. An illustration of the effectiveness of environmental management by 25 local authorities in Peninsular Malaysia (Figure 1) is given here based on an ongoing study conducted on the management of the environment by the local authorities in Malaysia.

In each of the local authorities there exists an enforcement unit the size of which depends on the status of the local authorities. Obviously the

number of enforcement officers is bigger in municipal councils compared to the district councils. Insofar as their job is concerned, the enforcement officers are not actually charged with managing the environment but just carrying out duties which partly include environmental aspects especially in relation to solid waste and general hygiene and health.

It is interesting to note that although environment is not the major thing related to their job, the enforcement officers in the local authorities studied rated environmental pollution currently as the most important issue as compared to seven other issues mentioned (drug abuse, health, unemployment, crimes, poverty, housing and inflation in respective order of importance). However, drug abuse is a close second and in six of the district councils environmental pollution is rated between third to sixth most important current issues there. Incidentally, these district councils do not have many problems as regards the environment.

Figure 2 shows the opinion of the enforcement officers on the condition of the environment in 1975 when the Department of Environment was established; in 1985 after a decade of the Department's existence; and in the near future (1997) as compared to the present. It is to be observed that generally the environment is better in the past, especially about 17 years ago. More than 52 percent of the enforcement officers interviewed believe that the environmental quality will further deteriorate in the near future. Their opinion is based on the fact that the rapid development within the local authorities will further pollute the environment and their enforcement efforts would not be able to cope with it because even at present level of development they have not been very successful.

Looking back at the governing legislations for the local authorities they are either control and remedial or preventive in nature as far as environmental aspects are concerned. A number of the provisions in the Local Government Act, 1976 and Street, Drainage and Building Act, 1974 are for controlling or remedying adverse environmental situations, while the Town and Country Planning Act are meant for long term preventive actions.

As mentioned earlier, the local authorities are the institutions dealing with or handling the problem of solid waste. However, there have been little work on enforcement done by the local authorities on this aspect. As an example, Table 3 shows cases of nuisance from solid waste disposal on land and into drains compounded by Hulu Langat District Council between 1985 and 1988.

The increase in the number of offences clearly signifies an increase in cases of violation of regulations. However, the average amount collected for the violation is too small compared to the maximum penalty mentioned in the by-laws made under the Local Government Act, 1976. With the small amount of money as penalty and without any subsequent surveillance work carried out after the offenders have been compounded shows that the enforcement is not effective.

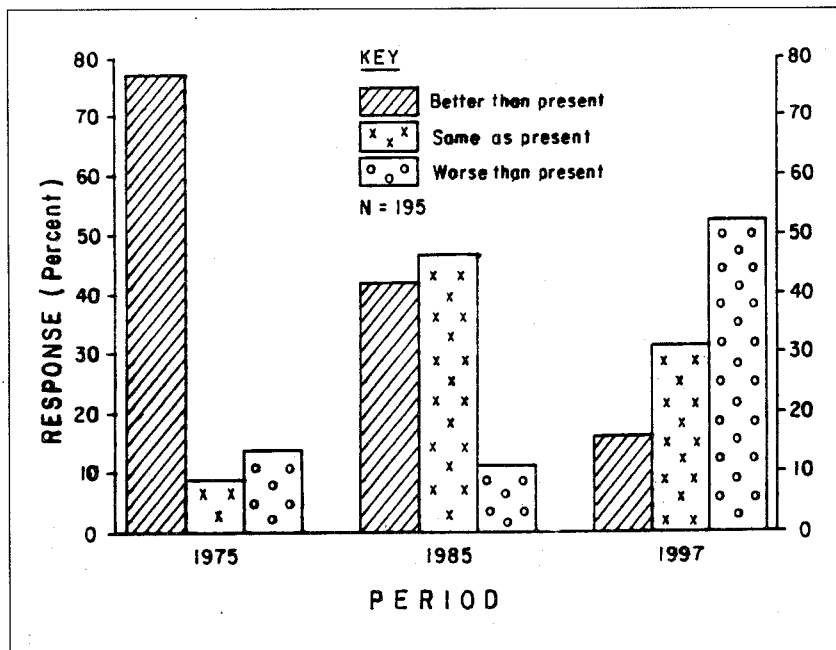


FIGURE 2. Enforcement officer's perception of the environment for various periods as compared to 1992.

Source: Field Survey 1992

TABLE 3. Cases compounded in relation to solid waste disposal under Local Government Act, 1976 within Hulu Langat District Council area, 1985 - 1988

Subject	Year			
	1985	1986	1987	1988
Offences compounded	3	46	68	144
Compound collected (M\$)	250	4 000	5 850	11 775
Average collection (M\$)	83.33	86.95	86.02	81.77

Source: Jamaluddin (1991)

Effective environmental management depends not only on enforcement efforts, but also on a number of other factors such as the provisions in the legislations, manpower, funding and the general environmental awareness among the enforcement officers and the general public.

Actually the legislations used by the local authorities lack criteria and standards regarding certain type of pollution that can be referred to by the enforcement officers. This is very clear e.g. in the Local Government Act, 1976 (Malaysia 1976a) and Street, Drainage and Buildings Act, 1974 (Malaysia 1974b), whereby only qualitative references are made regarding anything considered as a "nuisance". The qualitative reference does not give a true picture of the seriousness of the situation, but the ambiguity of the provisions do protect the enforcement officers, if they are not challenged in court.

The local authorities have a lot of power made available by their ruling legislations, but they are too involved in other jobs and only capable of handling a small part of the environmental related problems, albeit indirectly. The situation is more serious because what with the limited number of enforcement officers, most of them are not trained for environmental enforcement jobs. Most of the enforcement officers at the local authorities are not trained in the field of environment, and most of them do not even know the provisions in the relevant legislations.

Only about 47 percent of the enforcement officers interviewed are aware of the provisions in the legislations that they are enforcing, while the rest either do not know of the provisions or do not have any idea. However, 87 percent of the enforcement officers know that they can take legal action on polluters. Based on the questionnaire survey it seems that any enforcement work carried out by these enforcement officers as regard problems related to the environment is mostly coincidental, perhaps a justification for their very existence as enforcement officers! If such a situation persists there is certainly no guarantee that the environmental quality will improve.

Part of environmental problems handled by the local authorities is in terms of public service such as garbage collection and disposal, maintenance of parks and health and sanitation. However, support base of local authorities is too small to sustain a high level of public service. Federal grants or revenue sharing have been essential to keep these units as fully functioning members of government.

Although federal grant is disbursed to the various local authorities under a certain formula, the grant is normally barely enough for the survival of the local authorities and as such only the very basic necessities required for the functioning of the institution is met. According to Gilbert (1979), the local authorities cannot grow and develop relying on grants alone because of increase in administrative costs. In fact there have been cases where certain

local authorities that could not even support their administrative and services costs because of not enough revenue collected (Ahmad Atory 1990).

Looking at the problems faced by the local authorities and relating them to their inability to be really active in the field of environmental management it is not surprising that environmental problems, especially in relation to water, air and noise pollutions are not among the local authorities' priority areas. This is true because even with the problems of garbage collection and disposal, which had been the domain of local authorities' responsibility, are not properly handled.

In fact about 57 percent of the enforcement officers interviewed mentioned that the management of the environment through legislative measures by the local authorities have not been successful due to a number of reasons as mentioned above and also due to oppositions to enforcement works carried out by them. Figure 3 shows the parties opposing enforcement works by the local authorities. Perhaps oppositions by the industries and individuals are expected, but oppositions by the politicians, especially from the government are uncalled for as they are also involved in formulating environmental policies.

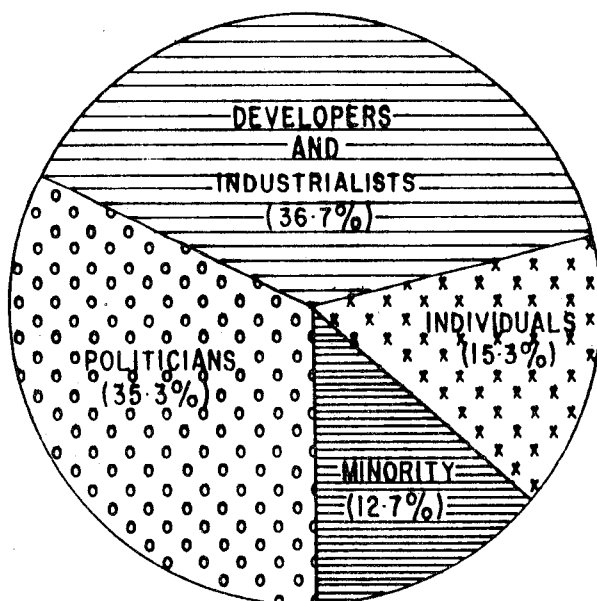


FIGURE 3. Groups opposing enforcement efforts by the local authorities
Source: Field Survey 1992

Regarding long term preventive measures through planning procedures, the city council and the municipal councils have already prepared their respective structure and local plans while most of the district councils are yet to do so. These plans which incorporate environmental issues within the respective local authority area and are reviewed by the public are a positive alternative to environmental management, if they are strictly followed.

CONCLUSION

This paper has looked at some aspects of the environmental management, especially through legislative measures by the local authorities in Peninsular Malaysia. The local authorities which handle all the urban areas and part of the rural areas in the country are empowered to handle a number of environment-related matters through at least three pieces of legislations. However, their enforcement efforts are not very successful due to a number of reasons. Some of these reasons are structural in nature such as the lack of funds and inadequacies in the legislations, while others include anthropogenic factors especially in terms of environmental awareness among all levels of the population which is still lacking and making it more difficult for the local authorities to manage the environment.

Environmental awareness involves one's attitude. In fact, given the best of environmental policies, institutional arrangements and legislations, the goals of environmental management programmes can never be achieved without the support of environmental awareness among the population. Environmental management programmes in Malaysia are not the sole responsibilities of the government agencies, but also the general public. There should be a change in attitude of all Malaysians, and management of the environment in line with the policy objectives should no longer be entirely a "top-down" but also a "bottom-up" process to enable everyone to be involved.

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