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Manfred Kops

Local Revenues in Malaysia

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LOCAL REVENUES IN MALAYSIA

The Correction of Its Vertical and Horizontal Imbalances by Intergovernmental Transfers

Three Reports prepared on behalf of the
Ministry of Housing and Local Government
(Local Government Division), Malaysia,
and the
GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit),
Eschborn, West Germany

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Preface

After the territorial reorganization of the local authorities in Malaysia has almost been completed and their legal functions have been widened considerably by appropriate laws, important presuppositions for a broad and viable local administration have been created for this country. However the most important condition, a sufficient provision of financial resources, has not yet been realized: The by far biggest share of national revenues still goes to the federal government.

The local authorities therefore cannot cover many of their statutory functions and - more important - of the functions which because of its local character they could cover more efficiently than the federal level, if the necessary resources in money and manpower were given to them. Instead the local authorities in Malaysia suffer from an extreme shortage of money, which leads to a unsatisfactory performance of many, even basic local functions, and to a unnecessary reduction of the standard of living.

To make things worse, the distribution of the few resources that are channeled to the local level also is inappropriate. I. e. neither the own local revenues nor the supplementary grants are distributed according to the local authorities' varying fiscal need. Thus in a few local authorities, especially in the urban areas at the west coast of Peninsula Malaysia, local services are comparably overprovided, whereas in other local authorities, especially in the rural areas at the east coast, even the most elementary local services cannot be supplied.

This imbalanced vertical and horizontal distribution of revenues best could be corrected by widening the local revenue base, especially by tax sharing. As this solution at present supposingly could not be realized because of centralistic objections, the study at hand suggests the introduction of equalizing grants as a second best solution. As this type of grants diminishes differences in the local authorities' own fiscal capacity and fiscal need, they can correct the present horizontal imbalances; at the same time they also correct the vertical imbalances, as they shift resources from the federal government, which would be the donor of the grants, to the local authorities.

This proposed solution is elaborated by three papers. Each one deals with a separate aspect and thus can be read and understood independently from the other ones. As the second and third paper, on the other hand, are based on the results of the first (and second) one, the three papers together form an entity.

1. The first paper analyzes and criticizes the mentioned **"Imbalances in the Vertical and Horizontal Distribution of the Local Revenues"**, which are characteristic for the "twofold malaise" of the local revenues in Malaysia. In doing so, also the necessity for a correction of these imbalances becomes transparent.

2. The second paper has **"A Critical Look at the Present Intergovernmental Transfers in Malaysia"**. It checks the allocative and distributive effects of the intergovernmental grants, that presently are given to the local authorities, and analyses the potentials of these grants - in the present or an improved form - to correct the stated insufficiencies.
3. The potentials of one type of intergovernmental grants to correct the present imbalances are discussed in the third paper, which is called **"Equalizing Grants for the Local Authorities in Malaysia - Method and Results"**. In this paper the concept of equalizing grants is operationalized, i.e. fiscal capacity and fiscal need are measured with special reference to the peculiarities of the local authorities in Malaysia. Furthermore the distributive effects of the grants are described under different assumptions about the degree of equalization and about the volume of the grants. Finally a short-term and a long-term agenda are presented for implementing the suggested solution. For the short term it is proposed to abolish the present annual grants, which systematically are faulty. This money thus could be devoted for the equalizing grants in a cost neutral substitution, and then could be increased gradually. For the long term however still a widening of the local tax base is favoured.

The papers are imbedded in a larger investigation of the Malaysian local government finance and taxation, which the German Agency for Technical Cooperation (GTZ) has been undertaking since 1986. In course of this investigation an initial Study by Lenz (1986) has been published already, which analyzed the main problems of the Malaysian system of local finance and suggested possible topics for further studies. Among others, also the subject for the present study was proposed there. I would like to thank my colleagues from the GTZ, Dieter Lenz and Michael Reidenbach, who have been working with me in Malaysia, and Dr. Albrecht Stockmayer from the GTZ in Eschborn, for their support.

All studies were carried out in close collaboration and under the conduction of the Local Government Division of the Ministry of Housing and Local Government (MHLG). I would like to express my sincere gratitude to its former Director General, Mr. S. Veloo, who was in charge of the Ministry until July 1988, and its present Director, Mr. M. Lim, who both supported our work with permanent interest and assistance. I also would like to express my thanks to the staff of the Development Unit of the MHLG, Mr. Afandi, Director of the Development Unit, Mrs. Harpajan, Mr. Ibrahim, Mr. Hanafi, and Mr. Majid, who supplied valuable informations and administrative assistance, and inspite of their numerous other duties were always prepared for frank and stimulating discussions.

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Manfred Kops

Summary

The Malaysian Constitution, especially the Local Government Act 1976, is in accordance with the economical and political norm, that local authorities should have broad competences and should cover a wide catalogue of functions. In reality however, many local authorities lack the personal and financial resources to perform these funcions adequately, encouraging state and federal administration to control and influence the local authorities decisions, cut their competences and overtake more and more of the originally local functions.

This vicious circle, which has lead to a most inadequate sharing of competences between federal, state and local level, only can be broken if the local authorities receive a higher share of the public revenues, enabling them to fulfil their legal functions properly. This can be done by modifying the original revenue sharing system, especially by widening the local authorities tax base, or by increasing the financial aid that is given to the local authorities by means of state and federal grants. Although the first possibility is the best solution from the theoretical point of view, its chances of realization are lower due to political and constitutional resistances. Thus the GTZ instead proposes the "second best solution" of gradually increasing the financial aid that is given to the local authorities by the federal government.

As instrument for this "vertical" redistribution of public revenues the GTZ proposes so called equalizing grants. This type of grant is proportioned according to the gap between the local authorities' fiscal capacity to levy own revenues and the local authorities' fiscal "need", i.e. the amount of money that is necessary to finance the local authorities legal functions. Equalizing grants thus not only redistribute public resources vertically between federal (or state) and local level but at the same time redistribute them "horizontally" within the local level.

This feature of equalizing grants is especially suitable as at present the (per capita) revenues of the local authorities differ extremely and do not at all correspond with their (also differing) fiscal needs. The proposed grants thus both increase the overall revenues of the local level and reduce the gaps between the fiscal capacity and the fiscal need of the local authorities, i.e. lead to a fairer distribution of revenues within the local level.

The overall amount of equalization grants that is given to the local authorities according to this principle has to be determined politically. The necessary amount for totally equalizing the gaps between own fiscal capacity and fiscal need for all local authorities would be beyond the federal governments present financial capabilities. However a partial equalization with bearable burdens is possible and would still correspond with the general concept of equalization grants.

To introduce the equalization grants politically, it is suggested that the present annual grants, which suffer from considerable theoretical deficiencies, are abolished and substituted by an equally high amount of equalization grants, a solution that would be in accordance with the existing laws (Act 245). For the federal government this would be a cost neutral solution. In the long run the amount of equalizing grants could be increased gradually - according to the political evaluation of horizontal and vertical redistribution and the availability of federal resources.

If the implementation and gradual increase of an equalizing system of the proposed kind is accompanied by a strategy of decentralisation and downward shifting of competences, the necessary resources would be set free as the federal level would get rid of many tasks that are originally local functions. For the federal level the downward shifting of competences thus would not lead to higher financial burdens. For the public sector at whole, it would lead to a more appropriate and efficient fulfillment of public functions.

Imbalances in the Vertical and Horizontal Distribution of the Local Revenues in Malaysia[1]

by

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1. The Imbalanced Vertical Distribution of Revenues between the Local and the Federal Level

1.1. The Amenities of Federalism

When deciding about the way, in which goods are produced and provided, often only the **production costs**, e.g. the value of the resources used in the production process, are considered. Although this usually indeed is the most important type of costs, several other types of costs have to be taken into account, too. They can be grouped into **information costs**, e.g. the resources used to decide which goods shall be produced, how they shall be produced and how they shall be provided to the members of the society, and **frustration costs**, e.g. the loss of benefits caused to people who are affected negatively by production and consumption decisions of others (i.e. production decisions that lead to pollution of the environment).

Goods that are produced and provided by the private sector are optimally allocated by the market process, which minimizes production costs, information costs and frustration costs by the individual, decentralized decisions of the producers and consumers. Goods, however, that cannot be allocated by the private sector ("market failure")[2] and goods, for which an allocation by the market process is not accepted politically (i.e. health services), must be provided by the public sector.

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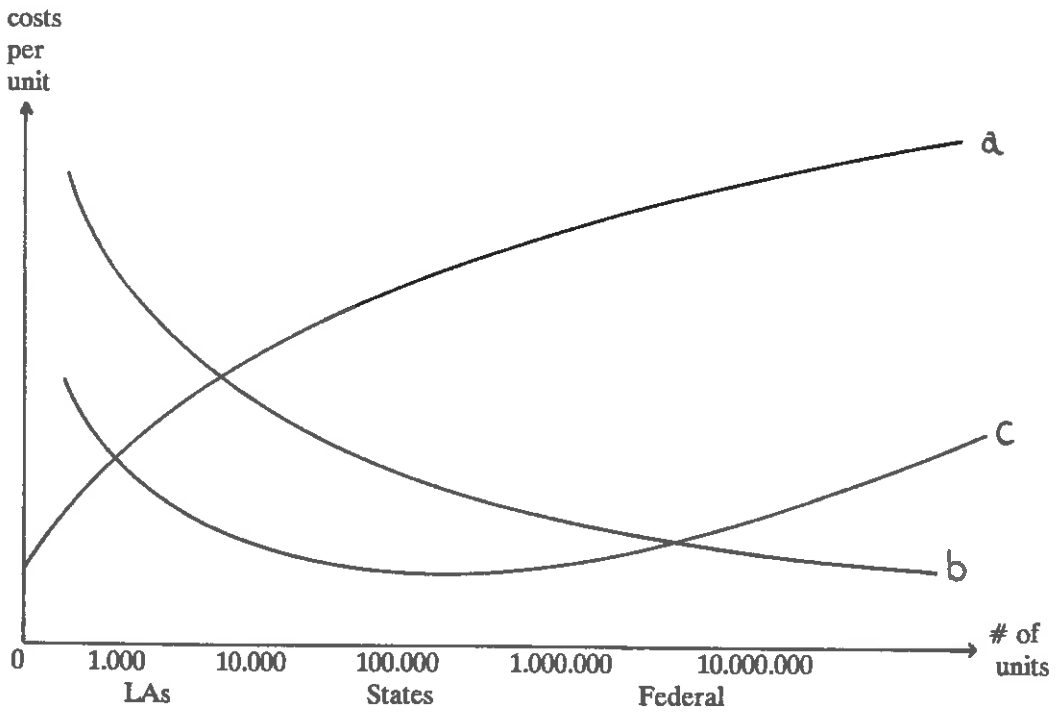
[1] This paper is part of the authors' broader study "Equalizing Grants for the Local Authorities in Malaysia", (KOPS 1988a), which can be obtained by the Ministry of Housing and Local, Local Government Division, Kuala Lumpur, or by the Gesellschaft für Technische Zusammenarbeit, Eschborn, West Germany.

[2] Among the most important reasons for marked failure are "non-excludability", e.g. the impossibility to exclude those persons from consuming a good that are not willing to pay for it (street lights), and "nonrivalness of consumption", e.g. the feature of some goods to spend benefits to many (indefinite) consumers without reducing the benefit for each of them (weather report). For an introduction into the theory of public goods and the concept of market failure see i.e. CORDES/SANDLER 1986.

A **federal public sector** can provide these goods with lower costs than a public sector that consists of only one public agency (the central level). Firstly, in a federation the **production costs** are lower, as the competences for producing the goods can be allocated according to minimal production costs: For a good with a constantly regressive production function (economies of scale, see figure 1a) the production competence can be allocated to the central level, which is able to produce the maximum units of the good (e.g. national television); for a good with a progressive production function (diseconomies of scale, figure 1b) the production competence can be allocated to the local level, which can produce small numbers of the good (e.g. schools); and for goods with first decreasing and later increasing production functions (U-shaped, figure 1c) the production competence can be allocated to an intermediary federal level (e.g. states), which can produce the number of units near the cost minimum (e.g. universities).

Figure 1:
Allocating production competences
according to the shape of public goods' production functions



In a federation also the **decision costs** are lower than in a unitary state: As the decision competences then can be assigned according to the goods' differing (regional) range of benefits, only those people have to get informed about the production alternatives and have to state their decisions (e.g. burden decision costs), who are affected by the benefits of the goods. Thus for goods with a

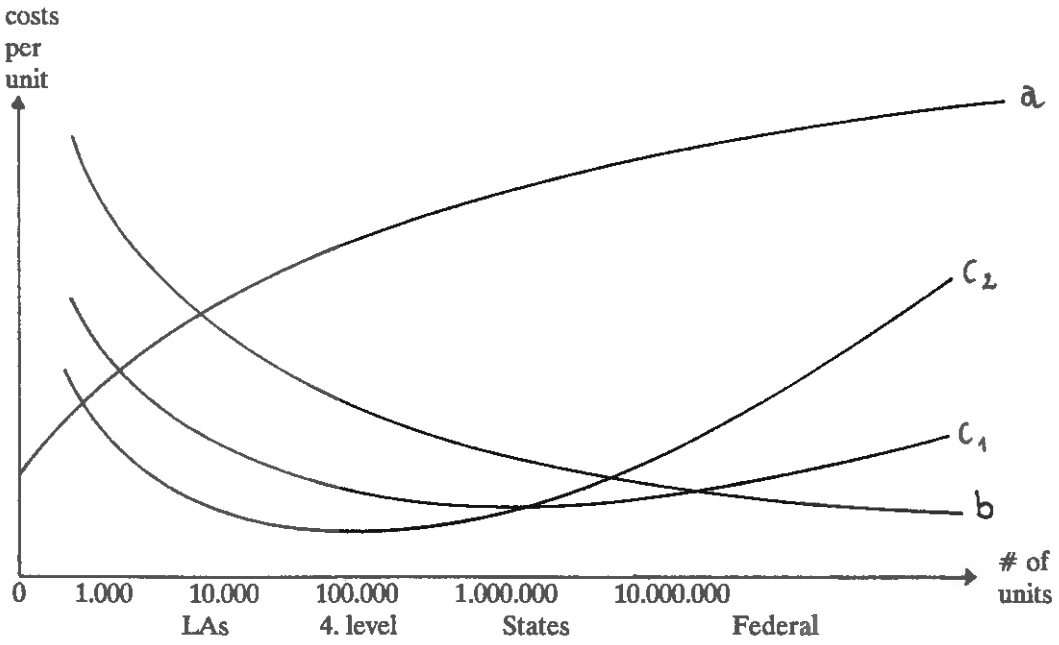
narrow range of benefits (like fire protection or street lighting) the decision competences can be allocated to the local level, ensuring that only the people who really are affected by the supply of the goods decide about the way of producing and providing them and at the same time ensuring that people who are not affected are not involved in the decision process and do not have to burden decision costs. -- For goods with a larger range of benefits the decision competences correspondingly are allocated to intermediary federal levels. Thus the decisions about universities for instance could be allocated to the states, as the benefits of universities usually spread over larger areas of about a states' size. -- For goods with national benefits the decision competences correspondingly have to be allocated to the federal level, as in this case their benefits - defence policy or international relations would be examples - affect people in the whole country.

Lastly in a federation also the **frustration costs**, e.g. the loss of benefits caused by deviations between the individual preferences and the public (majority) decisions, are smaller than in a unitary state. Although also in a federal state the public decisions never can fit all individuals' specific preferences but always have to be a majority decision in favour of the average voter, federal states allow decentral decisions that fit the individual preferences better than central decisions. If for instance fire protection as a public matter is evaluated differently in a country, in a federal state the standards for fire protection can be varied according to the (regionally) differing preferences. Thus a local authority could impose high standards and hold better (and more expensive) equipment for fire protection, if the inhabitants consider this public function very important, whereas in a region, where fire protection is a minor concern, a local authority could impose lower standards and hold fewer (and less expensive) equipment for this function. If however the decision competence about fire protection is allocated to the federal level, regional variations according to varying preferences are not possible. Instead the service has to be performed according to a unique national standard, causing frustration costs both to people whose preferences for fire of protection are below this average and to people whose preferences for this service are above the average. -- As in a federal state the decision competences can be allocated to exactly the people being affected by the results of the decisions, there is a fit between the preferences of the people who decide and the people who are affected by the output of the decision process.

Federalism thus allows a better fit between the individuals' demands and the public supply. This advantage is especially important in countries with highly differing conditions of living and heterogeneous cultural, religios, racial or political preferences. For Malaysia, where both the economic conditions and the preferences for public matters highly differ regionally (urban-rural) and ethnically, this feature of federal decisions seems to be especially important.

The above mentioned amenities of federalism suggest that the production costs, decision costs and frustration costs can be decreased with the number of federal levels or - more generally speaking - with the number of public agencies.[4] In fact more public agencies really allow to assign the production competences according to the minimum of the different public goods' productions functions. For some goods i.e. the cost minimum would be higher than the number of units that can be produced by local councils, but lower than the number of units that would be produced by the states (figure 2). In this case a fourth federal level between the local councils and the states could produce this good with lower costs per unit, thus improving the efficiency of the public sector. Correspondingly it could be argued that a higher number of public agencies could lead to a better fit between the (regional) range of the benefits and the people involved into the decision process (minimizing decision costs) and also could lead to a better fit between the public decisions and the individual preferences (minimizing frustration costs).

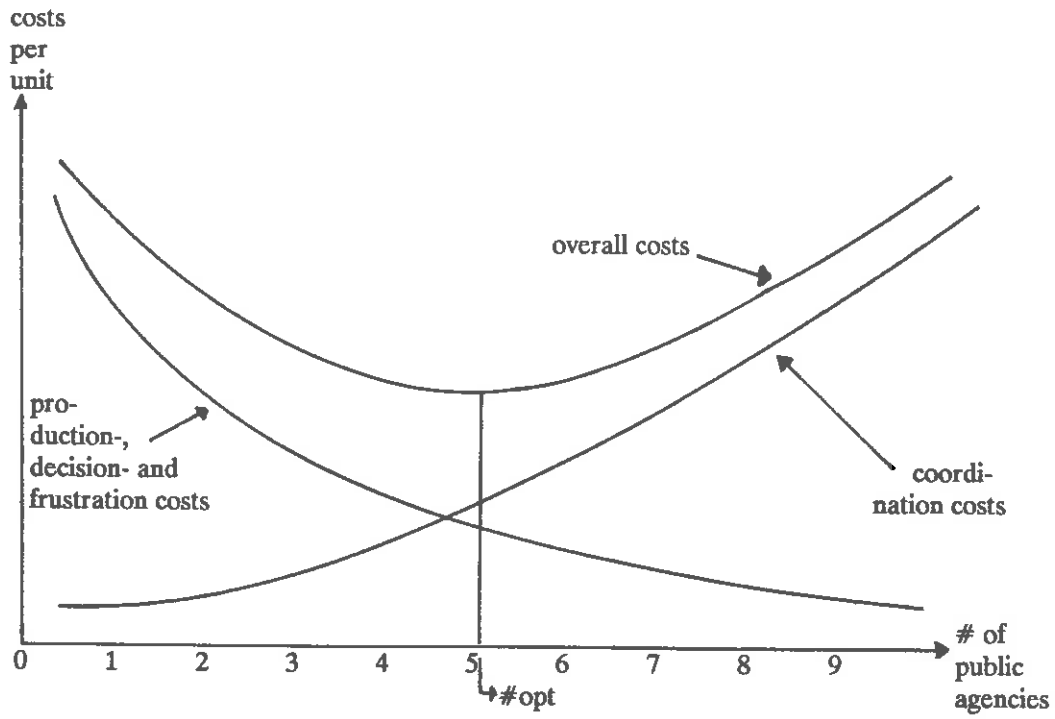
Figure 2:
Allocating production competences to a fourth federal level between local authorities and states



[4] Instead of or in addition to constituting several federal levels according to regional criteria, public agencies can be constituted according to functional criteria. In many states i.e. social security tasks are allocated to public agencies that are defined according to their functions (health care, unemployment insurance), disregarding regional boundaries. Also the EPF in Malaysia is an example for such a functional definition of public agencies.

The mentioned arguments suggest a monotone relation between the number of public agencies and the efficiency of the public sector: The more agencies, the smaller the overall unit costs of producing and providing the public goods (see figure 3, function a). On the other hand there is one specific type of decision cost, sometimes called **coordination costs**, sometimes called centralization costs, which definitely does not follow this line: The resources necessary to coordinate the decisions between the different public agencies within a country **increase** with the number of such agencies. Furthermore additional costs appear as the probability that certain public services are not covered by any agency or that some public services inefficiently are covered by two or more agencies increases with the number of agencies (see figure 3, function b). The overall costs therefore are determined by the production costs, decision costs (except coordination costs) and frustration costs on the one hand, which decrease with the number of public agencies, and the coordination costs on the other hand, which increase with the number of public agencies. The number of public agencies thus will be optimized, when the overall cost function is minimized (figure 3, function c).

Figure 3:
Determinating the optimal number of public agencies by minimizing the overall costs of the public sector



The cost functions of figure 3 of course are ficticious only. In practice it is very difficult to determine the empirical shape of the overall cost functions for concrete economies, especially as decision costs, frustration costs and coordination costs are very abstract categories, which are differently evaluated by different political ideologies and hardly can be quantified. Ceteris paribus, however, the number of public agencies will be higher in economies with large catalogues of public functions, with heterogeneous preferences and (regionally) differing production functions and with complicated and costly decision making rules.

Cosequently also the number of federal levels, of regional agencies within each federal level and of non-regional, functional agencies varies from country to country. Some countries only have two federal levels, others have four or even five.[5] Also the number of agencies within each level can vary considerably.[6] As each country has its own economical, political and cultural framework, it also is not possible to find out an overall "optimal" federal structure that can be adopted from other countries. Instead each country has to consider its specific conditions, especially its historical preconditions, which might not be optimal from the economic point of view, but cannot be changed because of cultural and ethnic determinants or constitutional restrictions.

[5] West Germany for instance has three fully elaborated federal levels: the local authorities, the states and the federal level, and two semi elaborated federal levels between the local and states level ("Kreise" and "Regierungsbezirke"). In addition there are some special purpose agencies which are defined functionally, especially the social security funds (for health insurance, unimployment-imployment insurance and working accident insurance).

[6] In West Germany for instance there are about 8.500 local authorities, compared to only 90 in Peninsula Malaysia. On the other hand the number of states is quite similar between the two countries (11 in West Germany compared to 13 in Malaysia).

1.2. The Economic Justification of Local Authorities

Regardless of the concrete design of such a federation the above statements should have illustrated that local authorities generally are justified from the economic point of view, as they allow to cover special public functions with least costs or respectively with highest efficiency. If one resumes the mentioned arguments that support federalism with special reference to the local authorities, the following advantages can be stated:[7]

- Public goods with **diseconomies of scale** can be produced most efficiently on the local level, being the smallest regionally defined public agent. -- Thus for a good with an increasing cost function (i.e. street lighting) the costs per unit would be higher for a state, supplying, say, one million units of the good per annum, or even for the federal state, supplying, say, 10 million of the good, than for a local authority, supplying only 10.000 units.

- As "local knowledge is greatest at the local government level",[8] local authorities are most capable to consider (regionally) differing cost factors and to vary the production method according to the **differing input prices**. For the public sector as a whole his will lead to lower overall production costs than a unified production method applied by the unifederal level. -- Thus a local authority in an urban area, where the wages are above average, could apply a more capital intensive production process, whereas a local authority in a rural area with low wages could apply a more labour intensive production process.

- Public goods with narrow regional benefits only affect the population within smaller regional areas. If those goods are produced and provided by local governments, also the **decision costs** are limited to the people within these areas. If on the other hand the production competence for these goods would be allocated to higher federal levels, many people would be involved in the decision process about goods whose benefits would not affect them. This would cause unnecessary decision costs. -- If for instance the decision about a local matter like the construction of a new drainage were allocated to the federal level, unnecessary high decision costs would be caused both for the federal administration, which would have to inform about the special local conditions, and for all federal voters, which have to evaluate the investment decisions of the federal administration through their vote in federal elections.

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[7] For a more detailed explanation of these advantages see i.e. FOSTER et al 1980, p. 39ff.

[8] ADB-REPORT_1 1986, p. 49.

- As for public goods with narrow regional benefits the allocation of the decision competences to the local governments assures that only those people are involved in the decision process that are affected by the consequences of these decisions, best fit with the preferences of the affected people is achieved. This minimizes the **frustration costs** that necessarily appear with any majority decision. -- Thus the public decision about the size and content of i.e. a public library would rather match the preferences of the actual users, if only the people living near this library were involved in this decision. Would the size and content of the library instead be determined by a state or even by the central level, the discrepancy between the decisions and the users preferences (e.g. the frustration costs) would be higher.

Related to these economic amenities there are some additional advantages of allocating competences to local authorities, which usually are considered as political arguments, but also can be translated into economical categories:

- The willingness to **participate in the political decision processes** increases with the chances to influence the results of these decision processes. Ceteris paribus these chances are higher in smaller decision groups than in larger groups.[9] Transferred to federative decision groups this idea implies that the degree of political participation is higher on the local level than on higher federal levels; e.g. on the local level more people are willing to articulate their political wishes and targets and to influence and control the performance of their political delegates. -- Put into economical categories this will lead to a higher efficiency of the public sector as well as to a better fit between the preferences of the population (voters) and the political output, e.g. to lower frustration costs.

[9] For a detailed elaboration see i.e. BUCHANAN/TULLOCK 1962; OLSON 1965; OLSON 1982.

- As the individuals' welfare on the local level is directly determined by the quality of the political decisions, people usually feel a **higher responsibility for local decisions** than for state or national matters. Control and enforcement of efficiency from the public therefore are stronger for the lower federal levels (which in economic terms means lower production costs).

- Efficiency can especially be enforced, if the benefits of the provided public goods are directly connected to the financing of the public expenditures, e.g. the distribution of benefits equals the distribution of (tax) burdens. In this case the demand for more public goods and services is counterbalanced by the intention to limit the burdens of public revenues. As such an equivalence can more easily be achieved on the local level, this **balancing mechanism** works best, if a great share of the public goods are provided by local governments. -- In economic terms this feature can be regarded as a mechanism which adjusts the results of the political decision process to the people's preferences, e.g. minimizes frustration costs.

Although some of these amenities of decentral decision making can be achieved best, if there is direct political participation on the local level, they generally remain true, if the preferences of the population within the local councils are articulated only indirectly or/and derived by the public administration. Especially the possibility to assign the production competences according to specific production minima is independent from direct political participation; it also can be achieved by a "well informed" administration. Other amenities of federalism, especially the minimizing of frustration costs, take best effect however, when direct political articulation of preferences, i.e. via local elections, is possible.[10]

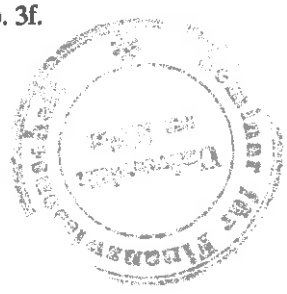
1.3. The Statutory Functions of the Local Authorities in Malaysia

The federal design of Malaysia generally accords to the above mentioned economic considerations.[11] There are three federal levels, the local councils, the states, and the central state. The local level at present consists of 75 municipal and 15 district councils and the Federal Territory of Kuala Lumpur, after the territorial reorganization of the local councils, which was started in the mid seventies, almost has been completed.[12] On the state level there are 13 states

[10] For this reasons the respective statements of the Royal Commission of Enquiry to Investigate into the Workings of Local Authorities in West Malaysia, Kuala Lumpur 1970 (from now on quoted as NAHAPPAN-REPORT 1968), Chapter VIII, still can be supported completely.

[11] For a detailed description see e.g. TUN MOHAMED SUFFIAN ET AL 1978.

[12] As a result of the reorganization, the number of local authorities was reduced form 370 to 90. NIK HASHIM IBRAHIM/MOHD. YAHYA NORDIN 1984, P. 149FF.; LENZ 1986; Uchimura/Kahnert/Motte: Malaysia Municipal Services Review Mission. Final Aide Memoire (from now on quoted as WORLD-BANK-REPORT 1988), mimeo., Kuala Lumpur 1988, p. 3f.



(Johore, Kedah, Kelantan, Malacca, Negeri Sembilan, Pahang, Penang, Perak, Perlis, Sabah, Sarawak, Selangor and Trengganu). From them, the West Malaysian States Sabah and Sarawak are granted special constitutional rights, that generally give them a higher independence from federal decisions.[13] -- In addition there are several functionally defined public agencies, like the National Electricity Board (NEB), the Public Works Department (JKR) and the Employees Provident Funds (EPF).[14]

The constitution de jure allocates the federal levels' competences in a way that takes effect of the mentioned amenities of federal decision making: Both the states and the local councils have considerable legal competences. For the local councils these competences in detail are regulated by three laws, which were enacted during the mentioned regional re-organization of the local level in the mid seventies:[15]

- the *Street, Drainage and Building Act* (Act 133), 1974, which empowers local governments to construct, maintain and repair public streets and back lanes, public sewers, sewage treatment plants, drains and water courses within their areas of jurisdiction,
- the *Local Government Act* (Act 171), 1976, which sets out the powers, organization and operation of both municipal and district councils, and
- the *Town and Country Planning Act* (Act 172), 1976, which provides local governments the authority to regulate, control and plan development and use of all lands and buildings within their respective areas and sets out a framework for physical planning, requiring the local governments to prepare structural and local plans which have to be approved by the State Planning Committee.

According to this legislative framework, the local authorities may acquire, establish, erect, maintain, supervise and control all matters on the local level.[16] From this they have the power i.e. to perform urban planning and management functions, act as a traffic management and control authority, plan and provide public utilities and amenities, construct markets, hawker stalls and commercial complexes, undertake public building and housing construction, and act as a licensing authority.[17]

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[13] For the special (financial) arrangements, the Malaysia constitution provides for Sabah and Sarawak, see A. BIN AYUB 1978, p. 314ff.

[14] For a description of the main public agencies in Malaysia see e.g. the MALAYSIA YEARBOOK 1988, Kuala Lumpur 1988, especially pp.316ff., 541ff.

[15] WORLD-BANK-REPORT 1988, p. 3f.

[16] LENZ 1986, p. 8.

[17] NIK HASHIM IBRAHIM/MOHD. YAHYA NORDIN 1984, p. 156.

The WORLD-BANK-REPORT 1988, p. 3, distinguishes between "regulatory" and "additional" functions. The first group includes:

(a) *Public Places*: establish, construct and regulate any open space, parking place, garden, recreation and pleasure ground set aside for public use;

(b) *Public Health and Sanitation*: control pollution of streams; establish sanitary services for removal and disposal of hightsoil, rubbish, litter and all kinds of refuse; establish public lavatories; establish, let, manage or control market buildings, shops, food stalls; establish and operate abattoirs, cold storage and meat inspection depots; pass by-laws regulating dumping of waste and preservation of public health;

(c) *Fire Services*: establish and operate a fire brigade; and

(d) *Burial Places, Crematoria and Exhumation*: regulate burial and burial grounds.

As additional functions, many of them being developmental in nature, are mentioned:

(a) *Commercial Operations*: establish and operate car parks and public transport; build shops, houses and flats for sale or rent; make loans to residents and local government employees for the purchase of housing and industrial and commercial buildings; develop and sell industrial estates; and

(b) *Social Services*: establish and regulate, among others, public parks, gardens, swimming pools, gymnasia, community centers, public libraries, art galleries and museums, and public baths; establish and ambulance service; establish and operate public clinics.

This catalog of the local authorities' competences is sufficiently wide. The Malaysian legal framework in this regard therefore is adequate and in accordance with the above arguments, that were made in favour of a broad definition of the local authorities' competences. It also is similar to the respective legal arrangements of other federal countries.

With regard to the competences of the local authorities, the Malaysian legal framework, however, has two severe deficiencies. First of all there is **no clear distinction between mandatory functions**, e.g. functions which necessarily have to be provided (at least on a minimum level) by all local authorities, **and discretionary functions**, e.g. functions that may be covered by the local authorities according to their financial capabilities. Because of this the degree to which the legal functions of the local governments can actually be fulfilled, depends extremely on the financial arrangements, that determine the local governments' revenues. Once these arrangements are insufficient (as will be

shown below), the legal catalog of the local governments' functions becomes superfluous.

Secondly the **states** in Malaysia **have unusual strong rights to control the local governments**. As the constitution provides for the organization of local government and most municipal services to be a state responsibility (Para. 4 and 5 of the 9th of the schedule the constitution), local government in the view of the constitution actually is a state creation.[18] This means that the state governments - and to a certain degree also the federal government[19] - have considerable legislative powers to control their local authorities. This contains the risk that the competences the local governments are granted de jure, de facto again are restricted - this time by the states, which by an extensive strain of their control rights do not leave the local governments the autonomy to cover their legal competences.

1.4. Actual Deficits of the Local Authorities'de facto Functions

Compared to the legal framework of the local authorities' functions, which apart from the mentioned deficiencies are proper in general, the local authorities de facto cover their functions comparably bad. Emphasized already by the NAHAPPAN-REPORT 1968, which in spite of its early publishing still is most informative, this evaluation always has been confirmed by several follow-up reports.[20] Also actual studies come to this negative conclusion. LENZ (1986, p. 43) states that "inspite of the introduction of modern legislation about 10 years ago, and of larger structural units mainly from the mid-1970's to 1980, it appears that most local governments are incapable of running an organized economy." The WORLD-BANK-REPORT 1988 (p. 5) comes to a similar evaluation, when it points out that "while the Local Government Act allows the local authorities to perform this wide range of activities, most of them (especially the district councils) in reality are not able to carry out many of these functions due to financial and administrative constrains." Also recent publications of the Government admit this basic deficit in the Malaysian public sector performance.

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[18] NIK HASHIM IBRAHIM/MOHD. YAHYA NORDIN 1984, S.152.

[19] The constitution gives advisory and control functions to the Federal Government: Article 76 (4) gives the Federal Government the power to legislate with the aims of coordinating the formulation and implementation of all laws, by-laws and policies adopted by the respective local authorities. In addition, article 94 (1) also provides that the Federal Government may advise and give technical and financial assistance to ensure the development of the local authorities. See ibid.

[20] See i.e. the Report of the Committee to Study the Implications of the Report of the Royal Commission of Enquiry to Investigate into the Workings of local authorities in West Malaysia, Part I (from now on quoted as NOH-REPORT_1), Kuala Lumpur 1971; Report of the Committee to Study into the Question of Equitable Distribution of National Revenue to local authorities, Part I, Report of the Committee (from now on quoted as NYAN-REPORT_1 1977), Kuala Lumpur, 1977, p. 28ff.

A recent study of the Asian Development Bank and the Government of Malaysia[21] for instance mentions that at least most of the District Councils "are weak in all ... respects and ... depend very heavily on assistance from other public agencies."

We believe that the main cause for this discrepancy between the broad and strong role, the local authorities are to play according to the legal settlement, and the narrow and weak role they actually do play, is the **insufficient local revenue base**. The only considerable **local tax** is the property tax (assessment rates), which is calculated on the basis of the annual or improved value of immobile properties. Apart from its high and inadequate regional variation,[22] this tax base cannot yield the revenues which the local authorities need to cover their legal functions.[23] -- **Fees and charges**, the second biggest type of local revenues, by nature cannot yield the local authorities' lacking resources, too. Although many Councils might be capable to raise higher fees and charges,[24] these possibilities are limited, as fees and charges only can be imposed on special services and according to the utilization of these services.

Taken all together, the revenue base of the local level - as well as by the way the revenue base of the states[25] - is much too small. Instead only the federal government is vested with the power to obtain all major revenues, such as the income tax, licences from motor vehicles, customs duties and sales tax. These financial arrangements have lead to a very "centralized"[26] distribution of revenues between federal, state and local level. In 1987 for instance, only 4,7 % of the total revenues were collected by the local authorities. With the states' share of 17.2 % the dominant part of the revenues was received by the federal government (78.1 %) (see table 1).

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[21] Asian Development Bank and the Government of Malaysia: Urban Development Policy and Programme Study, Malaysia, Final Report, Volume 1, Policy and Programme Framework, Kuala Lumpur 1986 (from now on quoted as ADB-REPORT_1 1986), especially p. 18ff. and p. 34ff.

[22] See below, chapter 2.

[23] Furthermore this insufficiency increases in the time being, as the properties are a comparably inflexible tax base, which grows less than most other tax bases (like income or sales) and usually is re-evaluated only with a considerable time lag.

[24] See e.g. the respective proposals by LENZ 1986, p. 14ff. and 68ff., and by the WORLD-BANK-REPORT 1988, p. 24ff.

[25] Without being able to evaluate the states revenue system here, it shall be mentioned only, that also the states are lacking a sufficient revenue base to yield their necessary revenues. The only considerable revenue item for the States is from land, mines and forests, from licences and form water supplies and drainage and irrigation water rates. See for a more detailed description and evaluation of the states revenues e.g. ABD. BIN AYUB 1978, p. 307ff.

[26] "If comparisons are made between Malaysia's financial arrangements with those of other federal systems such as those of the United States, Canada, and Australia, it will be noted that the Malaysian system is a very strongly centralized one." Ibid, p. 306.

Table 1:
Revenues of Federal, State and Local Government, 1987, in Million M$ and in %

Local		State		Federal		Total	
abs.	%	abs.	%	abs.	%	abs.	%
1,043	(4,7)	3,796	(17.2)	17,278	(78.1)	22,117	(100.0)

Source: Economic Report 1987

This share of revenues is extremely low also compared to other countries, which have a federal structure comparable to the Malaysian one. In West Germany, Switzerland and the United States of America for instance, which also have a three-tier-structure, about one third of the public revenues go to the local level, in Canada the respective share is about 25 %; and even in France, which is rather centralized, the local authorities receive about 17,5 % of the national revenues.[27]

This centralized distribution of revenues of course is reflected in the distribution of the levels expenditures (table 2): Here the local levels' share is 5 %, both of the operational expenditures and the net development expenditures. If one compares this small share of expenditures to the broad catalog of statutory functions, the large gap between the local levels' de jure and de facto status becomes obvious. With the available resources, only a fraction of the statutory functions can be fulfilled.

[27] Figures for 1970. See POMMEREHNE 1977, p. 311. For a comparison of the proportions of local revenues and expenditures in different federative countries see also ACIR 1981.

Table 2:
Expenditures of Federal, State and Local Government, 1987, in Million M$ and in %

	Local	State	Federal	Total
Operational Expenditure	1,275 5.0 %	3,419 13.4 %	20,793 81.6 %	25,487 100.0 %
Net Developm. Expenditure	462 5.0 %	2,515 27.4 %	6,192 67.6 %	9,169 100.0 %
Oper. & Net Developm. Exp.	1,737 5.0 %	5,934 17.1 %	26,985 77.9 %	34,656 100.0 %

Source: Economic Report 1987

As the insufficient local revenue base has consequences in many regards, it also is the actual cause for many other factors, which are considered as explanations of the local authorities' weak performing, i.e. the shortage of manpower, the low image, the local authorities have within the public and private sector, the interferences of politicians, and the competition from various government agencies and statutory bodies.[28]

- The **shortage of manpower**, that often has been reproached the local authorities, mainly is caused by the insufficient local revenue base. Of course local authorities cannot fulfill their functions properly if they lack the staff in the technical and professional cadres and to improve the staff's qualifications by means of the necessary training courses.

- Also the **low reputation of the local authorities** within the public and private sector is at least partly due to their weak financial position. If the public's experience with the local authorities' performance and output - due to the mentioned restrictions - is low, it cannot surprise, that the local authorities have a low image. From the same reason it is understandable that also many people, who work in the public sector, perceive the local governments as being the "lowest" tier of government not only in the federal hierarchy but also in importance and quality of their tasks. Here again however, the unfair distribution of financial resources is the true cause of their low image.

[28] See e.g. CHEE/PHANG/YAHYA 1988, p. 49ff.

- That **politicians** frequently **attempt to influence the local governments' administrative decisions** partly is also caused by their shortage of qualified staff and their low image - e.g. finally again by their weak financial resources. A local administration being equipped with sufficient financial and personal resources would be more qualified (and self-confident) to withstand these attempts of political interferences.

- If one looks at the **competition from various government agencies and statutory bodies** as another pretended cause of the local authorities' difficulties, one can even better see the real direction of causality: Actually the local governments' revenue base has not been cut because of the overtake of competences by those new government agencies and statutory bodies, but on the contrary the competences of those agencies have been enlarged because of the local governments' unsatisfactory fulfillment of their statutory functions. The pretended reason for the local authorities' difficulties actually again is caused by the insufficient revenue base.

These examples illustrate that the insufficient revenue base is the main cause of the local levels' present malaise. Once this cause is abolished by adjusting the revenue distribution to the distribution of competences, also their shortage in manpower, their low image and the permanent threats of politicians' inferences and competitive agencies would diminish. The request for "a redistribution of the national resources so as to ensure for the local authorities a fairer share of the nation's wealth", which has been formulated in a memorandum from the then Ministry of Local Government and Environment,[29] thus only can be repeated here: "Finance cannot be divorced from the other aspects of local government, it is central to the true meaning of local government. If local government is to effectively administer its services to the people, then it must have a greater share of the national revenue than what it had higherto."[30]

The development in Malaysia in the past took an opposite direction: The revenues of the local authorities were not raised, but their (de facto) competences were cut continuously. This was done either "indirectly", e.g. by strengthening the states and federal control of the local authorities' decisions, or directly, e.g. by completely overtaking some of the originally local competences by the states or the federal state. Additionally some competences were delegated to existing or newly founded special agencies or to the private sector (privatization).

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[29] Memorandum from the Ministry of Local Government and Environment to the Local Government Finance Committee Headed by the Y.B. Deputy Minister of Finance to Consider Ways and Means of Augmenting the Sources of Revenue of Local Authorities, published as Appendix 3 of the NYAN-REPORT 1977 (pp. 78ff.).

[30] Ibid, p. 79.

Whereas the enlargement of the local resource base would have improved the efficiency of local government, this strategy had opposite results:

- As the cutting of competences lead to a reduction of the public servants opportunities and also affected their motivation for responsible and qualified performance, the shortage of manpower on the local level rather was increased than decreased; especially as this encouraged the best qualified staff of the local councils to move to other public agencies.
- The already low reputation of the local councils both within the private and the public sector got even worse because of the narrowing of their competences and the drift of the best qualified staff.
- Recognizing the low reputation of the local authorities, the insufficient qualification of its staff and the permanent reduction of its competences, politicians were encouraged to intensify their inferences, which further weakened the local councils' chances for a proper administrative behavior.

The chances of the local authorities to fulfill their narrowed competences satisfactorily therefore rather decreased than increased. As this in return confirmed the popular opinion, that a widening of the local revenues would be a waste of money, as the local councils were not able to spend the money efficiently and effectively anyway, the past development of the local level in Malaysia can be described as a typical **vicious circle**: Once the development goes into the wrong direction, it is reinforced automatically.

In our opinion this vicious circle has lead to severe deficiencies of the local level, which jeopardize the capability of the whole Malaysian public sector: There are too many different public agencies without clear functions and competences and there are too many control competences of the state and federal level, causing double work for the public sector and paralyzing the initiative of the local sector, the willingness of the local population to participate in political matters and to articulate their preferences. Summed up in the introduced economical categories, there are too many competences at the central level, causing unnecessary production, information and frustration costs.

1.5. Consequence I: Decentralizing the Public Sector by Improving the Local Authorities' De Facto Functions

1.5.1. Local Revenues as the Key Variable for Improving the Local Authorities' De Facto Functions

The above remarks should have made clear that the theoretically correct and practicably most effective way of enabling the local councils to cover their statutory functions is to increase their revenues. Only if the distribution of revenues accords to the distribution of the statutory competences, the latter satisfactorily can be fulfilled.

Although the redistribution of money within the public sector is the key variable, complementary measures have to be undertaken, too. The insufficient manpower of the local councils for example not only is caused by their lack of resources, but also by inadequate regulations concerning earnings and pensions, that hinder a free and competitive exchange of staff between the different public agencies.[31] Therefore it cannot be expected that the adjustment of revenues solves all deficiencies of the local sector.

Similarly the comparable low image of the local authorities cannot be improved only with the increase of resources. To expect this would mean to neglect all other factors, first of all the traditionally weak role that was granted to the local authorities in Malaysia ever since.[32] Besides the adjustment of resources therefore also other measures have to be undertaken, in this case for instance the propagation of the local level as being equally important - in some regard even more important[33] - than the other federal levels. Thus here again money is probably the most important, but not the only determinant.

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[31] " ... in the longer term the local authorities need to attract better calibre staff and the conditions have to be such that carier prospects are attractive. Unifying the local authority service into a state level service would seem to be a necessary first step in achieving the required attractive career structure." (ADB-REPORT_1 1986, p. 48).

[32] According to ABD. BIN AYUB 1978, p. 305, this "centralized" distribution of financial power at least partly can be explained by the traditionally strong role, the central level played in Malaysia at all times.

[33] This opinion i.e. is expressed by the WORLD-BANK-REPORT 1988, p. 7: "While statistically the local authorities may only be a small part of the overall government structure, many of their activities directly impact the daily lives of their residents. The people will not feel the effect of national defence or foreign policy in their lives but will be very upset if their homes are flooded or their garbage is not collected. Similarly, most people will not have to pay national taxes in person, i.e income tax, export and import duties are collected at the source. However, they will be required to go to the local authority to pay their property tax or obtain a business licence. People will have more direct contact with local authority staff than with those in the State and Federal Governments. The local authorities are therefore the "frontline" of government".

As it also is true that at the moment many local authorities - regardless of the causes - are not yet prepared for the complete fulfillment of all of their statutory functions, it must also be admitted that for an intermediary time period the enlargement of local revenues may decrease the overall efficiency of the public sector: In the beginning mismanagement or, in other words, a waste of public money will be not be unlikely. To limit this "waste" the local governments revenues should only be increased gradually and with parallel assistance and advice by the states, the federal government (here especially the Ministry of Housing and Local Government)[34], and the National Council of Local Government.

1.5.2. The Trade Off between the Pace of Decentralization and the Transitory "Waste" of Public Resources

On the other hand this may not lead to the same degree of control and tutelage, that in the past has been imposed on the local authorities. Instead they must be released from the central tutelage steadily. The sooner the paralyzing control is abolished and the sooner the local councils are enabled to fulfill their statutory functions on their own (financial) responsibility, the sooner they will elaborate the capabilities to do this as efficiently and - using their advantages of decentral informations - finally even more efficiently than the higher federal levels.

The pace, by which the local revenues are increased, therefore has to be determined in a **trade-off** decision. The faster the enlargement is performed, the higher will be the intermediate inefficiencies; on the other hand however also the local authorities will be able to improve their personal capacities and to gain the experience that is necessary for a efficient administration.

Prima facie it seems, that in a developing country like Malaysia, the wasting of public money by "learning" local authorities should be minimized, as public resources are still missing for many elementary tasks. From this point of view, the mentioned trade-off would have to favor a slow speed of enlarging local revenues. On the other hand a faster enlargement seems reasonable, if the potentials of viable local authorities, especially their development function, which also has been stressed in Malaysia, are taken into account.[35] As these advantages only seldom are perceived and hardly can be quantified, whereas

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[34] See VELOO, n.d., p. 9ff.

[35] The delevopmental function of local authorities already has been mentioned in the NYAN-Report 1977, p. 3. See also the strong emphasis, which is laid on the developmental function of the local authorities by the ADB-REPORT_1 1986. Also The WORLD-BANK-REPORT 1988 (p. 9) refers to this point, when i mentions that "there can be little doubt the these tight controls hamper the development of financial responsibility in the local authorities and stymie their emergence as dynamic development agents as envisaged by the legislation."

mismanagement and waste of money of local governments frequently can be recognized and quantified, there is a certain bias that prevails the optimal trade-off. Maybe this bias explains, why also in Malaysia the strengthening of the financial position of the local councils is not performed with the desirable speed.

1.5.3. Intergovernmental Transfers as a Second Best Solution of Decentralization

Besides the question of adjustment pace, the method of adjustment has to be chosen. Here the first best solution is the **enlargement of the local revenue base.** This means that eigher some of the existing revenue bases (especially tax bases) have to be devoted to the local councils or new revenue bases have to be defined in favor of the local councils. As the overall revenue burden in Malaysia already is high and new revenues could weaken the capability of the private sector, presumably only the first method, e.g. the re-assignment of existing revenue bases from the federal to the local (and state) level, will be practical.

Such an enlargement of the local revenue base would generate a direct link between the administration quality of the local authorities and the size of the local revenue base and ceteris paribus (e.g. with equal fiscal stress) the amount of local revenues. Local authorities for instance, which strengthen their local economy by a proper management of their local services and by a long-sighted exercise of their developmental functions, would directly be rewarded with higher revenues. On the other hand, mismanagement of the local authorities would directly be punished, as it would weaken the local economy, the local revenue base and thus the local revenues. This system of direct incentives and disincentives would (again presumed the quality of the local administration were assured by the above mentioned financial and non-financial remedies) lead to the best local administration possible, to the usage of the specific regional advantages (principle of comparative costs) and thus to a **maximal economic output within every region (local authority) and within the country as a whole.** Besides this allocative advantage, an enlargement of the local revenue base would be the first best solution also from the **distributive point of view,** as it would leave the fruits of better economic achievement within the regions, in which the economic resources are produced.[36]

[36] These advantages of tax sharing however presuppose, that the revenue base actually mirrors the quality of the local administration and the efforts of the population within the local authorities. In other words it must be assured, that the local revenue base does not render revenues arbitrarily or according to criteria, which are not related to regional efforts and output. As the present local revenue base in Malaysia also in this regard is far from being perfect (see next paragraph), also from this point of view an enlargement of the local tax base would be the best solution, as it would allow to correct some of the qualitative defects of the present local revenue system.

From these reasons we strongly support an **enlargement of the local tax base.** For Malaysia the most convincing suggestions of this kind have been made by the NAHAPPAN-Commission (NAHAPPAN-REPORT 1968, pp. 241ff.), which - although being formulated more two decades ago - still are true entirely. On later occasions, i.e. on the regional seminar on Local Government Finance, held in Kuala Lumpur and Penang from 5th to 17th August, 1974,[37] or on the First National Seminar on Local Government, 30th June - 4th July, 1975,[38] these demands have been repeated.

Also the NYAN-REPORT 1977 (Appendix 3) supported the extension of the local tax base and even elaborated the suggestions of the NAHAPPAN-Commission. Considering only taxes that 1. "are essetially local in nature",[39] and 2. "are made possible because local authorities have contributed in terms of provision of infrastructure and services",[40] the NYAN-REPORT identified as "revenues which local government could have a share":

1. income taxes,
2. road tax,
3. excise duty on motor vehicles,
4. taxes on tobacco, cigars and cigarettes,
5. taxes on liquors,
6. service tax,
7. taxes and excise duty on electrical appliances, and
8. entertainment tax.[41]

A detailed discussion of this proposal and its substantiation[42] would extend the range of our study; it also would be superfluous as the experience with those suggestions have shown, that in Malaysia there are strong political reservations against a qualitative enlargement of the local tax base from the federal government; and that the decentral powers in this country at present are much to weak to put this solution into existence. The NYAN-REPORT 1977 (p. 30) for instance had to realize, that "the representatives from the Tresury disagreed with the concept of tax-sharing as mooted in the (above mentioned, M.K.) Memorandum on the ground that if this principle of local sale and consumption is used as the basis then every form of Federal revenue will be subject to be shared by Local Government. The Treasury is of the view that if this concept of

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[37] NYAN-REPORT, Appendix 3, p. 85.

[38] In his Opening Address at the First National Seminar on Local Government, 30th June - 4th July, 1975, Tun Abdul Razak suggested to "look into the question of revenue sharing ar tax sharing base closely, and arrive at a fair solution to all parties concerned." (Quoted from ibid.)

[39] Ibid.

[40] Ibid.

[41] Ibid.

[42] Ibid., pp. 86ff.

tax-sharing is accepted than it will be tantamount to a surrender of federal rights. Furthermore, even the Federal Government could not consider tax-sharing with the State Governments, hence it could not alos consider tax-sharing with Local Government."

Although these objections are not substancial but only stem from the already critizised perception of the federal level as superior to the other federal levels and of the federal services as more important as the states and local services, the NYAN-Commission finally had to agree "to discard the concept of tax-sharing as a basis for providing financial aid to the local authorities, but at the same time ... recognised and accepted the fact that the Federal Government should provide financial assistance to the local authorities."[43]

As we believe that the political chances of revenue sharing today are not much better than during the investigations of the NYAN-Commission, we adopt this strategy. E.g. similar to the NYAN-commission the redistribution of resources within the public sector by means of **intergovernmental transfers, is suggested as a second-best solution**. For this solution, the political chances of realization seem to be higher, as the federal government does not ultimately loose control of (shares of) its revenue bases.

It should be emphasized however, that this pragmatic sacrifice does not all mean that the Malaysian local revenue system in its present form should be accepted. The proposed system of intergovernmental transfers only is suggested as a pragmatic second best solution, that only is necessary as long and as much the first best solution, the enlargement and systematic improvement of the local revenue base, can not been achieved.

1.5.4. The Role of the States within the Decentralization Process

According to the subject of the study, the advantages of decentralization primarily were stressed with regard to the local level. From there the proposal of shifting resources from the federal to the local level was derived. Of course the arguments for decentralization mutatis mutandis are true however for the state level, which in Malaysia suffers a similar shortage of revenues as the local level. From this point of view also a critical evaluation of the states present de facto competences would be worth while. It probably would prove that a shift of competences and resources in Malaysia not only is necessary from the federal to the local level, but also to the state level. Decentralization then would require a twofold downward shifting of resources both to the local and the state level.

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[43] NYAN-Report 1977, p. 30.

According to its purpose, the study at hand only deals with the first component of this twofold downward shifting, thus excluding the justification, the degree and the possible methods of downward shifting to the state level.[44] Nevertheless, the states cannot be ignored completely, as they could be involved, if decentralization (of revenues) only were restricted to the local level:

1. In many federal states, decentralization usually implies downward shifting of resources **from the states to the local authorties.** Here the states obviously are involved into the decentralization process, as their revenue share is reduced in favor of the local level.

2. A second form of decentralization consists of an "indirect" downward shifting of resources **from the federal level to the local authorities via the states,** e.g. the states receive resources from the federal level, which they than have to forward to their local councils. Here the states prima facie are only involved as a paying office. A closer look shows, however, that this method can strengthen their federal power, as forwarding of the federal resources can be combined (legally or illegally) with control powers towards the local councils or as the federal resources (illegally) are not at all forwarded to the local authorities.

3. Only if the resources are **directly transfered from the federal to the local level,** the states are not involved at all, thus having to possibilities of controlling the forwarding of federal transfers or keeping them back.

In Malaysia the first solution obviously is not appropriate, as it would further weaken the states' revenues, which - comparatively to the federal government - already now are too small.[45] In the remaining choice between the second and third possibility at first sight the direct transfer from the federal to the level is superior, as this solution minimizes the administrative costs of payments, and excludes the risk that the states connect the forwarding of the transfers to inappropriate conditions or do not forward the grants at all.

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[44] Generally this argumentation would have to follow the lines that in the study at hand are applied for the local level. E.g. firstly the amenities of an intermediate federal level (states) would have to be proven, secondly the optimal size of this level would have to be specified (by minimizing the production, decision and frustration costs), and thirdly eventually gaps between the optimal and the actual size of the states competences would have to be abolished by adjusting the states revenue base or by intergovernmental transfers respectively. Also here the adjustment of the revenue base would be the better solution.

[45] "Some State Governments are not providing any financial aid to the local authorities. One reason for this is that most of the State Governments are themselves in a weak financial position." NYAN-REPORT_1 1977, p. 28.

On the other hand in many countries direct intergovernmental transfers from the federal to the local level are not possible because of **constitutional restrictions**. This also could be true for Malaysia, whose constitution - by the way similarly to West Germany - regards the local councils as part of the states. However this question would need further investigation from the judicial point of view and shall not finally be answered here.[46]

Even if a direct transfer to the local councils would be in accordance with the constitution, there are some economic arguments, that support a two-step-transfer, allowing the states to forward the federal grants to their local councils according to other criteria or even to keep the transfers for other purposes. The assumption behind this position is the believe that - according to the reasons which above were mentioned for the local level - a decentral decision structure would lead to better allocative results than a central decision structure (or could render the same quality of allocative decisions with fewer decision costs, respectively).

If one shares this decentralistic point of view, the states indeed are more capable to evaluate their own financial situation and the financial situation of their local councils than is the federal government. Therefore also the decision to keep federal transfers for states' purposes and not to forwarding them to the local authorities should be left to the states' decision. Under these assumptions it also were appropriate, if the states would not forward the federal grants according to same criteria, which were applied by the federal government, but would modify the (horizontal) distribution by applying different criteria. (Thus some local councils would receive only parts of the grants dedicated to them by the federal government, whereas others perhaps would get higher grants than those, being dedicated to them.)

Even if a direct transfer to the local authorities is allowed by the constitution, there thus are some economic arguments for an indirect, two-step transfer, that enable the states with the freedom to modify and keep back federal transfers. If this freedom is given completely, granted partly (by imposing some basic regulations on the states) or denied at all (by directly passing the grants to the local authorities or by enforcing its complete and unconditional forwarding through the states) depends on the evaluation of the qualities of the alternative decision structures.

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[46] The NYAN-REPORT_1 did not investigate this problem sufficiently. It only suggested "to channel money to the local authorities without prejudice to the state's rights under the Constitution." That a direct channeling of money from the federal to the local actually meets this requirement, however, was not substantiated.

With regard to these considerations, the transfer system that is suggested in the following chapters is comparably centralistic, as it determines the grants for the local authorities according to a uniform grants formula or - in other words - from the central governments point of view, without giving the states a chance to modify the grants formula. This solution therefore cannot consider particularities between the (local authorities in) the different states, as they could be taken into account, if the grants formula were separately formulated for each state.

We admit, that our proposition in this regard is not in complete accordance with the ideas of welfare economists, as they have especially been developed by the theory of fiscal federalism.[47] We nevertheless favor this proposition with attention to the chances of political realization: The experiences in many federal countries confirm that the willingness of granting intergovernmental transfers is higher if the donors can completely determine the transfer process, preferably even the purposes, for which the grants are spent. From this perspective the federal government hardly would be willing to grant a considerable share of its resources to the local authorities, if it not even were assured that the local authorities receive the money according to the federal governments conception.

If despite of this pragmatic consideration it should be preferred and possible that the grants formula reflects peculiarities between the different states, the proposed solution easily could be modified in this regard. The components of the grants formula then only would have to be adjusted or supplemented by other, states specific components. The proposed concept as such would not be affected by those modifications. For is reason it also is not important whether the grants are transferred directly from the federal to the local level or are indirectly channeled via the states. Even the reduction or modification of federal transfers, which were likely in the latter case, would not violate the general structure of the proposed solution. It only would introduce another element of (vertical) federative allocation. The question of direct or indirect transfer therefore needs not to be determined but can be left to the politicians' decision.

1.5.5. Decentralization and the Overall Efficiency of the Public Sector

Last but not least it should be mentioned, that the downward shifting of revenues may not lead to higher expenditures for the public sector altogether. Instead it is meant to be a **budget neutral solution**, which only shifts resources from one (central) level to another (local) level. This condition should be emphasized, as any decentralization concept that leads to higher public expenditures also would require higher public revenues, e.g. would cause a higher revenue burden for the private sector. This, however, should not be

[47] For a good introduction into the theory of fiscal federalism see for instance OATES 1972.

tolerated in the present economic situation of Malaysia, in which higher taxes would be an disincentive for personal efforts and would weaken the efficiency of the private sector.

This cost neutrality only can be accomplished, if the downward shifting of revenues is accompanied by a similar downward shifting of competences: At the same time as and to the same degree the local authorities overtake revenues they must overtake functions from the central government, e.g. every dollar that is spent because of the enlargement of local functions has to be saved by an equal reduction of federal functions.

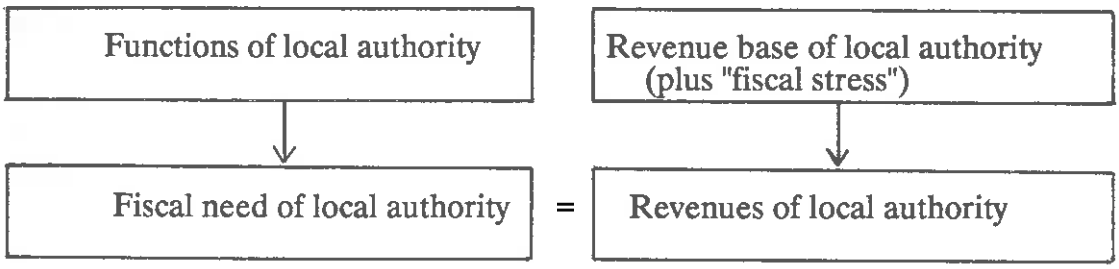
In the long run the decentralization of revenues should even be cost-non-neutral in the positive sense: As it will **improve the overall efficiency of the public sector**, the present standard of public services in the long run can be provided with less expenses, e.g. with smaller expenditures for the public sector and with a smaller revenue burden for the private sector. Also in this regard the described vicious circle, that lead to a decreasing efficiency of the local authorities and of the public sector in general, could be reversed.

2. The Imbalanced Horizontal Distribution of Own Revenues within the Local Level

2.1. Characteristics of a Proper Horizontal Distribution of Own Revenues within the Local Level

Among the theoretical requirements for a proper local tax system[48] a horizontal distribution of revenues that fits the local authorities' "fiscal needs" is among the most important. This requirement means that the local authorities are equipped with a fiscal capacity, e.g. with a revenue base, that enables them to yield revenues according to the amount of their local functions (see figure 4).

Figure 4:
Balance between fiscal capacity and fiscal need as requirement of a proper system of local finance



As the functions of local authorities may vary according to their legal status,[49] their centrality, their population density, their location in urban or rural areas and other "need factors",[50] and as the factor costs may vary, also the resources to cover those local functions ("fiscal need") will differ between the local authorities. A local revenue base thus is not proper if it leads to equal revenues (per capita), but if it leads to revenues that vary according to the local authorities'fiscal need. Local authorities which because of special functions (centrality) and/or higher input costs (topographic disadvantages, diseconomies of scale etc.) have a higher fiscal need (per capita), also have to be equipped with a larger tax base that allows them to yield respectively higher (per capita) revenues. In other words, **a proper local revenue base has to correlate closely with the fiscal need of the local authorities.**

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[48] For a list of theoretical requirements see i.e. the Committee of Inquiry into Local Government Finance, 1976 (from now on quoted as COMMITTEE 1976).

[49] In Malaysia e.g. as District Council, Municipal Council and Town Council.

[50] For a more detailed discussion of probable need factors of the local authorities see chapter 2.3.

It needs to be assumed, that this relationship is fulfilled under the ceteris paribus condition of an **equal "fiscal stress"**, e.g. the revenue base of a local authority must fit its fiscal need if (and only if) the revenue base is exploited on an average scale. (With regard to taxes this for instance means that the local authorities must be able to collect sufficient tax revenues on an average tax rate).[51] From this reason it also is not quite correct, when in the local finance literature sometimes a fit between a local authority's fiscal need and its revenues is requested: The correct requirement is a fit between its fiscal need and its **revenue base**, e.g. its fiscal capacity.

To establish such a fit is one of the central problems of local finance. Because of the variability of local functions there seems to be no single tax base that can generate a sufficient relationship. The local tax system in most countries therefore consists of a bouquet of taxes, each correlating with one component of fiscal need.[52] In West Germany for instance the local authorities receive tax revenues from:

1. the *land tax*, which correlates with the local authority's fiscal need for housing estates and farming;

2. the *property tax*, which correlates with the local authority's fiscal need for industrial enterprises, especially for the necessary business oriented infrastructure;

3. parts of the *income tax*, which correlates with the local authority's fiscal need for its population, like population oriented services and infrastructure,

4. several taxes with a *local tax base*, like a tax on entertainment, on hunting and fishing, and on dogs, which correlate with special local services.

Even with such a broad and heterogeneous tax base a perfect horizontal distribution of the local authorities' fiscal capacity hardly can be achieved. At least for some local authorities there still remains a **"fiscal residuum"**, e.g. a (positive or negative) difference between fiscal capacity and fiscal need (see figure 5). From this reason even in countries with an elaborated and broad local tax base there usually is a correction process that tries to abolish or diminish the fiscal residuum by means of so called **equalizing grants**.

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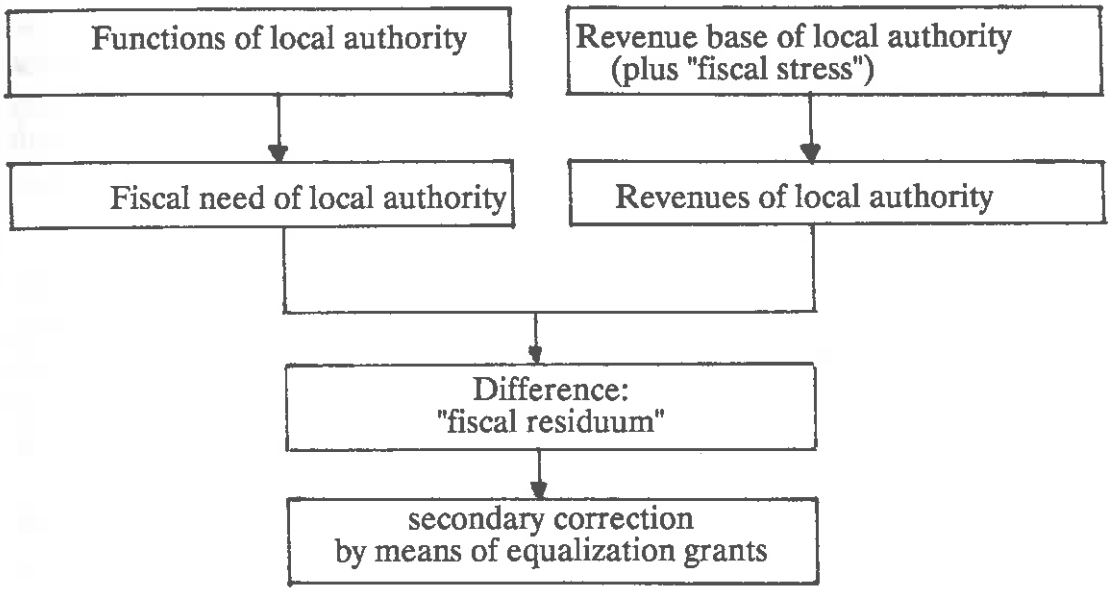
[51] Variations in fiscal stress in this ideal system thus are no means to correct a too low revenue base (by applying tax rates above average) or a too high revenue base (by applying tax rates below average); their only legal function is to yield additional revenues in those cases, in which also the demands of the local authorities population exceed the average level, or in which those demands are lower than the national average. For a more detailed discussion of fiscal capacity and the justification of a varying fiscal stress see chapter 2.5.

[52] An overview of the local tax system of selected countries is given by OECD 1981.

It is obvious however, that the necessity and the volume of such equalizing grants varies with the goodness of fit of the primary distribution of local revenues: The better the local revenue system, especially the local tax system, fulfills the requirement of a close relationship with the local authorities fiscal need, the less important is a correction or supplement of this primary distribution of revenues by means of equalizing grants (figure 5).

Figure 5:
The fiscal residuum within an imperfect system of local finance and its correction by means of equalizing grants



2.2. Causes of the Present Horizontal Imbalances

Compared to these theoretical requirements of a local finance system the actual local finance system in Malaysia generates a rather distorted horizontal distribution of revenues. Although the degree of distortion thus cannot be proofed empirically at this early stage of the investigation where the concepts of fiscal capacity and fiscal need have not yet been operationalized (see below, chapter 2), it can be claimed already that the distribution of fiscal capacity does not match the distribution of fiscal need: There are some local authorities, especially in the urban areas at the west coast of Peninsula Malaysia, which - compared to their fiscal need - yield high revenues, whereas other local authorities, especially in the rural areas at the east coast are too poor to finance even

elementary local services.[53] Besides the malaise of an inappropriate vertical distribution of revenues between federal, state, and local level, the **imbalanced horizontal distribution of (own) revenues within the local level** thus is a second major deficiency of the Malaysian local finance system.

As well as the vertical imbalance of revenue sharing, also this horizontal imbalance has been recognized by several investigations already. A decade ago, the NYAN-REPORT 1977, p. 28, for instance, referred to the severe financial problems of 'peripheral areas': "These peripheral areas are the refugee camps for both the rural and urban poor and have been neglected in the past. We recognize the need to improve the standard of living of the people living in these areas and that a great deal has to be done to uplift the conditions of these depressed areas. Only by uplifting the standards of living and the quality of life of these people will they be able to contribute meaningfully not only to the local authorities but also to the country as a whole. The local authorities alone will not be able to undertake this task without assistance as it is beyond their financial capacity to do so."

If one asks for the **causes of these horizontal imbalances**, first of all the **narrow tax base** of the Malaysian system of local finance has to be mentioned: Unlike in other countries, there is no bouquet of local taxes; instead, with the exception of the property tax, all taxes, even those with a local base, are accrued to higher levels.[54] The revenues from this narrow tax base naturally cannot sufficiently correlate with the local authorities' fiscal need. There is a (loose) correlation with only one component of local fiscal need: the cost of the local services that are directly related to the assessments located in the local area (e.g. sewerages). Many other components of local fiscal need, however, are not related to the value of the assessments and to the assessment rates. The overall correlation between the local authorities' revenues and their fiscal need therefore is too low.

The horizontal distribution of revenues is further weakened, as the assessmement tax itself has some systematic defects.[55] Wherease some of them "only"lead to an **arbitrary distribution of revenues**, e.g. a distribution which is not related to the fiscal need of the local authorities, other even cause a negative

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[53] "Many of these local authorities are so imperished as to be unable even to provide the basic services that are expected of them. Only recently in the State of Kelantan, some of the local authorities were not able to pay even their electricity bills for street lighting." (NYAN-REPORT_1, Appendix 3, p. 80.

[54] See chapter 1.1.5.3., above, and LENZ 1986, p. 46.

[55] For a list of deficiencies of the assessment tax and proposals for its correction see the NEHAPPAN-REPORT 1968, NYAN-REPORT_1 1977, LENZ 1986, and WORLD-BANK-REPORT 1988.

correlation between the revenues from the assessment tax and the local authorities' fiscal needs:

1. It seems likely, for example, that local authorities with a low property base have the highest **arrears**, as they **lack the necessary manpower** to assess the correct tax yields and to enforce its complete collection.

2. Additionally, in local authorities with a low property base, the enforcement of tax paying even would not be possible, if the necessary manpower were available, as the owners of the properties more often **lack the income** to pay their assessment rates.[56]

Furthermore, the **valuation process** of the properties has some deficiencies, which increase the inappropriate horizontal distribution of assessment rates.[57]

1. Although there are guidelines, which shall assure a unique evaluation within the whole country, the valuators tend to anticipate the capabilities of the tax payers: In order to keep the fiscal stress acceptable, the properties being located in local authorities with low private income **intentionally are evaluated below market value.**[58]

2. Richer local authorities can afford to **valuate their properties in shorter intervals**, thus being able to adjust their nominal tax base to the actual market values. In times of rising market values, this privileges the richer local authorities.[59]

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[56] According to the Report of the Committee to Study into the Question of Equitable Distribution of National Revenue to Local Authorities, Part II: Minutes of Meetings, Kuala Lumpur 1977 (from now on quoted as NYAN-REPORT_2), in Kelantan for instance "the Kota Bharu Town Board does not have problems in the collection of assessment rates but Bachok, Tumpat and Pasir Mas have difficulty in the collection because most of the residents are poor fishermen."(See minutes of the 3. meeting, p. 3).

[57] For a detailed critique of the presently practice of valuation and suggestions for its improvement see LENZ 1986, p. 47; WORLD-BANK-REPORT 1988, p. 24ff.

[58] Thus there is no clear differentiation between the tax base and the tax rates anymore. Instead the evaluation of the tax base serves as a correction for inappropriate tax rates. For a more detailed discussion of this problem and its consequences for a fair construction of equalizing grants see chapter 2.4, below.

[59] In the long run, rising (real) market values of assessments seem to be normal. In this regard the decline of real market values, which during the last years took place in Malaysia, can be regarded as a temporary exception.

3. Even if a valuation has been conducted, the **implementation of the new valuation lists often is delayed.**[60] It seems likely, that the delay is longest in those local authorities, in which the resistance from the public and the local politicians is highest, and that from this relationship again the local authorities with the smallest property bases are affected most.[61]

Because of these effects the **arrears** are high in local authorities with low assessment rates, whereas they are small in comparably rich local authorities.[62] The actual distribution of the assessment rates therefore is even more distorted than the nominal one.

Lastly, also the **non-tax revenues** of the local authorities often are not closely related to their fiscal need or even correlate negatively.

1. **Fees and charges**, for instance, "are determined according to what the local authority can reasonably expect the citizens to pay, or according to the amounts charged in neighboring councils,"[63] but not according to the actual cost of the services. One reason for this is the lack of proper cost accounting,[64] another one the necessity to provide services to local income groups, which are not capable to pay the full costs, and a third one is the faulty but common perception of fees and charges as a substitute rather than a complement for the assessment rates.[65] From these reasons again, local authorities in more prosperous regions and with higher property bases can yield higher fees and charges than local authorities in poor regions and with low property bases.

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[60] According to the WORLD-BANK-REPORT 1988, p. 25, from the 14 valuations conducted between 1980 and 1987 eight valuations were implemented within one year, three were implemented within two years. One valuation, however, was implemented in three years, and another one within four years only. For one evaluation the implementation even took five years.!

[61] From empirical studies it is known that the resistance grows with the perceived fiscal stress. See e.g. SCHMÖLDERS/HANSMEYER 1980, pp. 135ff.

[62] For "poor" local authorities like Dungun or Selama, the accumulated arrears were 185 % and 215 % of the annual assessment rates, respectively; whereas for "rich" local authorities like Pulau Pinang and Petaling Jaya the corresponding figures were 25 % and 6 % only.

[63] LENZ 1988, p. 49.

[64] "Local authorities need to introduce adequate cost accounting to effectively use service charges as a management tool. As of now, local authorities know their cost for carrying out individual activities only in very exceptional cases and then only roughly. Detailed cost accounting by service would allow local authorities not only to identify appropriate service charge levels but also provide the basis for comparative analysis and improvement of the cost-effectiveness of services." For this reason, the GTZ has proposed a special project about cost accounting (see LENZ 1986, p. 95), which soon will be carried through in cooperation with the Ministry of Housing and Local Government.

[65] See WORLD-BANK-REPORT 1988, p. 41.

2. The same is true for other non-tax revenues, like **fines, rentals, and interest,** which are also negatively related to the property bases: Here the poorer local authorities do not yield sufficient revenues, because they lack the legal by-laws and the qualified staff to collect them (fines), or because the base for those revenues again is negatively correlated to the property base (rentals, interest).

2.3. Distributive Evaluation of the Present Horizontal Imbalances

Different from socialistic societies, where the private incomes are determined politically, the income distribution in capitalistic societies is determined by the laws of the market. As this income distribution sometimes generates results that are not accepted politically, most capitalistic societies have arrangements to correct the market income distribution, i.e. by taxation and social transfers.

Although this alteration of the private incomes usually is the main subject of redistributive policy, the state has a second possibility for redistribution: the determination of access to public goods and services. The usage of public services (like health services, street lighting, and waste management), of leisure facilities (like gymnasiums and public parks) and cultural institutions (like museums and public libraries) for instance determine the private welfare as well as the private income; in some cases they even can be complete substitutes of private goods (private versus public health services).

Local goods and services in this regard play a **major role**: "While statistically the local authorities may only be a small part of the overall government structure, many of their activities directly impact the daily lives of their residents. The people will not feel the effect of national defence or foreign policy in their lives but will be very upset if their homes are flooded or their garbage is not collected."[66] From this perspective the distribution of local revenues has to be evaluated from the distributive point of view, as the way in which the local revenue system distributes public resources obviously determines the relative access to local goods and services.

As the local revenue system determines the distribution of public resources regionally, this first and foremost is a matter of differences in the **regional access** to local goods and services. High regional differences from this perspective usually are criticized, as it is felt not to be fair that the quality and quantity of local goods and services - independently from personal qualification and effort - only differ because of the fact that people live in different regions, like urban versus rural areas, small versus big cities, or eastern versus western coasts. Instead most people believe that the access to public goods (different from the

[66] Ibid, p. 8.

private income distribution) should be distributed equally or at least should only vary on a small scale.

Under these premises the present regional distribution of local revenues in Malaysia must be criticized: The access to local goods and services varies extremely with the regional location of residence. In some urban areas the local authorities can afford to supply expensive cultural and recreational facilities, sometimes even perfect substitutes to private goods, whereas in many rural areas some of the most elementary services cannot be provided.

The evaluation becomes even worse, if one considers the fact, that in Malaysia a considerable portion of the country[67] lies outside the gazetted and served areas of the local authorities, e.g. large parts of the population are excluded from all local services. This causes discrepancies within local authorities (e.g. between served and non-served areas); as the portion of served areas differs from state to state,[68] it also leads to straggling discrepancies between larger areas.

Such excessive differences in the quality and quantity of local goods and services (the same by the way is true for goods and services provided by the states) not only violate the distributive targets of regional policy. As they cause jealousy and excessive regional competition, prevent regional cooperation and lead to regional patriotism, they also jeopardize the **national unity**. They furthermore bear the risk to intensify the existing personal income distribution in the private sector: As the unequal access to local services, especially to health services and to educational and cultural facilities, distorts the starting positions and biases the personal capabilities of earning private incomes, **inequalities** in the distribution of local resources **are transmitted into the private sector**. If this in turn causes a further reduction of the local authorities' revenues, as is the case with the present Malaysian system of local finance, a vicious circle is initiated.

Finally it should be realized that an uneven regional distribution of resources also has systematic effects on the personal income distribution, if regional location and personal attributes correlate. In Malaysia this is true i.e. for the attributes of education (low educated are overrepresented in the rural areas), of age (older people are overrepresented in the rural areas) and of racial affiliation (Bumiputeras are overrepresented in the rural areas).[69] Therefore the low level

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[67] The NYAN-REPORT_1 1977 (p. 81) for 1970 reported a percentage of 50.84 % of people staying outside local authorities. Although the situation might have improved in the meantime, especially because of the territorial reorganization of the Seventies, also today a considerable proportion of the country still is not served with local services.

[68] According to the figures of the NYAN-REPORT_1 (p. 81), in two states (Pinang and Melaka) all inhabitants lived within the gazetted areas, whereas in other states, foremost in Kelantan (76.17 %), Kedah (76.76 %) and Perlis (84.97 %), a majority lived outside the gazetted areas.

[69] See FIFTH MALAYSIA PLAN (1986 - 1990), p 81ff.

of local revenues especially in the rural areas also generate systematic personal income effects: Older people, less educated people and Bumiputeras are discriminated, and younger people, well educated people and Non-Bumiputers are privileged. This hardly is in accordance with the targets of personal distribution policy of the Malaysian government, especially of its "new economic policy".[70]

2.4. Allocative Evaluation of the Present Horizontal Imbalances

An optimal allocation of the public resources within the local level requires that the money is spent according to Gossen's (Second) Basic Law, e.g. causes equal benefits in all different forms of expenses. This requirement does not mean that local expenditures (and thus revenues) have to be distributed equally. If local expenditures cause regionally differing benefits, on the contrary also the regional distribution of local expenses has to vary, if the condition of optimal allocation shall be fulfilled.

There are some arguments that support the assumption of regionally varying benefits. The advantages of economies of scale and of (positive) external effects of production and consumption for instance require, that resources are concentrated regionally. A certain concentration of public (local) resources thus leads to a more efficient production of the local services. As the concentration of public resources in turn causes a respective concentration of the private economy, this also increases the efficiency of private production. With regard to the concentration of capital, this justifies an uneven distribution of local facilities and infrastructure. With regard to the concentration of labour, it also justifies an uneven distribution of employment opportunities and of population.[71]

On the other hand one has to realize that a concentration of capital and labour also causes negative effects, if it exceeds a certain level. Pollution, high crime rates, and traffic jams are only some of the more obvious consequences. Migration also is a burden for many people, which have to give up their traditional way of live, loose social contacts with relatives and friends etc. As the immigrants usually also are the younger, better educated and more ambitious people, the economic situation of the regions, from which they come, usually gets even worse, as the remaining older and less qualified people are not able to use the remaining capital and land efficiently. "The gap in provision and amenity level between slow and fast growing areas may become so large that the slow

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[70] Ibid.

[71] "Migration, urban-urban as well as rural-rural, (therefore) is an important adjustment mechanism to ensure the nation's human resources are efficiently used (and therefore) should be viewed positively. ADB-REPORT_1 1986, p. 37.

growing areas fail to realize their potential and are excluded from future prosperity."[72] Although many of these costs cannot be quantified, the examples illustrate that concentration of resources, especially via migration, becomes suboptimal, if it exceeds its optimum.

The allocative advantages of concentration justify, however, that the target of an equal distribution of (local) public goods and services - which was demanded from the view of distribution policy - is modified to the target of limited ("acceptable") regional differences: Distributive and allocatice requirements need to be balanced. Many countries therefore attempt to harmonize the conflicting targets by introducing different types of "standards":

- For some of the most elementary and most important local services (like education and health maintenance) *equal standards* still are required according to the above considerations.
- For other local services the *differentiated standards* are applied according to the targets of regional policy and according to the functions and hierarchical positions of the local authorities within this regional policy plan. In many countries this is done according to the theory of central places,[73] which assigns the level of local functions (and of the necessary resources to finance these functions) according to the ranking of the local authorities within a hierarchy of centrality.[74]
- For a third set of less elementary or complimentary local services only *minimum standards* are required that may not be fallen short of, but above the minimum can be chosen freely with regard to the local authorities financial capabilities.

For Malaysia the ADB-REPORT_2 1986 (p. 160ff.) only recently suggested to apply differentiated standards as well as minimum standards: "In service provision the emphasis should be on differentiated standards which are integrated into a phases upgrading strategy. Minimum standards for health related services should be adopted urgently and higher standards specified as targets for Municipal Councils and larger District Councils, particularly those expected to experience rapid growth." Thus three different standards were suggested for 1. "growth centers", 2."Municipal Councils and larger District Councils", and 3. "smaller District Councils". Within these three groups of local authorities the ADB-REPORT (ibid) suggests, that a "consistent project appraisal approach should be adopted across all sectors and applied consistently to all proposals."

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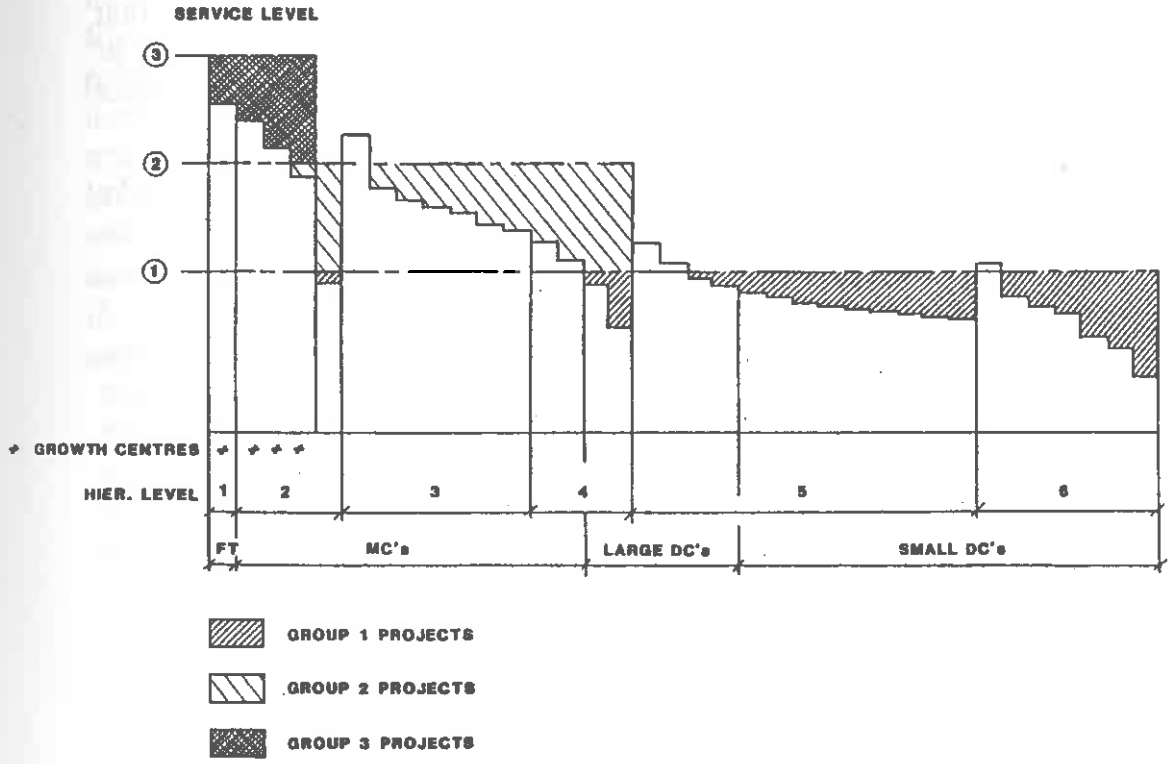
[72] Ibid.

[73] For the Theory of Central Places see i.e. ISARD 1962 or LLOYD/DICKEN 1972.

[74] See chapter 2.6. for details.

The graphic illustration of this proposal (see figure 6) visualizes, that it is in complete accordance with the principle of allocating local expenses according to Gossen's Second Basic Principle: As the ADB-REPORT assumes, that the benefits of public investigations are highest in growth centers, lower in Municipal Councils and in large District Councils and lowest in Small District Councils, the level of Local Services (and resources to finance them) is distributed according to the same ranking. Within the three categories of local authorities again the principle of equal benefits is observed; in the graphical presentation of figure 6 this condition is mirrored by an equal level of services (i.a. a parallel to the x-axis) within the three categories of local authorities.

Figure 6:
"Priority Programme Projects", or:
The Distribution of Local Resources according to Gossen's Principle of Equal Benefits



Source: ADB-REPORT_2 1986, p. 165

In contrast to the ideas of the ADB-REPORT, which favorites a central evaluation of the benefits of alternative public projects, this allocative result could be achieved better by a properly designed system of local finance. If the local revenues were distributed regionally according to their (different) regional benefits, central planning and evaluation of each local investment by means of a

huge and expensive central administration would be superfluous. Instead the desired optimal allocation would automatically be generated by the decentral decisions of the local authorities. Furthermore this optimality not only would be achieved for developmental projects (for which it was suggested by the ADB-REPORT), but also for all current expenditures, i.e. for operative services. The adjustment of the local revenue system thus would cause much smaller production costs, decision costs and frustration costs than central planning. This illustrates and confirms the amenities of decentralized decision structures, that were emphasized as advantages of federative states.[75]

Nonetheless also this solution requires that central political ideas are developed about the appropriate (regional) differentiation of standards, e.g. about the different benefits of local expenditures in Municipal versus District councils as they were implied by the ADB-REPORT. Therefore central policy rules that guide the regional development still are required. Contrary to centralized planning, however, these rules have to be global guidelines only that leave the concrete decisions about the specific projects in the responsibility of the local authorities. Exactly this makes the difference between a centralized and a decentralized system.

When determining the scope of such variations of standards, distributive targets may require absolute standards for more services, small variations of the differentiated standards and higher levels of the minimum standards, whereas allocative targets may suggest fewer absolute standards, a higher variations of differentiated standards and lesser levels of the minimum standards. Distributive targets and allocative targets thus may rival with each other and require a trade off.[76] A proper system of local finance has to be able to perform this trade-off properly and thus has to support the optimal regional differentiation of the quality and quantity of local goods and services. Because of this reason no equal revenues (per capita) for all local authorities were requested, but revenues that fit the local authorities' (different) fiscal need.[77]

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[75] See chapter 1.1.

[76] The ADB-REPORT_2 1987, p. 98, refers to this point when it states, that "the present emphasis on development (e.g. allocative targets, M.K.) is a consequence of the slackening in the growth of the domestic economy and the weakness in commodity prices internationally. In the medium and longer term more scope is likely to emerge for policies of dispersal of activity to be given more weight."

[77] It is another thing to determine the proper amount and the direction of those regional differences. Our proposed solution of equalizing grants in this regard only can be successful, if it is able to direct capital and labour in the desired the way, intensity and pace. Although this in principal is possible (by the choice of the need factors to be considered for the equalizing grants), it remains the task of the following chapter to demonstrate how this instrument can be operationalized to actually generate the desired kind and degree of regional concentration (migration), and thus to support the present targets of the Malaysian policy, namely of development, growth and regional policy.

Even if this necessity is considered, the present horizontal distribution of local revenues remains to be criticized. It leads to a suboptimal allocation, as the local expenses in "rich" local authorities cause lower benefits than in "poor" local authorities.[78] A reallocation of resources therefore would increase the overall benefit of the local expenses.[79]

This argument becomes even more important as in Malaysia, as was mentioned above, there still are many areas, in which no local services are provided at all. A more balanced horizontal distribution of resources thus would lead to a better allocation, as basic local services with high benefits - like garbage collection - could be provided in the most discriminated rural areas. The request of the ADB-REPORT_1 (1986, p. 98) for an "equitable access to services" thus is not only justified from distributive targets but also from the allocative point of view.

A more balanced regional distribution of local revenues and services also is necessary with regard to the **allocation of resources within the private sector.** Elementary local services and a basic infrastructure i.e. are prerequisites for private production; in regions, where these prerequisites are not supplied by the local governments, private resources cannot be used optimally. This is especially true for labour resources, which in the poor urban regions of Malaysia are not used sufficiently: The unemployment rates are much higher there than in the urban growth centers.[80] The fear, that a ".. growing concentration of urban development in growth centers ... can lead to underdeveloped national resources in slow growing areas"[81] therefore seems justified and supplies another allocative argument for a more balanced distribution of local revenues.

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[78] An empirical prove will be given after operationalization of the local authorities' fiscal capacity and fiscal need. See chapter 2 below.

[79] The argument can be illustrated by the (extreme) example of one affluent local authority which uses 100.000 ringgit for a rather superfluous purpose (lets say for the construction of a swimming pool for public servants). If at the same time another local authority lacks the money for a basic local service (like street lighting or garbage collection), the reallocation of the 100.000 ringgit would cause much higher benefits.

[80] See FIFTH MALAYSIA PLAN, p. 188f.

[81] ADB-REPORT_1 1986, p. 97.

2.5. Consequence II: Fairer Horizontal Distribution of Own Revenues within the Local Level

In summary we can state, that the present system of local finance generates high disparities in the (regional and personal) access to local goods and services and also leads to a suboptimal allocation of the local resources. It thus both conflicts with the distributive target of a fair income distribution and the allocative target of an efficient use of public and private resources.

For the long run there is only one proper response to this negative evaluation: The local revenue base, and here especially the local tax base, must be expanded considerably.[82] As this target at the moment will not find sufficient political support and only can be achieved after the amenities of a decentralized public sector are fully recognized and the value of the local governments is evaluated properly, in the short run the local revenues should be improved by means of equation grants. By this means resources are passed to the local authorities, without finally withdrawing the control about these revenues from the federal level. Equalizing grants therefore can be regarded as an intermediary solution that gradually smooths the way to the final solution of revenue sharing.

As the equalizing grants are financed out of the federal budget, which at the moment is inappropriately high, they cure the present problem of the imbalanced vertical revenue sharing. Supposed the theoretical concept of equalizing grants is operationalized properly, at the same time the imbalanced horizontal distribution of local revenues is corrected. Equalizing grants thus are a perfect instrument for correcting the two-fold malaise of the Malaysian local revenues. As these grants lead to a better allocation of public resources and at the same time would cause a fairer distribution of services between regions and races, they can be supported both with allocative and the distributive arguments.

Their general construction is described in the broader study, from which the paper at hand was condensed.[83] There the general concept of equalizing grants also has to be adjusted to the special circumstances in Malaysia. Special attention has to be devoted to the existing forms of intergovernmental transfers, which partly are constructed faulty[84] and thus should be substituded by properly constructed equalizing grants.

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[82] Besides the respective demands by the NAHAPPAN-REPORT 1968, p. 241ff. and the NYAM-Report 1977, pp. 30ff. and pp. 85ff (appendix 3), which were mentioned already, only recently this necessity was emphasized again by the WORLD-BANK-REPORT 1988 (p. 41): "Over the long term efforts to improve property tax revenues should be complemented by a deliberate effort to diversify the revenue base of the local authorities away from excessive reliance on the property tax."

[83] See KOPS 1988a, chapter 3; see also KOPS 1988d.

[84] See KOPS 1988a, chapter 1.3; also KOPS 1988c.

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A Critical Look at the Present Intergovernmental Transfers in Malaysia[1]

by

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1. Present System of Intergovernmental Transfers in Malaysia

Before making an attempt to operationalize the concept of equalizing grants, the grants that presently are given to the local authorities must be considered: If they correct the distorted distribution of own revenues, they diminish or even abolish the need for equalizing grants; if they on the other hand leave the present horizontal imbalances unchanged or even intensify them, a correction by equalizing grants becomes even more important.

At the moment a variety of grants is given to the local councils. Some are formalized, e. g. determined by explicit equations, others are discretionary, e. g. determined by political ad hoc decisions; some are given by the federal government, others by the states. From the theoretical point of view all of these grants should be examined, as grants always - intentionally or incidentally - cause distributive effects.[2] According to the focus of the present study, which only deals with the intergovernmental relations between the local governments and the federal government, it seems justified, however, to exclude the grants, that the local councils receive from the states: Firstly in most states the volume of those grants is low,[3] secondly the states' grants usually are given discretionary,[4] here an evaluation would require to analyze the empirical effects of the different state

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[1] This paper is part of the authors' broader study "Equalizing Grants for the Local Authorities in Malaysia (KOPS 1988a), which can be obtained by the Ministry of Housing and Local Government, Local Government Division, Kuala Lumpur, or by the Gesellschaft für Technische Zusammenarbeit, GTZ, Eschborn, West Germany.

[2] The only exception are per capita grants, e.g. grants where the local authorities receive an equal amount of money for each inhabitant.

[3] See LENZ 1988.

[4] The only exception is Johore, which distributes balancing grants according to a formula. See chapter 5 below.

grants; and thirdly the federal government at present has no constitutional remedies to alter state grants, if the investigation should reveal their improper construction.[5]

Within the federal grants it furthermore is reasonable to exclude the so called "launching grants" from further examination: As they are non-recurring, only given for a unique occasion (the restructuring of the local territories), and the legal modus of payment finally has been decided, even in the cases, in which payment is not yet completed, changes of the allocation formula could not be recommended with regard to continuity of jurisdiction.

From the present federal grants therefore only the road maintenance grants, the annual grants, the development grants and the balancing grants - in this order - will be examined.

2. The Inadequate Distribution of Road Maintenance Grants

2.1. Present Institutional and Financial Regulations

The maintenance of roads is a public tasks, which makes the amenities of a decentral fulfillment most obvious: The intervals and intensity of maintenance, which may vary extremely according to the frequency of usage, to the climatic and topographic conditions and to other factors, the type of regionally available and least expensive materials, the needed machines, etc., all are factors that differ regionally and best can be determined by the local authorities, which know these regional particularities best. -- Road maintenance consequently is a local function in most countries, only regulated by higher federal levels, when supra-regional aspects, like security standards or national targets of transpor-tation, have to be considered.

In Malaysia the classification as Federal roads, State roads, and Local Authority roads is in accordance with these ideas.[6] Federal roads are maintained by the Public Work Department at the Federal Level or at the State level with funds given by the Federal Government. States roads are maintained by the State Public Works Department. Local Authority roads, however, only in a few

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[5] The exclusion of states grants on the other hand does not mean that they necessarily are appropriate and do not need any investigation. On the contrary we would urgently suggest, that an examination, similar to the one at hand, also will be conducted for the different grants that the local authorities at present receive from the states. Besides this, most of following remarks about the federal grants are so general, that they also are valid for states grants and thus provide a hint for their evaluation and eventual correction.

[6] For a detailed description of the existing institutional arrangements for road maintenance see Ministry of Housing and Local Government, Local Government Division, Technical Unit Maintenance of Urban Roads, internal paper, November 1987, Appendix 5.

cases are maintained by the local authorities themselves,[7] whereas the majority is maintained by the Public Works Department.[8] Due to this inconsistency the responsibility for road maintenance in several cases is not clear, especially as even within the single local authorities there both are Local Authority Roads, which are maintained by the Local councils themselves and Local Authority Roads, which are maintained by the Public Works Department.[9]

This mixture of responsibilities is due to the present financial weakness of many local authorities, especially District Councils. As with the suggested strengthening of their revenues in the long run all local authorities should be able to cover this function autonomously, the present mixture of competences for road maintenance on the local level gradually could be abolished.

The Public Works Department[10] and the local authorities, that maintain the roads under their jurisdiction themselves, are eligible for the road maintenance grants. These grants are given by the Federal Government for the maintenance of roads having a minimum standard of 14' pavement width with 5' of road shoulders on either side of the pavement.[11] "This standard was fixed by the Federal Government on the recommendations of the Public Works Department and has been enforced since 1965. However, a ruling was made in the 1983 National Finance Council meeting that those substandard roads (between 10' - 14' pavement width) which have been registered with the Treasury before 31st December 1979 will still be getting road maintenance grants but on the condition that it will be upgraded to the minimum standards. The amount given for these substandard roads, however, is much less than those meeting the minimum standards."[12]

The grants are calculated by the Federal Treasury based on the minimum standard of 14' pavement width and the road elements that should be maintained according to the recommendations of the Public Works Depart-ment.[13]

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[7] According to the paper of the MHLG (ibid, appendix 5E) the following Municipal Districts, which have been gazetted as Road Authorities, maintain their own roads: Seremban, Kuantan, Ipah, Taiping, Pulau Pinang, Petaling Jaya, Klang, Shah Alam.

[8] The local authorities which have been gazetted as Road Authority and whose road is maintained by the public works department are listed ibid, appendix 5c.

[9] Ibid, p. 26.

[10] Besides this also the Public Works Department is eligible for road maintenance grants according to the same criteria that are applied for the local councils themselves. As these grants do not affect the local councils' revenues, however, they will not be considered here.

[11] Ibid, appendix 6.

[12] Ibid, p. 35.

[13] These elements are: 1. Periodical resurfacing of pavements and the repair of pot-holes (and edges), 2. maintenance of side-tables and the trimming of cover crops; 3. the repairs and stabilization of embankments and cuttings; 4. the cleaning, repair and construction where necessary of culverts, bridges and roadside scuppers and sub-soil drains. Ibid.

The calculation also takes into account the regionally differing material cost and the transportation cost. Based on the total mileage of eligible roads, then the grants are calculated for each state. Table 1[14] shows the total mileage of roads eligible for road grant for each state, the cost per mile as calculated by the Federal Treasury for each state and the total amount of road grants that has been given out to each state for the years of 1984, 1985 and 1986.

"In order to get road grants, each Local Authority has to list out all the road that have met the minimum standard in a format called MARRIS (Malaysian Road Record Information System) and then send them to the State Government who compiles the list and sends them to the State Public Works Department who verifies the list as to the eligibility of receiving the road maintenance grant. Once this is done, the list is then sent to the Federal Treasury who then calculates the amount of road grant that each state is eligible based on their calculation of the cost/mile for each state multiplying with the total mileage of road that the state has submitted and which have been endorsed by the Public Works Department that are eligible for road maintenance grant. Once the computation is over, the Federal Treasury then sends the total road maintenance grant to the State Government (State Financial Officer) who then distributes the grant to the respective Road Authority involved in the maintenance of roads in each Local Authority. In most cases, the road maintenance grant is sent to the Public Works Department as they are the road maintaining agency for most of the Local Authority roads while some of the big Municipal Councils received this road maintenance grant from the State Government as they are the gazetted Road Authority and who also maintains their own roads."[15]

The results of these rules lead to high differences in the amount of road maintenance grants (see table 2, column 4, which lists the per capita values for all local authorities in the four sample states, that were examined by the GTZ):[16] According to these survey data (for 1987), the per capita values varied between 0,00 M$ (for the majority of all councils) and 5,79 M$ (for Petaling Jaya); the per capita average was 1,42 M$. The reasons for these high differences will become clear, when the present problems of this type of grants are discussed.

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[14] Ibid, p. 43.

[15] Ibid, p. 36.

[16] See LENZ 1988, and REIDENBACH 1988.

Table 1:
Allocation of Road Maintenance Grant by the Federal Treasury

State	Total Mileage	Cost per Mile ($)	Total Allocation 1984	1985	1986
1. Johore	1266.74	10,857	13,486,819	13,486,819	14,816,288.18
2. Kedah	1289.06	10,564	13,488,963	13,488,963	18,830,702.50
3. Kelantan	557.82	10,353	5,699,696	5,699,696	9,148,579.87
4. Malacca	484.38	10,549	5,061,863	5,061,863	5,617,030,34
5. Negeri Sembilan	769.75	9,850	7,286,416	7,286,416	9,873,605.05
6. Pahang	1030.38	9,969	9,924,776	9,924,776	10,713,234.79
7. Perak	161.75	11,378	17,267,957	17,267,957	20,287,144.48
8. Perlis	197.70	11,144	2,203,135	2,203,135	2,711,101.18
9. Penang	677.32	12,146	7,826,688	7,826,688	9,296,112.00
10. Trengganu	670.13	10,995	7,187,264	7,187,264	9,899,086.30
11. Selangor	1750.77	9,470	16,260,087	16,260,087	22,925,506.44

2.2. Present Problems of Road Maintenance Grants

The road maintenance grants are beset with a number of problems, both with regard to their theoretical design and their correct and efficient administration. Most of these problems need not be discussed here, especially if they arise from technical and administrative insufficiencies, which are recognized by the federal government and for which corrections have been recommended already.[17] We thus focus our attention to a few aspects, which in the present discussion are not considered sufficiently.

[17] The paper of the MHLG (ibid, p. 4f.), whose reading strongly is recommended, mentions 1. the lack of proper and up to date records of the eligible roads under jurisdiction, 2. the lack of a systematic monitoring system for maintenance work, 3. the lack of updating the total mileage for roads being constructed and recorded as eligible after 1981, and 4. the insufficient cost of maintenance as computed by the Federal Treasury because of a) the missing consideration of many road elements while computing the cost of maintenance, and b) the computation being based on the 14' pavement width, although there are roads with higher widths.

The first - allocative - objection against the present method of computation arises from the fact, that there is **no sufficient differentiation of grants according to the type of road:**

- For all roads being constructed after 1979 there is no differentiation at all, as the grants only are given if the roads fulfill the standard (of 14' pavement width with 5' of road shoulders on either side of the pavement); for roads that excel this standard no higher grants are given, and roads that do not fit the standard are not eligible for any grants.

- For roads being constructed before 1979, a differentiation is made, as substandard roads (between 10' - 14' pavement width) also remain eligible for (lower) road maintenance grants. However, the grants here are restricted to the condition that the substandard roads will be upgraded to the minimum standard. Secondly - and worse - the differentiation de facto is not applied, as "the local authorities believe that the road maintenance grant is available only for roads that meet at least the above standard quality and width."[18]

When deciding about the construction of new roads and the modification of existing roads, the insufficient differentiation of the grants also leads to an insufficient differentiation of the roads itself: "Local authorities have started imposing 'standard' road norms on all developers, regardless of whether the expected traffic justifies it."[19] In order to receive road maintenance grants also roads for which a width below the minimum standard would be sufficient from the technical point of view will be constructed with or upgraded to the standard width. On the other hand also roads, for which a higher width would be required, will not exceed the standard width, as this would cause higher construction and

maintenance cost without allowing for higher grants. This missing differentiation of road maintenance grants in the long run thus will lead to an inappropriate structure of the road system, with some roads being insufficiently small and others being unnecessarily wide. Local councils that resist these ineffective consequences are punished financially by not receiving any road maintenance grants (for roads being smaller than the standard width) or insufficient grants (for roads being wider that the standard width.

A second deficiency of the present design that also causes misallocations stems from the fact that the federal government gives the road maintenance grants to the states but **does not enforce the states to forward the grants to the road authorities.** Most states therefore do not completely forward the grants to the local councils, but keep it in their budgets for other purposes.[20] The results of

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[18] WORLD-BANK-REPORT 1988, p. 14f.

[19] Ibid, p. 14.

[20] "The perception both at the federal and local authority level is that significant amounts of the road maintenance grants are diverted to other uses by the states." Ibid.

Table 2:
Federal and States Grants to local authorities, in Ringgit per capita

Council	Population 1987**	FEDERAL GOVERNMENT GRANT: Annual Grants	Grants in A-D-R	Road-M. Grants	Total	STATE GOVERNMENT GRANTS: Balancing Grants	Annual Grants	Grants in A-D-R	Other Oper. G.	Total	FEDERAL AND STATES GRANTS
1 Johor Bahru	328.000	0,33	3,23	0,00	3,56	0,00	0,00	0,00	0,00	0,00	3,56
2 Johor Bahru Tengah	70.000	1,42	0,37	0,76	2,55	1,43	0,00	0,00	0,00	1,43	3,98
3 Pontian	41.000	2,62	0,85	0,00	3,47	0,00	0,00	0,00	1,02	1,02	4,49
4 Muar Utara	32.000	3,36	3,32	0,00	6,68	0,00	0,00	0,00	0,00	0,00	6,68
5 Muar Selatan	90.000	1,19	3,41	0,83	5,44	0,53	0,00	0,00	0,00	0,53	5,97
6 Kluang Utara	87.000	1,24	4,65	0,86	6,74	0,00	0,00	0,00	0,00	0,00	6,74
7 Kluang Selatan	18.000	5,44	7,40	2,29	15,13	0,00	0,00	0,00	0,00	0,00	15,13
8 Kota Tinggi	21.000	4,99	9,63	1,07	15,69	1,39	0,00	0,87	1,12	3,37	19,06
9 Mersing	27.000	3,70	5,36	0,90	9,05	1,47	0,00	0,00	1,17	2,64	11,69
10 Kulai	60.000	1,75	3,37	0,38	5,49	0,48	0,00	0,30	0,39	1,18	6,67
11 Batu Pahat Barat	86.000	1,25	0,53	0,00	1,78	0,72	0,00	0,46	0,44	1,62	3,40
12 Batu Pahat Timur	22.000	4,89	0,39	0,00	5,27	0,00	0,00	0,25	5,44	5,69	10,96
13 Segamat Utara	60.000	1,79	2,34	0,00	4,13	0,00	0,00	2,83	0,85	3,69	7,82
14 Segamat Selatan	27.000	3,72	0,59	0,98	5,29	3,70	0,00	- 0,13	0,00	3,84	9,13
SUM JOHORE	969.000	1,51	2,92	0,33	4,76	0,42	0,00	0,26	0,34	1,02	5,78
1 Petaling Jaya	317.000	0,34	0,04	6,15	6,54	0,00	0,34	0,52	0,00	0,86	7,40
2 Klang	252.000	0,43	5,22	3,70	9,34	0,00	0,43	0,48	0,00	0,91	10,25
3 Petaling	69.000	1,38	0,03	0,00	1,41	0,00	1,38	0,00	0,00	1,38	2,79
4 Sepang	14.000	5,99	1,19	0,00	7,18	33,34	5,99	0,00	0,00	39,33	46,51
5 Kuala Langat	32.000	3,36	0,08	0,00	3,44	15,63	3,36	0,00	0,00	18,98	22,42
6 Hulu Langat	148.000	0,73	0,05	0,00	0,78	0,00	0,73	0,00	1,82	2,55	3,33
7 Gombak	101.000	1,06	0,16	0,00	1,22	0,00	1,06	0,20	0,00	1,26	2,49
8 Kuala Selangor	30.000	3,58	5,76	0,00	9,34	30,40	3,58	3,44	0,00	37,42	46,76
9 Hulu Selangor	51.000	1,93	1,50	0,00	3,42	9,80	1,93	0,43	0,00	12,17	15,59
10 Sabak Bernam	50.000	1,96	1,68	0,00	1,96	10,00	1,96	0,00	1,00	12,97	14,93
11 Shah Alam	60.000	1,79	6,06	0,00	7,85	0,00	1,79	6,96	8,33	17,09	24,94
SUM SELANGOR	1.124.000	2,31	4,36	2,85	9,44	2,92	1,00	0,98	1,02	5,93	15,37
1 Kota Bharu	215.000	0,50	5,84	0,00	6,34	0,00	1,86	0,22	0,00	2,08	8,42
2 Kota Bharu Daerah	77.000	1,36	0,00	0,00	1,36	0,36	0,00	0,03	0,04	0,43	1,78
3 Pasir Putih	60.000	1,79	0,15	0,00	1,94	0,00	2,42	0,08	0,00	2,50	4,44
4 Machang	55.000	1,95	0,89	0,00	2,85	1,29	0,00	0,13	0,00	1,43	4,27
5 Ulu Kelantan	14.000	6,54	0,52	0,00	7,05	12,70	0,00	0,07	0,00	12,78	19,83
6 Bachok	59.000	1,82	0,53	0,00	2,35	5,42	0,00	0,08	0,00	5,50	7,85
7 Tumpat	102.000	1,05	0,00	0,00	1,05	1,43	0,00	0,03	0,00	1,46	2,51
8 Kuala Krai Utara	56.000	1,92	0,15	0,00	2,07	1,84	0,00	0,13	0,00	1,97	4,04
9 Kuala Krai Selatan	41.000	2,26	0,01	0,00	2,26	3,74	0,00	0,00	0,00	3,74	6,00
10 Tanah Merah	46.000	2,34	0,26	0,00	2,60	0,00	0,00	- 0,00	0,00	0,00	2,60
11 Pasir Mas	25.000	4,30	1,20	0,00	5,50	9,00	0,00	0,35	0,00	9,35	14,85
SUM KELANTAN	750.000	1,53	1,87	0,00	3,40	1,63	0,73	0,11	0,00	2,48	5,88
1 Pulau Pinang	549.000	0,20	1,00	2,73	3,93	0,00	0,00	0,00	0,00	0,00	3,93
2 Seberang Perai	533.000	0,20	1,97	0,00	2,17	0,00	0,00	0,00	0,00	0,00	2,17
SUM PINANG	1.082.000	0,20	1,48	1,39	3,06	0,00	0,00	0,00	0,00	0,00	3,06
ALL SAMPLE STATES	3.925.000	1,38	2,73	1,28	5,37	1,25	0,43	0,37	0,38	2,42	7,80

* Questionaire not yet answered ** Own Projections

our survey (table 2, column 4) prove that from the states, which had been included in our sample, this was true for Kelantan. As a consequence many local roads are not maintained sufficiently.[21]

Even if the grants were completely forwarded to the states, they were not sufficient to cover the full costs of road maintenance: Firstly, **some of the eligible roads are not identified and registered** for grants, and secondly because of inflation and other factors the **actual costs per mileage are higher than the rates the Treasury uses to calculate the grants.**[22] The federal government on the other hand is reluctant to adjust the rates because of the mentioned incomplete forwarding by the states.[23] As a consequence less resources are transferred from the federal to the local level, e.g. the distortion of the vertical distribution of resources between the two levels that has been identified as the main malaise of the present system of revenue sharing is even increased.

A final deficiency concerns the horizontal distribution of the grants within the local sector: As the financial capacity of the local authorities and their capability to identify and update the roads eligible for maintenance grants correlate negatively, **poorer local authorities will loose a higher percentage of grants.** Again the road maintenance grants rather intensifies than cures the distorted distribution of local revenues.

2.3. Recommendations to Improve the Road Maintenance Grants

As road maintenance is a legal function of local councils, in the long run all local councils should be encouraged and enabled to cover this function. Simultaneously the Public Works Department should withdraw from this field. As long as the relocation of resources is not performed by an adequate enlargement of the local revenue system, i.e. by assigning the road tax to the local level, road maintenance grants are an appropriate instrument for the vertical allocation of the necessary resources.

Some modifications are necessary, however, to abolish the deficiencies, which were identified for the present form of the road maintenance grants. Most important in our regard is the necessity **to differ the grants according to different types of roads.** Therefore at least the present differentiation between

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[21] The fact that also the states' share of the national revenue compared to the federal government is too low, does not excuse that federal grants, that are meant to reduce the vertical imbalances between the central and the local sector, are kept by the states. Even if the states were more needy than the local authorities, such a rechanneling of resources would be inappropriate, as it would distort the allocation between the road maintenance (for which the grants are given), and "non-road maintenance", e.g. all purposes, for which the rechanneled road maintenance grants actually are used by the states.

[22] See ibid, appendix 10, for example computations.

[23] WORLD-BANK-REPORT 1988, p. 15.

standard roads and substandard roads should be put into practice by informing all local authorities that substandard roads also are eligible for road maintenance grants. In addition, the condition that road maintenance grants for substandard roads only are given, if they will be upgraded to the standard, should be abolished. In the long run the present differentiation even should be increased, as at least three types of roads seem to be necessary from the technical point of view, e.g. with regard to the different functions and utilization of local roads within a hierarchical net of transportation. To support such a graduated system, also the grants should differentiate according to the actual width of these three categories.[24]

Secondly, measures should be implemented to **ensure the complete forwarding of the grants from the states to the road authorities.** Contrary to the present practice, only to send the overall road maintenance grants to the states, the Treasury should publish the computation of the eligible road maintenance grants for each Road Authority separately. This would enable each local authority to verify that the states have forwarded the grants completely and to enforce complete forwarding if necessary. If the states still refuse complete forwarding, additional measures by the federal government should be launched, starting with moral suasion and including stronger enforcements. Even severe sanctions like the holding back of future road maintenance grants or the cutting of develop-ment grants for the states should be considered then. -- In addition the states should not any longer send the grants to the Public Works Departments directly, but to the local authorities, which in turn should send it to the Public Works Department. This would enable the local councils to instruct the Public Works Departments about which roads to maintain and what to maintain, e.g. to "ensure that the money given is spent on maintaining Local Authority roads and not on other roads or things."[25]

Thirdly, the **grants should be computed according the actual cost** of the road maintenance. This comprises an updating of the list of eligible roads, which at the moment still refers to the 1981 data, and the inclusion of further cost elements. Also the complete maintenance of all Federal and State roads by the Public Works Department belongs in this context. As otherwise the local authorities were forced to do the maintenance, this would further reduce the financial resources for the proper maintenance of the local authorities' own roads and for other local functions.

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[24] As in the case of roads the regional functions and competences cannot clearly be separated from supraregional functions, such a differentiation has to be accompanied by central regulations about the functions of the local roads within the national system of transportation.

[25] Ibid, p. 6.

For the same reason also **the lists of roads eligible for road maintenance grants should be checked and updated** - especially in order to abolish the present discrimination of the smaller District Councils that lack complete records. Although this task in the long run should be carried out by all local councils themselves, personal and financial support by the states and the federal government seems necessary as long as the proposed strengthening of local revenues has not enabled all local councils to carry out that task on their own. It should be ensured, however, that this support is only a temporary one, that gradually leads to local autonomy. Thus incentives to overtake this function have to be introduced and disincentives for those local councils that already perform this function on their own have to be avoided.[26]

3. The Inadequate Distribution of Annual Grants

3.1. Present Regulations

Originally the annual grants stem from a recommendation of the NYAN-Comm-ission, which had clearly identified the local authorities' weak financial situation[27] and - by realizing the political objectives against their favored solution of revenue sharing - had suggested to work out "a formula, whereby the Federal Government can channel money to the local authorities."[28] According to this suggestion, local authorities should receive annual grants:[29]

1. for the first	25,000 persons	at the rate of $5.00 per person;
2. for the next	37,000 persons	at the rate of $2.50 per person;
3. for the next	62,500 persons	at the rate of $1.50 per person;
4. for the remainder		at the rate of $0.75 per person.

The Commission realized that this proposal could be subject for further modifications, especially as the Treasury "had agreed to provide some form of financial assistance to the local authorities but that since at the moment there was no other suitable basis for computing the grant, the Treasury had agreed to use the population figure as a basis (only) for the time being".[30] In fact the

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[26] Two solutions seem possible in this regard. Firstly, the supporting state and federal agencies could charge the local councils for the updating and maintenance of the road records. The charges should gradually be increased from an initial subsidized level to a final level that covers the full costs. Secondly the road maintenance grants could be enlarged by a component that compensates the administrative costs for updating and maintenance of the road records to those local councils, which carry out that function themselves.

[27] See KOPS 1988b.

[28] NYAN-REPORT_1, p. 30.

[29] Ibid.

[30] Ibid, notes of the Ninth Meeting, p. 6.

Commission's suggestion in the course of the political process was modified, as the gradation of the population-based determinant was altered and the local authorities' own revenues as a second, incentive-oriented determinant were added.

The final solution, which was implemented in 1979 and today still is applied, thus consisted of two determinants:

a) a determinant based on the population of the local authorities:

1. for the first	5,000 persons	at the rate of $7.00 per person;
2. for the next	5,000 persons	at the rate of $3.50 per person;
3. for the next	40,000 persons	at the rate of $0.50 per person.

b) a determinant based on the revenue of the local authorities:

1. for every dollar in the first	$10.000 collected, $1.00,
2. for every dollar in the next	$40.000 collected, $0.50,
3. for every dollar in the next	$50.000 collected, $0.10.

In figures 1 and 2 the tariffs of the population based component and the revenue based component of the annual grants are displayed graphically; table 2, column 2 shows, which (per capita) distribution is generated by this formula within the four sample states.

Figure 1:
Tariff of the population based component of the annual grants

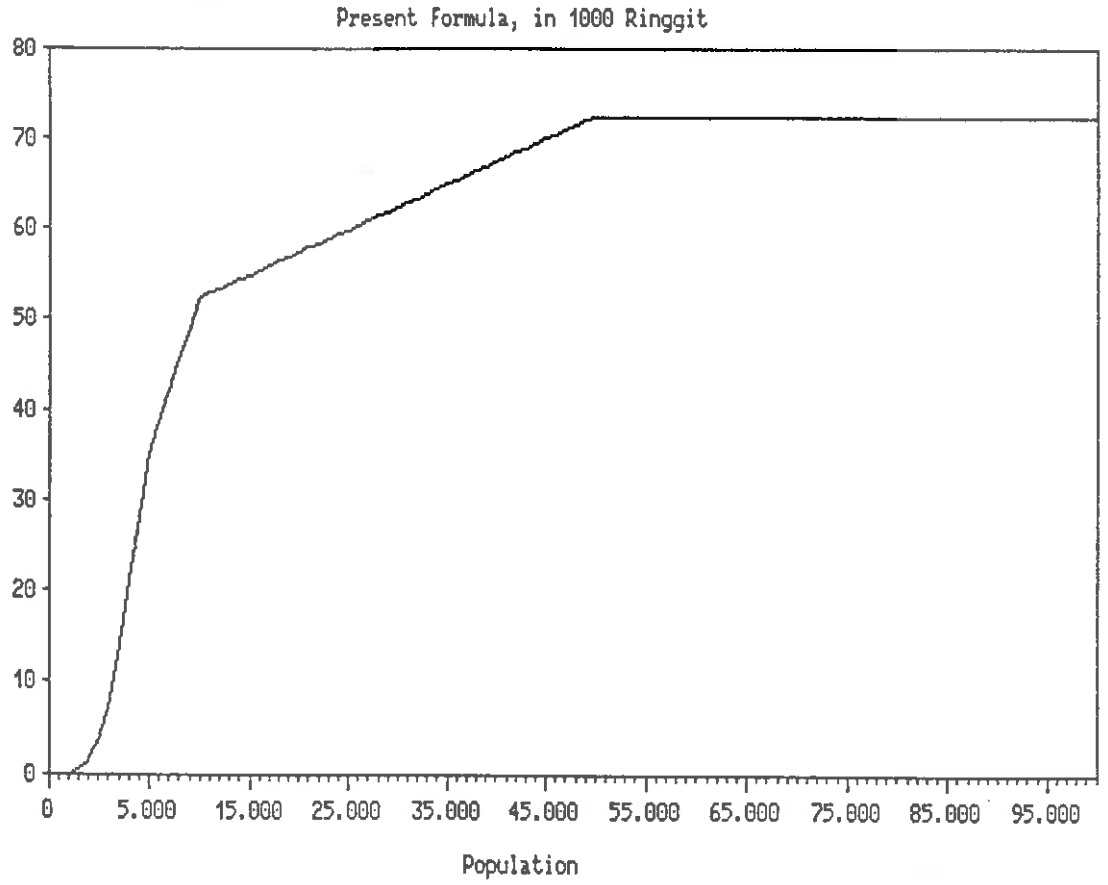
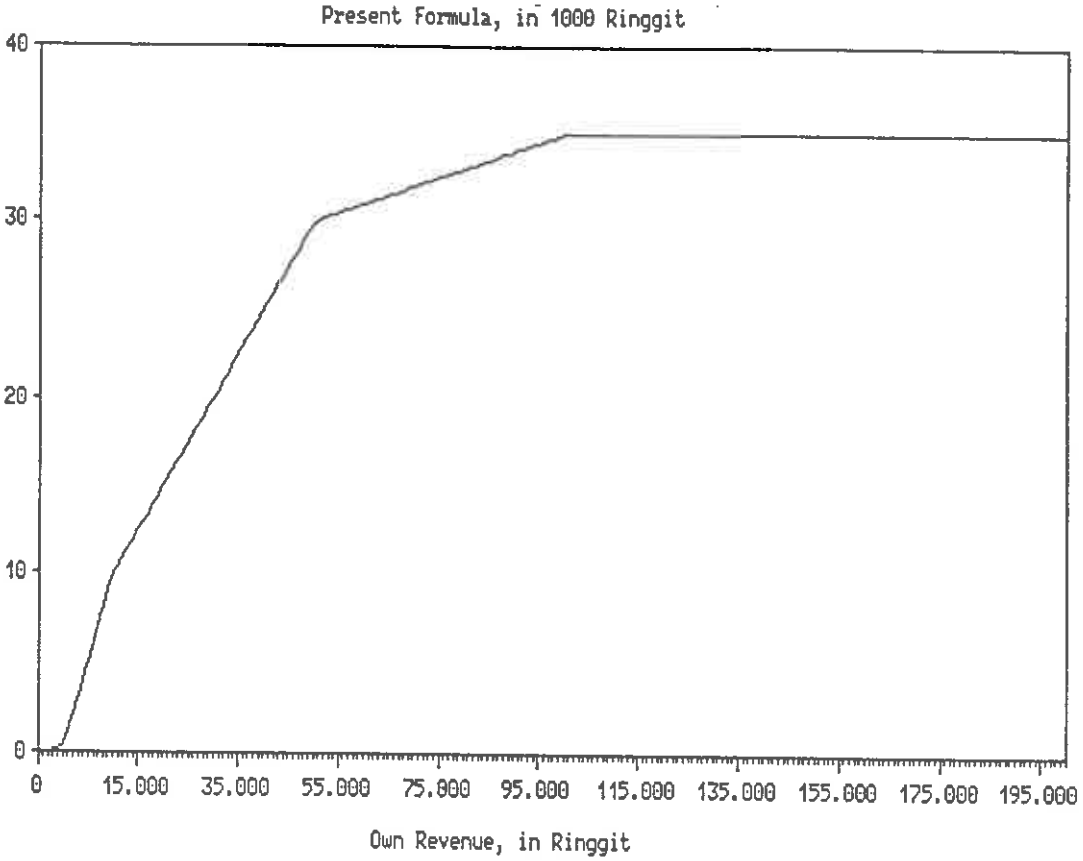


Figure 2:
Tariff of the revenue based component of the annual grants



3.2. Present Problems of the Annual Grants

Although the annual grants are reasonable from their general purpose as formula based supplementary revenues, which simultaneously reduce the vertical and horizontal imbalances of the local authorities' own revenues, their concrete form is most inappropriate. There are several arrangements that violate basic theoretical requirements for the construction of grants and thus cause highly negative effects.

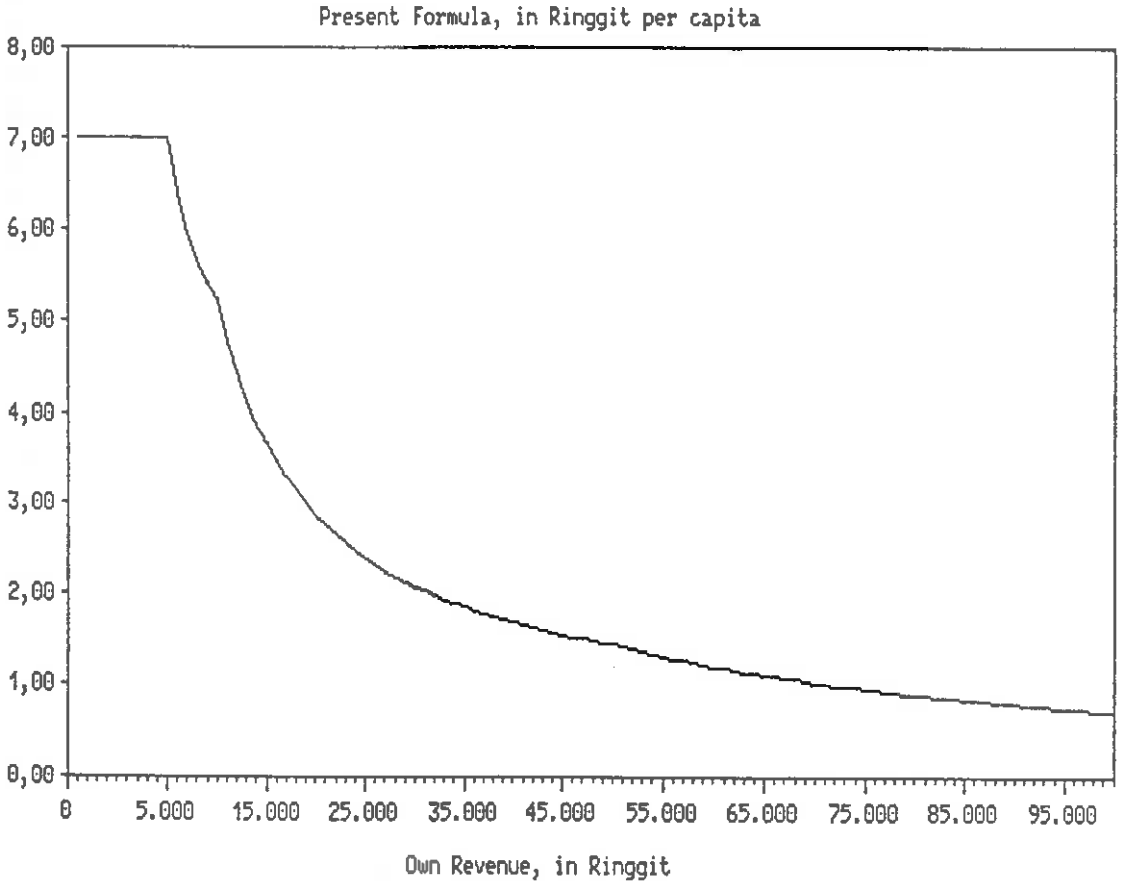
3.2.1. Problems of the Population Based Component

Firstly, the population of local authorities for most purposes is an inadequate determinant for intergovernmental transfers. If the transfers intend to reduce horizontal imbalances within the local level, they have to abolish or at least to diminish the fiscal residuum between the local authorities' fiscal capacity and fiscal need. The population in this case obviously is no proper determinant, as it neither is causally connected to fiscal capacity nor to fiscal need.

If the transfers intend to reduce vertical imbalances between the federal and the local level only, the population in principle can be an adequate determinant. However, in order to be neutral with regard to the horizontal distribution, the per capita grants in this case must be equal for all local authorities, e.g. may not vary with the local authorities' population size. The present formula instead is very regressive, as the per capita grants are high for small local councils, but low for larger local councils (see figure 3). This effect is especially strong, as for the population above the ceiling of 50.000 no grants are given at all.

In table 2, column 3, this effect clearly can be noticed for the sample states: While the annual grants per capita constantly remain below 1,00 M$ for the larger local councils, or even below 0,50 M$ (for the large District Councils of Johore Bahru, Petaling Jaya, Klang and Kota Bharu), they exceed 5.00 M$ and more for small District Councils like Kluang Selatan, Batu Pahat Timur, Sepang, and Ulu Kelantan.

Figure 3:
Per capita tariff of the population based component of the annual grants



This distribution of per capita grants only could be accepted under two assumptions:

1. from the allocative point of view the per capita differences were justified if they would match the local authorities' cost functions, i.e. if the cost for the local services would follow the same (regressive) shape as the per capita grants;

2. from the distributive point of view per capita differences were justified, if they would match the local authorities' fiscal residuum, e.g. if the small local councils generally would have a higher negative residuum than the larger local councils (e.g. were more needy).

If we first evaluate the allocative argument, there is little evidence to theorize that the per capita costs co-vary with the per capita annual grants: There are only few local services which are as regressive as the annual grants; for most local services linear or progressive cost functions are common and for the overall cost function of local services a regressive shape can be excluded definitely.[31] A closer look at figure 4 furthermore reveals, that for all local councils with less than 5.000 inhabitants the annual grants per capita are constant ($7.00 per inhabitant). To explain this with the shape of the cost function would require constant per capita costs (e.g. independence from population size) for the group of local councils with less than 5.000 inhabitants, whereas up from 5.000 inhabitants the mentioned regressive function has to be assumed. As there are no substantial arguments for such an odd cost function, the present differences in the per capita grants cannot be justified with equivalent differences of the local authorities' per capita costs.

From the distributive point of view, however, prima facie a regressive shape of the per capita grants can be sustained: As on the average the small local councils in Malaysia probably lack more revenues (per capita) than the larger local authorities, a correlation between the local authorities' size and its fiscal residuum is probable. -- A closer examination shows however, that the population still remains an inappropriate determinant for the differentiation, as it is only loosely correlated with the (per capita) fiscal residuum. This is not surprising as neither the local authorities' fiscal capacity nor their fiscal need are considered explicitly, when the per capita grants are differentiated according to population size.[32] As the neediness of the local councils therefore correlates

[31] See FOSTER ET AL 1980, p. 569, and p. 259ff. with further quotations of empirical research.

[32] Within local councils of the same size for instance there is no differentiation of per capita grants, although the fiscal residuum can vary considerably between local authorities of the same size.

much looser with the population size than with other attributes, the population size is no proper criterion for the diminishing of the fiscal residuum, but should be substituted by better determinants.[33]

3.2.2. Problems of the Revenue Based Component

By including the local authorities' own revenue as a second determinant of the annual grants it was intended to encourage the local authorities' efforts of raising their own revenues. In general, this idea is right, as at present there are only few incentives for the local authorities in Malaysia to stress their own revenue bases.

The operationalization of the idea, however, again is most inappropriate and contains a whole bunch of mistakes. Firstly the absolute revenues are considered instead of the per capita revenues, secondly the revenues are not adjusted for differences in fiscal capacity (and fiscal stress), thirdly they are not adjusted for differences in fiscal need and finally the regressive grants tariff causes unsystematic distortions.

3.2.2.1. No Adjustment for Differences in Population Size

The first and most obvious mistake of the revenue based component of the annual grants is, that the amount of grants is determined by the local authorities' absolute revenues, but not by its per capita revenues. Therefore local councils with equal absolute revenues receive the same absolute amount of grants, although per capita this will lead to different values, if the population size of the local councils differ.

To illustrate this effect, a numerical example is constructed, which compares two authorities A and B with different populations of 10,000 and 20,000 inhabitants (table 3). To reduce it to the point, it is assumed that the local authorities receive (property) tax as the only kind of own revenues. Furthermore it is assumed, that the per capita tax base (values of properties) of A is 10 $, whereas the per capita tax base of B only is 5 $. If both local authorities stress their tax base equally (by applying a tax rate of 10 % and by enforcing the total collection, e.g. arrears of zero), both A and B will yield absolute revenues of 10.000 $.

According to the present grant formula, also both local authorities then receive absolute annual grants of 10.000 $. Per capita, however, A receives 1.00 $, whereas B only receives 0.50 $. The local authorities are treated differently, although they stress their revenue bases equally (by 10 % tax rates)!

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[33] Those determinants are suggested in KOPS 1988d.

Table 3:
The local authorities' own absolute revenues
as an inadequate determinant for the annual grants

	Fictitious local authorities	
	A	B
Inhabitants	10,000	20,000
absolute Revenue base	100,000 $	100,000 $
per cap Revenue base	10 $	5 $
"Fiscal stress" (Tax Rate)	10 %	10 %
per cap Revenues	1 $	0.5 $
absolute Revenues	10,000 $	10,000 $
./.Arrears	0 $	0 $
abs. Revenues ./. Arrears	10,000 $	10,000 $
abs. Annual Grants	10,000 $	10,000 $
per cap Annual Grants	1 $	0.5 $
per cap Revenues+Grants	2 $	1.0 $

3.2.2.2. No Adjustment for Differences in Fiscal Capacity

This incapacity to adjust for differences in population size is a consequence of the more general deficiency, that the grants do not consider differences in the local authorities' efforts to raise own revenues (level of fiscal stress). Instead the grants are determined by the local authorities' actual revenues, which are not only determined by the local authorities' revenue base (fiscal capacity) but also by their fiscal stress.

To illustrate this point, another example is constructed with three local councils A, B, and C (table 4). Influences of the population size are excluded by assuming that they all have the same number of inhabitants (10.000). It also is assumed, that their revenue bases are different: A has a tax base of 100.000$ (10 $ per capita), whereas B and C have a tax base of 200.000 $ (20 $ per capita). Finally it is assumed, that there also are differences in the degree of fiscal stress, e.g. in the tax rates and/or the degree of enforcement of tax collection. A applies a tax rate of 10 %, whose collection is enforced completely (no arrears), B applies a tax rate of 5 %, also without arrears, and C applies a tax rate of 10 %, but collects only half of it.

Although A has a lower revenue base than A, under this assumptions the actual revenues are the same for all three local councils (10,000 $). A compensates its lower revenue base by applying a higher tax rate and higher enforcement of the tax collection, respectively.

Table 4:
The local authorities' own actual revenues
as a product of fiscal capacity and fiscal stress

	Fictitious local authorities		
	A	B	C
Inhabitants	10,000	10,000	10,000
absolute Revenue base	100,000 $	200,000 $	200,000 $
per cap Revenue base	10 $	20 $	20 $
"Fiscal stress" (Tax Rate)	10 %	5 %	10 %
per cap Revenues	1 $	1 $	2 $
absolute Revenues	10,000 $	10,000 $	20,000 $
./.Arrears	0 $	0 $	10,000 $
abs. Revenues ./. Arrears	10,000 $	10,000 $	10,000 $

In order to eliminate such differences in fiscal stress, a proper grant formula should not consider the actual revenues but the **potential** revenues, e.g. the revenue base. Differences in fiscal stress thus would become irrelevant as extra revenues because of high fiscal stress would not reduce the grants and missing revenues because of low fiscal stress would not increase them.

Although the level of fiscal stress in Malaysia varies considerably[34] and this theoretical requirement thus is of high empirical relevance, it is not fulfilled by the annual grants. The annual grants instead are determined by the local councils' actual revenues, leaving aside that the fiscal effort to yield these revenues may be different.

Thus the local authority A of our last example, which applies high tax rates, but because of its small revenue base is not able to yield high revenues, receives the same amount of annual grants (10,000 $) as B and C, which apply only low tax rates, or do not enforce complete collection, respectively (table 5).

[34] See ibid, and REIDENBACH 1988.

Table 5:
The local authorities' own actual revenues
as an inadequate determinant for the annual grants

	Fictitious local authorities		
	A	B	C
Inhabitants	10,000	10,000	10,000
absolute Revenue base	100,000 $	200,000 $	200,000 $
per cap Revenue base	10 $	20 $	20 $
"Fiscal stress" (Tax Rate)	10 %	5 %	10 %
per cap Revenues	1 $	1 $	2 $
absolute Revenues	10,000 $	10,000 $	20,000 $
./.Arrears	0 $	0 $	10,000 $
abs. Revenues ./. Arrears	10,000 $	10,000 $	10,000 $
abs. Annual Grants	10,000 $	10,000 $	10,000 $
per cap Annual Grants	1 $	1 $	1 $
per cap Revenues+Grants	2 $	2 $	2 $

The annual grants therefore punish local councils, which because of their low revenue base cannot raise high revenues, even if they highly stress this revenue base. The annual grants formula therefore simply is not fair[35] or - in other words - it does not fulfill the distributional requirements of properly constructed intergovernmental grants. -- Over and above, also its allocative effects are suboptimal, as the incentives to intensify the own revenue were higher, if the grants were only differentiated according to the local authorities' fiscal capacity.

[35] If the present procedure of the annual grants were transposed to the private sector, i.e. a father would equally have to support his two sons, both having an insufficient own income, although the one might not we able to earn a sufficient income because of missing capabilities (qualifications, illness), whereas the other just might be too lazy.

3.2.2.3. No Adjustment for Differences in Fiscal Need

In order to keep the examples instructive, differences in the local authorities' fiscal need were left aside. Actually those differences exist, however, as the local authorities' functions as well as their costs vary for several reasons.[36] The present annual grant formula does not consider those differences. Local councils, which because of special burdens (i.e. high deficits in infrastructure, supraregional duties, high unemployment rates etc.) have a high fiscal need, ceteris paribus receive the same amount of annual grants as local councils with a low fiscal need. The negative allocative and distributive effects of the imbalanced (horizontal) distribution of the local councils' own revenues therefore cannot be corrected by the annual grants.

3.2.2.4. Inadequate Regressiveness of the Grant Tariff

The annual grants vary with the amounts of own revenues. The tariff is proportional within different ranges. In the range of 1 to 10,000 $ a local authority gets one dollar of grants for every dollar of own revenues; for every dollar in the next 40,000 $ collected, it gets only 0.50 $, and for every dollar in the next 50,000 $ collected, it gets 0.10 $. For own revenues exceeding 100,000 $ (10,000 $ plus 40,000 $ plus 50,000 $), no annual grants are given at all.[37] -- As this is a "step-proportional" grants tariff, the per capita tariff has a regressive shape: Once the own revenues exceed 10,000 $, the grant per dollar own revenues decreases (figure 4). A local authority with 20,000 $ of own revenues thus receives 0.81 $ grants per 1.00 $ own revenues, with 50,000 $ it receives 0.60 $, with 100,000 it receives 0.35 $, and with 300,000 it receives 0.12 $.

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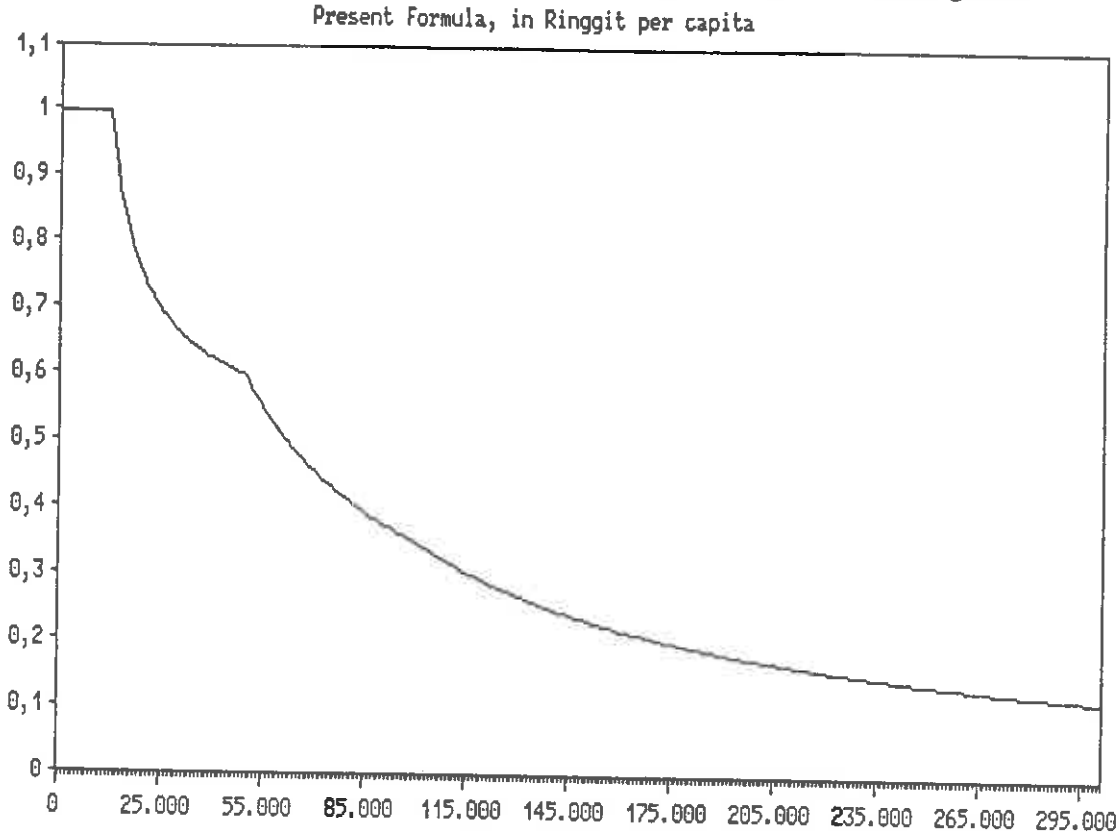
[36] For the reasons and types of differences in fiscal need see KOPS 1988a, KOPS 1988d.

[37] Compare figure 4, above.

Figure 4:
Per capita tariff of the revenue based component of the annual grants



To justify this shape of the grants tariff as being equivalent to the local authorities' varying needs would require, that the costs of local services are equal for local authorities with 1 to 10.000 $ of own revenues, and then constantly decrease. There is no economic reason to assume such a relation between cost and own revenues, especially if it is realized, that the grant formula does not consider the revenues per capita, but the **absolute** revenues. The present annual grant formula thus can by no means be justified with similar cost differences.

The regressive grants tariff also cannot be justified with the argument, that local councils with low revenues have a higher (negative) fiscal residuum (e.g. are more needy) than local councils with high revenues. If at all, such a relation only could be presumed for per capita revenues, but not for absolute revenues.

The only (weak) attempt to justify the regressiveness of the grant tariff is the double assumption of a correlation between (absolute) revenues and population size (which empirically is confirmed), and a simultaneous correlation between population size and neediness (which seems to hold in Malaysia). In this case local authorities with high (absolute) revenues actually are less needy and the

regressive grants tariff were justified in general. However, the objections against the determination of the population based component of the annual grants[38] would have to be repeated: There are much better indicators of a local authorities fiscal need than its population size. Even if the double assumption holds, the distributional effects of the revenue based component of the annual grants thus remain exotic.

Table 6:
The regressive tariff of the annual grants and its obscure effects for local authorities of different population size

	Fictitious local authorities		
	A	B	C
Inhabitants	5,000	50,000	500,000
absolute Revenue base	50,000 $	500,000 $	5,000,000 $
per cap Revenue base	10 $	10 $	10 $
"Fiscal stress" (Tax Rate)	10 %	10 %	10 %
per cap Revenues	1 $	1 $	1 $
absolute Revenues	5,000 $	50,000 $	500,000 $
./.Arrears	0 $	0 $	0 $
abs. Revenues ./. Arrears	5,000 $	50,000 $	500,000 $
abs. Annual Grants	5,000 $	35,000 $	35,000 $
per cap Annual Grants	1 $	0.70 $	0.07 $
per cap Revenues+Grants	2 $	1.70 $	1.07 $

Table 6 illustrates these odd effects with three fictitious local councils A, B, and C, which per capita have equal revenue bases (of 10 $), apply an equal fiscal stress (of 10 %) and thus also have equal revenues (of 1 $). We furthermore assume, that also their fiscal need is equal, although this is not relevant for the annual grants and therefore is not included in Table 6.

As the per capita values for all relevant variables under these assumptions are equal for A, B, and C, one should expect, that the local councils per capita also receive the same amount of grants. With the revenue based component of the annual grants in Malaysia this, however, is not true: A receives 1.00 $ for each inhabitant, B receives 0.70 $, and C receives 0.07 $. After the distribution of the grants, the originally equal financial position has become different: A has

[38] See chapter 3.2.1.

total revenues (own revenues plus grants) of 2.00 $, B of 1.70 $, and C of 1.07 $. A thus has become almost twice as rich as C, although there is no difference between the local councils, which could justify this unequal treatment.

3.3. Recommendations to Improve the Annual Grants

Both the population based component and the revenue based component of the annual grants suffer such numerous and severe mistakes, that recommendations for their improvements are equivalent to a complete reconstruction.

The **population based element** of the annual grants has to be criticized as the local authorities' population generally is a weak determinant for intergovernmental transfers. If at all, it only can be justified for a vertical redistribution, which horizontally is neutral, e.g. does not change the fiscal positions within the local level. In this case, however, the regressive tariff of the present annual grants would have to be replaced by a linear tariff; also the present ceiling would have to be abolished. Although the population based annual grants would cause less deformities after these modifications, they still would remain suboptimal, as they were not able to improve the presently imbalanced horizontal distribution of the local authorities' own revenues. To fulfill this task, a total reconstruction of the grants is necessary, as attributes of the local authorities and of the local authorities' fiscal need to be included.

The **revenue based component** of the annual grant contains so many obvious faults that it surprises, how these arrangements managed to pass the political decision processes. This component of the annual grants thus needs even more radical corrections than the population based component. Afterwards nothing of the present arrangements would be left.

4. The Arbitrary Distribution of Conditional Grants

4.1. Present Institutional and Financial Regulations

In contrast to equalizing grants, whose purpose is the reduction of (vertical and horizontal) imbalances between fiscal capacity and fiscal need, conditional grants shall correct public authorities' suboptimal allocative decisions.[39] As reasons for such suboptimal decisions the theory of public finance distinguishes 1. the existence of 'external' effects (spill-overs) and 2. a systematic under-valuation or overvaluation of the benefit of certain public goods:

[39] See ACIR 1977; MUSGRAVE 1980, p. 532ff.

ad 1: Some goods cause (positive or negative) external effects for people, who do not participate in the decision process about the allocation of these goods.40 Although these external effects sometimes can be avoided by shifting the decision competences to another federal level, there are some goods with multiple benefits of (regionally) differing extensions[41], for which those external effects always appear, no matter how the decision competences are allocated. Conditional grants in this case are a means to internalize those external effects. They are given to public authorities, especially to local councils, under the condition, that the receiving authority spends the money according to the directives of the donating authority. The donor thus can correct the receivers decisions, e.g. can avoid misallocations, which without those directives would be caused by the goods' external effects.

ad 2: Some local goods are systematically underestimated or overestimated by the local councils, which do not consider national targets sufficiently, but emphasize the interests of their population.[42] Taking pattern from a similar phenomenon in the private sector, where these goods also are called "merit" goods and "demerit goods"[43], the adjustment between the perceived and the "true" benefit can be accomplished by conditional grants: the output of "merit" local goods can be increased, if they (partly) are paid by other (donating) authorities.[44]

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[40] Examples are public facilities, which also are used by the citizens of neighborhood districts (positive spill-overs), or sewerages of a local councils, which cause water pollution in a second local authority, being located downstream the first one (negative spill-overs). Other local goods even have national spill-overs, e.g. cause positive or negative effects for the whole country. Examples here are local roads, which cause benefits with regard to the nationwide transportation system, or have positive stimuli for the national growth.

[41] Large development projects like bridges e.g. cause at least two types of benefits: For one part they create benefits for the population within a (smaller) region, in which the public facility is used; for the second part they cause stimulative effects for the economy of a broader area, possibly for the whole national economy.

[42] The benefit of a new bridge i.e. will be overestimated by a local authority, being eager to provide this accommodation to its citizens, compared to the federal evaluation, which is able to evaluate the benefit of the bridge within the nationwide transportation system and thus is able to choose the best location of the bridge with respect to its highest benefit.

[43] The idea of "merit" and "demerit" goods first was elaborated for private goods. It was argued, that the benefit of some goods (milk, education) systematically is underestimated by consumers; whereas the benefit of other goods (drugs, gambling) systematically is overestimated. According to this opinion, merit goods therefore should be provided free or at least should be subsidized by the state, demerit goods on the contrary should be forbidden or at least be taxed. For details of the merit goods theory, its problems and restrictions see i.e. MUSGRAVE 1980, p. 84ff.

[44] The opposite case of reducing the output of demerit goods is seldom practiced because of political and constitutive difficulties. It would require that the local councils, which produce demerit goods, would give away grants to other authorities (normally to the federal authority).

As those conditional grants thus have a legal function, they are common in almost all federative countries. Also in Malaysia they can be found, both as federal grants and states grants. They are given for socio-economic purposes (like markets, stalls, hawker centers etc.), infrastructure (like roads, drains, small bridge building and repairs etc.) or beautification and cleanliness (e.g., tree planting, dumping grounds, landfills, tourist projects etc.),[45] and in general can be considered as merit goods or goods with positive external effects.

Federal conditional grants (development grants) are limited to a maximum of 400,000 M$ per project.[46] Initial submissions of local councils totalled 2.2 billion M$ for the current (Fifth) Malaysian Plan. This total was cut down to 146 million M$ in discussions between the Ministry of Housing and Local Government, the states and the local authorities, and it was further reduced to 40 million M$ in the plan itself. In connection with oil prices, the plan total was even further reduced in 1987 to the present plan total of 20.68 million M$.[47]

Federal development grants are administered by the Ministry of Housing and Local Government, but also involve the Economic Planning Unit and the Ministry of Finance. The Ministry of Housing and Local Government first discusses the projects to be financed from the list of projects included in the Fifth Malaysia Plan with the Economic Planning Unit. After the latter's approval, it puts a request to the Ministry of Finance, which decides on an overall allocation for the purpose. The 1988 allocation, initially set at 4.5 million M$, now totals 7.637 million M$.[48] The Ministry of Housing and Local Government then selects the projects to be funded. It makes sure that preconditions for implementation are met, e.g., land and the necessary plans are available. Unspent allocations lapse at the end of the budget year.[49]

State development grants "have been used in Kelantan but appear to be an relatively new phenomenon in the other states."[50] For 1988 Kelantan appropriated 2.8 million M$, of which each district council receives 250,000 M$, and the municipal council of Kota Bharu receives 500,000 M$. Melaka for 1988 appropria-tes 1 million M$ for development grants, which also are equally divided between its local authorities. Beside this, Melaka also supports specific projects

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[45] See WORLD-BANK-REPORT 1988, p. 13.

[46] This limit was set by the National Financial Council during the Forth Malaysia Plan. Additional, lower limits for roads and drains (150,000 M$) and for beautification projects (100,000 M$) were set by the Economic Planning Unit.

[47] Ibid.

[48] Ibid.

[49] Ibid.

[50] Ibid.

of the local councils, especially if they are tourist-orientated.[51] Johor also supports local councils in specific development projects "but appears to do so through their inclusion in the state budget, not with a general development grant.[52] In all states the distribution of conditional grants seems to be rather unsystematic and arbitrary. Ad hoc decisions are preferred to explicit regulations.

4.2. Problems

Conditional grants are vindicated in general, as they are an instrument for the internalization of external effects and for the support of "merrit" (local) goods. Thus they can be given for projects, which cause supraregional growth or for local facilities, whose benefits spill over the local authorities' boundaries. In order to secure these allocative targets, it also is justified that these grants are conditional, e.g. connected to regulations about the purpose of the grants and the way, in which the grants are spent. However there are some presuppositions for conditional grants; and some provisions must be met in order to distribute them suitably.

4.2.1. The Limited Justification of Conditional Grants

First of all, conditional grants only are superior to non-conditional grants, if the assumption holds that the allocation of the grants really is bettered by the imposed usage conditions. This in turn requires, that the authorities, which impose the conditions (states and federal government), have a better information level and better decision capabilities to evaluate the local goods "true" benefits than the receiving local authorities.

Although this view is frequently exposed, supporters of a federative, decentral decision structure oppose it. Instead they argue, that the local authorities have a better knowledge of the local peculiarities, i.e. regional cost and need differences. From this point of view conditional grants, which enforce central allocation decisions, only deteriorate the autonomous decisions of the local councils.

Even if the assumption of inferior decision capabilities of the local councils were true, it were no sufficient argument for imposing regulations, if the inferior decision capabilities only are caused by insufficient revenues of the local councils. In this case the local decisions should not be corrected by central interventions, but the local authorities should be enabled to improve their decision capabilities (i.e. to hire more staff, to train the present staff, to improve

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[51] Ibid.

[52] Ibid.

their information base etc.) by increasing their revenues. Only if their decisions remain suboptimal also with a sufficient financial and personal equipment, central interventions by means of conditional grants are justified: In this case the suboptimal decision capabilities are caused systematically, e.g. by external effects or goods attributes, which are not taken into account by the single local councils, but have to be considered from the supraregional and national point of view.

In Malaysia the inferior decision quality of the local authorities mainly seems to be caused by their past shortage in financial and personal resources, which prevented them to elaborate the same administrative qualification as the higher federal levels.[53] Only in few cases an intervention of the higher federal levels is justified systematically, e.g. by the characteristics (external effects) of the public goods, which have to be provided. In this regard the requirement of central control and intervention by means of regulations as well as by imposing conditions on grants will decrease, if the proposed downward shifting of resources has enabled the local authorities to improve their administrative capabilities. A high share of the presently conditional grants then can be abolished or changed to unconditional grants.

This long run perspective left aside, the opinions about the necessity of central interference and thus also about the justification and limitations of conditioning grants always will remain disputed. External effects, (de)merit goods, systematic defects of local decisions and decision qualities are categories too abstract to be determined exactly and finally. In federal states discussions about these questions and varying opinions over time therefore are common. The traditionally high evaluation of centralistic ideas, which is characteristic for Malaysia,[54] might explain, why the conditioning of grants is hardly questioned in depth and not even criticized by the local councils themselves. A gradual increase of more decentralistic ideas, however, hopefully will provoke that conditional grants really are restricted to the few cases, in which a central interference is justified systematically.

[53] See KOPS 1988b.

[54] See ibid.

4.2.2. Irrational Distribution of some Conditional Grants

According to their function, the conditional grants should shift expenditures from a suboptimal (low) extent, which the local authorities would realize, to a higher extent, which is optimal, if external effects and merit good components are taken into account. The amount of conditional grants thus is determined by its requested allocative effects. In contrast to equalizing grants, the redistributive effects of conditional grants therefore are no target per se, but only a consequence of the allocative purpose.[55]

The present practice of several states, which distribute their development grants equally between all local authorities, even without regard to differences in population, from this perspective has to be criticized. It neither can be sustained with allocative nor with distributive arguments:

- To defend an equal distribution of grants with allocative targets would imply equal external effects and/or merit goods for all local authorities. This - at least - is very unlikely.
- The examination of the annual grants has demonstrated already, that grants, which neither consider fiscal capacity nor fiscal need, are not capable to reduce the local authorities' fiscal residuum. If differences in population size are not taken into account, it on the contrary is possible, that the horizontal imbalances are even increased. In any way the distribution then is unfair, as the local authorities with small populations per capita receive higher grants than the local authorities with large populations.

As this method to distribute the grants equally among the local authorities neither fulfills allocative nor distributive requirements, it simply is irrational.

4.2.3. Discretionary Distribution of most Conditional Grants

The only advantage of an equal distribution of conditional grants is its formalization. Once the overall sum of the grants is determined, a simple division by the number of local councils tells the amount, which is assigned to each of them, and allows them a clear entitlement. This advantage, however, is no sufficient excuse for the mentioned allocative and distributive faults, especially as formalization not necessarily means simplicity, but only requires

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[55] It even may happen, that the distributive effects of conditional grants contradict the distributive targets (i.e. if the allocative targets require to channel high conditional grants to local authorities, which already have high own revenues from taxation). Even in this case the distortion of distributive targets can be accepted, if the allocative target is evaluated as more important. However, it is possible and advisory, to correct these distributive distortions later by appropriate equalizing grants.

that the grants are determined by explicit criteria and rules and not by discretionary factors.

Except the conditional grants, which are distributed equally, most other conditional grants, most conditional grants of the states do not fulfill this criteria. According to a recent investigation of the World-Bank, which examined the development grants, which are given by the states, "neither specific amounts nor procedures for project selection, approval and fund disbursement could be established in any of these states."[56] The same is true for the development grants of the federal government, which seem to favour special projects,[57] but do not apply explicit criteria for its selection.

This lack of formalization has several disadvantages:

1. The local authorities can hardly foresee, if an intended project has a chance of being subsidized by development grants, and how high the grants eventually will be. This *complicates the local authorities long-time planning*. This uncertainty is even increased, as the overall amounts devoted for grants by the federal government and the states from one year to the other vary considerably.[58] Thus it may happen, that no grants are given for intended projects, although similar projects in the past were supported by grants.

2. Lack of formalization *hinders the receiving authorities to entitle grants and to enforce its payment*. By this the donating authorities gain political power, as their arbitrary and illegitimate decisions cannot be dismissed.

3. As the criteria for being subsidized are unknown or at least not transparent, local authorities will apply for grants, although the respective projects are not considered eligible by the states or the federal government. This causes *unnecessary administrative efforts* and is a waste of public resources, which could be avoided by explicit and transparent rules about the eligibility of development grants.

4. On the other hand other local authorities will renounce to apply for grants, as they - wrongly - think, that the projects in question will not be subsidized. In this case *reasonable projects eventually will not be realized*, although they would have been supported by development grants.

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[56] WORLD-BANK-REPORT 1988, p. 13.

[57] According to the WORLD-BANK-REPORT 1988 (p. 13), MHLG at the moment gives preference to socio-economic projects.

[58] LENZ 1986, p. 25.

5. Intransparent or missing criteria for the distribution of grants *facilitate political interferences*. In order to gain higher grants for the represented authorities, politicians are encouraged to exert political pressure upon the administration. Development grants then are not (only) determined by substantial considerations, but (also) by political and personal interests. This is especially true for Malaysia, where - due to several reasons - political interferences traditionally are a common practice.[59]

6. As the politicians of the richer and more influential authorities usually are more capable to enforce these interests, the discretionary distribution of grants often does not cure (regional) dissimilarities, but even intensifies them.

4.3. Recommendations

An evaluation of the conditional grants, which are given by the federal government and the states, would require empirical investigations. Several case studies would have to be carried out, to find out its allocative and distributive effects. As this task would exceed the scope of the present study, only some general recommendations are given with regard to the above mentioned shortcomings.

First of all, **conditional grants should be restricted to those cases, where they correct external effects or support "merit" (local) goods.** If grants are given as a substitute for own revenues or as corrective of its horizontal imbalances, they should not be bound to conditions. Conditions in these cases would be an illegitimate instrument of controlling and disciplining the local councils. Federal and states governments therefore should critically check for all conditional grants, if conditions really are justified. If this is not the case, they should be changed to non-conditional grants.

If conditional grants are restricted to their legal purpose (to correct suboptimal allocation decisions), also the **irrational practice to allocate equally high grants to all local councils**, which can be observed in some states of Malaysia, will end. Besides the fact, that this practice leads to odd results with regard to the per capita values, this distribution neither fulfills allocative nor distributive requirements.

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[59] See KOPS 1988b.

Thirdly, the intransparent and discretionary allocation, which in Malaysia is common for the majority of states and federal grants, should be replaced by **transparent and explicit allocation rules**. In order to narrow variations from year to year, these rules also should determine the absolute amounts of money, which the federal and states governments each year provides for grants.[60]

These measures would allow the local authorities to plan their budgets, it would avoid costs of unsuccessful grant applications, and would render the attempts of local politicians more difficult, to influence the administrative distribution of grants.

5. The Overloaded Function of Balancing Grants

5.1. Present Institutional and Financial Regulations

Balancing grants intend to balance out revenue and expenditure in the operational budget, in order to secure the fulfillment of the local authorities' most urgent functions. As they mainly are used for emoluments, they also are called "salary grants". According to this purpose, the distribution of the balancing grants is not determined by explicit characteristics, but by the amount of the local authorities' actual budget shortfalls. Balancing grants therefore are distributed more "occasionally" than "systematically".

In Malaysia, balancing grants are not practiced by the federal government, but only by some states. According to our survey, the local councils of three of the four sample states (Johore, Kelantan, and Selangor) were granted this type of financial aid, although the amounts (per capita) were rather low: 0.65 M$ in Johore, 2.97 M$ in Selangor, and 1.69 M$ in Kelantan (see table 2, above).[61]

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[60] Several solutions can be imagined to reach this target. E.g. the amount of grants could be determined as percentage of the federal (states) budgets. A less restrictive rule would allow the donating authorities to vary the percentage of their budget, which they devote for grants, but only within a limited range. A third solution would restrict the variations, by limiting the increase (decrease) compared with the preceding years.

[61] As in Johore these grants are determined according to an explicit formula, which includes the local authorities' population, the number of houses, and property tax assessments per person, they are not in accordance with the above explained function as discretionary corrections. Strictly speaking they therefore should not be included in the category of balancing grants (see below).

5.2. Problems

Balancing grants serve the legal function to cure budget shortfalls of public authorities and thus to secure, that public authorities can fulfill their statutory tasks, especially pay their emoluments and other obligations. The necessity of balancing grants for local authorities depends on the quality of their own resources: If the own resources are sufficient and flexible, budget shortfalls will seldom appear. They never can be excluded totally, however, as not all events can be anticipated and corrected by the local revenue system.[62]

According to this function as a corrective for unforeseeable events, balancing grants also are called "fire-brigade grants": They only have to be given in exceptional situations. To request balancing grants to correct systematic and permanent structural distortions of the local authorities' own revenues thus would overtax its functions. Grants which are determined by explicit factors, like the "balancing grants" in Johore, therefore in fact are no balancing grants in this sense, but are equalizing grants of the type, which in the following chapters are examined in detail.

Unlike equalizing grants, balancing grants should be given only temporarily, and should not become permanent. Actually, they fulfill its functions the better, the sooner they become unnecessary. Balancing grants therefore have to abolish the cause for its necessity, e.g. of the budget shortfalls, by imposing appropriate regulations on the afflicted local authorities. In other words - they have to be conditional.

In Malaysia, these requirements for balancing grants are not fulfilled in many cases. Regulations to abolish budget shortfalls and to avoid their reoccurrence either are missing completely or are not sufficient. Balancing grants thus only cure the symptoms, but not the roots of the local authorities' budget deficits.

5.3. Recommendations

In general balancing grants fulfill a legal and necessary function. However they should be kept as low and as short as possible and should be restricted to balance inescapable deficits, which are due to unforeseeable variations of revenues and expenditures.

The first and best remedy to reach these targets is the **improvement of the local councils' own revenues.** In this regard former recommendations have to be repeated, to correct the present vertical distribution of public revenues by

[62] An example on the revenue side is an unexpected decline of assessment tax as consequence of the loss of properties (i.e. through fire); an example on the expenditure side is be an unexpected expansion of certain expenses, i.e. for roads, which were destroyed by a nature catastrophe.

increasing the local councils' share and to increase the present horizontal distribution within the local level by considering (differences in) the local councils' structural needs.

Secondly, more attention should be paid to **keep balancing grants temporarily**. To reach this target, they should be connected to appropriate conditions: These can be regulations about the local authorities' expenditure behavior, which e.g. enforce the reduction of emoluments or a more efficient accomplishment of certain functions, and regulations about the local authorities' revenue policy, which i.e. require the application of higher tax rates or the collection of more fees.

Also an **anticipatory control** is suggested.[63] In this case the local authorities have to submit their budget plans to the states, which control and approve it. In the long run the local councils should be enabled, however, to avoid budget deficits on their own. Control and supervision therefore should be accompanied and gradually substituted by advice, training and other assisting tools (example budgets, budget directives and comments etc.).[64] This reduces the danger, that budget shortfalls become permanent for some local councils, or even are encouraged, when balancing grants are perceived as a regular source of revenues.

6. Consequence: Modification of the Present System of Intergovernmental Transfers

On the whole the intergovernmental transfers which presently exist in Malaysia must be evaluated negatively. As most grants are not constructed properly, they cannot cure the imbalanced **horizontal distribution** of the local authorities' own revenues, which in another paper has been described as a fundamental malaise of the present local revenues.[65] On the contrary some grants even extend the hori-zontal distortions:

- Especially the *annual grants* contain so many faults, that they cause extreme queer distributive and allocative effects. The only advantage of these grants - to be cynical - is the possibility to terminate them and thereby to save money, which can be used to finance more properly constructed equalizing grants.
- The design of the *road maintenance grants* is less faulty in general, but contains several minor mistakes, which need to be corrected: The records of the roads, which are eligible for these grants, should be updated, confusions about the competences to maintain the roads must be terminated, a complete forwarding to the road authorities should be enforced, the mileage rate should cover the

[63] This solution e.g. is practised in West Germany.

[64] For possible forms of federal assistance see VELOO, n.d., p. 9ff.

[65] See KOPS 1988b.

full actual cost of road maintaining, and the grants should be differentiated according to different types of roads.

- *Conditional grants* are not restricted to their legal purpose, to correct external effects and to support merit goods, but often are used to control and discipline the local authorities. Furthermore the conditional grants in some states are distributed irrationally, as all local authorities receive equal (absolute) amounts; most other conditional grants are distributed discretionary, e.g. without applying explicit and transparent criteria.
- *Balancing grants*, which also are justified in general, are not distinguished sufficiently from equalizing grants or even confused totally. They also are not sufficiently accompanied by remedies, which cure the true causes of the local authorities' budget shortfalls, but only cure the consequences.

With regard to the **vertical distribution** all grants are appreciated, as they shift revenues from the federal level and the states level to the local level and thus reduce the existing vertical imbalances.[66] The overall amount of grants, however, is much too small to achieve this target sufficiently. In 1987 i.e. in the four sample states of Johore, Selangor, Kelantan, and Pinang, which were included in our survey, the annual grants averaged to 1.53 M$ per capita; for the road maintanance grants the respective amount was 1.42 M$, and even if all (operational) federal and states grants are taken together, they on the average only sum up to 8.66 M$ per capita (see table 2). The downward shifting of revenues to the local authorities therefore must be intensified. Properly constructed equalizing grants, as they are suggested by the GTZ,[67] are an appropriate instrument to achieve this target.

[66] For a critique of these vertical imbalances see ibid.

[67] See ibid and REIDENBACH 1988.

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Equalizing Grants for the Local Authorities in Malaysia
- Method and Results -

by

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1. Introduction[1]

As the territorial reorganization of the local authorities has almost been completed and their legal functions have been widened considerably by appropriate laws, important presuppositions for a broad and viable local administration have been created. However the most important condition, a sufficient provision with financial resources, has not yet been realized: The by far biggest share of national revenues still goes to the federal government.[2] The local authorities therefore cannot cover many of their statutory functions and - more important - of the functions which because of the local character they could cover more efficiently than the federal level, if the necessary resources in money and manpower were given to them. Instead the local authorities in Malaysia suffer from an extreme shortage of money, which leads to a unsatisfactory performance of many, even basic local functions, and to a unnecessary reduction of the standard of living.

To make things worse, the distribution of the few resources that are channeled to the local level also is inappropriate. E.g. neither the own local revenues nor the supplementary grants are distributed according to the local authorities' different fiscal need. Thus in few local authorities, especially in the urban areas at the west coast of Peninsula Malaysia, local services are comparably overprovided, whereas in other local authorities, especially in the rural areas at the east coast, even the most elementary local services are not supplied.

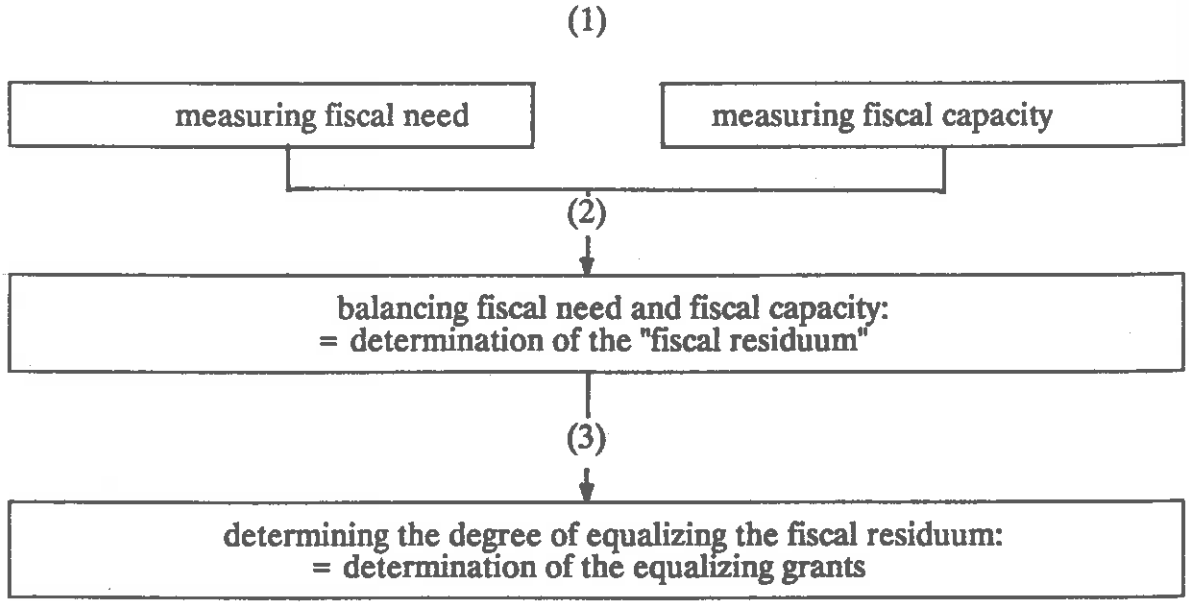
This imbalanced vertical and horizontal distribution of revenues best could be corrected by widening the local revenue base, especially by tax sharing. As this solution at present probably could not be realized because of centralistic objections, the introduction of equalizing grants is suggested as a second best solution. As this type of grants diminishes differences between the local authorities' own fiscal capacity and fiscal need, they correct the present horizontal imbalances; at the same time they also correct the vertical imbalances, as they shift resources from the federal government, which would be the donor of the grants, to the local authorities.

In the study at hand this concept of equalizing grants is operationalized, e.g. fiscal capacity and fiscal need are measured with special reference to the peculiarities of the local authorities in Malaysia, and the method and degree of equalizing the difference between the two components (the "fiscal residuum") is discussed. Furthermore the distributive effects of the grants are described under different assumptions about the degree of equalizing and about the volume of the grants. Finally a short-term and a long-term agenda are presented for implementing the suggested solution. For the short term the abolishion of the present annual grants, which systematically are faulty, is suggested. This money thus could be devoted for the equalizing grants in a cost neutral substitution, and then could be increased gradually. For the long term however a widening of the local tax base is favored.

2. Equalizing Transfers as Means for a Simultaneous Correction of the Imbalanced Vertical and Horizontal Distribution of Revenues

Equalizing grants abolish or at least diminish the local authorities' fiscal residues, e.g. the difference between their fiscal need and fiscal capacity. This concept of equalizing grants also determines the order, in which the different steps of the concepts have to be operationalized: Firstly fiscal need and fiscal capacity have to be measured; secondly the fiscal residuum has to be computed by balancing these two figures, and thirdly the degree, by which the fiscal residuum is equalized, has to be determined (*figure 1*).

Figure 1:
Determinants and steps to determine equalizing grants



2.1. The Measurement of the Local Authorities' Fiscal Need

To measure the fiscal need of a local authority - or more general: of a jurisdiction[3] - two approaches can be distinguished. The first one - which can be called a "positive approach" - reveals the local authorities' fiscal need by analyzing their past expenditures; the second one - which can be called a "normative approach" - tries to determine the local authorities' fiscal need on the base of a normative catalog of functions.

The **positive** (empirical) **approach** rests on the hypothesis, that (actual) expenditures are a valid indicator of fiscal need. This hypothesis can be questioned, as expenditures are no causal function of a local authorities' fiscal need, but of its revenues: The more revenues a local authority gets, the higher are its expenditures, no matter, if these expenditures really are necessary or not.[4] On the other hand one can argue, that in the long run the revenues of a local authority are adjusted to its need: If a local authority is more needy than others, there will be political pressures by the public and its political representatives to increase the revenues to the necessary level; if a local authorities' revenues on the other hand are too high and lead to superfluous expenditures, the same pressures in the long run will reduce the public revenues.

This adjustment, however, needs a political continuity and - if ever - only can be realized in long time ranges. In Malaysia, where the structure of the local level has been radically changed with regard to the local authorities' territories and functions, it is unlikely that the expenditures actually have been adjusted to the fiscal need. The positive approach to determine fiscal need therefore seems to be inadequate for Malaysia or at least has to be accompanied by the normative approach.

The **normative approach** tries to determine the local authorities' fiscal need by several need indicators (need factors), that have to be selected and weighted by political argumentation. The procedure consists of several steps, which have to be solved in a fixed order (see *figure 2*).

1. The **need indicators (need factors) have to be selected.** The selection is determined by empirical investigations about the causal or indirect correlation between the fiscal need and its correlates; it also includes decisions about the politically desired distribution of the grants. This step of the procedure is explained in the following section (2.1.1.)

2. The need indicators can be nominal, ordinal or cardinal variables. As only the latter ones can be used directly to determine the local authorities' fiscal need quantitatively, all **nominal or ordinal indicators have to be transformed into cardinal variables** (2.1.2.). -- Besides this also for need factors, that are cardinally already, a transformation (**recoding**) may be necessary to achieve the desired distributional effects.

3. If more than one need factor is considered, the **weights of the different (cardinal) need factors have to be determined.** Here an equal importance of all

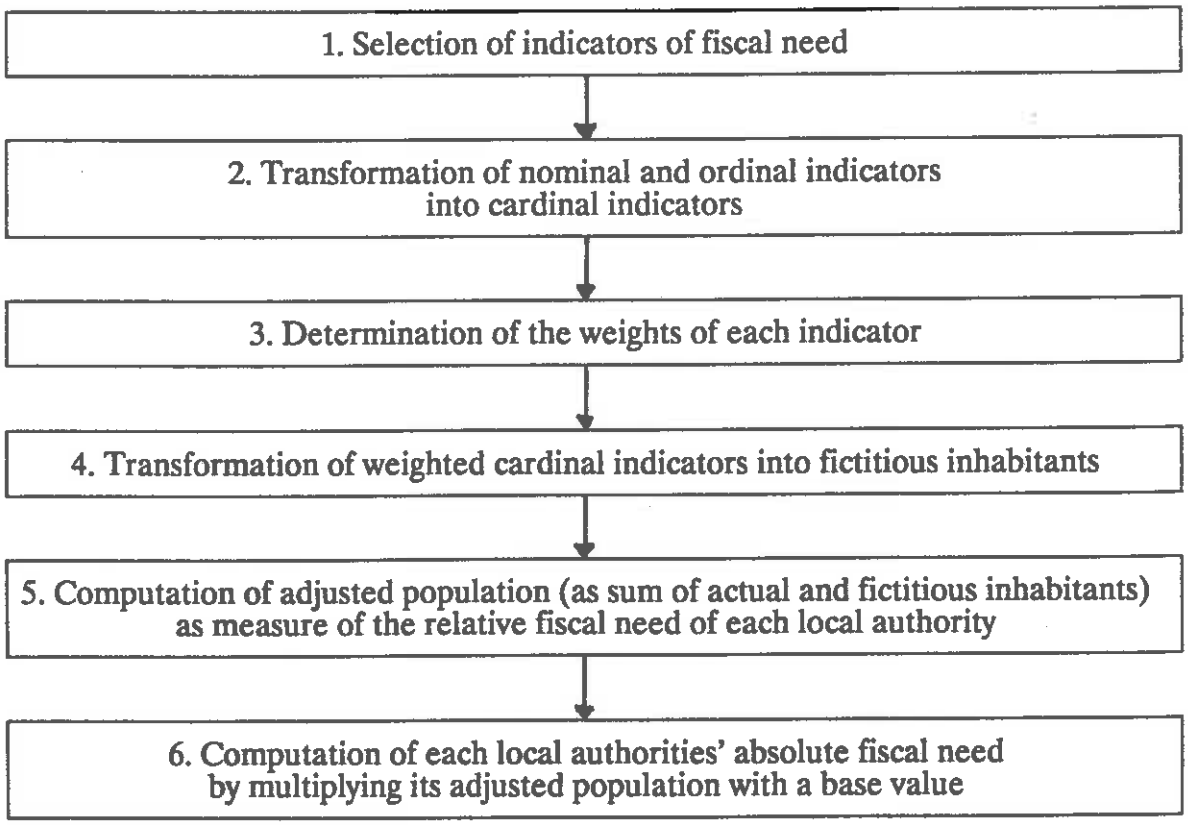
need factors is possible, it also is possible however, that some factors are assigned higher weights than others (2.1.3.).

4. To aggregate the effects of the (weighted and cardinal) need factors to one overall measure, a "numeraire general" is necessary. As such usually (fictitious) population figures are used. The **(weighted cardinal) need factors** then have to be **transformed into fictitious inhabitants** (2.1.4).

5. The **addition of the local authorities' actual and fictitious population** renders a figure, which expresses the differences in the local authorities' fiscal need on a cardinal level (2.1.5.). It is called **adjusted population.**

6. Fiscal need in this measure, however, is expressed only relatively to other local authorities. To use the measure for the distribution of grants, this **relative measure has to be transformed into absolute values.** This is achieved by multiplying the local authorities' (fictitious and actual) inhabitants by a certain absolute value (**base value**) (2.1.6.).

Figure 2:
The steps to calculate the local authorities' fiscal need



2.1.1. The Selected Need Factors

Table 7[5] shows the attributes that seem to be most important for the fiscal need of the local authorities in Malaysia and thus have been included as need factors:

1. the local authorities' gazette area population,
2. diseconomies of scale depending on the local authorities' size of the (gazette area) population,
3. the local authorities' status (as District Council, Municipal Council or CityCouncil),
4. the local authorities' degree of centrality,
5. the local authorities' operational area population,
6. the local authorities' district area population,
7. the local authorities' rural population as a percentage of the total (gazette) population,
8. the size of the local authorities' district area,
9. the size of the local authorities' gazette area,
10. the size of the local authorities' operational area,
11. the ratio between the local authorities' gazette area and district area,
12. the ratio between the local authorities' operational area and district area, and
13. the local authorities' gazette population growth rate.

This list of suggested need factors is rather large, as it was intended to illustrate alternative need factors and its distributive results. The final equalizing grants should not necessarily include all of these factors, as for some of them the empircal data is not available at the moment and a restriction to some of the most important need factor also is advisable with regard to the administrative costs of the procedure.

Table 7:
(Nominal or ordinal) indicators of fiscal need

Majlis	Gazette Area Population 1980	Diseconomies of Scale	Status as DC MC City	Centrality accord. to Asian Dev.Bank	Operat. Area Population 1980	Distr. Area Population 1980	Type of Gazette Area Population 1980 Urban	Rural	% Rural	Area (sqkm) District Area	Gazette Area	operational Area	Area-Ratios (%) Gazette/ Distrct	operat./ Distrct	Gazette Population Growth Rate
column#	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
category#															
Johor Bahru	328,000	v.high	MC	Regional	393,600	492,000	234,286	93,714	0.29	670.00	119.14	119.14	0.18	0.18	1.331
Johor Bahru Tengah	70,000	medium	DC	None	84,000	105,000	46,667	23,333	0.33	1,894.00	125.07	125.07	0.07	0.07	1.331
Pontian	41,000	medium	DC	District	49,200	61,500	7,381	33,619	0.82	870.00	10.87	10.87	0.01	0.01	1.105
Muar Utara	32,000	medium	DC	District	38,400	48,000	11,394	20,606	0.64	1,302.00	135.67	6.78	0.10	0.01	1.094
Muar Selatan	90,000	high	DC	District	108,000	135,000	30,220	59,780	0.66	1,452.00	362.47	28.54	0.25	0.02	1.094
Kluang Utara	87,000	high	DC	District	104,400	130,500	30,141	56,859	0.65	1,252.00	126.57	25.99	0.10	0.02	1.207
Kluang Selatan	18,000	small	DC	District	21,600	27,000	5,743	12,257	0.68	1,462.00	128.88	2.29	0.09	0.00	1.297
Kota Tinggi	21,000	small	DC	District	25,200	31,500	2,399	18,601	0.89	2,143.00	127.63	7.77	0.06	0.00	1.582
Mersing	27,000	small	DC	District	32,400	40,500	8,884	18,116	0.67	2,350.00	119.14	12.95	0.05	0.01	1.236
Kulai	60,000	medium	DC	District	72,000	90,000	20,000	40,000	0.67	677.00	123.18	123.18	0.18	0.18	1.105
Batu Pahat Barat	86,000	high	DC	District	103,200	129,000	31,066	54,934	0.64	936.00	54.70	9.33	0.06	0.01	1.129
Batu Pahat Timur	22,000	small	DC	None	26,400	33,000	9,288	12,712	0.58	1,273.00	126.86	34.32	0.10	0.03	1.120
Segamat Utara	60,000	medium	DC	District	72,000	90,000	22,135	37,865	0.63	1,363.00	128.86	9.62	0.09	0.01	1.197
Segamat Selatan	27,000	small	DC	District	32,400	40,500	9,882	17,118	0.63	1,264.00	122.41	5.51	0.10	0.00	1.197
Sum JOHOR	969,000	-	-	-	1,162,800	1,453,500	469,536	499,464	0.63	18,908.00	1,811.45	521.27	0.10	0.04	1.222
Petaling Jaya	317,000	v.high	MC	State(Maj)	380,400	475,500	208,020	108,980	0.34	42.73	42.73	42.73	1.00	1.00	1.527
Klang	252,000	v.high	MC	State(Maj)	302,400	378,000	173,275	78,725	0.31	453.00	60.85	60.85	0.13	0.13	1.314
Petaling	69,000	medium	DC	None	82,800	103,500	45,585	23,415	0.34	23.31	23.31	20.80	1.00	0.89	1.527
Sepang	14,000	small	DC	Sub Distr.	16,800	21,000	0	14,000	1.00	432.00	16.32	12.31	0.04	0.03	1.239
Kuala Langat	32,000	medium	DC	None	38,400	48,000	0	32,000	1.00	452.00	9.58	9.58	0.02	0.02	1.198
Hulu Langat	148,000	high	DC	None	177,600	222,000	36,806	111,194	0.75	743.00	37.22	30.00	0.05	0.04	1.400
Gombak	101,000	high	DC	District	121,200	151,500	0	101,000	1.00	540.00	77.70	41.44	0.14	0.08	1.591
Kuala Selangor	30,000	medium	DC	None	36,000	45,000	0	30,000	1.00	2,252.00	26.70	17.00	0.01	0.01	1.106
Hulu Selangor	51,000	medium	DC	None	61,200	76,500	15,998	35,002	0.69	2,370.00	54.39	54.39	0.02	0.02	1.265
Sabak Bernam	50,000	medium	DC	None	60,000	75,000	0	50,000	1.00	590.00	28.23	28.23	0.05	0.05	1.097
Shah Alam	60,000	medium	MC	State(Maj)	72,000	90,000	60,000	0	0.00	53.09	53.09	53.09	1.00	1.00	1.527
Sum SELANGOR	1,124,000	-	-	-	1,348,800	1,686,000	539,684	584,316	0.68	7,951.13	430.12	370.42	0.32	0.30	1.345
Kota Bharu	215,000	v.high	MC	State(Maj)	258,000	322,500	151,267	63,733	0.30	409.00	115.64	80.00	0.24	0.20	1.282
Kota Bharu (Daerah)	77,000	high	DC	State(Maj)	92,400	115,500	22,000	55,000	0.71	114.00	97.60	77.70	1.14	0.68	1.282
Pasir Putih	60,000	medium	DC	District	72,000	90,000	0	60,000	1.00	433.00	129.50	5.83	0.30	0.01	1.153
Machang	55,000	medium	DC	None	66,000	82,500	0	55,000	1.00	544.00	129.50	29.78	0.24	0.05	1.200
Ulu Kelantan	14,000	small	DC	District	16,800	21,000	0	14,000	1.00	8,104.00	83.20	1.10	0.01	0.00	1.568
Bachok	59,000	medium	DC	District	70,800	88,500	0	59,000	1.00	264.00	129.50	129.50	0.49	0.49	1.195
Tumpat	102,000	high	DC	District	122,400	153,000	0	102,000	1.00	168.00	129.59	77.70	0.77	0.46	1.227
Kuala Krai Utara	56,000	medium	DC	District	67,200	84,000	0	56,000	1.00	1,110.00	129.50	7.77	0.12	0.01	1.389
Kuala Krai Selatan	41,000	medium	DC	District	49,200	61,500	0	41,000	1.00	1,115.00	222.40	201.25	0.20	0.18	1.265
Tanah Merah	46,000	medium	DC	District	55,200	69,000	0	46,000	1.00	868.00	147.06	38.85	0.17	0.04	1.363
Pasir Mas	25,000	small	DC	District	30,000	37,500	2,836	22,164	0.89	578.00	129.50	7.77	0.22	0.01	1.198
Sum KELANTAN	750,000	-	-	-	900,000	1,125,000	176,103	573,897	0.90	13,707.00	1,327.26	657.25	0.35	0.17	1.297
Pulau Pinang	549,000	v.high	MC	Regional	658,800	823,500	345,905	203,095	0.37	284.32	284.32	284.32	1.00	1.00	1.177
Seberang Perai	533,000	v.high	MC	State(Min)	639,600	799,500	268,795	264,205	0.50	738.50	738.50	738.50	1.00	1.00	1.262
Sum PULAU PINANG	1,082,000	-	-	-	649,200	811,500	307,350	233,650	0.43	1,022.82	1,022.82	1,022.82	1.00	1.00	1.220
SUM OF SUMS	3,925,000	-	-	-	1,015,200	1,269,000	373,168	472,832	0.66	41,588.95	4,591.65	2,571.76	0.44	0.38	1.271

2.1.2. The Transformation of Nominal and Ordinal Need Factors into Cardinal Need Factors

To be able to transform nominal and ordinal need factors into fictitious inhabitants and to aggregate them with other need factors they have to be "transformed" into cardinal variables. From the need factors suggested above, this is necessary for diseconomies of scale, for the degree of centrality, and for the status as District Council, Municipal Council and City Council. For other need factors, which are already cardinal in its original form (percentage of urban population, share of gazetted and operational areas at district area) a "recoding" is suggested to achieve the aspired distributional effects. *Table 8* shows the suggested transformations.

2.1.3. Determination of the Weights of Each Indicator

Table 9 displays the weights that are suggested by us. The **gazette area population** (column 104) is listed first, as it is regarded the most important need factor and as it serves as reference figure for all other need factors. As such a reference figure a weight of **1.00** is assigned to this need factor. For the **diseconomies of scale** (column 105) a weight of **0.50** is suggested. This means, that this factor is regarded to be half as important as the reference factor (of the gazette population). A higher weight would further promote local authorities with high diseconomies of scale, e.g. mainly urban areas with large local authorities; a lower weight instead would support rural areas with small local authorities.

Also for the **status** (column 106) of the local authorities (as District Council, Municipal Council, or City Council) a weight of **0.50** is suggested. E.g. compared to the gazette area population it is considered to be half important, compared to diseconomies of scale it seem to be equally important. A higher weight would patronize Municipal and City Councils, a lower weight would favor District Councils.

For **centrality** (column 107) also a weight of **0.50** is assumed. A higher weight would support local authorities with a centrality level above average, e.g. national, regional and major state level, a lower weight would support local authorities with a centrality level below average, e.g. minor state, district and sub-district level.

As for the **operational area population** (column 108) presently no reliable data is available, it only was included as a supplementary need factor, whereas the gazette area population functions as central determinant of fiscal need. According to this, only a small weight of **0,05** has been assigned to this need factor, e.g. it is regarded to have only 10 % of the importance of diseconomies of scale, of status or of centrality. If more reliable data about the operational area population are available, the weight can be increased or this variable can even function as reference variable with a weight of 1.00; the weight of the present reference variable than of course should be reduced.

Table 8:
Cardinal indicators of fiscal need

Majlis	Gazette Area Population 1980	Diseconomies of Scale	Status as DC MC City	Centrality accord. to Asian Dev.Bank	Operat. Area Population 1980	Distr. Area Population 1980	Ratio Rural/ total Gazette Popul.	Area (sqkm)			Area-Ratios (%)		Gazette Popul. Growth Rate
								District Area	Gazette Area	operational Area	Gazette/ Distrct	operat.nal/ Distrct	
column#	91	92	93	94	95	96	97	98	99	100	101	102	103
category#	(76)	(77)	(78)	(79)	(80)	(81)	(84)	(85)	(86)	(87)	(88)	(89)	(90)
Johor Bahru	328,000	0.50	0.25	0.50	393,600	492,000	0.40	0.40	0.30	0.50	0.00	0.00	
Johor Bahru Tengah	70,000	0.25	0.00	0.00	84,000	105,000	0.30	0.40	0.30	0.50	0.00	0.00	
Pontian	41,000	0.20	0.00	0.20	49,200	61,500	0.10	0.40	0.00	0.20	0.00	0.00	
Muar Utara	32,000	0.20	0.00	0.20	38,400	48,000	0.20	0.40	0.30	0.10	0.00	0.00	
Muar Selatan	90,000	0.30	0.00	0.20	108,000	135,000	0.20	0.40	0.40	0.30	0.00	0.00	
Kluang Utara	87,000	0.30	0.00	0.20	104,400	130,500	0.20	0.40	0.30	0.30	0.00	0.00	
Kluang Selatan	18,000	0.10	0.00	0.20	21,600	27,000	0.20	0.40	0.30	0.00	0.00	0.00	
Kota Tinggi*	21,000	0.15	0.00	0.20	25,200	31,500	0.10	0.40	0.30	0.10	0.00	0.00	
Mersing	27,000	0.15	0.00	0.20	32,400	40,500	0.20	0.40	0.30	0.20	0.00	0.00	
Kulai*	60,000	0.25	0.00	0.20	72,000	90,000	0.20	0.40	0.30	0.50	0.00	0.00	
Batu Pahat Barat	86,000	0.30	0.00	0.20	103,200	129,000	0.20	0.40	0.20	0.10	0.00	0.00	
Batu Pahat Timur	22,000	0.15	0.00	0.00	26,400	33,000	0.20	0.40	0.30	0.30	0.00	0.00	
Segamat Utara	60,000	0.25	0.00	0.20	72,000	90,000	0.20	0.40	0.30	0.10	0.00	0.00	
Segamat Selatan	27,000	0.15	0.00	0.20	32,400	40,500	0.20	0.40	0.30	0.10	0.00	0.00	
Sum JOHOR	969,000	0.23	0.02	0.19	1,162,800	1,453,500	0.21	0.40	0.28	0.24	0.00	0.00	
Petaling Jaya	317,000	0.50	0.25	0.40	380,400	475,500	0.30	0.10	0.20	0.40	0.30	0.30	
Klang	252,000	0.50	0.25	0.40	302,400	378,000	0.30	0.40	0.20	0.40	0.00	0.00	
Petaling	69,000	0.25	0.00	0.00	82,800	103,500	0.30	0.00	0.10	0.30	0.30	0.30	
Sepang	14,000	0.10	0.00	0.10	16,800	21,000	0.00	0.40	0.00	0.20	0.00	0.00	
Kuala Langat	32,000	0.20	0.00	0.00	38,400	48,000	0.00	0.40	0.00	0.10	0.00	0.00	
Hulu Langat	148,000	0.35	0.00	0.00	177,600	222,000	0.10	0.40	0.10	0.30	0.00	0.00	
Gombak	101,000	0.35	0.00	0.20	121,200	151,500	0.00	0.40	0.20	0.40	0.00	0.00	
Kuala Selangor	30,000	0.20	0.00	0.00	36,000	45,000	0.00	0.40	0.10	0.20	0.00	0.00	
Hulu Selangor	51,000	0.25	0.00	0.00	61,200	76,500	0.20	0.40	0.20	0.40	0.00	0.00	
Sabak Bernam	50,000	0.25	0.00	0.00	60,000	75,000	0.00	0.40	0.10	0.30	0.00	0.00	
Shah Alam	60,000	0.25	0.25	0.40	72,000	90,000	0.40	0.20	0.20	0.40	0.30	0.30	
Sum SELANGOR	1,124,000	0.29	0.07	0.14	1,348,800	1,686,000	0.15	0.32	0.13	0.31	0.08	0.08	
Kota Bharu	215,000	0.45	0.25	0.40	258,000	322,500	0.40	0.40	0.30	0.50	0.00	0.10	
Kota Bharu (Daerah)	77,000	0.30	0.00	0.40	92,400	115,500	0.10	0.30	0.30	0.40	0.30	0.30	
Pasir Putih	60,000	0.25	0.00	0.20	72,000	90,000	0.00	0.40	0.30	0.10	0.00	0.00	
Machang	55,000	0.25	0.00	0.00	66,000	82,500	0.00	0.40	0.30	0.30	0.00	0.00	
Ulu Kelantan	14,000	0.10	0.00	0.20	16,800	21,000	0.00	0.40	0.30	0.00	0.00	0.00	
Bachok	59,000	0.25	0.00	0.20	70,800	88,500	0.00	0.40	0.30	0.50	0.30	0.20	
Tumpat	102,000	0.35	0.00	0.20	122,400	153,000	0.00	0.30	0.30	0.40	0.30	0.20	
Kuala Krai Utara	56,000	0.25	0.00	0.20	67,200	84,000	0.00	0.40	0.30	0.10	0.00	0.00	
Kuala Krai Selatan	41,000	0.20	0.00	0.20	49,200	61,500	0.00	0.40	0.40	0.60	0.00	0.00	
Tanah Merah	46,000	0.20	0.00	0.20	55,200	69,000	0.00	0.40	0.30	0.30	0.00	0.00	
Pasir Mas	25,000	0.15	0.00	0.20	30,000	37,500	0.10	0.40	0.30	0.10	0.00	0.00	
Sum KELANTAN	750,000	0.25	0.02	0.22	900,000	1,125,000	0.05	0.38	0.31	0.30	0.08	0.07	
Pulau Pinang	549,000	0.50	0.25	0.50	658,800	823,500	0.30	0.40	0.40	0.60	0.30	0.30	
Seberang Perai	533,000	0.50	0.25	0.30	639,600	799,500	0.30	0.40	0.40	0.60	0.30	0.30	
Sum PULAU PINANG	1,082,000	0.50	0.25	0.40	1,298,400	1,623,000	0.30	0.40	0.40	0.60	0.30	0.30	
SUM OF SUMS	3,925,000	0.32	0.09	0.24	4,710,000	5,887,500	0.18	0.38	0.28	0.36	0.12	0.11	

Table 9:
Weight Factors for the selected indicators of fiscal need

Majlis	Gazette Area Population 1980	Degree of Diseconomies of scale	Status Need of DCs MCs Cities	Centrality Need	Operat. Area Population 1980	Distr. Area Population 1980	Ratio Rural/ total Gazette Popul.	Area (sqkm)			Area-Ratios (%)		Gazette Population Growth Rate
								District Area	Gazette Area	operational Area	Gazette/ District	operat.nal/ District	
column#	104	105	106	107	108	109	110	111	112	113	114	115	116
category#	(76)	(77)	(78)	(79)	(80)	(81)	(84)	(85)	(86)	(87)	(88)	(89)	(90)
Johor Bahru	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Johor Bahru Tengah	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Pontian	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Muar Utara	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Muar Selatan	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kluang Utara	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kluang Selatan	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kota Tinggi*	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Mersing	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kulai*	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Batu Pahat Barat	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Batu Pahat Timur	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Segamat Utara	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Segamat Selatan	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sum JOHOR	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Petaling Jaya	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Klang	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Petaling	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sepang	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kuala Langat	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Hulu Langat	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Gombak	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kuala Selangor	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Hulu Selangor	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sabak Bernam	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Shah Alam	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sum SELANGOR	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kota Bharu	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kota Bharu (Daerah)	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Pasir Putih	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Machang	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Ulu Kelantan	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Bachok	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Tumpat	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kuala Krai Utara	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Kuala Krai Selatan	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Tanah Merah	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Pasir Mas	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sum KELANTAN	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Pulau Pinang	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Seberang Perai	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
Sum PULAU PINANG	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05
SUM OF SUMS	1.00	0.50	0.50	0.50	0.05	0.02	0.10	0.05	0.10	0.20	0.10	0.10	0.05

Although for the **district area population** (column 109) presently no reliable data are available, too, also this variable has been included into the procedure already, but only with a small weight of **0.02.** In contrast to the operational area population, the weight of the district area population should not be increase much, however, even if accurate figures are available, as the population living outside the operational areas does not cause much fiscal need for the local authorities.

For the **rural population as percentage of the gazette area population** (column 110) a weight of **0.10** is suggested. A higher weight would promote local authorities with a high proportion of urban population, a lower weight would promote local authorities with a low proportion of urban population.[6]

For the next three variables of the local authorities' district area, gazette area and operational area size different weights are chosen. As most local services only are provided within the operational area, the **size of the operational area** (column 113) is given the highest weight of **0.20.** A smaller weight of **0.10** is given to the **size of the gazette area** (column 112), in which only few local services are provided; an even smaller weight of **0.05** to the **size of the district area** (column 111), in which almost no local services are provided. -- Higher weights again would favor local authorities, whose operational, gazette and district areas, respectively have a size above average. The **ratio between the size of the gazette area and the size of the district area** (column 114) mainly has been included into the need measurement, as by this variable incentives for the extension of the gazette areas can be generated.

Correspondingly the **ratio between the size of the operational area and the size of the district area** (column 115) allows to yield incentives for the extension of the operational areas. In table 17 for both variables a weight of 0.10 is proposed. If the regional policy understands the extension of the gazette areas or operational areas a very important target, higher weights would support its faster implementation.

For the final variable of *table 9*, the **gazette population growth rate** (column 116), a value of **0.05** is assigned. If fast growing local authorities shall be supported strongly, a higher weight can be given. If on the other hand a population growth shall not be gratified - which with regard to the negative consequences of rural-urban migration might be reasonable - the weight could be lessened to the extreme value of 0.00 (which would be equivalent to a complete abolition of this need factor).

Table 10:
Fictitious inhabitants for the selected need factors

Majlis	Diseco-nomies of Scale	Status	Centra-lity	Operat. Area Popula-tion	District Area Popula-tion	Ratio Rural Popul./ Gazette Popul.	Area Factors					Popula-tion Growth Rate
							Di-strict Area	Ga-zette Area	opera-tional Area	Ga-zette/ Dstrct	opera-t.nal/ Dstrct	
column#	117	118	119	120	121	122	123	124	125	126	127	128
category#	(77)	(78)	(79)	(80)	(81)	(84)	(85)	(86)	(87)	(88)	(89)	(90)
Johor Bahru	82,000	41,000	82,000	19,680	9,840	13,120	6,560	9,840	32,800	0	0	21,828
Johor Bahru Tengah	8,750	0	0	4,200	2,100	2,100	1,400	2,100	7,000	0	0	4,659
Pontian	4,100	0	4,100	2,460	1,230	410	820	0	1,640	0	0	2,265
Muar Utara	3,200	0	3,200	1,920	960	640	640	960	640	0	0	1,750
Muar Selatan	13,500	0	9,000	5,400	2,700	1,800	1,800	3,600	5,400	0	0	4,923
Kluang Utara	13,050	0	8,700	5,220	2,610	1,740	1,740	2,610	5,220	0	0	5,642
Kluang Selatan	900	0	1,800	1,080	540	360	360	540	0	0	0	1,167
Kota Tinggi*	1,575	0	2,100	1,260	630	210	420	630	420	0	0	1,661
Mersing	2,025	0	2,700	1,620	810	540	540	810	1,080	0	0	1,669
Kulai*	7,500	0	6,000	3,600	1,800	1,200	1,200	1,800	6,000	0	0	3,315
Batu Pahat Barat	12,900	0	8,600	5,160	2,580	1,720	1,720	1,720	1,720	0	0	4,816
Batu Pahat Timur	1,650	0	0	1,320	660	440	440	660	1,320	0	0	1,232
Segamat Utara	7,500	0	6,000	3,600	1,800	1,200	1,200	1,800	1,200	0	0	3,591
Segamat Selatan	2,025	0	2,700	1,620	810	540	540	810	540	0	0	1,616
Sum JOHOR	160,675	41,000	136,900	58,140	29,070	26,020	19,380	27,880	64,980	0	0	60,134
Petaling Jaya	79,250	39,625	63,400	19,020	9,510	9,510	1,585	6,340	25,360	9,510	9,510	24,203
Klang	63,000	31,500	50,400	15,120	7,560	7,560	5,040	5,040	20,160	0	0	16,556
Petaling	8,625	0	0	4,140	2,070	2,070	0	690	4,140	2,070	2,070	5,268
Sepang	700	0	700	840	420	0	280	0	560	0	0	867
Kuala Langat	3,200	0	0	1,920	960	0	640	0	640	0	0	1,917
Hulu Langat	25,700	0	0	8,880	4,440	1,480	2,960	1,480	8,880	0	0	10,360
Gombak	17,675	0	10,100	6,060	3,030	0	2,020	2,020	8,080	0	0	8,035
Kuala Selangor	3,000	0	0	1,800	900	0	600	300	1,200	0	0	1,659
Hulu Selangor	6,375	0	0	3,060	1,530	1,020	1,020	1,020	4,080	0	0	3,226
Sabak Bernam	4,250	0	0	3,000	1,500	0	1,000	500	3,000	0	0	2,743
Shah Alam	7,500	7,500	12,000	3,600	1,800	2,400	600	1,200	4,800	1,800	1,800	4,561
Sum SELANGOR	221,475	78,625	136,600	67,440	33,720	24,040	15,745	18,590	80,900	13,380	13,380	79,414
Kota Bharu	48,375	26,875	43,000	12,900	6,450	8,600	4,300	6,450	21,500	0	2,150	13,782
Kota Bharu (Daerah)	11,550	0	15,400	4,620	2,310	770	1,155	2,310	6,160	2,310	2,310	4,936
Pasir Putih	7,500	0	6,000	3,600	1,800	0	1,200	1,800	1,200	0	0	3,459
Machang	6,875	0	0	3,300	1,650	0	1,100	1,650	3,300	0	0	3,309
Ulu Kelantan	700	0	1,400	840	420	0	280	420	0	0	0	1,112
Bachok	7,375	0	5,900	3,540	1,770	0	1,180	1,770	5,900	1,770	1,180	3,528
Tumpat	17,850	0	10,200	6,120	3,060	0	1,530	3,060	8,160	3,060	2,040	6,268
Kuala Krai Utara	7,000	0	5,600	3,360	1,680	0	1,120	1,680	1,120	0	0	3,889
Kuala Krai Selatan	4,100	0	4,100	2,460	1,230	0	820	1,640	4,920	0	0	2,847
Tanah Merah	4,600	0	4,600	2,760	1,380	0	920	1,380	2,760	0	0	3,135
Pasir Mas	1,875	0	2,500	1,500	750	250	500	750	500	0	0	1,498
Sum KELANTAN	117,800	26,875	98,700	45,000	22,500	9,620	14,105	22,910	55,520	7,140	7,680	47,753
Pulau Pinang	137,250	68,625	137,250	32,940	16,470	16,470	10,980	21,960	65,880	16,470	16,470	32,309
Seberang Perai	133,250	66,625	79,950	31,980	15,990	15,990	10,660	21,320	63,960	15,990	15,990	33,632
Sum PULAU PINANG	270,500	135,250	217,200	64,920	32,460	32,460	21,640	43,280	129,840	32,460	32,460	65,941
SUM OF SUMS	770,450	281,750	589,400	235,500	117,750	92,140	70,870	112,660	331,240	52,980	53,520	253,243

2.1.4. Transformation of Weighted Cardinal Indicators into Fictitious Inhabitants

The transformation of the weighted cardinal indicators into fictitious inhabitants is a mere mathematical procedure: First the cardinal attributes of the need factor are multiplied by the weight of this need factor, then the product of this multiplication again is multiplied by the local authorities' gazette population, which serves as the reference figure.

In *table 10* (column 117) the results of these multiplications are listed for all need factors. For diseconomies of scale the procedure for all local authorities leads to additional fictitious inhabitants.[7] The sum of fictitious local authorities for all local authorities of our sample states sums up to 770,450 (table 10, column 117, last row), which is about 75 % of the local authorities' actual population.--Column (118) of table 10 displays the fictitious inhabitants for the next need factor, the local authorities' status as District Council, Municipal Council and City Council. Fictitious inhabitants only have been "granted" to the few District Councils (Johor Bahru, Petaling Jaya, Klang, Kota Bharu, Pulau Pinang and Seberang Perai), as for them the variable was coded with 0.25, whereas for the District Councils it was coded with 0.00.[8] The sum of fictitious inhabitants for this need factor is 281,750 (column 118, last row).

The fictitious inhabitants for all other need factors were compiled correspondingly. In *figure 3* the results of this computation are displayed graphically for one sample state. (The graphical illustration for the other sample states is included in the final report (KOPS 1988a)). The upper half of the chart shows the fictitious inhabitants for diseconomies of scale, status, centrality, operational population size, district population size, and proportion of rural population; the lower half shows the fictitious inhabitants for district area size, gazette area size, operational area size, proportion of gazette area to district area, proportion of operational area to district area, and population growth rate.

Figure 4 displays the sums for the sample states. Pinang, i.e. which consists of two local authorities of large population size, is granted a comparatively high number of fictitious inhabitants for diseconomies of scale, for status and for centrality, need factors that for Kelantan with its mostly small local authorities are of minor importance. The column at the very right side of figure 4 illustrate the different importance of the need factors for the sum of all sample states. Most important are diseconomies of scale (longest section in the right column of the upper half of figure 4) and the size of the operational area (longest section in the right column of the lower half of figure 4). The third important need factor is population growth; and the forth important one is centrality.

Figure 3:
Fictitious inhabitants for the different need factors, for the local authorities in Selangor, in 1,000

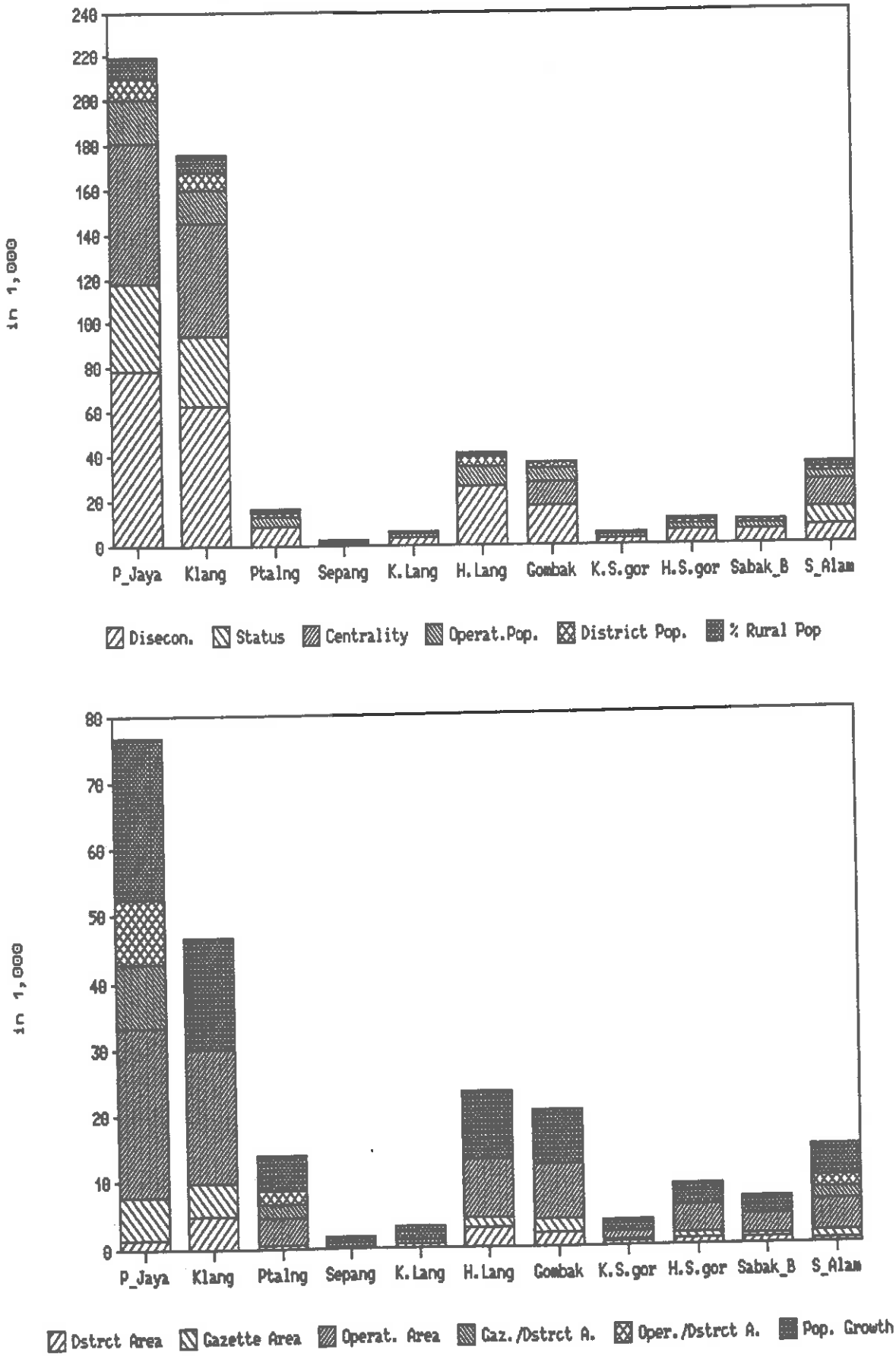


Figure 4:
Fictitious inhabitants for the different need factors, averages for the sample states, in 1,000

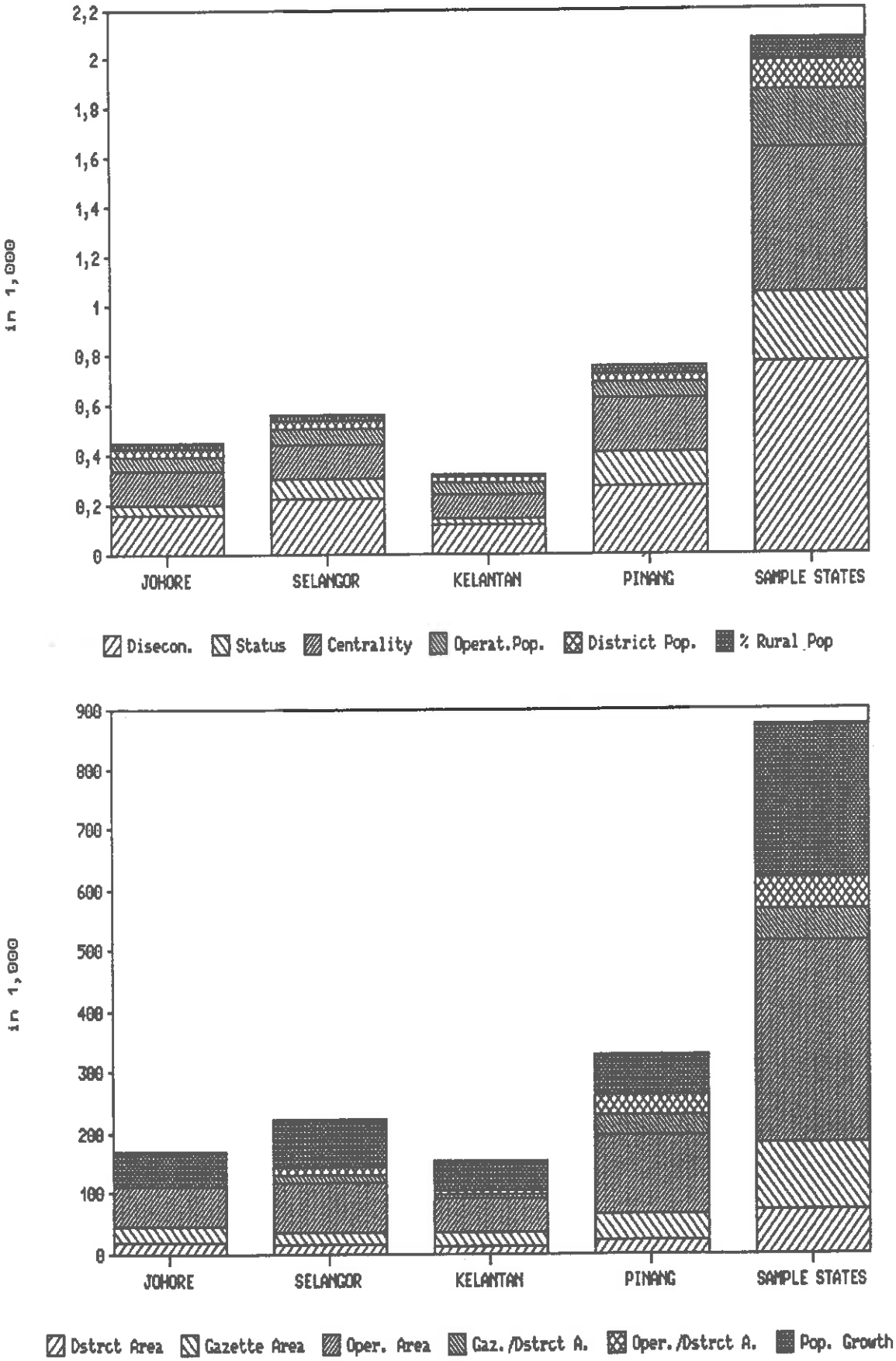


Figure 5:
Adjusted population as sum of actual and fictitious population, for the local authorities in Selangor

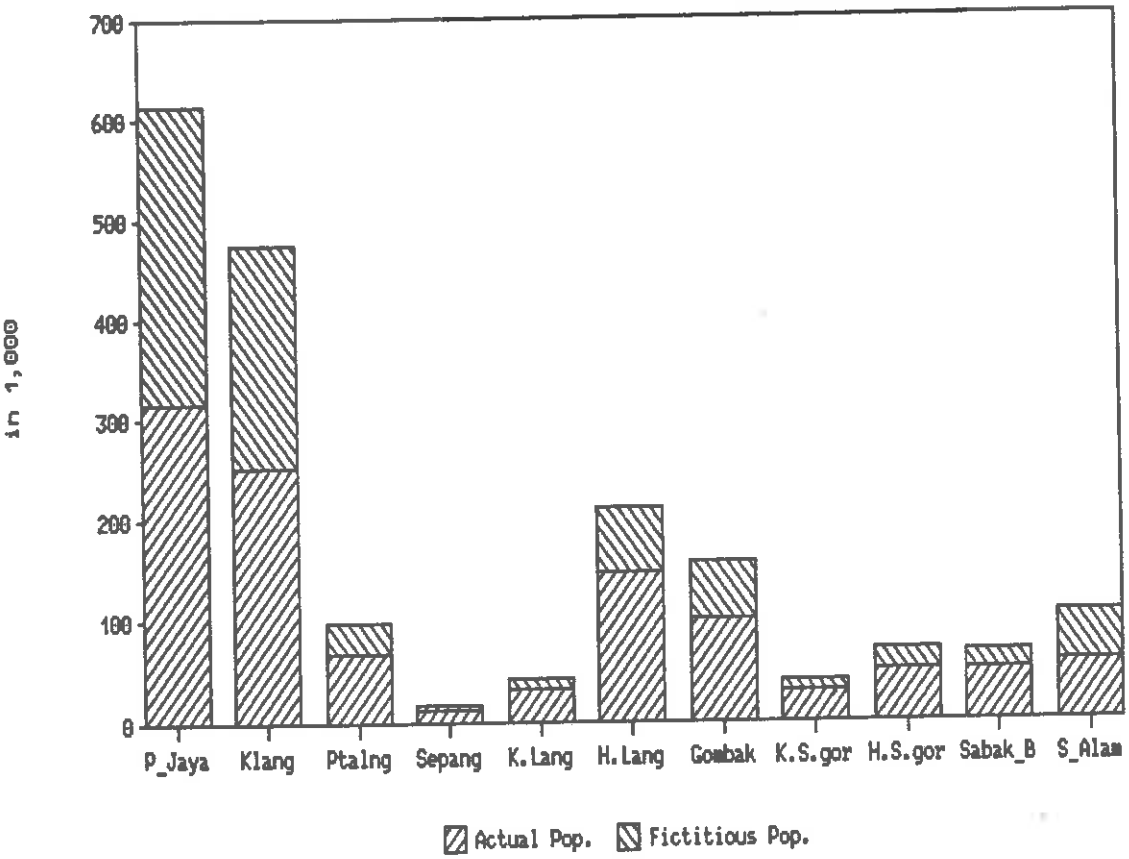
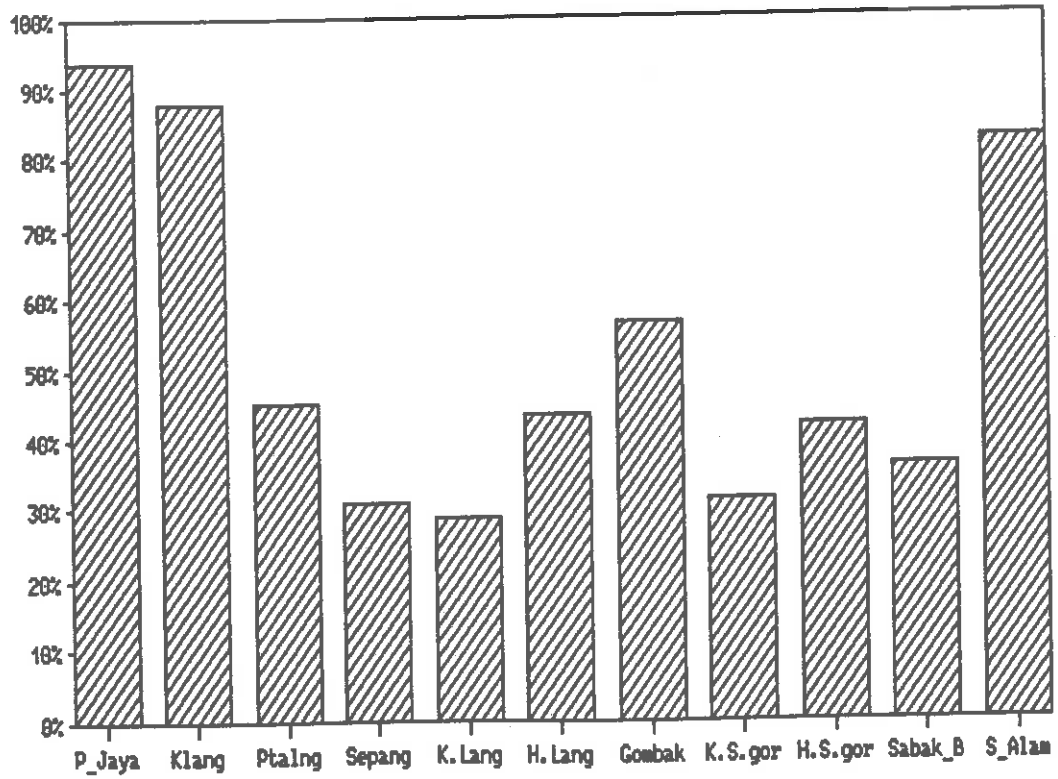


Figure 6:
Ratio between actual and fictitious population, for the local authorities in Selangor



2.1.5. Computation of Each Local Authorities' Relative Fiscal Need by Adding Actual and Fictitious Inhabitants

After the special need factors have been transformed into fictitious inhabitants, they can be added with the local authorities' actual population. The result is the **adjusted population** as a measure of the local authorities' relative fiscal need. *Table 11* shows these data for the local authorities of our sample: total fictitious population in column 129, total actual population in column 130 and the sum of both figures, the adjusted population in column 131.

In column 132 additionally the ratio between fictitious population and actual population is computed. It ranges from a maximum of 1,04 (Pulau Pinang) to a minimum of 0.29 (Kuala Langat), i.e. the adjusted population of Pulau Pinang exceeds its actual population by 104 %, whereas the adjusted population of Kuala Langat exceeds the actual population only by 29 %. The ratio thus reveals that the adjustment for special need factors leads to considerable differences in the proportion of fictitious inhabitants. For Selangor this fact is illustrated in *figure 5*, where the composition of the adjusted population as sum of actual and fictitious population is displayed visually. Whereas for Petaling Jaya or Klang the lower column (actual population) and the upper column (fictitious population) are about equally long, the upper column for other local authorities, i.e. for Sepang or Kulu Langat is much smaller. -- These different proportions become more obvious in *figure 6*, which displays the ratios between fictitious and actual population graphically for the local authorities of Selangor again.

The charts for the adjusted populations (*figure 7*) and the ratios between actual and fictitious populations for the averages of the sample states (*figure 8*) reveal that the adjustments also lead to different effects **between** the states. Whereas for Johore and Kelantan the fictitious population is only about 65 % of the actual population, for Selangor the corresponding ratio is about 70 % and for Pinang it is even 100%. This results from the kind and weights of the chosen need factors and illustrates, that there are differences in fiscal need not only between the local authorities within one state, but also between the states' averages. Interested readers can trace back the determinants of the ratios with the data provided in the above tables.

Figure 7:
Adjusted population as sum of actual and fictitious population, averages of the sample states

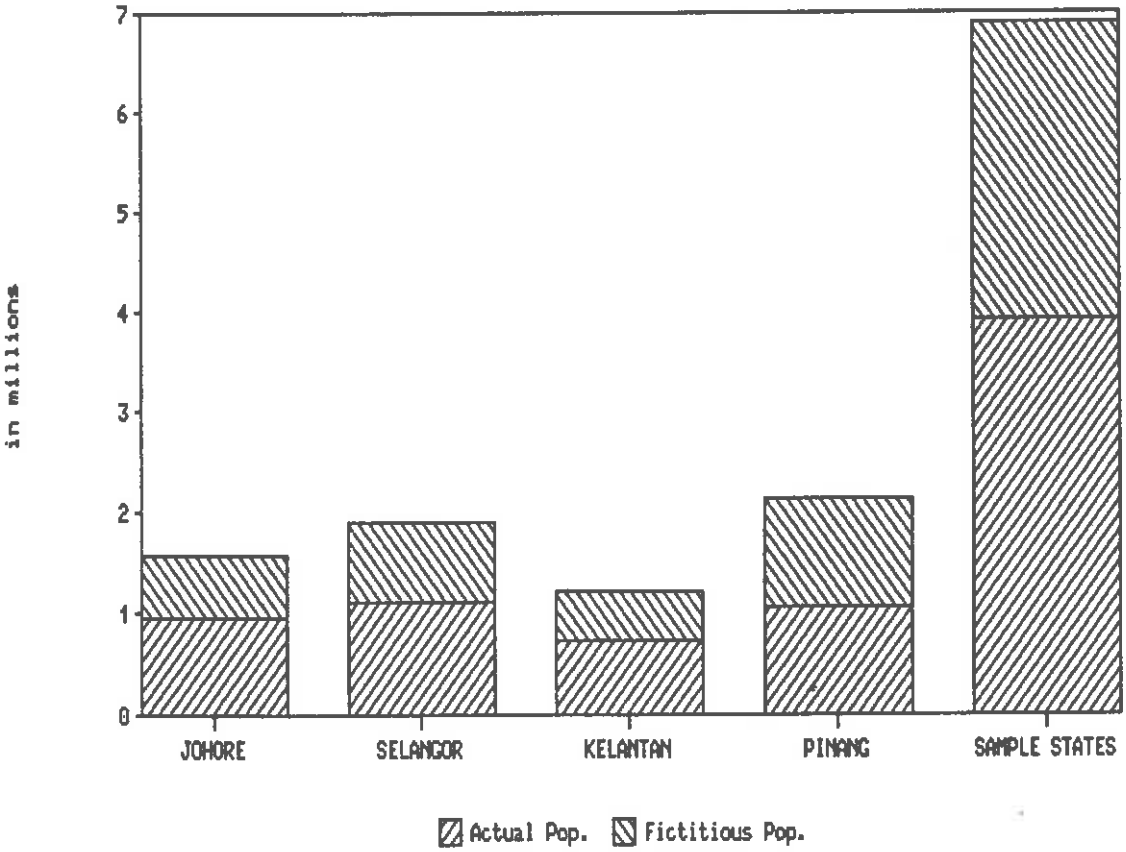
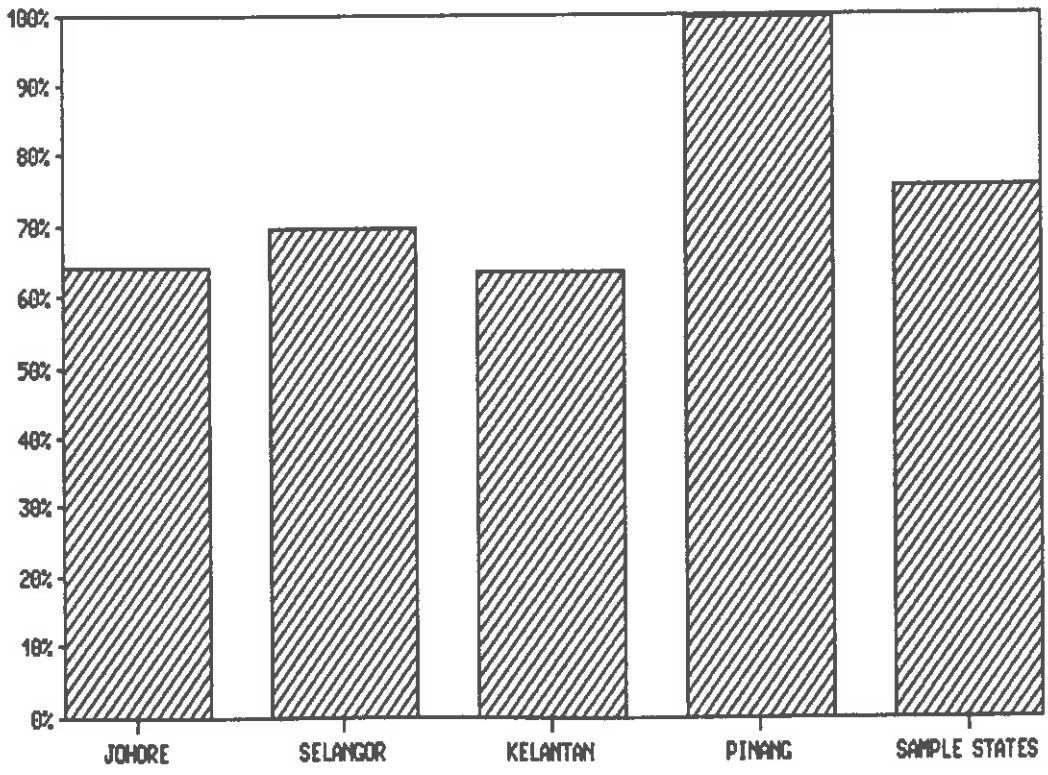


Figure 8:
Sample States: Ratio between actual and fictitious population



Of special interest are the numbers of *table 11, column 133*. They express the administrative revenues per adjusted inhabitant. For a perfect distribution of admin-strative revenues this figure should show no variation, e.g. per adjusted inhabitant all local authorities should receive the same amount! The figures reveal that the actual distribution of administrative revenues does not at all fulfill this requirement: In fact this variable varies between a minimum of 3.28 M$ (for Tumbat) and 105.56 M$ (for Shah Alam). E.g. for each adjusted inhabitant Shah Alam spends an amount 33 times higher than Tumbat! It must be recalled that this difference cannot be justified with a higher fiscal need of Shah Alam, as for the adjusted population differences in fiscal need have been eliminated already!

Also within the states, the differences are considerable. For Johor, *table 11* shows a minimum value of 29.51 M$ (Muar Utara) and a maximum value of 52.85 M$ (Segamat Utara); for Selangor the corresponding values are 21.61 M$ (Petaling) and 105.56 (Shah Alam) and for Kelantan they are 3.28 M$ (Tumpat) and 25.35 M4 (Ulu Kelantan). Only in Pinang the difference is smaller (with a value of M$ 25.84 M$ for Seberang Perai and a value of 39.92 M$ for Pulau Pinang). In *figure 9* these differences are illustrated graphically for the local authorities in Selangor.

Also the averages for the states (*figure 10*) show high differences. While the local authorities in Selangor on the average spend 58.24 M$ per adjusted inhabitant; in Kelantan they on the average spend 11.53 M$ only. The average for Johore (39.19 M$) and Pinang (29.47 M$) lies between these extremes and comes close to the average of all sample states taken together (36.55 M$). These figures confirm the horizontal imbalances of the Malaysian local revenues, which in another paper of the author[9] had been asserted already without any empirical prove. Now that fiscal need has been measured and the actual revenues have been adjusted for differences in fiscal need, there also is the empirical confirmation of this statement: The recognized high differences of revenues per adjusted inhabitant both between the states and within the states are far beyond the margins that are usual in other countries and far beyond the amount that can be tolerated.

Table 11:
Adjusted population as a measure for the local authorities' relative fiscal need and its transformation into different definitions of absolute fiscal need

Majlis	Total Fictitious Population	Total Actual (Gazette) Population	Adjusted (Fict. & Actual) Population	Fict. as % of Actual Population	Admin. Revenue per Total F&A-Pop	Fiscal Need Fisc.N.1: 32.72 * F&A-Pop	Fisc.N.2: 93.55 * F&A-Pop	Fisc.N.3: 63.13 * F&A-Pop
column#	129	130	131	132	133	134	135	136
category#								
Johor Bahru	318,668	328,000	646,668	0.97	43.07	21,158	60,494	40,826
Johor Bahru Tengah	32,309	70,000	102,309	0.46	47.77	3,347	9,571	6,459
Pontian	17,025	41,000	58,025	0.42	34.52	1,898	5,428	3,663
Muar Utara	13,910	32,000	45,910	0.43	29.51	1,502	4,295	2,898
Muar Selatan	48,123	90,000	138,123	0.53	42.82	4,519	12,921	8,720
Kluang Utara	46,532	87,000	133,532	0.53	41.01	4,369	12,492	8,430
Kluang Selatan	6,747	18,000	24,747	0.37	44.73	810	2,315	1,562
Kota Tinggi*	8,906	21,000	29,906	0.42	49.81	978	2,798	1,888
Mersing	11,794	27,000	38,794	0.44	31.16	1,269	3,629	2,449
Kulai*	32,415	60,000	92,415	0.54	46.05	3,024	8,645	5,834
Batu Pahat Barat	40,936	86,000	126,936	0.48	47.28	4,153	11,875	8,014
Batu Pahat Timur	7,722	22,000	29,722	0.35	42.09	972	2,780	1,876
Segamat Utara	27,891	60,000	87,891	0.46	52.85	2,876	8,222	5,549
Segamat Selatan	11,201	27,000	38,201	0.41	33.61	1,250	3,574	2,412
Sum JOHOR	624,179	969,000	1,593,179	0.64	43.14	52,126	149,038	100,582
Petaling Jaya	296,823	317,000	613,823	0.94	75.82	20,083	57,421	38,752
Klang	221,936	252,000	473,936	0.88	82.31	15,506	44,335	29,921
Petaling	31,143	69,000	100,143	0.45	21.61	3,277	9,368	6,322
Sepang	4,367	14,000	18,367	0.31	56.19	601	1,718	1,160
Kuala Langat	9,277	32,000	41,277	0.29	59.43	1,351	3,861	2,606
Hulu Langat	64,380	148,000	212,380	0.44	26.32	6,949	19,868	13,408
Gombak	57,020	101,000	158,020	0.56	62.21	5,170	14,782	9,976
Kuala Selangor	9,459	30,000	39,459	0.32	53.22	1,291	3,691	2,491
Hulu Selangor	21,331	51,000	72,331	0.42	24.93	2,367	6,766	4,566
Sabak Bernam	17,993	50,000	67,993	0.36	28.05	2,225	6,361	4,293
Shah Alam	49,581	60,000	109,581	0.83	105.56	3,585	10,251	6,918
Sum SELANGOR	783,309	1,124,000	1,907,309	0.70	65.01	62,404	178,424	120,414
Kota Bharu	194,382	215,000	409,382	0.90	23.23	13,394	38,297	25,845
Kota Bharu (Daerah)	53,831	77,000	130,831	0.70	4.35	4,281	12,239	8,260
Pasir Putih	26,559	60,000	86,559	0.44	7.15	2,832	8,097	5,465
Machang	21,175	55,000	76,175	0.39	7.15	2,492	7,126	4,809
Ulu Kelantan	5,172	14,000	19,172	0.37	25.35	627	1,793	1,210
Bachok	33,913	59,000	92,913	0.57	6.34	3,040	8,692	5,866
Tumpat	61,348	102,000	163,348	0.60	3.28	5,344	15,281	10,313
Kuala Krai Utara	25,449	56,000	81,449	0.45	9.29	2,665	7,619	5,142
Kuala Krai Selatan	22,117	41,000	63,117	0.54	5.69	2,065	5,904	3,985
Tanah Merah	21,535	46,000	67,535	0.47	9.42	2,210	6,318	4,264
Pasir Mas	10,123	25,000	35,123	0.40	25.14	1,149	3,286	2,217
Sum KELANTAN	475,603	750,000	1,225,603	0.63	12.64	40,100	114,652	77,376
Pulau Pinang	573,074	549,000	1,122,074	1.04	39.92	36,712	104,967	70,840
Seberang Perai	505,337	533,000	1,038,337	0.95	25.84	33,973	97,134	65,553
Sum PULAU PINANG	1,078,411	1,082,000	2,160,411	1.00	33.16	70,685	202,100	136,393
SUM OF SUMS	2,961,503	3,925,000	6,886,503	0.75	40.64	225,315	644,213	434,764

Figure 9:
Administrative Revenues per adjusted inhabitant in M$, for the local authorities in Selangor

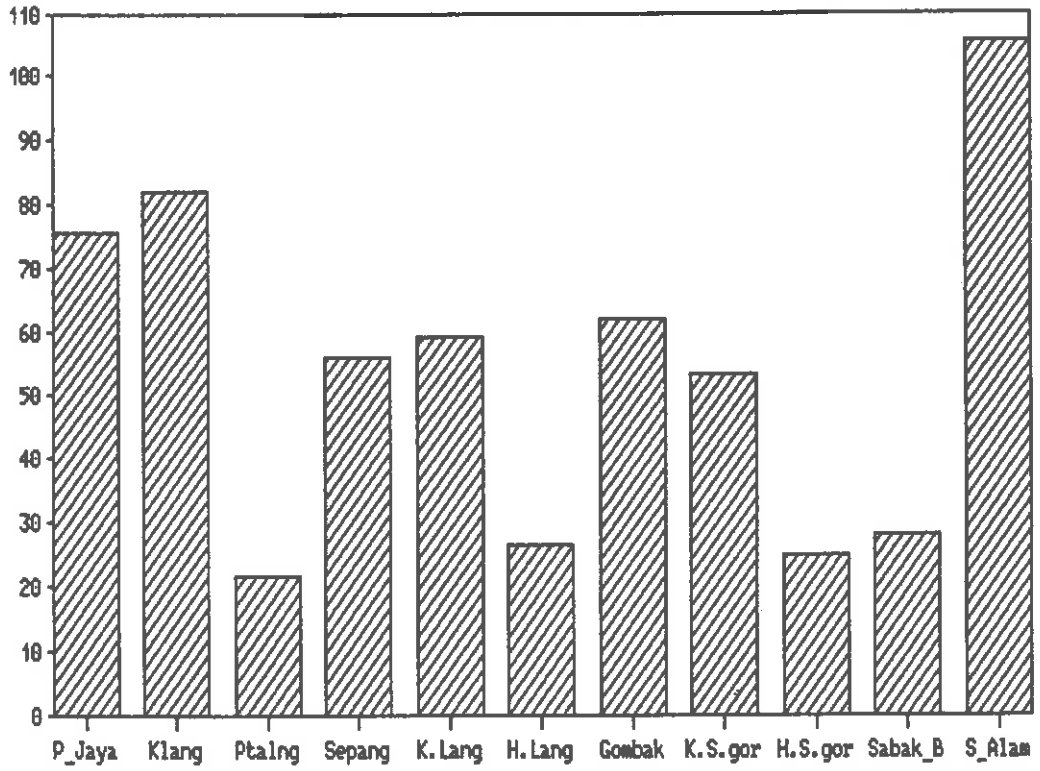
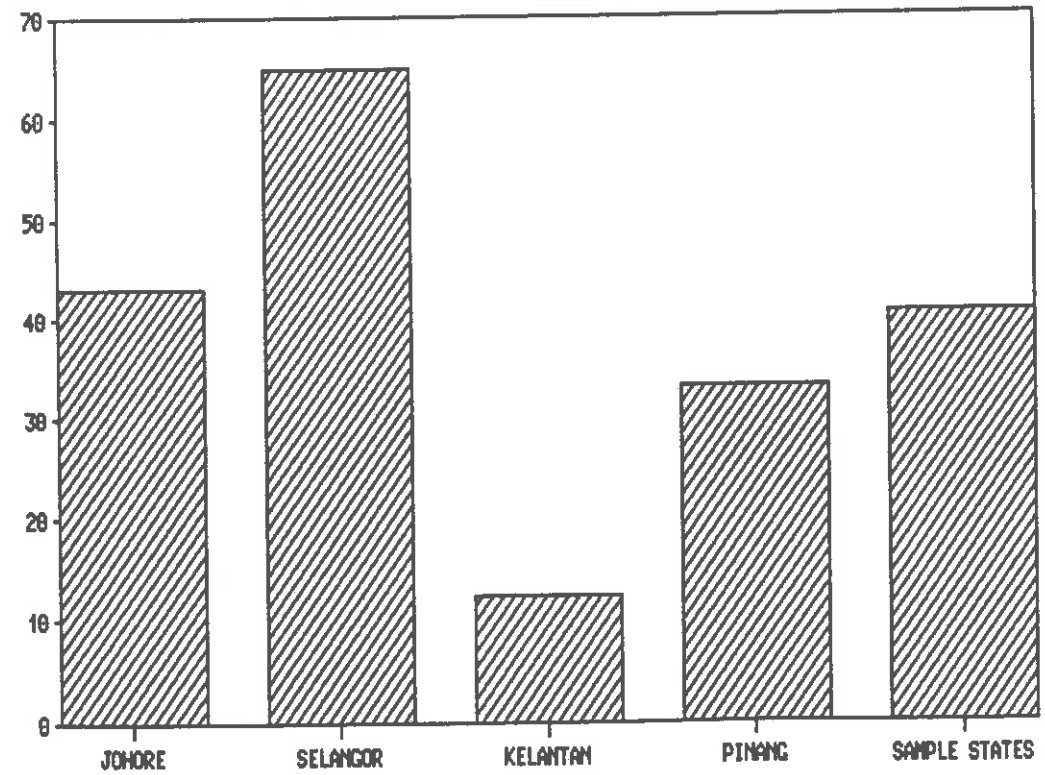


Figure 10:
Administrative Revenues per adjusted inhabitant in M$, averages of the sample states



2.1.6. Computation of the Absolute Fiscal Need by Multiplying the Adjusted Inhabitants with a Base Value

In order to abolish these unacceptable distortions of the horizontal distribution of local revenues, the relative measure of "adjusted inhabitants" has to be converted into an absolute measure. This conversion can be achieved, if the adjusted inhabitants are multiplied by an absolute amount, the **base value**. To determine this value would require to know the actual costs of all local services. This usually is not possible, as there neither are complete catalogs of local services nor exact data about the cost of these services. In most countries the base value therefore is determined "indirectly", e.g. by debating about the total amount, which is devoted for equalizing grants by the donating level (e.g. federal or state level). This amount depends on the attitudes about the relative benefits, which are caused by the expenditures of the local level in comparison to the expenditures of the federal and state level, respectively. Once the volume for this vertical distribution is determined, the base value easily can be computed by dividing it by the number of (adjusted) inhabitants.

As was substantiated before, in Malaysia at present the revenues of the local level are much too low. The base value, that is necessary for a satisfactorily performance of the local level, thus definitely should be higher than the present average revenues.[10] A mere horizontal equalizing between rich and poor local authorities, as it is illustrated in *figure 11* for an example of six local authorities of different fiscal capacity, thus would not be suitable as it only would redistribute revenues within the local level but not raise the local levels' overall revenues. On the other hand it is unlikely that all local authorities need the high revenues, which the richest local authority in Malaysia has available ("total vertical equalizing to maximum", as displayed in *figure 12*). In 1987 this maximum per adjusted inhabitant - 93.55 M$ for Shah Alam - exceeded the per capita revenues of all other local authorities by far; a total vertical equalizing, which grants these high (per capita) revenues to all local authorities, therefore could not be tolerated.

In our opinion the proper base value for Malaysia instead lies **somewhere between the average and the maximum value**, i.e. corresponds to a solution that can be called "vertical equalizing to close end" (*figure 13*). As the exact amount of this close end value hardly can be determined, as a pragmatic approximation the medium value between the average for all local authorities (33.72 M$, "*fiscal need 1*")) and the maximum value (93.55 MS for Shah Alam, "*fiscal need 2*"), e.g. a base value of 63.13 M$ is taken ("*fiscal need 3*").[11] This value can be considered as a

Figure 11:
Total horizontal equalizing for councils of different fiscal capacity

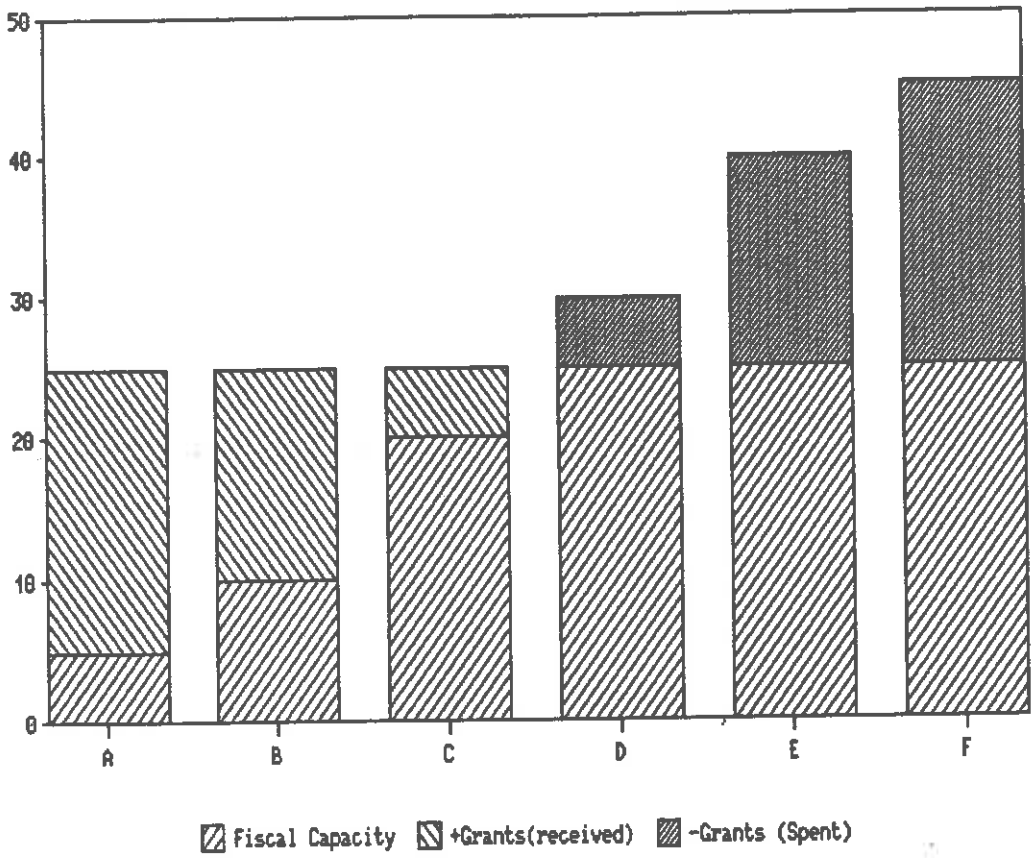


Figure 12:
Total vertical equalizing to maximum for councils of different fiscal capacity

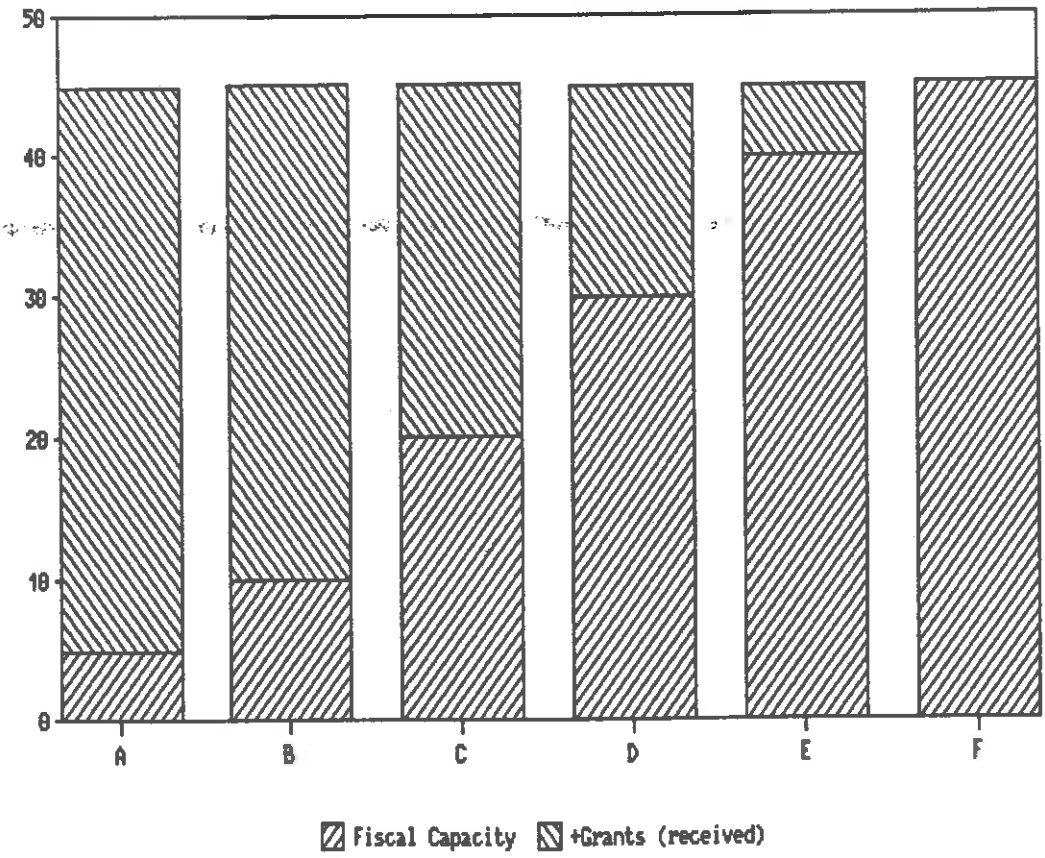
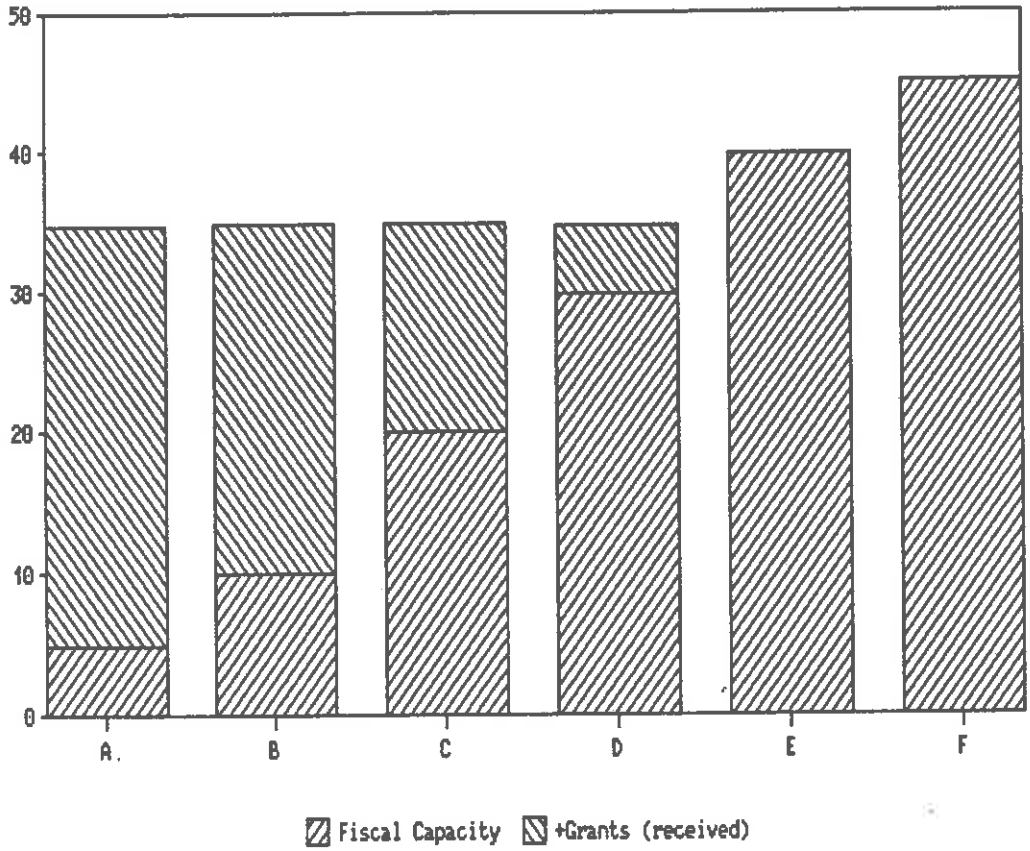


Figure 13:
Total vertical equalizing to close end for councils of different fiscal capacity



compromise between the one extreme view, that considers the present reve-nues on the average to be sufficient for the local authorities in Malaysia, and the other extreme view, that believes that the local authority with the highest revenues should be achieved by all local authorities.

In *table 11*, column 136, the absolute fiscal need that is calculated according to this concept is listed for each local authority ("fiscal need 3"). In contrast to the values displayed until now, not the per capita figures but absolute figures are listed. For Johor Bahru i.e. an absolute fiscal need of 40.626.000 M$ is calculated; for all local authorities taken together, an absolute fiscal need of 518,155,000 M$ is compiled.[12] In addition to this "compromise" value for the absolute fiscal need, *table 11* also shows the absolute fiscal need, that would be computed if the average of the present local revenues ("fiscal need 1", column 134) or the maximum revenues is ("fiscal need 2", column 135) were taken. Although both solutions are too extreme to be justified and practical, they are computed and listed, because they give an imagination about the lower and upper margins, which no financial equalizing system should exceed.

These figures of the local authorities' fiscal need in the next step can directly be compared to their actual revenues or their "adjusted" revenues (fiscal capacity), whose computation is explained in the next paragraph. The result of this comparison then determines the amount of equalizing grants.

2.2. The Measurement of the Local Authorities' Fiscal Capacity

As the second component of the equalizing equation, the local authorities' fiscal capacity has to be measured. This figure can differ from its actual revenues, as the revenue base can be taxed higher or lower than the average, e.g. the tax rates can be different, and as the collection of the tax due can vary, e.g. the arrears can be high or low. Both factors actually are relevant in Malaysia, where there are high differences both in tax rates and in the percentage of arrears.[13]

For the computation of equalizing grants not the actual revenues, which have been regarded until now, but the fiscal capacity, e.g. the potential revenues, should be considered. Otherwise those local authorities, that tax their inhabitants below average and/or that do not enforce the tax collection, would be gratified (by higher equalizing grants); and local authorities, that tax their inhabitants above average and/or enforce the tax collection strictly, would be punished (by lower equalizing grants). This would yield disincentives to utilize the own local tax base and lead to a "beggar my neighbor policy": Each local authority would try to keep the local tax level low, but compensate the missing tax revenues by higher equalizing grants.

To avoid this and to construct incentives for the utilization of the own tax base, differences in "fiscal stress", e.g. in tax rates and in the enforcement of tax collection must be eliminated. Michael Reidenbach has achieved this target by collecting data about the value of the local tax base and by multiplying these values not by the local tax rates, but by the national (average) tax rates. In his paper (REIDENBACH 1988) this procedure is explained in detail. In *table 12*, column 143, the result of this computation is listed. The values range between a minimum of 4.45 M$ (for several local authorities in Kelantan) and a maximum of 170.85 M$ (for Shah Alam). Also between the states' averages considerable differences become apparent: For Johore 55.51 M$, for Selangor 97.15 M$, for Kelantan 21.24 M$, and for Pinang 43.88 M$ are calculated.

If one compares these "standardized" tax revenues (column 143) with the actual tax revenues (column 140) high differences become visible, that prove corresponding differences in fiscal stress: Whereas Kota Bharu Daerah only collects 0.47 % (!) of the taxes that could be collected with an average fiscal stress, Klang and Pulau Pinang on the other extreme collect 126 % of the normal tax levy, i.e. overtax their inhabitants by 26 % of the average. *Figure 14* displays these differences for Selangor, *figure 15* for the averages of the sample states.

Figure 14:
Differences in fiscal Stress, for the local authorities in Selangor

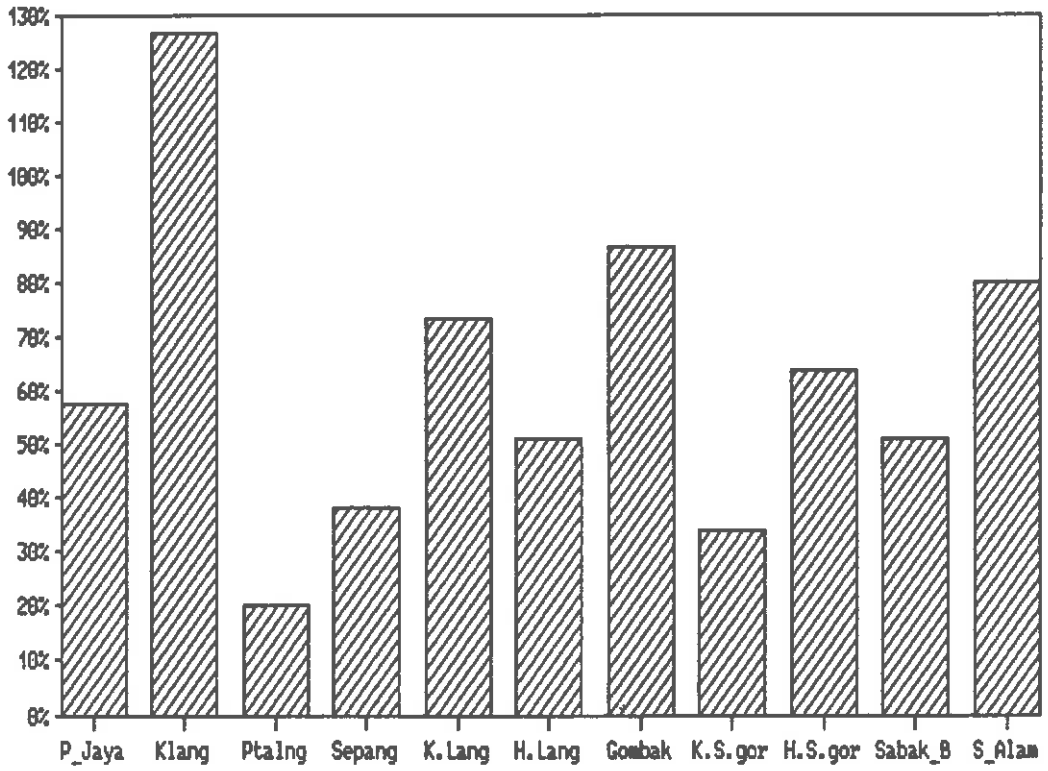


Figure 15:
Differences in fiscal Stress, averages of the sampe states

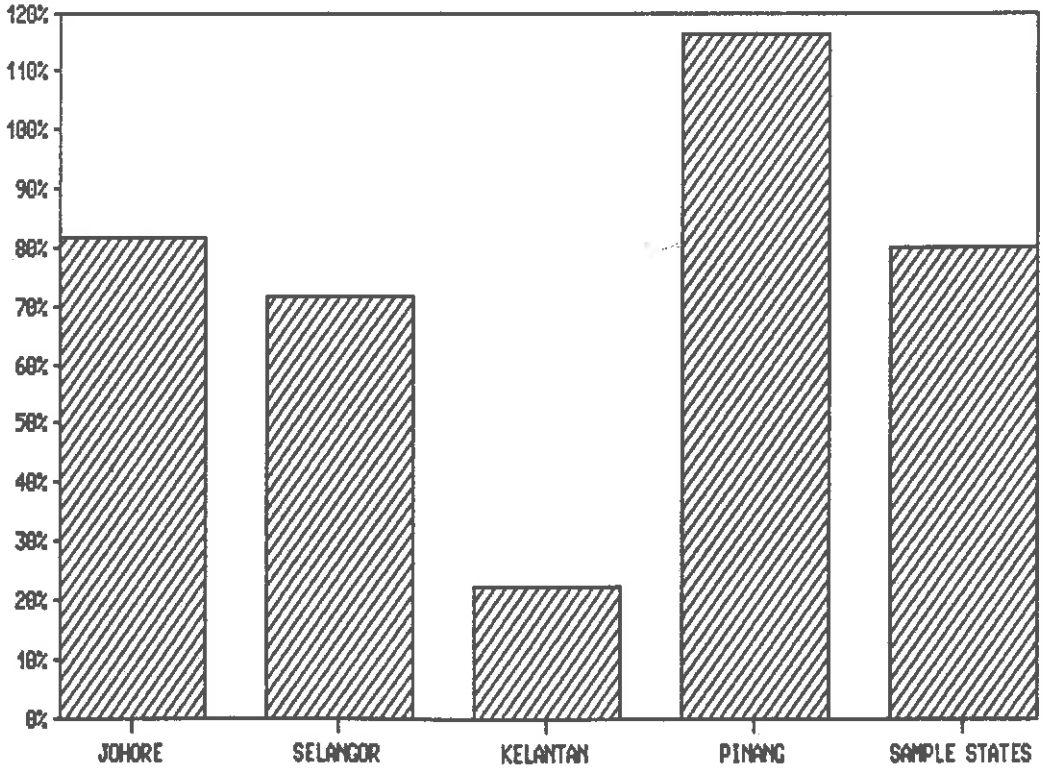


Table 12:
Indicators of fiscal capacity and differences between fiscal capacity and fiscal need

Table 12a: YEARLY STATISTICS ON LOCAL FINANCE 1987 (CASH BASIS)
Indicators of Fiscal Capacity

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Majlis	Administrative Revenue excl. Surplus	Indicator I (actual tax) per cap	Indicator I (actual tax) absol.	Indicator II (tax due) per cap	Indicator II (tax due) absol.	Fiscal Stress (Adj./act. revenues)	Indicator III (nat.tax +loc.tax) per cap	Indicator III (nat.tax +loc.tax colec.tax) absol.	Fiscal Capacity (Indic. III +Adm.Rev./2) per cap	Fiscal Capacity (Indic. III +Adm.Rev./2) absol.	Abs. Difference between Fiscal Capacity and Fiscal Need 1	Abs. Difference: Fiscal Need 2	Abs. Difference: Fiscal Need 3	Fiscal Capacity as % of Fiscal Need 1	Fiscal Capacity as % of Fiscal Need 2	Fiscal Capacity as % of Fiscal Need 3
column#	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152
category#																
Johor Bahru	27,855	64.13	21,035	70.03	22,970	100.91%	63.55	20,844	74.24	24,350	3,192	(36,144)	(16,476)	1.15	0.40	0.60
Johor Bahru Tengah	4,687	42.00	2,940	44.87	3,142	52.34%	80.25	5,618	75.03	5,252	1,905	(4,318)	(1,207)	1.57	0.55	0.81
Pontian	2,003	22.46	921	23.72	973	58.80%	38.20	1,566	43.53	1,785	(114)	(3,644)	(1,879)	0.94	0.33	0.49
Muar Utara	1,355	21.63	692	26.38	908	36.60%	59.10	1,891	50.72	1,623	121	(2,672)	(1,275)	1.08	0.38	0.56
Muar Selatan	5,915	38.63	3,495	46.53	4,188	129.13%	30.07	2,706	47.90	4,311	(209)	(8,610)	(4,409)	0.95	0.33	0.49
Kluang Utara	5,476	39.28	3,417	47.13	4,100	89.89%	43.70	3,802	53.32	4,639	270	(7,853)	(3,791)	1.06	0.37	0.55
Kluang Selatan	1,107	25.11	452	23.84	429	48.77%	51.49	927	56.50	1,017	207	(1,298)	(545)	1.26	0.44	0.65
Kota Tinggi*	1,490	54.38	1,142	65.23	1,370	96.06%	56.61	1,189	63.77	1,339	361	(1,458)	(549)	1.37	0.48	0.71
Mersing	1,209	22.19	599	25.38	685	142.15%	15.61	421	30.19	815	(454)	(2,814)	(1,634)	0.64	0.22	0.33
Kelai*	4,256	23.62	1,417	28.33	1,700	61.85%	38.19	2,291	54.56	3,274	250	(5,371)	(2,561)	1.08	0.38	0.56
Batu Pahat Barat	6,002	43.26	3,720	54.41	4,679	52.83%	81.88	7,042	75.84	6,522	2,369	(5,353)	(1,492)	1.57	0.55	0.81
Batu Pahat Timur	1,251	28.36	624	28.67	631	64.87%	43.72	962	50.29	1,106	134	(1,674)	(770)	1.14	0.40	0.59
Segamat Utara	4,645	47.48	2,849	47.43	2,846	72.42%	65.56	3,934	71.49	4,289	1,414	(3,933)	(1,260)	1.49	0.52	0.77
Segamat Selatan	1,284	28.59	772	29.65	801	129.66%	22.05	595	34.80	940	(310)	(2,634)	(1,472)	0.75	0.26	0.39
Sum JOHOR	68,735	45.49	44,075	51.00	49,421	81.94%	55.51	53,788	63.22	61,262	9,135	(87,776)	(39,320)	1.32	0.46	0.61
Petaling Jaya	46,537	96.16	30,483	97.26	30,831	57.98%	165.85	52,574	156.33	49,556	29,472	(7,866)	10,803	2.47	0.86	1.28
Klang	39,008	94.56	23,829	85.32	21,501	126.91%	74.51	18,777	114.65	28,892	13,386	(15,443)	(1,029)	1.86	0.65	0.97
Petaling	2,164	16.77	1,157	21.26	1,467	20.40%	82.20	5,672	56.78	3,918	641	(5,450)	(2,404)	1.20	0.42	0.62
Sepang	1,032	16.43	230	32.11	450	38.32%	42.88	600	58.30	816	215	(902)	(343)	1.36	0.48	0.70
Kuala Langat	2,453	42.38	1,356	59.38	1,900	73.61%	57.57	1,842	67.11	2,148	797	(1,714)	(458)	1.59	0.56	0.82
Hulu Langat	5,590	22.20	3,286	26.64	3,943	51.27%	43.30	6,408	40.54	5,999	(950)	(13,868)	(7,409)	0.86	0.30	0.45
Gombak	9,830	79.76	8,056	117.13	11,830	86.83%	91.66	9,278	94.59	9,554	4,384	(5,228)	(422)	1.85	0.65	0.96
Kuala Selangor	2,100	15.93	478	25.69	771	34.17%	46.62	1,399	58.31	1,749	458	(1,942)	(742)	1.35	0.47	0.70
Hulu Selangor	1,803	14.10	719	18.51	944	63.92%	22.06	1,125	28.71	1,464	(903)	(5,302)	(3,102)	0.62	0.22	0.32
Sabak Bernam	1,907	13.08	654	16.83	842	51.42%	25.44	1,272	31.79	1,590	(635)	(4,771)	(2,703)	0.71	0.25	0.37
Shah Alam	11,567	137.15	8,229	144.96	8,698	80.26%	170.85	10,251	181.82	10,909	7,324	658	3,991	3.04	1.06	1.58
Sum SELANGOR	123,991	69.82	78,477	74.00	83,175	71.87%	97.15	109,198	103.73	116,595	54,191	(61,829)	(3,819)	1.99	0.69	0.97
Kota Bharu	9,509	12.08	2,597	18.27	3,928	26.50%	45.59	9,802	44.91	9,655	(3,739)	(28,645)	(16,190)	0.72	0.25	0.37
Kota Bharu (Daerah)	569	0.09	7	0.00	0	0.47%	19.15	1,475	13.27	1,022	(3,259)	(11,217)	(7,238)	0.24	0.08	0.12
Pasir Putih	619	2.12	127	1.00	60	47.64%	4.45	267	7.38	443	(2,389)	(7,654)	(5,022)	0.16	0.05	0.08
Machang	545	2.05	113	1.07	59	46.07%	4.45	245	7.18	395	(2,097)	(6,731)	(4,414)	0.16	0.06	0.08
Ulu Kelantan	486	0.79	11	0.93	13	12.99%	6.08	85	20.40	286	(342)	(1,508)	(925)	0.46	0.16	0.24
Bachok	589	0.19	11	3.99	235	4.27%	4.45	263	7.22	426	(2,614)	(8,266)	(5,440)	0.14	0.05	0.07
Tumpat	536	0.50	51	0.43	44	4.33%	11.55	1,178	8.40	857	(4,467)	(14,424)	(9,456)	0.16	0.06	0.08
Kuala Krai Utara	757	4.91	275	6.45	361	38.75%	12.67	710	13.09	733	(1,932)	(6,886)	(4,409)	0.28	0.10	0.14
Kuala Krai Selatan	359	0.00	0	0.00	0	0.00%	4.45	182	6.60	271	(1,794)	(5,634)	(3,714)	0.13	0.05	0.07
Tanah Merah	636	5.17	238	3.69	170	16.14%	32.04	1,474	22.93	1,055	(1,155)	(5,263)	(3,209)	0.48	0.17	0.25
Pasir Mas	863	5.72	143	8.23	206	57.31%	9.98	250	22.65	566	(583)	(2,715)	(1,651)	0.49	0.17	0.26
Sum KELANTAN	15,488	4.76	3,573	6.77	5,076	22.43%	21.24	15,929	20.94	15,709	(24,391)	(98,943)	(61,667)	0.39	0.14	0.20
Pulau Pinang	44,795	60.20	33,050	56.40	30,964	126.13%	47.73	26,204	64.66	35,499	(1,213)	(69,468)	(35,340)	0.97	0.34	0.50
Seberang Perai	26,834	39.33	20,963	37.22	19,838	103.80%	37.89	20,195	44.12	23,515	(10,458)	(73,619)	(42,038)	0.69	0.24	0.36
Sum PULAU PINANG	71,629	49.92	54,013	46.95	50,802	116.41%	42.88	46,399	54.54	59,014	(11,671)	(143,086)	(77,379)	0.83	0.29	0.43
SUM OF SUMS	279,843	45.89	180,137	48.02	188,474	79.95%	57.41	225,315	64.35	252,579	27,264	(391,634)	(182,185)	1.12	0.39	0.58

Without analyzing these results here,[14] a first look shows already, that in general local authorities with a higher fiscal capacity also apply a high fiscal stress, whereas local authorities with low fiscal capacity apply their revenue bases below average. As a consequence the horizontal distortions of the actual revenues are even higher than the distortions of the revenue base, e.g. "potentially" poor local authorities actually are even poorer, "potentially" rich local authorities actually are even richer. This is caused by several faults of the Malaysian local revenue system that multiply the original imbalances.[15]

Besides taxes other local revenues, like fees and charges, licences, permits etc. influence the fiscal capacity of a local authority. The local revenue statistics of the GTZ (LENZ 1986, LENZ 1988) reveals that these non-tax revenues actually are considerable and also vary highly between the local authorities. A complete measurement of fiscal capacity therefore also should take these non-tax revenues into account. Again not the actual revenues, but "standardized" revenues, which would be levied with an average "fiscal stress", should be considered.

Unfortunately for the not-tax revenues it is very difficult to separate revenue base and fiscal stress. In many countries therefore the actual revenues are taken as indicator for the fiscal capacity. In our model we use a slightly different approach, which pragmatically averages the potential (tax) revenues, as compiled by REIDENBACH (1988), and the actual revenues. In *table 12*, column 146, the result of this "compromise" is listed.

2.3. Equalizing the Gap between the Local Authorities' Fiscal Need and Fiscal Capacity

After fiscal capacity and fiscal need have been calculated, they can be compared with each other. Obviously, for those local authorities, whose fiscal capacity exceeds their fiscal need, no equalizing grants are necessary. Only for those local authorities, whose fiscal need exceeds the fiscal capacity, equalizing grants should be given as a supplementary source of revenues. Unfortunately, in Malaysia this is true for almost all local authorities. As table 12, column 149 reveals, the difference between fiscal capacity and fiscal need ("fiscal residuum") is negative (in the tables negative numbers are included in parentheses) for all but two local authorities (Petaling Jaya and Shah Alam). Consequently the relation between fiscal capacity and fiscal need 3 (column 152) is < 100 %. The same is true even more for fiscal need 2 (columns 148 and 151), which is calculated with the higher base value. Only for fiscal need 1 (columns 147 and 150) the fiscal residuum is almost balanced, as here the average revenues are used as base value.[16]

In *figure 16* the ratio between fiscal capacity and fiscal need 3 is displayed for Selangor. Instead the aspired equality high differences become apparent: Whereas Shah Alam's fiscal capacity exceeds its fiscal need by nearly 60 %, Hulu Selangors' fiscal capacity is less than 40 % of its fiscal need. Only for Klang and Gombak fiscal capacity and fiscal need almost balance. -- High differences also can be noticed for the averages of the sample states (*figure 17*). Here the ratio between fiscal capacity and fiscal need 3 varies between 20 % for Kelantan and almost 100 % for Selangor. Johore - with 60 % - and Pinang - with 45 % - are located between these extremes.[17] These results indicate already, that grants which equalize these differences, will render considerable redistributive effects both within the states and between the states.

According to the general concept of the equalizing grants, these gaps should be equalized totally, to secure for all local authorities the necessary financial resources and to enable them to cover their statutory local functions completely. As total equalizing, however, would exceed the financial capabilities of the federal government, a partial equalizing of the fiscal residuum should be considered. This solution treats all local authorities alike, as to all local authorities the same fraction of the residuum is given. *Figures 18 and 19* illustrate this for our example of six councils and the "vertical equalizing to close end". Now not a total equalizing is used (see figure 13) but a partial equalizing, that grants only fractions of the negative fiscal residuum. The size of this fraction (50 % in figure 18, 10 % in figure 19) depends on the capability and willingness of the federal government.

Figure 16:
Ratio between fiscal capacity and fiscal need, for the local authorities in Selangor

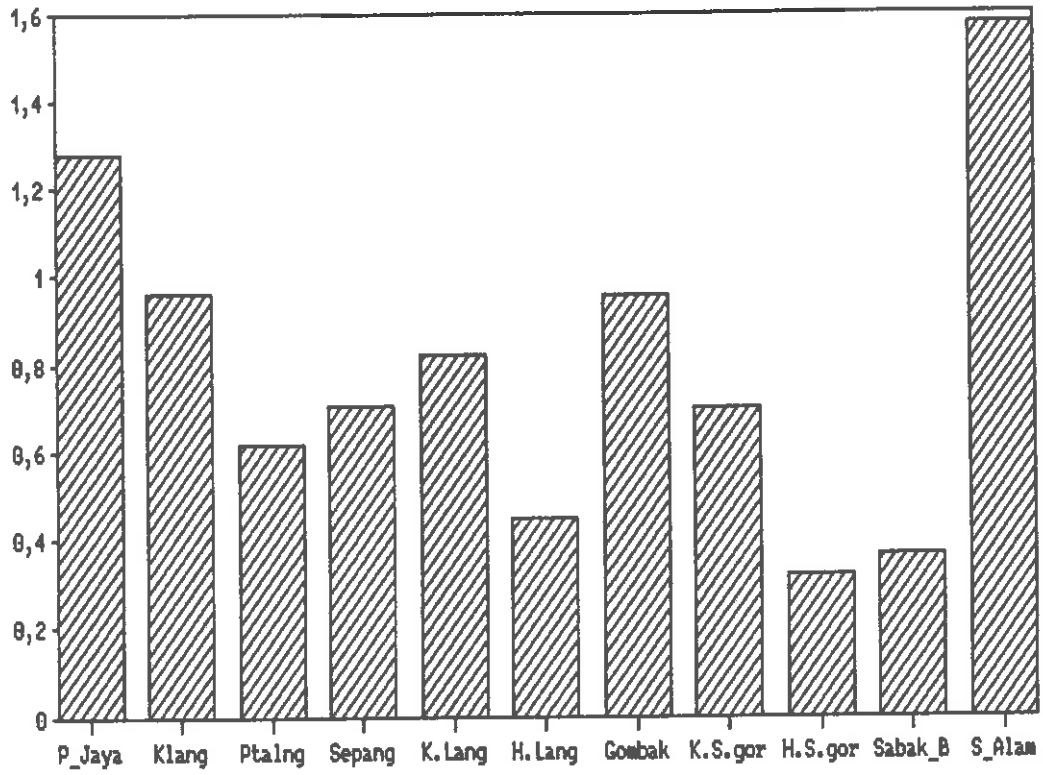


Figure 17:
Ratio between fiscal capacity and fiscal need, averages for the sample states

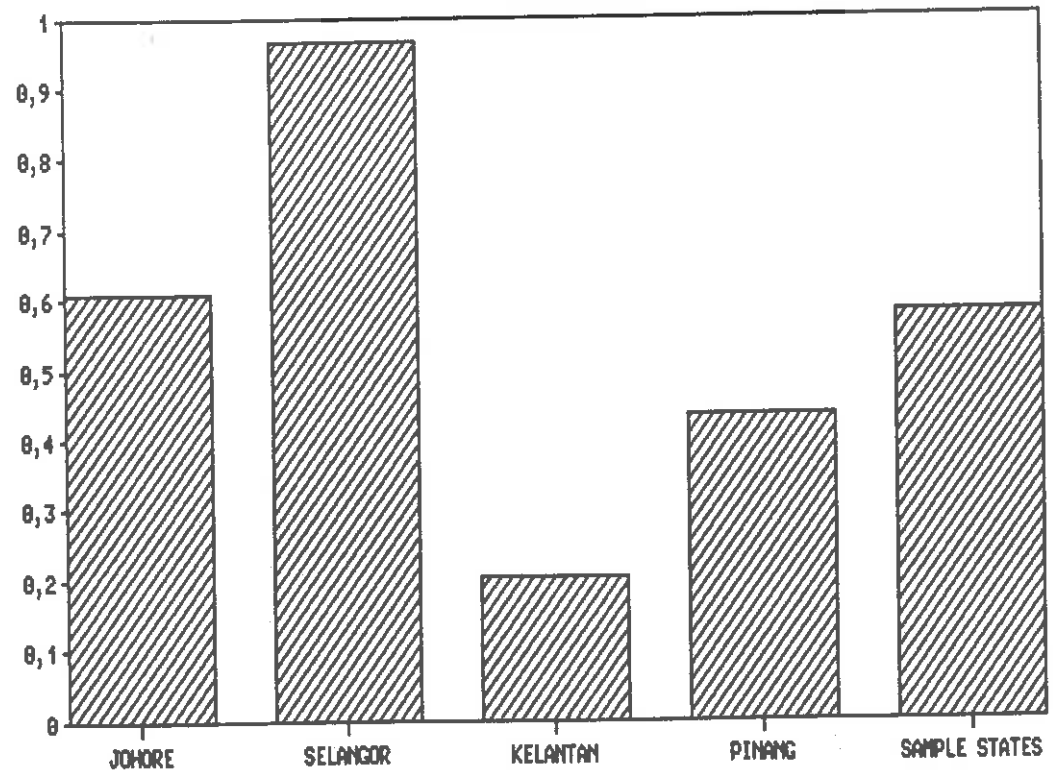


Figure 18:
Partial (50 %) vertical equalizing to close end

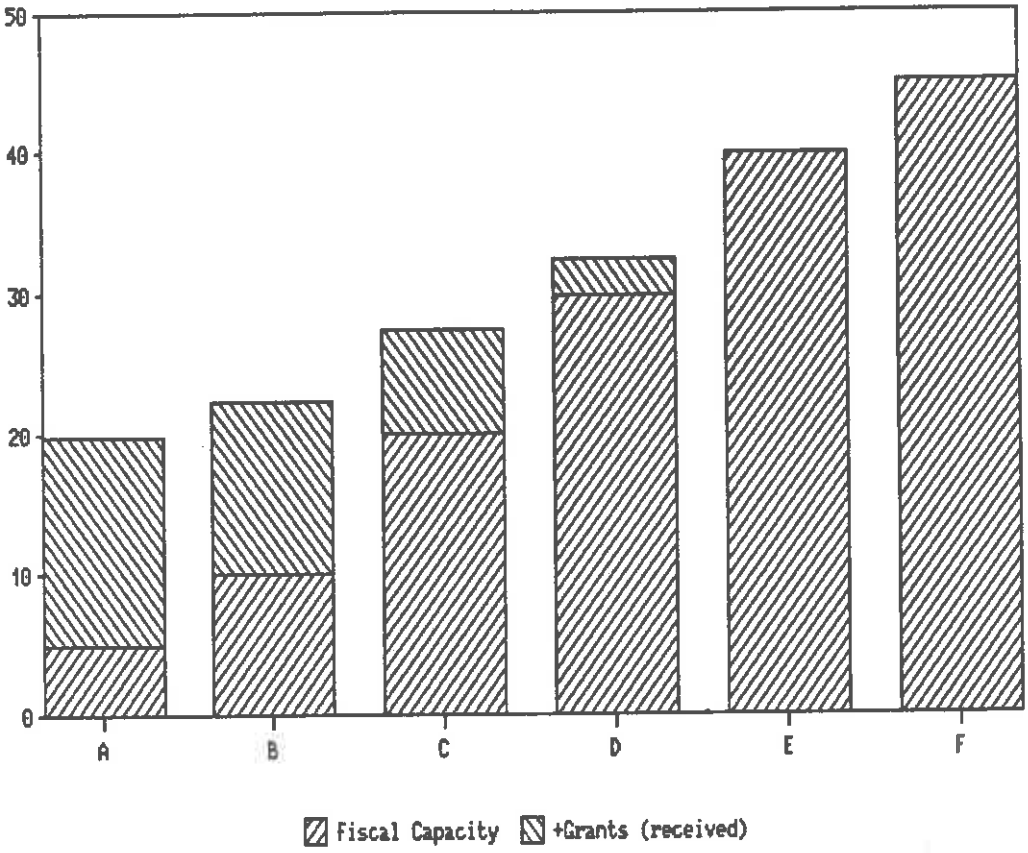
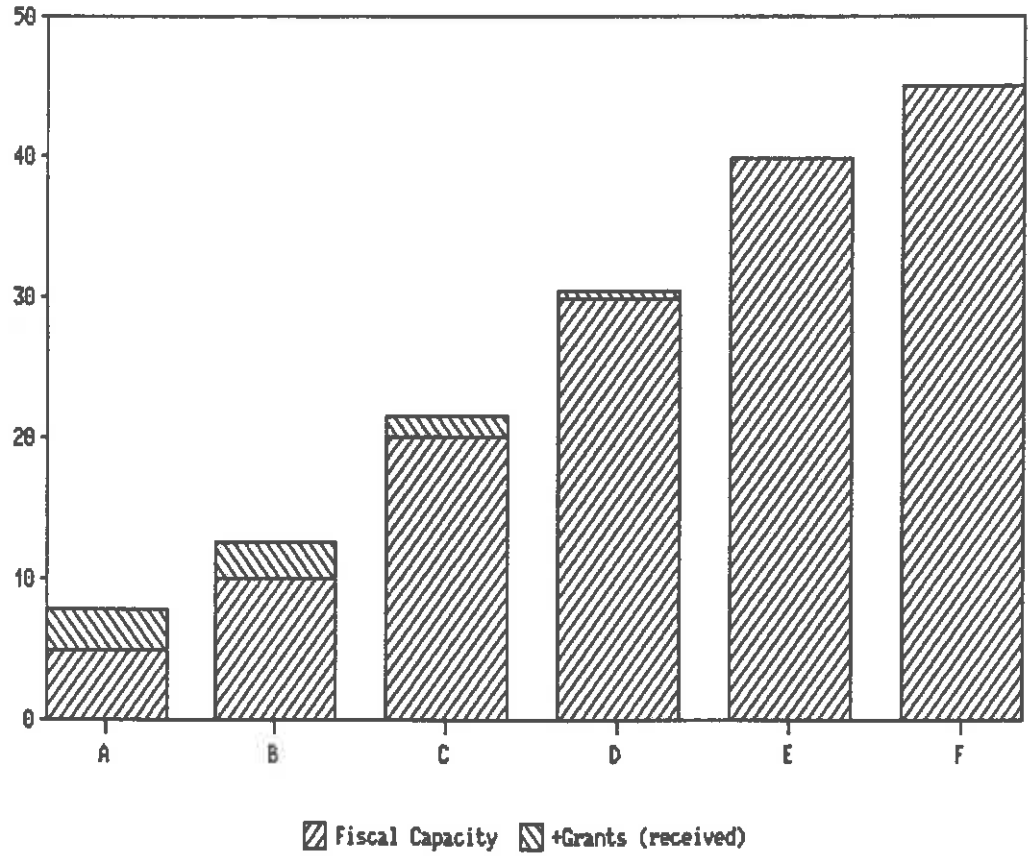


Figure 19:
Partial (10 %) vertical equalizing to close end



3. The Distributive Effects of the Proposed Equalizing Grants

3.1. The Vertical Distributive Effects of the Proposed Equalizing Grants

Table 12 also illustrates the vertical financial consequences of the proposed equalizing grant for four degrees of equalizing: 100 % (full equalizing), 50 %, 5 % and 1 %:

Fiscal Need 1:	100 %:	0	M$ (column 147, last row)[18]
	50 %:	0	M$
	5 %:	0	M$
	1 %:	0	M$
Fiscal Need 2:	100 %:	391.6	Million M$ (column 148, last row)
	50 %:	195.8	Million M$
	5 %:	19.6	Million M$
	1 %:	3.9	Million M$
Fiscal Need 3:	100 %:	182.2	Million M$ (column 149, last row)
	50 %:	91.1	Million M$
	5 %:	9.1	Million M$
	1 %:	1.8	Million M$

For **fiscal need 1**, which would cause a mere horizontal redistribution within the local level, the federal government hence would not have to pay anything. Although such a solution could cure some of the horizontal imbalances, it lacks from a vertical component and thus is not supported. For **fiscal need 2**, which assumes that all local authorities need the present maximum revenues (of Shah Alam) a total equalizing would require 391.6 Million M$, and a 1 % solution would still require 3.9 Million M$. As we prefer **fiscal need 3**, which yields no grants to local authorities whose own fiscal capacity exceeds 50 % of the average, as the proper concept, we can concentrate of the financial consequences of this solution. A total equalizing here would cost 182.2 Million M$, and a 1 % equalizing would cost 1.8 Million M$.

With regard to the vertical grants the federal government gives to the local authorities presently, in the short run a degree of equalizing of 3 % to 4 % seems to be the most, what can be expected from the federal government at the time being. This would cost the federal government an amount of 5.6 to 7.4 Million M$ a year. Taken into account that the present annual grants should be abolished, as their construction suffers from severe faults,[19] this would save already about 3 Million M$, leaving a difference of 2.6 to 4.4 Million M$ that additionally would have to be financed by the federal government.

In the long run, however, the degree of equalizing should be increased, as a vertical shifting of revenues from the federal level - of course accompanied with a downward shifting of competences - is strongly recommended. If i.e. for the year 2000 an equalizing degree of 10 % were aspired, this would cost the Federal Government an amount of 18 Million M$. If the equalizing grants were introduced

in 1990 as a substitute for the present annual grants and thus would start with 3 Million M$, this target could be achieved by a yearly increase of 1,5 Million M$. This perspective of about ten years also with regard to the necessary downward shifting of competences and the strengthening of the local administrative power, that definitely has to accompany the downward shifting of resources,[20] would be reasonable.

3.2. The Horizontal Distributive Effects of the Proposed Equalizing Grants

The horizontal distributive effects of the suggested equalizing grants for the fiscal need concept 3 become apparent from tables 13 to 16. *Table 13* lists the total revenues (as sums of fiscal capacity and equalizing grants) for the three need concepts and the four degrees of equalizing, *table 14* lists the absolute differences between these total revenues and the local authorities' fiscal need, e.g. the part of the fiscal revenue that is not equalized; *table 15* lists the same difference as relative measure, e.g. the proportion of total revenues to fiscal need; and *table 16* lists the total revenues (for fiscal need 3 only) per (actual) inhabitant.

Lets have a closer look at *table 13* first. The last row confirms that the local authorities' total revenues of course depend on the considered need concept and the degree of equalizing. Ceteris paribus need concept 3 yields the highest, need concept 1 the lowest revenues. For need concept 2 the results lie in between. Ceteris paribus also a 100 % equalizing leads to higher total revenues than a partial equalizing with 50 %, 5 % or 1 %. -- Interesting is the fact, that for need 3 there are two local authorities (Petaling Jaya) and Shah Alam), whose revenues are the same for a total and a partial equalizing. These local authorities in other words do receive no equalizing grants as their fiscal capacity exceeds their fiscal need ("abundant" local authorities).

Table 13:
Total revenues as sum of fiscal capacity and equalizing grants

Majlis	Total Revenue, if Fiscal Need is measured as Fiscal Need 1 = 32.72				Total Revenue, if Fiscal Need is measured as Fiscal Need 2 = 93.55				Total Revenue, if Fiscal Need is measured as Fiscal Need 3 = 62.72			
	for Degree of Equalization =				for Degree of Equalization =				for Degree of Equalization =			
	100%	50%	5%	1%	100%	50%	5%	1%	100%	50%	5%	1%
column#	173	174	175	176	177	178	179	180	181	182	183	184
category#	(161)	(162)	(163)	(164)	(165)	(166)	(167)	(168)	(169)	(170)	(171)	(172)
I Johor Bahru	24,350	24,350	24,350	24,350	60,494	42,422	26,157	24,711	40,826	32,588	25,174	24,514
I Johor Bahru Tengah	5,305	5,305	5,305	5,305	9,571	7,438	5,549	5,348	6,459	5,882	5,363	5,317
I Pontian	1,898	1,842	1,790	1,786	5,428	3,606	1,967	1,821	3,663	2,724	1,879	1,803
I Muar Utara	1,623	1,623	1,623	1,623	4,295	2,959	1,757	1,650	2,898	2,261	1,687	1,636
I Muar Selatan	4,519	4,452	4,392	4,387	12,921	8,653	4,812	4,471	8,720	6,553	4,602	4,429
I Kluang Utara	4,714	4,714	4,714	4,714	12,492	8,603	5,103	4,792	8,439	6,572	4,900	4,751
I Kluang Selatan	1,058	1,058	1,058	1,058	2,315	1,687	1,121	1,071	1,562	1,310	1,083	1,053
I Kota Tinggi	1,362	1,362	1,362	1,362	2,798	2,080	1,433	1,376	1,888	1,625	1,388	1,367
I Mersing	1,269	1,042	838	820	3,629	2,222	956	843	2,449	1,632	897	832
I Kulai	3,297	3,297	3,297	3,297	8,645	5,971	3,564	3,350	5,834	4,565	3,423	3,322
I Batu Pahat Barat	6,522	6,522	6,522	6,522	11,875	9,198	6,789	6,575	8,014	7,268	6,596	6,537
I Batu Pahat Timur	1,106	1,106	1,106	1,106	2,780	1,943	1,190	1,123	1,876	1,491	1,145	1,116
I Segamat Utara	4,289	4,289	4,289	4,289	8,222	6,256	4,486	4,329	5,549	4,919	4,352	4,302
I Segamat Selatan	1,250	1,106	980	969	3,574	2,270	1,097	992	2,465	1,715	1,041	981
I Sum JOHOR	62,563	62,070	61,627	61,587	149,038	105,308	65,951	62,652	100,635	81,106	63,530	61,966
I Petaling Jaya	51,505	51,505	51,505	51,505	57,421	54,463	51,801	51,564	51,505	51,505	51,505	51,505
I Klang	29,825	29,825	29,825	29,825	44,335	37,080	30,550	29,970	29,921	29,873	29,829	29,826
I Petaling	3,918	3,918	3,918	3,918	9,368	6,643	4,190	3,972	6,322	5,120	4,038	3,942
I Sepang	816	816	816	816	1,718	1,267	861	825	1,160	988	833	820
I Kuala Langat	2,148	2,148	2,148	2,148	3,861	3,004	2,233	2,165	2,606	2,377	2,171	2,152
I Hulu Langat	6,949	6,474	6,047	6,009	19,868	12,933	6,693	6,138	13,408	9,704	6,370	6,073
I Gombak	9,554	9,554	9,554	9,554	14,782	12,168	9,815	9,606	9,976	9,765	9,575	9,558
I Kuala Selangor	1,749	1,749	1,749	1,749	3,691	2,720	1,846	1,769	2,491	2,129	1,786	1,757
I Hulu Selangor	2,367	1,915	1,509	1,473	6,766	4,115	1,729	1,547	4,565	3,015	1,619	1,495
I Sabak Bernam	2,225	1,907	1,621	1,596	6,361	3,975	1,828	1,637	4,293	2,941	1,725	1,617
I Shah Alam	10,909	10,909	10,909	10,909	10,909	10,909	10,909	10,909	10,909	10,909	10,909	10,909
I Sum SELANGOR	121,964	120,720	119,601	119,501	179,082	149,279	122,457	120,073	137,158	128,347	120,361	119,653
I Kota Bharu	13,394	12,153	11,035	10,936	38,297	24,604	12,280	11,185	25,845	18,378	11,658	11,060
I Kota Bharu (Daerah)	4,281	2,651	1,185	1,054	12,239	6,630	1,583	1,134	8,260	4,641	1,384	1,094
I Pasir Putih	2,632	1,642	571	476	6,097	4,275	834	528	5,465	2,958	703	512
I Machang	2,492	1,468	546	464	7,126	3,785	778	511	4,809	2,626	662	487
I Ulu Kelantan	627	460	310	296	1,793	1,043	368	308	1,210	752	339	302
I Bachok	3,040	1,749	586	483	8,692	4,574	867	539	5,866	3,161	727	511
I Tumpat	5,344	3,101	1,081	992	15,281	8,069	1,578	1,001	10,313	5,585	1,330	952
I Kuala Krai Utara	2,665	1,703	838	761	7,619	4,181	1,086	810	5,142	2,942	962	786
I Kuala Krai Selatan	2,065	1,168	361	289	5,904	3,088	553	327	3,985	2,128	457	366
I Tanah Merah	2,210	1,638	1,124	1,078	6,318	3,692	1,329	1,119	4,264	2,665	1,227	1,099
I Pasir Mas	1,149	873	624	602	3,286	1,941	731	623	2,217	1,407	677	612
I Sum KELANTAN	40,100	28,606	18,261	17,341	114,652	65,882	21,988	18,087	77,376	47,244	20,125	17,714
I Pulau Pinang	36,998	36,998	36,998	36,998	104,967	70,983	40,397	37,678	70,840	53,919	38,690	37,337
I Seberang Perai	33,973	28,744	24,038	23,619	97,134	60,324	27,196	24,251	65,553	44,534	25,617	23,935
I Sum PULAU PINANG	70,971	65,742	61,036	60,617	202,100	131,307	67,592	61,929	136,393	98,453	64,307	61,272
I SUM OF SUMS	295,597	277,138	260,524	259,048	644,871	451,775	277,988	262,540	451,561	355,120	268,323	260,607

Table 14:
Absolute fiscal residue after equalizing

Majlis	Absolute Difference between Final Revenue & Fiscal Need 1 = 32.72				Absolute Difference between Final Revenue & Fiscal Need 2 = 93.55				Absolute Difference between Final Revenue & Fiscal Need 3 = 63.13			
	for Degree of Equalization =				for Degree of Equalization =				for Degree of Equalization =			
	100%	50%	5%	1%	100%	50%	5%	1%	100%	50%	5%	1%
column#	185	186	187	188	189	190	191	192	193	194	195	196
category#	(173)	(174)	(175)	(176)	(177)	(178)	(179)	(180)	(181)	(182)	(183)	(184)
Johor Bahru	3,192	3,192	3,192	3,192	0	(18,072)	(34,337)	(35,783)	0	(8,238)	(15,652)	(16,312)
Johor Bahru Tengah	1,958	1,958	1,958	1,958	0	(2,133)	(4,052)	(4,223)	0	(577)	(1,096)	(1,142)
Pontian	0	(57)	(108)	(113)	0	(1,822)	(3,461)	(3,607)	0	(939)	(1,785)	(1,860)
Muar Utara	121	121	121	121	0	(1,336)	(2,538)	(2,645)	0	(638)	(1,212)	(1,263)
Muar Selatan	0	(67)	(127)	(132)	0	(4,268)	(8,109)	(8,450)	0	(2,167)	(4,118)	(4,291)
Kluang Utara	345	345	345	345	0	(3,889)	(7,389)	(7,700)	0	(1,858)	(3,531)	(3,679)
Kluang Selatan	248	248	248	248	0	(628)	(1,194)	(1,244)	0	(252)	(479)	(499)
Kota Tinggi*	383	383	383	383	0	(718)	(1,364)	(1,422)	0	(263)	(500)	(521)
Mersing	0	(227)	(431)	(449)	0	(1,407)	(2,673)	(2,786)	0	(817)	(1,552)	(1,618)
Kulai*	273	273	273	273	0	(2,674)	(5,081)	(5,295)	0	(1,269)	(2,411)	(2,513)
Batu Pahat Barat	2,367	2,369	2,369	2,369	0	(2,676)	(5,085)	(5,299)	0	(746)	(1,417)	(1,477)
Batu Pahat Timur	134	134	134	134	0	(837)	(1,590)	(1,657)	0	(385)	(732)	(762)
Segamat Utara	1,414	1,414	1,414	1,414	0	(1,966)	(3,736)	(3,893)	0	(630)	(1,197)	(1,247)
Segamat Selatan	0	(142)	(270)	(281)	0	(1,304)	(2,477)	(2,581)	53	(696)	(1,371)	(1,431)
Sum JOHOR	10,436	9,944	9,501	9,461	0	(43,730)	(83,087)	(86,585)	53	(19,476)	(37,052)	(38,614)
Petaling Jaya	31,422	31,422	31,422	31,422	0	(2,958)	(5,620)	(5,857)	12,753	12,753	12,753	12,753
Klang	14,318	14,318	14,318	14,318	0	(7,255)	(13,785)	(14,366)	0	(48)	(91)	(95)
Petaling	641	641	641	641	0	(2,725)	(5,178)	(5,396)	0	(1,202)	(2,284)	(2,380)
Sepang	215	215	215	215	0	(451)	(857)	(893)	0	(172)	(326)	(340)
Kuala Langat	797	797	797	797	0	(857)	(1,628)	(1,697)	0	(229)	(435)	(454)
Hulu Langat	0	(475)	(902)	(940)	0	(6,934)	(13,175)	(13,730)	0	(3,704)	(7,036)	(7,335)
Gombak	4,384	4,384	4,384	4,384	0	(2,614)	(4,967)	(5,176)	0	(211)	(401)	(418)
Kuala Selangor	458	458	458	458	0	(971)	(1,845)	(1,923)	0	(371)	(705)	(734)
Hulu Selangor	0	(451)	(857)	(893)	0	(2,651)	(5,037)	(5,249)	0	(1,551)	(2,947)	(3,071)
Sabak Bernam	0	(318)	(603)	(629)	0	(2,386)	(4,532)	(4,723)	0	(1,352)	(2,568)	(2,676)
Shah Alam	7,324	7,324	7,324	7,324	658	658	658	658	3,991	3,991	3,991	3,991
Sum SELANGOR	59,560	58,316	57,197	57,097	658	(29,144)	(55,867)	(58,351)	16,744	7,903	(53)	(760)
Kota Bharu	0	(1,242)	(2,359)	(2,458)	0	(13,693)	(26,016)	(27,112)	0	(7,467)	(14,186)	(14,785)
Kota Bharu (Daerah)	0	(1,629)	(3,096)	(3,226)	0	(5,609)	(10,656)	(11,105)	0	(3,619)	(6,876)	(7,166)
Pasir Putih	0	(1,190)	(2,261)	(2,356)	0	(3,823)	(7,263)	(7,569)	0	(2,506)	(4,762)	(4,963)
Machang	0	(1,024)	(1,946)	(2,028)	0	(3,341)	(6,348)	(6,615)	0	(2,183)	(4,147)	(4,322)
Ulu Kelantan	0	(167)	(318)	(331)	0	(750)	(1,426)	(1,486)	0	(459)	(872)	(908)
Bachok	0	(1,291)	(2,454)	(2,557)	0	(4,117)	(7,823)	(8,152)	0	(2,704)	(5,138)	(5,355)
Tumpat	0	(2,244)	(4,263)	(4,443)	0	(7,212)	(13,703)	(14,279)	0	(4,726)	(8,983)	(9,361)
Kuala Krai Utara	0	(962)	(1,827)	(1,904)	0	(3,439)	(6,534)	(6,809)	0	(2,200)	(4,180)	(4,356)
Kuala Krai Selatan	0	(897)	(1,704)	(1,776)	0	(2,817)	(5,352)	(5,577)	0	(1,857)	(3,528)	(3,677)
Tanah Merah	0	(571)	(1,086)	(1,131)	0	(2,625)	(4,988)	(5,198)	0	(1,598)	(3,037)	(3,165)
Pasir Mas	0	(276)	(525)	(547)	0	(1,345)	(2,555)	(2,662)	0	(811)	(1,540)	(1,605)
Sum KELANTAN	0	(11,494)	(21,839)	(22,758)	0	(48,770)	(92,663)	(96,565)	0	(30,132)	(57,251)	(59,682)
Pulau Pinang	286	286	286	286	0	(33,984)	(64,570)	(67,289)	0	(16,921)	(32,149)	(33,503)
Seberang Perai	0	(5,229)	(9,935)	(10,353)	0	(36,809)	(69,938)	(72,883)	0	(21,019)	(39,937)	(41,618)
Sum PULAU PINANG	286	(4,943)	(9,649)	(10,068)	0	(70,794)	(134,508)	(140,172)	0	(37,940)	(72,086)	(75,121)
SUM OF SUMS	70,282	51,823	35,209	33,733	658	(192,438)	(366,225)	(381,673)	16,797	(79,645)	(166,442)	(174,157)

Table 15:
Relative fiscal residue after equalizing:
Revenues after equalizing as percentage of fiscal Need

Majlis	Relative Difference between Final Revenue & Fiscal Need 1 = 32.72				Relative Difference between Final Revenue & Fiscal Need 2 = 93.55				Relative Difference between Final Revenue & Fiscal Need 3 = 63.13			
	for Degree of Equalization =				for Degree of Equalization =				for Degree of Equalization =			
	100%	50%	5%	1%	100%	50%	5%	1%	100%	50%	5%	1%
column#	197	198	199	200	201	202	203	204	205	206	207	208
category#	(185)	(186)	(187)	(188)	(189)	(190)	(191)	(192)	(193)	(194)	(195)	(196)
Johor Bahru	15	15	15	15	0	-30	-57	-59	0	-20	-38	-40
Johor Bahru Tengah	58	58	58	58	0	-22	-42	-44	0	-9	-17	-18
Pontian	0	-3	-6	-6	0	-34	-64	-66	0	-26	-49	-51
Muar Utara	8	8	8	8	0	-31	-59	-62	0	-22	-42	-44
Muar Selatan	0	-1	-3	-3	0	-33	-63	-65	0	-25	-47	-49
Kluang Utara	8	8	8	8	0	-31	-59	-62	0	-22	-42	-44
Kluang Selatan	31	31	31	31	0	-27	-52	-54	0	-16	-31	-32
Kota Tinggi*	39	39	39	39	0	-26	-49	-51	0	-14	-28	-28
Mersing	0	-18	-34	-35	0	-39	-74	-77	0	-33	-63	-66
Kulai*	9	9	9	9	0	-31	-59	-61	0	-22	-41	-43
Batu Pahat Barat	57	57	57	57	0	-23	-43	-45	0	-9	-18	-18
Batu Pahat Timur	14	14	14	14	0	-30	-57	-60	0	-21	-39	-41
Segamat Utara	49	49	49	49	0	-24	-45	-47	0	-11	-22	-22
Segamat Selatan	0	-11	-22	-22	0	-36	-69	-72	0	-29	-57	-59
Sub JOHOR	30	19	18	18	0	-29	-56	-58	0	-19	-37	-38
Petaling Jaya	156	156	156	156	0	-5	-10	-10	33	33	33	33
Klang	92	92	92	92	0	-16	-31	-32	0	0	0	0
Petaling	20	20	20	20	0	-29	-55	-58	0	-19	-36	-38
Sepang	36	36	36	36	0	-26	-50	-52	0	-15	-28	-29
Kuala Langat	59	59	59	59	0	-22	-42	-44	0	-9	-17	-17
Hulu Langat	0	-7	-13	-14	0	-35	-66	-69	0	-28	-52	-55
Sabak	85	85	85	85	0	-18	-34	-35	0	-2	-4	-4
Kuala Selangor	35	35	35	35	0	-26	-50	-52	0	-15	-28	-29
Hulu Selangor	0	-19	-36	-38	0	-39	-74	-78	0	-34	-65	-67
Sabak Bernam	0	-14	-27	-28	0	-38	-71	-74	0	-31	-60	-62
Shah Alam	204	204	204	204	6	6	6	6	58	58	58	58
Sub SELANGOR	95	93	92	91	0	-16	-31	-33	14	7	0	-1
Kota Bharu	0	-9	-18	-18	0	-36	-68	-71	0	-29	-55	-57
Kota Bharu (Daerah)	0	-38	-72	-75	0	-46	-87	-91	0	-44	-83	-87
Pasir Putih	0	-42	-80	-83	0	-47	-90	-93	0	-46	-87	-91
Machang	0	-41	-78	-81	0	-47	-89	-93	0	-45	-86	-90
Hulu Kelantan	0	-27	-51	-53	0	-42	-79	-83	0	-35	-72	-75
Bachok	0	-42	-81	-84	0	-47	-90	-94	0	-46	-88	-91
Tumpat	0	-42	-80	-83	0	-47	-90	-93	0	-46	-87	-91
Kuala Krai Utara	0	-36	-69	-71	0	-45	-86	-89	0	-43	-81	-85
Kuala Krai Selatan	0	-43	-83	-86	0	-48	-91	-94	0	-47	-89	-92
Tanah Merah	0	-26	-49	-51	0	-42	-79	-82	0	-37	-71	-74
Pasir Mas	0	-24	-46	-48	0	-41	-78	-81	0	-37	-69	-72
Sub KELANTAN	0	-29	-54	-57	0	-43	-81	-84	0	-39	-74	-77
Pulau Pinang	1	1	1	1	0	-32	-62	-64	0	-24	-45	-47
Seberang Perai	0	-15	-29	-30	0	-38	-72	-75	0	-32	-61	-63
Sub PULAU PINANG	0	-7	-14	-14	0	-35	-67	-69	0	-28	-53	-55
SUM OF SUMS	31	23	16	15	0	-30	-57	-59	4	-18	-38	-40

Table 16:
Total revenues after equalizing (for fiscal need 3) per (adjusted) inhabitant

Majlis	For Fiscal Need 3 and for Degree of Equalization = 100 %			50 %			5 %			1 %		
	own Rev.	Equal. Grants	total	own Rev.	Equal. Grants	total	own Rev.	Equal. Grants	total	own Rev.	Equal. Grants	total
column#	209	210	211	212	213	214	215	216	217	218	219	220
category#	(145)	(169)	(181)	(145)	(170)	(182)	(145)	(171)	(183)	(145)	(172)	(184)
Johor Bahru	74.24	50.23	124.47	74.24	25.12	99.35	74.24	2.51	76.75	74.24	0.50	74.74
Johor Bahru Tengah	75.03	16.48	91.51	75.03	8.24	83.27	75.03	0.82	75.86	75.79	0.16	75.96
Pontian	43.53	45.82	89.35	43.53	22.91	66.44	43.53	2.29	45.82	43.55	0.45	44.01
Muar Utara	50.72	39.85	90.58	50.72	19.93	70.65	50.72	1.99	52.71	50.72	0.40	51.12
Muar Selatan	47.90	48.16	96.06	47.90	24.08	71.98	47.90	2.41	50.30	48.74	0.48	49.23
Kluang Utara	53.32	42.72	96.04	53.32	21.36	74.68	53.32	2.14	55.46	54.18	0.43	54.61
Kluang Selatan	56.50	28.01	84.51	56.50	14.01	70.50	56.50	1.40	57.90	58.79	0.28	59.07
Kota Tinggi*	63.77	25.07	88.84	63.77	12.53	76.30	63.77	1.25	65.03	64.84	0.25	65.09
Mersing	30.19	60.52	90.71	30.19	30.26	60.45	30.19	3.03	33.22	30.36	0.61	30.97
Kulai*	54.56	42.30	96.86	54.56	21.15	75.71	54.56	2.11	56.68	54.94	0.42	55.36
Batu Pahat Barat	75.84	17.35	93.18	75.84	8.67	84.51	75.84	0.87	76.70	75.84	0.17	76.01
Batu Pahat Timur	50.29	35.00	85.29	50.29	17.50	67.79	50.29	1.75	52.04	50.29	0.35	50.64
Segamat Utara	71.49	20.99	92.48	71.49	10.50	81.98	71.49	1.05	72.54	71.49	0.21	71.70
Segamat Selatan	34.80	55.50	90.30	34.80	27.75	62.55	34.80	2.78	37.58	35.89	0.56	36.44
Sum JOHOR	63.22	40.31	103.53	63.22	20.15	83.37	63.22	2.02	65.24	63.56	0.40	63.96
Petaling Jaya	156.33	0.00	156.33	156.33	0.00	156.33	156.33	0.00	156.33	162.48	0.00	162.48
Klang	114.65	0.38	115.03	114.65	0.19	114.84	114.65	0.02	114.67	118.35	0.00	118.36
Petaling	56.78	34.85	91.63	56.78	17.42	74.20	56.78	1.74	58.52	56.78	0.35	57.13
Sepang	58.30	24.53	82.83	58.30	12.26	70.56	58.30	1.23	59.52	58.30	0.25	58.54
Kuala Langat	67.11	14.32	81.43	67.11	7.16	74.27	67.11	0.72	67.83	67.11	0.14	67.26
Hulu Langat	40.54	50.06	90.60	40.54	25.03	65.57	40.54	2.50	43.04	40.60	0.50	41.10
Gombak	94.59	4.18	98.77	94.59	2.09	96.68	94.59	0.21	94.80	94.59	0.04	94.64
Kuala Selangor	58.31	24.73	83.04	58.31	12.36	70.67	58.31	1.24	59.55	58.31	0.25	58.56
Hulu Selangor	28.71	60.83	89.54	28.71	30.42	59.12	28.71	3.04	31.75	28.88	0.61	29.49
Sabak Bernam	31.79	54.06	85.85	31.79	27.03	58.82	31.79	2.70	34.49	31.92	0.54	32.46
Shah Alam	181.82	0.00	181.82	181.82	0.00	181.82	181.82	0.00	181.82	181.82	0.00	181.82
Sum SELANGOR	103.73	15.73	119.46	103.73	7.87	111.60	103.73	0.79	104.52	106.32	0.16	106.48
Kota Bharu	44.91	69.46	114.37	44.91	34.73	79.64	44.91	3.47	48.38	50.86	0.69	51.56
Kota Bharu (Daerah	13.27	94.00	107.27	13.27	47.00	60.27	13.27	4.70	17.97	13.69	0.94	14.63
Pasir Putih	7.38	83.55	90.93	7.38	41.77	49.16	7.38	4.18	11.56	7.93	0.84	8.77
Machang	7.18	79.37	86.55	7.18	39.68	46.86	7.18	3.97	11.15	8.44	0.79	9.24
Ulu Kelantan	20.40	65.54	85.93	20.40	32.77	53.17	20.40	3.28	23.67	21.16	0.66	21.81
Bachok	7.22	91.68	98.89	7.22	45.84	53.05	7.22	4.58	11.80	8.18	0.92	9.10
Tumpat	8.40	92.70	101.10	8.40	46.35	54.75	8.40	4.64	13.04	8.84	0.93	9.77
Kuala Krai Utara	13.09	78.58	91.67	13.09	39.29	52.38	13.09	3.93	17.02	13.59	0.79	14.37
Kuala Krai Selatan	6.60	90.58	97.18	6.60	45.29	51.89	6.60	4.53	11.13	7.05	0.91	7.96
Tanah Merah	22.93	69.50	92.43	22.93	34.75	57.68	22.93	3.47	26.41	23.44	0.69	24.14
Pasir Mas	22.65	64.85	87.50	22.65	32.42	55.07	22.65	3.24	25.89	24.07	0.65	24.72
Sum KELANTAN	20.94	80.35	101.30	20.94	40.18	61.12	20.94	4.02	24.96	23.12	0.80	23.93
Pulau Pinang	64.66	61.64	126.30	64.66	30.82	95.48	64.66	3.08	67.74	67.39	0.62	68.01
Seberang Perai	44.12	78.87	122.99	44.12	39.44	83.55	44.12	3.94	48.06	44.31	0.79	45.10
Sum PULAU PINANG	54.54	70.13	124.67	54.54	35.06	89.61	54.54	3.51	58.05	56.02	0.70	56.72
SUM OF SUMS	64.35	49.14	113.49	64.35	24.57	88.92	64.35	2.46	66.81	66.00	0.49	66.49

Figure 20:
Revenues after equalization as % of fiscal need, for the local authorities in Selangor

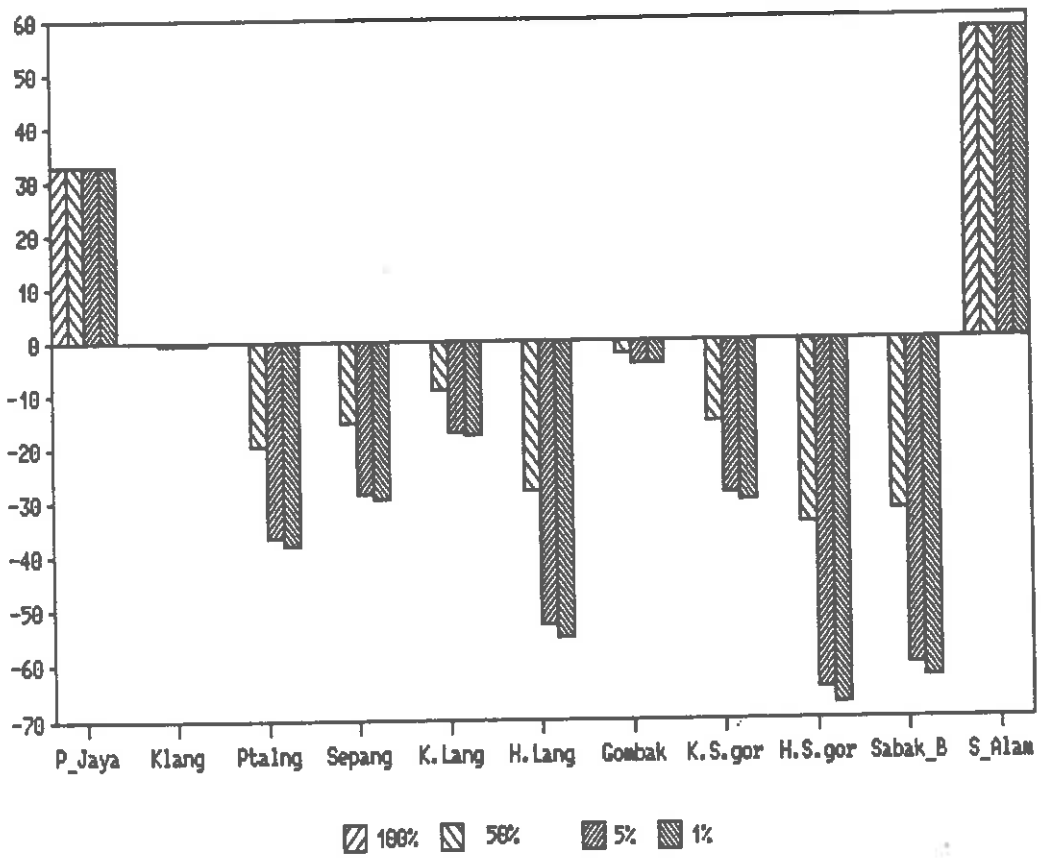
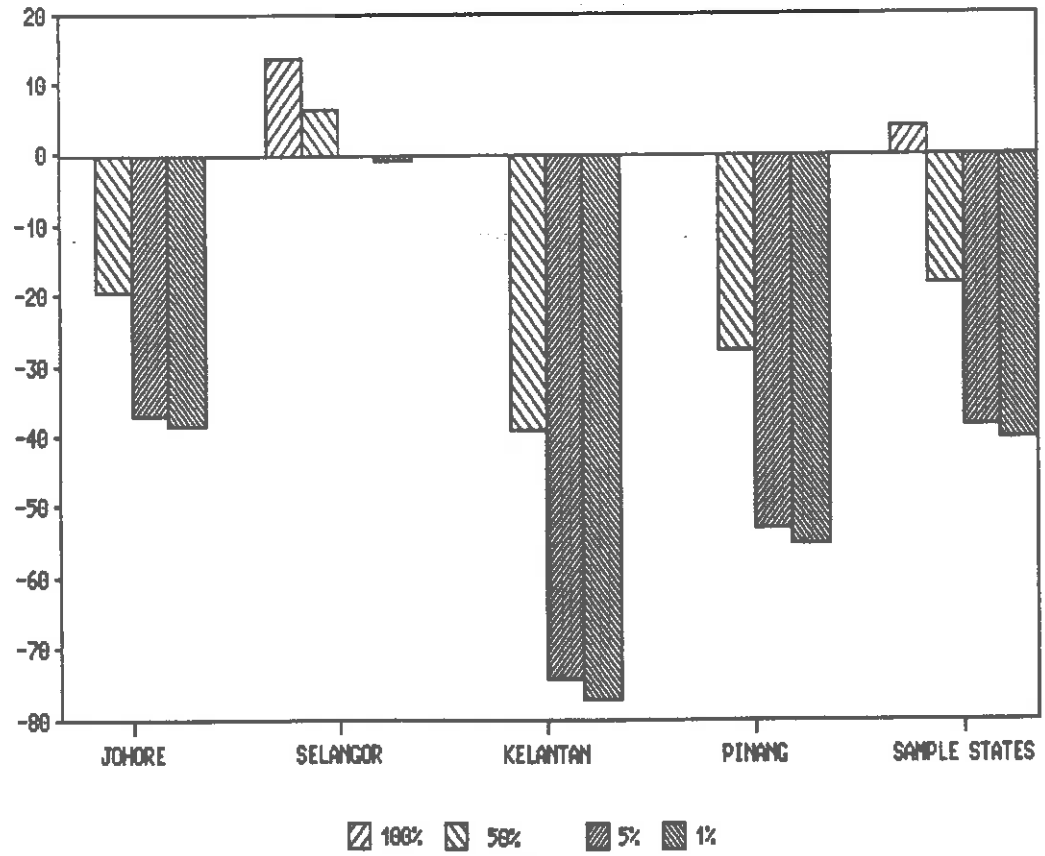


Figure 21:
Revenues after equalization as % of fiscal need, averages for the sample states



This fact becomes more obvious in *table 14*. For the two abundant local authorities there is a positive difference between fiscal capacity and fiscal need 3, whereas for all other local authorities negative values (included in parenthesis) are calculated. -- In *table 15* these differences are expressed as percentages. If we concentrate on fiscal need 3 again, for all local authorities taken together (last row) there is a slight positive difference of 4 %, e.g. the fiscal capacity exceeds the fiscal need. This is due to the abundant local authorities, which are allowed to keep their positive fiscal residuum, whereas all negative fiscal residue are completely equalized. -- If the fiscal residue are equalized partially only, for the sum of all local authorities there of course are negative balances: With a 50 %equalizing they on the average lack 18 % of their fiscal need; with a 5 % equalizing they lack 38 %, and with a 1 % equalizing they lack 49 %.

For Selangor these effects are displayed in *figure 20*. For the two abundant local authorities, Petaling Jaya and Shah Alam, which are allowed to keep their positive fiscal residuum, a positive ratio is displayed, no matter if the fiscal residuum is equalized to 100 %, 50 %, 5 % or 1 %. For the local authorities with a negative fiscal residuum the degree of equalization instead is important for their final financial position. Petaling for instance lacks about 20 % of its fiscal need if 50 % of its (negative) fiscal residuum are equalized, but 36 % (38 %), if only 5 % (1 %) are equalized.

For the different states these figures vary considerably (*figure 21*). In Kelantan, with a partial equalizing of 50 %, 5 % and 1 % the local authorities lack 39 %, 74 % and 77 % of their fiscal need, respectively; in Johore the corresponding percentages only are 0 %, 19 %, 37 % and 38 %, and in Pinang they are 0 %, 28 %, 53 %, and 55 %. In Selangor there even are positive ratios of 14% and 7 % and a balanced ratio of 0 % (due to the abundant authorities). Only for a 1 % equalizing there is a small negative residuum of - 1 %.

Another way to demonstrate the results of the proposed equalizing grants is to express the final revenues as per capita figures. This method is used in *table 16*, where fiscal capacity, equalizing grants and the sum of both components are listed (for fiscal need 3 only) and in *figure 22* (for Selangor). If we concentrate on the graphical presentation two things should be noticed:

1. Both the absolute and the relative amount (as percentage of fiscal capacity) of equalizing grants vary considerably. Abundant local authorities like Petaling Jaya and Shah Alam do not receive any equalizing revenues; for local authorities with a low fiscal capacity (like Hulu Langat or Hulu Selangor) the equalizing grants on the other hand even exceed the own revenues.

2. The sum of fiscal capacity and equalizing still varies between a maximum of 180 M$ per actual inhabitant (for Shah Alam), and a minimum of 85 M$ (for Kuala Langat). Even a total equalizing thus does not lead to similar revenues per actual inhabitant, but only to similar revenues per adjusted inhabitant. As the local authorities fiscal need differs, also the final revenues per actual inhabitant differ.

This feature of equalizing grants also is true for a partial equalization. *Figures 23 and 24*, which display the same variables for a partial equalization of 50 % and 5 %, illustrate this, if they are compared with the total equalization (figure 20): The proportions between fiscal capacity and equalizing grants remain constant for all local authorities. In other words: The variation of the degree of equalization does not privilege or discriminate any local authority, as the same degree of equalization is applied for all local authorities.[21,22]

Figure 22:
Final revenues (as sum of fiscal capacity and 100 % equalizing grants), for the local authorities in Selangor

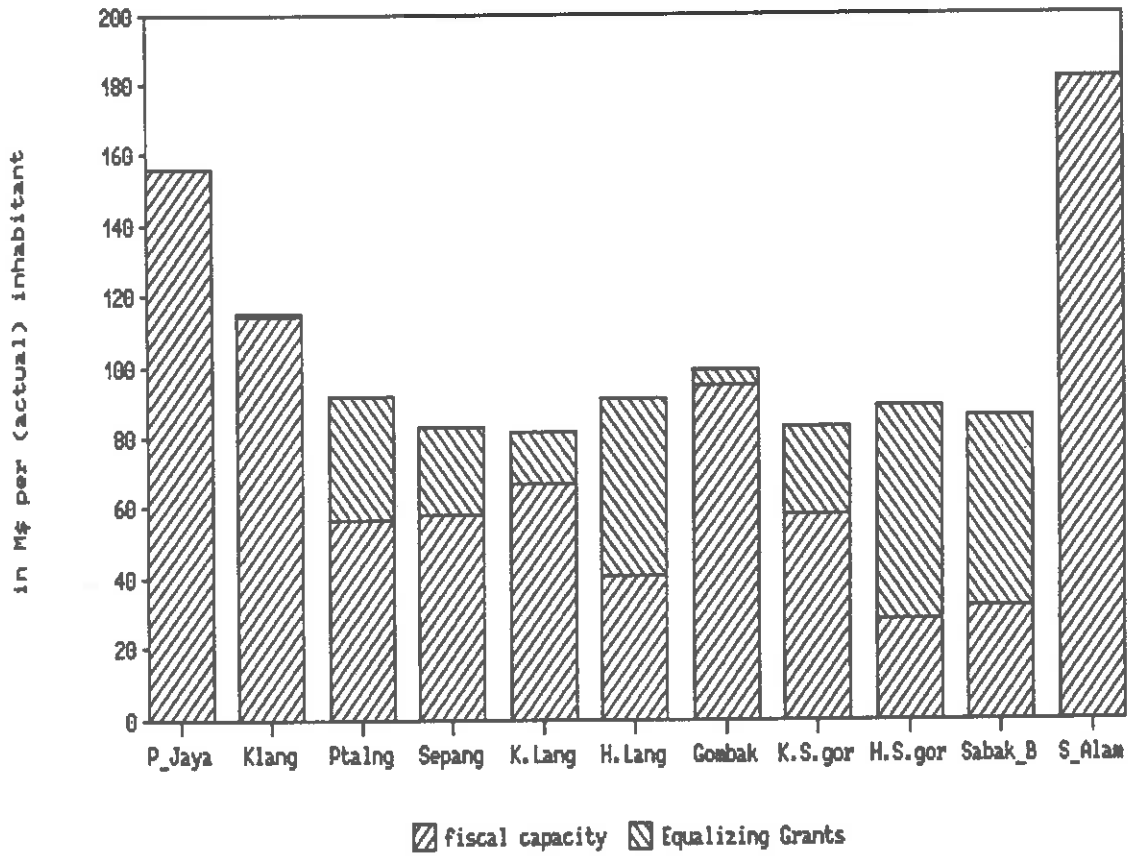


Figure 23:
Final revenues (as sum of fiscal capacity and 50 % equalizing grants), for the local authorities in Selangor

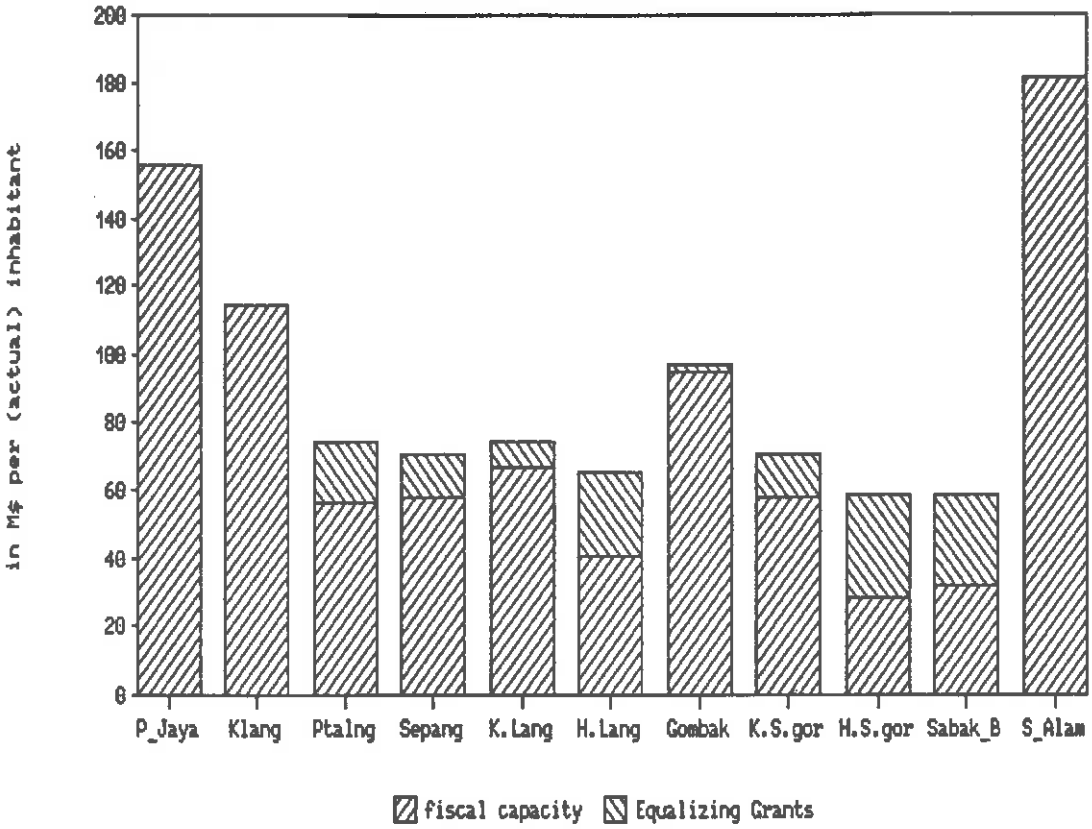


Figure 24:
Final revenues (as sum of fiscal capacity and 5 % equalizing grants), for the local authorities in Selangor

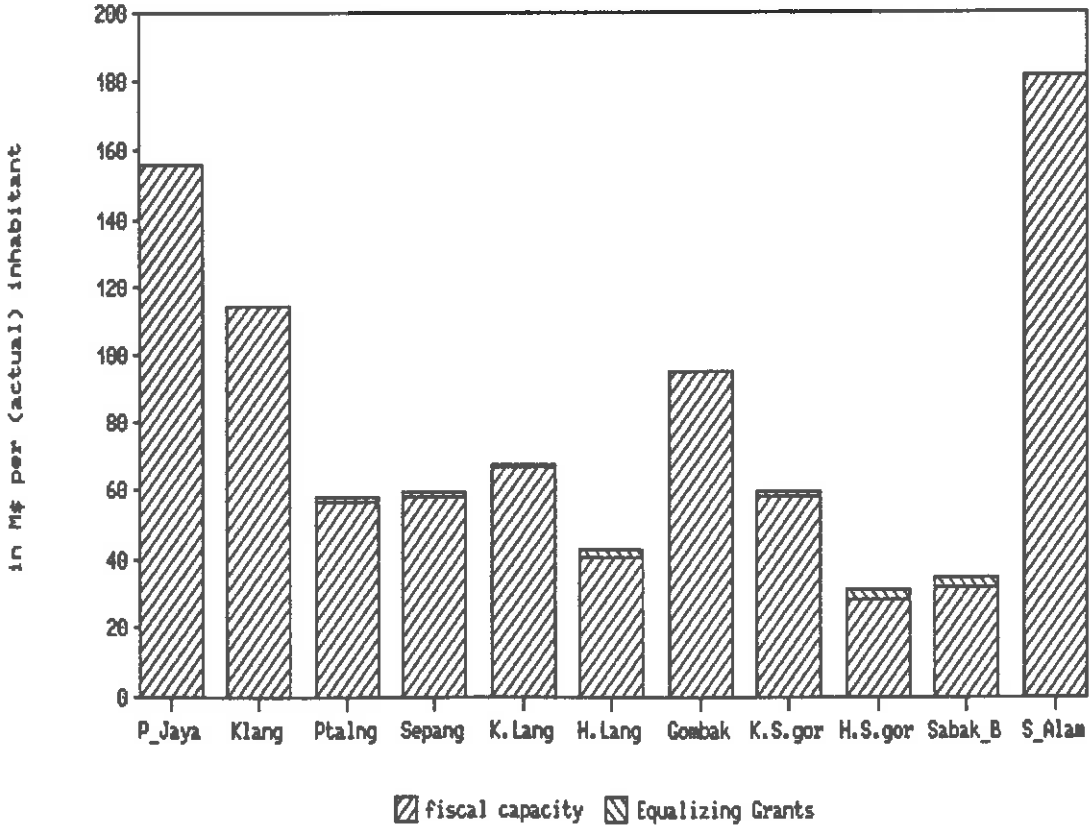


Figure 25:
Final revenues (as sum of fiscal capacity and 100 % equalizing grants), averages for the sample states

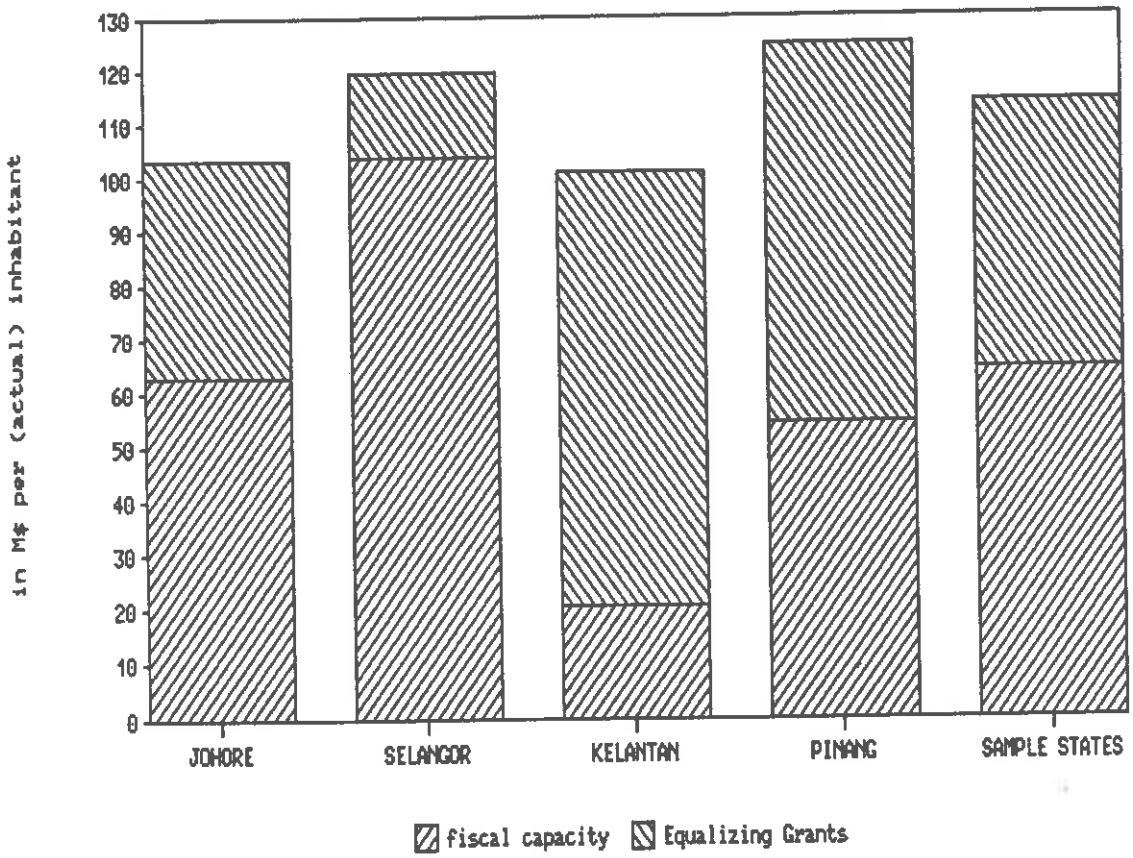


Figure 25, which displays the averages for the sample states, reveals that the equalizing grants do not only redistribute within the states, but also between the states: The local authorities in Selangor, which have a comparably high fiscal capacity, on the average only receive about 15 M$; the local authorities in Kelantan on the other hand receive about 85 M$. Johore (with an average of about 40 M$) and Pinang (with an average of about 75 M$) are located between these extremes. Indirectly the equalizing grants thus also reduce the disparities between the states.

4. Concluding Remarks

The presented paper intended to demonstrate that equalizing grants are able to reduce the vertical and horizontal distortions, that are characteristic for the local revenues in Malaysia. An attempt was made to operationalize this concept for the peculiarities in fiscal need and fiscal capacity, that have to be taken into account in any country. The results of this proposal were illustrated by several tables and charts.[23]

If the results should be summed up briefly, the following charts maybe are suited best, as they illustrate both the philosophy of equalizing grants and their actual effects. In these charts all Malaysian local authorities, independently of the states they belong to, are sorted according to their fiscal capacity. This capacity ranges from 7 M$ per (actual) inhabitant (Kuala Krai Selatan) to almost 200 M$ (Shah Alam) (*figure 26*).[24]

This original distribution of the fiscal capacity now can be completed by the equalizing grants, which as "secondary" revenues raise the fiscal capacity and the own revenues. In *figure 27* the effects of a 5 % equalizing are demonstrated. Although the grants for this small degree of equalizing are small in comparison to the fiscal capacity to raise own revenues, the grants reduce the discrepancies somewhat, as they only are given to the neediest local authorities. With a 50 % equalization (*figure 28*) the same principle leads to a considerable reduction of the distorted distribution of fiscal capacity. With the exception of the abundant local authorities the differences now only vary between a minimum of about 50 M$ (Machang) and a maximum of about 110 M$ (Klang). This range is reduced even more, if the fiscal residue are equalized to 100 % (*figure 29*). Now the revenues only vary between 80 M$ and 120 M$ (the abundant local authorities again left aside). This also is the extend to which differences in the local authorities' revenues are justified by similar differences in fiscal need.

The distribution of the final revenues, that is displayed in figure 29, presently cannot be achieved in Malaysia, as it would require a vertical redistribution of resources from the federal to the local level, that cannot be realized politically. It might be interesting, however, that in most European industrial countries the local authorities' final revenues vary in this relatively small range, and that degrees of equalization of 90 % or even 95 % are common. For the long run the distribution which is displayed in the final chart, therefore could be a target that should be approached gradually.

In the short run a 5 % equalization, as displayed in figure 27, probably is the most that can be achieved for the local level. However, even this relatively small redistribution would help much already, as it would channel the resources precisely to those local authorities, which need higher revenues most urgently. From this perspective, it even would be a progress, if the amount that presently is spend for the annual grants would be distributed according to the described principles of

equalizing grants. Although this amount only allows to equalize the fiscal residue by 2 to 3 %, it would lead to a more reasonable distribution than the annual grants, for which an extremely obscure equation is used.[25] The best way to implement equalizing grants hence would be to regard it as a substitution for the present annual grants; in fact it even could be regarded as a modified form of the present annual grants, which would avoid their present mistakes. Such a perception also would reduce political resistances that can be expected against new and extended grants for the local authorities.

The model contains all features of a properly constructed equalizing grants. The details, however, that actually determine the distributive effects, like the kind and number of need factors, their transformation into cardinal variables and their recoding, the measurement of fiscal capacity, the amount of the base value and the degree of equalizing, can be changed according to the actual political views and targets. The presented model therefore only should be regarded as suggestion, that seems reasonable for the consultants of the GTZ, but is open for any modifications. In fact, the variety of components, that are contained in the equalizing formula, even encourage such modifications, as they allow to generate almost every distribution and to change the effects with changing political targets.

It should be repeated finally, that equalizing grants are suggested here as a second best solution. They therefore also are an intermediate solution only. In the long run a gradual increase of the local authorities own revenues, preferably by tax sharing should be preferred for several reasons.[26] Once this first best solution is achieved equalizing grants could be reduced to their original function, e.g. the correction of minor horizontal imbalances within the local level. To fulfill this function, a much lesser volume of grants is necessary than presently, where the high grants are requested for the correction of the high vertical imbalances between the local authorities and the federal government. A downward shifting of competences, qualifications and resources therefore is most important for the Malaysian federative structure.

Figure 26:
Fiscal capacity before equalizing, for all local authorities of the sample in M$ per (actual) inhabitant

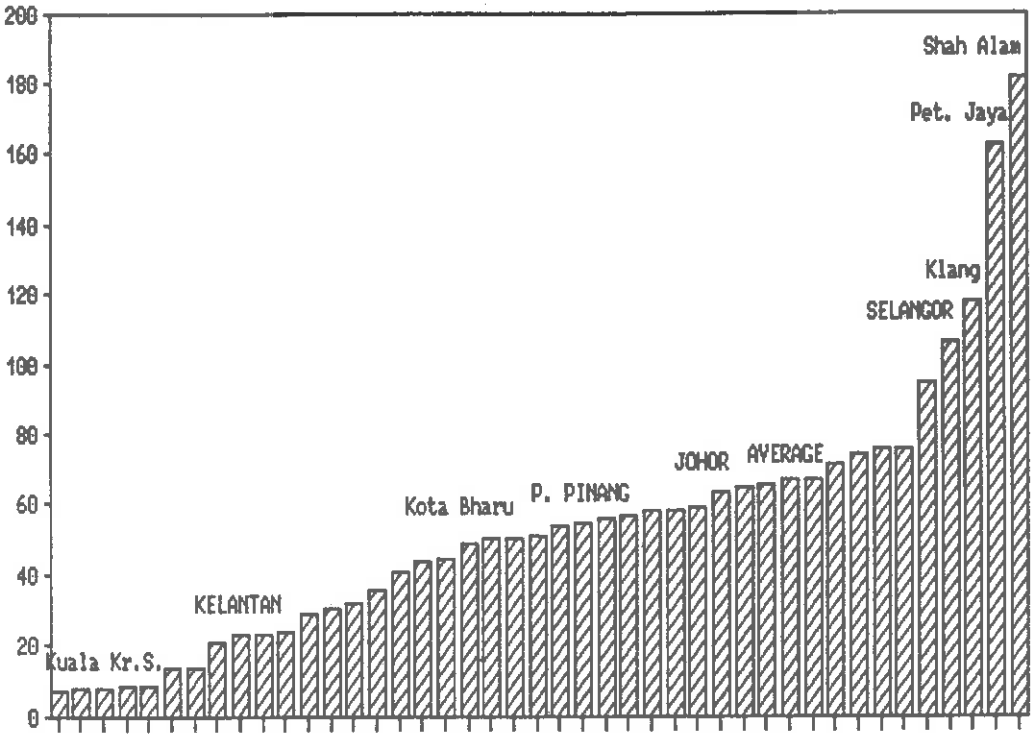


Figure 27:
Fiscal capacity after 5 % equalizing, for all local authorities of the sample, in M$ per (actual) inhabitant

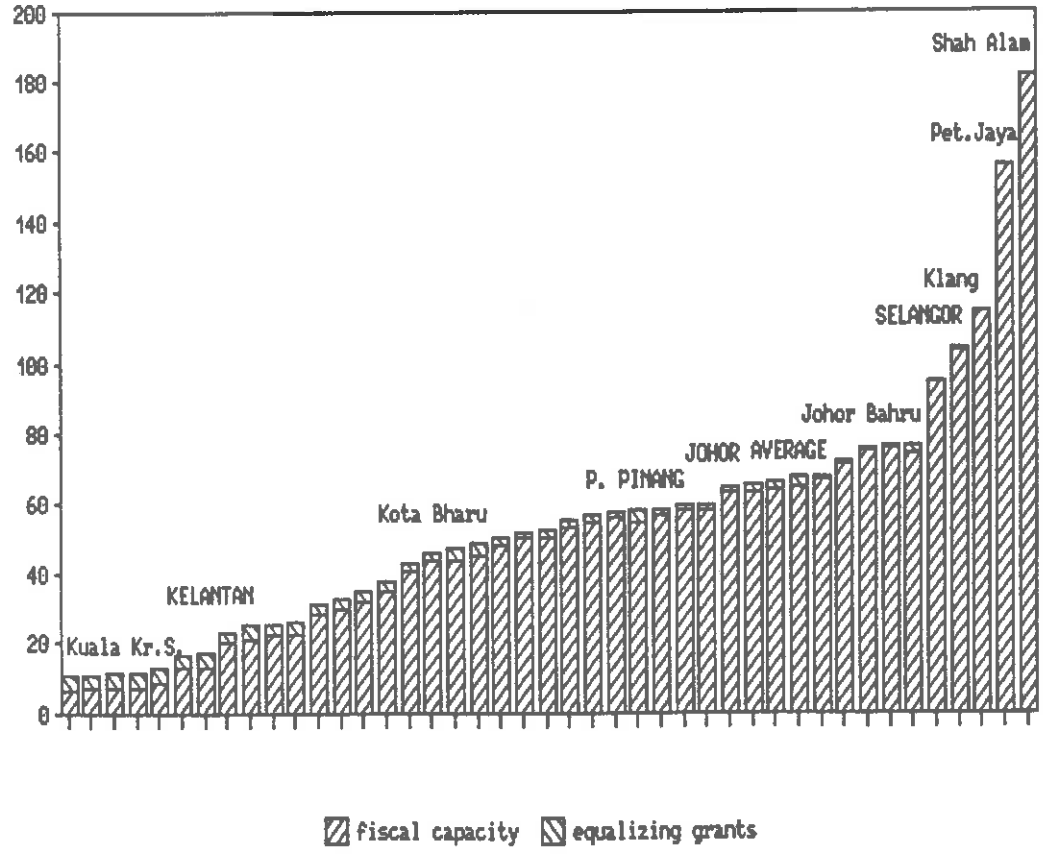


Figure 28:
Fiscal capacity after 50 % equalizing, for all local authorities of the sample, in M$ per (actual) inhabitant

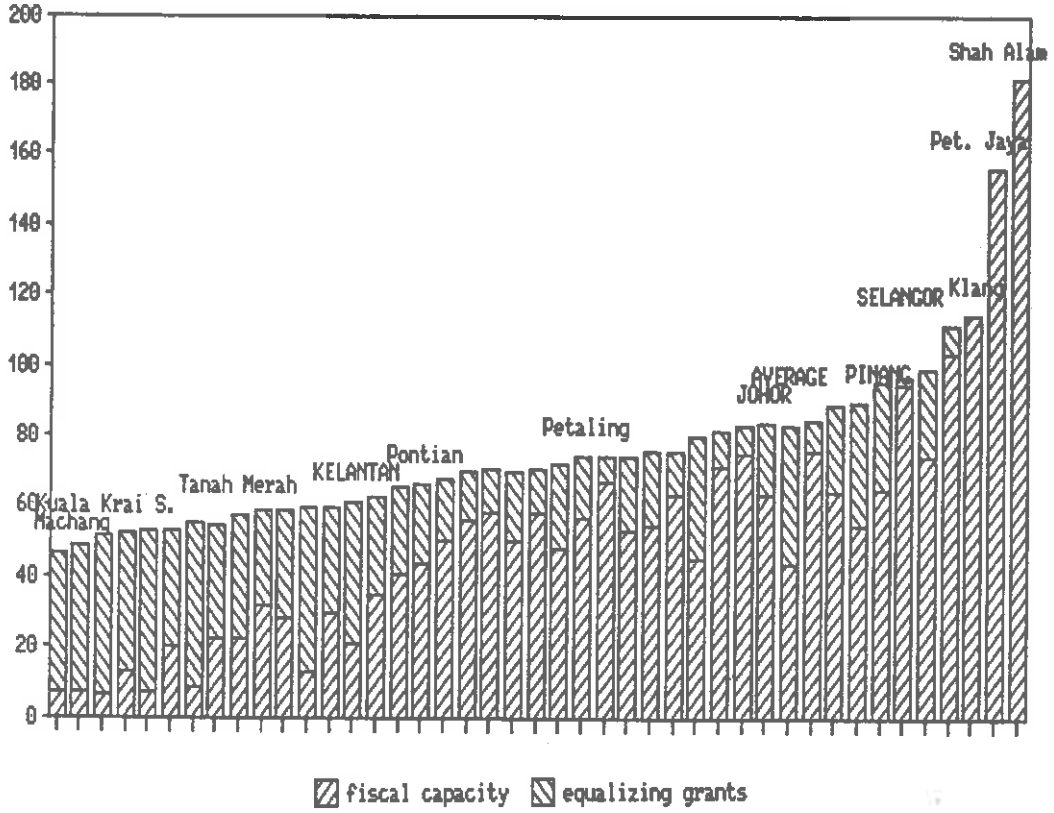
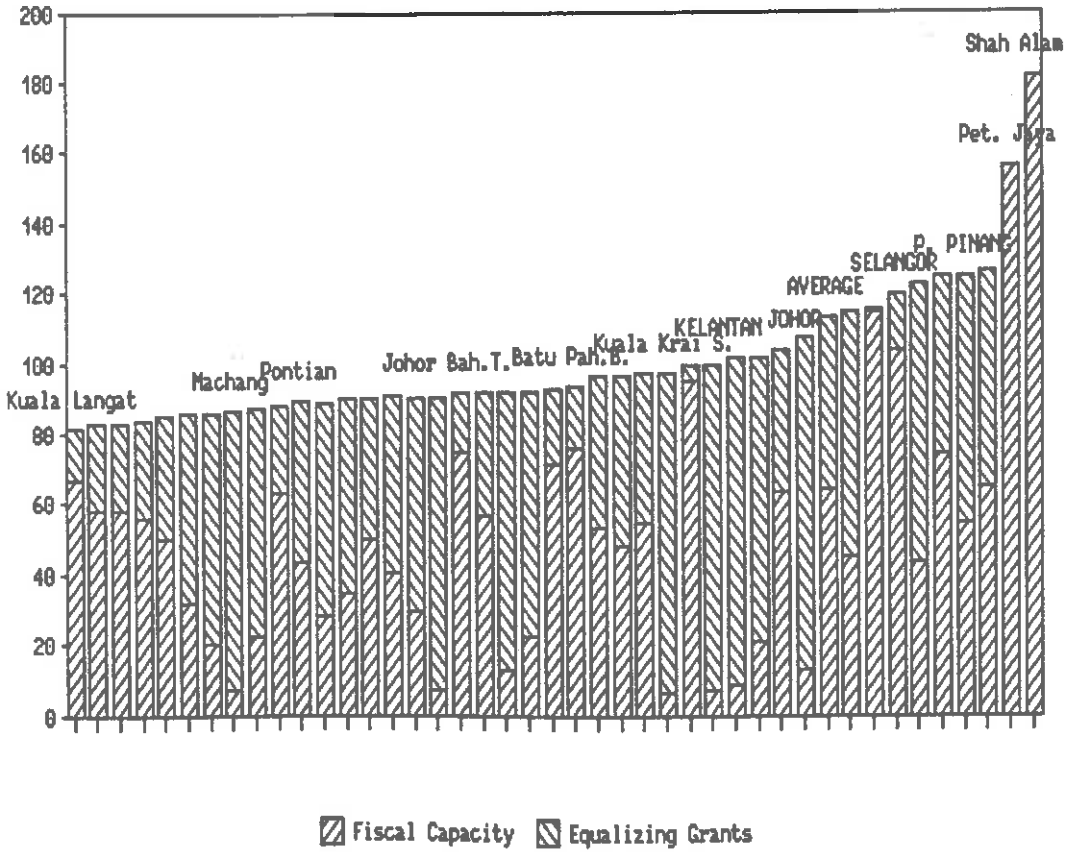


Figure 29:
Fiscal capacity after 100 % equalizing, for all local authorities of the sample, in M$ per (actual) inhabitant



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[1] This paper is a shorter version of chapters 2 and 3 of the authors' final report "Equalizing Grants for the Local Authorities in Malaysia" (quoted as KOPS 1988a), which can be obtained by the Ministry of Housing and Local Government, Local Government Division; or the GTZ, Gesellschaft für Technische Zusammenarbeit, Eschborn, West Germany.

[2] See ibid, chapter 1, and KOPS 1988b.

[3] Although the following methodological considerations on an abstract level are true for all types of jurisdictions, in the following chapters we usually restrict them to local authorities only.

[4] See Reidenbach 1988.

[5] The number of the tables corresponds to the numbers in the spreadsheet computer program, by which the figures are compiled. They thus do not start with number 1.

[6] It must be recalled, that because of the recoding of the variable these distributional effects are opposite to the original direction.

[7] For Johor Bahru i.e. 82.000 fictitious inhabitants are compiled as follows: Johor Bahrus' attribute for diseconomies of scale (0.5, see table 8, column 92) is multiplied by the weight for this need factor (0.5, see table 9, column 105); the result (0.25) then is multiplied by the gazette area population of Johor Bahru (328.000, see Table 7 column 76), which produced the number of 82,000, which in table 10, column 117, for Johor Bahru is shown as fictitious population.

[8] City Councils, which were coded with 0.30, are not represented in our sample.

[9] KOPS 1988a.

[10] If one compares the revenues of the Malaysian local authorities with those in other countries, which from the economic, political and constitutional framework might be comparable to Malaysia and thus might indicate the proper base value for local authorities, this evaluation is supported.

[11] Another, more pragmatic approach is to take the average revenues per (total inhabitant) for the Municipal Councils. As this subgroup of local authorities seems to cover its local functions, if not complete then at least comparatively satisfactorily, on could propose, that the revenues of all local authorities in the long run should be raised to the average revenues of the Municipal Councils.

This approach would yield a base value of 41.52 M$, e.g. an amount that also would lie above the average of all local authorities (33.72 M$), but below the amount that is determined by our solution, that takes the median between average and maximum value (63,13 M$).

[12] From these absolute figures the per capita figures cannot be recognized immediately. From the logic of the procedure it is clear, however, that the per capita values vary similarly to the relative fiscal need (adjusted population in table 11, column 131).

[13] See LENZ 1986, LENZ 1988; WORLD-BANK-REPORT 1988.

[14] Explanations and comments to these results as well as detailed figures for the other sample states are not presented here, but included in the final report (KOPS 1988a).

[15] For details see KOPS 1988b.

[16] The positive balance for the fiscal residuum (27,264 M$, table 12a, column 147, last row) is explained by the fact, that the fiscal residuum is calculated as difference between fiscal need and fiscal capacity, whereas the base value was determined by the actual revenues.

[17] The value for Pinang on first sight seems to be unexpectedly high. It becomes transparent, however, if one recalls that for Pinang two factors co-occure, that lead to favorable results. Firstly, the local authorities in Pinang have a unusually high fiscal need (compare figure ... above); secondly they apply a high fiscal stress (see figure ...), which leads to revenues, that only partly are considered for the computation of the equalizing grants.

[18] The difference between the displayed figure (27,264 M$) and a balanced fiscal residuum of zero is explained in the above footnote.

[19] See KOPS 1988c.

[20] See KOPS 1988b.

[21] This also implies that it would not be allowed to apply different degrees of equalization.

[22] The only exception are the abundant local authorities: As their positive fiscal residuum is not taken away, the differences between them and the non-abundant local authorities become larger with decreasing degrees of equalizing. If one compares i.e. Shah Alam (as an abundant local authority) and Petaling (as a non-abundant local authority) this can be illustrated with the above charts: A 100 % equalization (figure 20) would lead to 92 M$ for Petaling and to 191 M$ for Shah Alam; a 50 % equalization would only lead to 75 M$ for Petaling, but again to 191 M$ for Shah Alam, e.g. the difference has become wider. With the small 5 % equalization the difference would be increased further: Petaling then would only receive 58 M$, but Shah Alam would still receive 191 M$.

[23] Although the most important characteristics of these tables and charts were discussed, a lot of interesting details could not be mentioned here; also the graphical displays had to be limited to one sample state only (Selangor). For a more detailed discussion see the final report (Kops 1988a); there also the charts for the other sample states are displayed.

[24] The averages for the states (in capital letters) are also indicated in figure 25.

[25] See Kops 1988c.

[26] See Kops 1988b.

Abbreviation	Full name
JOHOR	
J.B.	Johor Bahru
J.B.T.	Johor Bahru Tengah
Pont	Pontian
Muar_U	Muar Utara
Muar_S	Muar Selatan
Klg_U	Kluang Utara
Klg_S	Kluang Selatan
Kota_T	Kota Tinggi*
Mers	Mersing
Kulai	Kulai*
B.P.B.	Batu Pahat Barat
B.P.T.	Batu Pahat Timur
S.mat_U	Segamat Utara
S.mat_S	Segamat Selatan
SELANGOR	
P_Jaya	Petaling Jaya
Klang	Klang
Ptalng	Petaling
Sepang	Sepang
K.Lang	Kuala Langat
H.Lang	Hulu Langat
Gombak	Gombak
K.S.gor	Kuala Selangor
H.S.gor	Hulu Selangor
Sabak_B	Sabak Bernam
S_Alam	Shah Alam
KELANTAN	
K.B.	Kota Bharu
K.B.D.	Kota Bharu (Daerah)
P_Putih	Pasir Putih
Machang	Machang
U_K_tan	Ulu Kelantan
Bachok	Bachok
Tumpat	Tumpat
K_K_U.	Kuala Krai Utara
K_Kr_S	Kuala Krai Selatan
T.Merah	Tanah Merah
P_Mas	Pasir Mas
P.PINANG	
Pulau_P	Pulau Pinang
S_Perai	Seberang Perai