

POPULATION GEOGRAPHY

Volume 3

Numbers 1 and 2

June-December 1981

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GUEST EDITORIAL PREFACE

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This Special Number of *Population Geography* arises from the kind consent by Professor G. S. Gosal, the Editor of this journal, to publish a selection of the articles presented at the IGU Commission on Population Geography Symposium held in Nagoya, Japan during 27-30 August, 1980 in conjunction with the 24th International Geographical Congress which took place the following week in Tokyo. The symposium concerned 'Migration and Population Redistribution in Asia and the Pacific Region', and was the fourth in a series of Commission symposia focusing upon population redistribution, the previous ones having been held in Zaria, Nigeria (1978), Oulu, Finland (1978) and Karachi, Pakistan (1980). The proceedings of these symposia have been published in four short IGU Commission on Population Geography brochures containing all the abstracts of papers; in addition the Commission published a general brochure, so the five brochures in this series are :

- *Population Redistribution Policies : a Preliminary Enquiry*, by R. J. Pryor and L. A. Kosinski, Edmonton, 1978, 27 pp.
- *Population Redistribution in Africa : Proceedings of the Symposium in Zaria, Nigeria*, ed. by J. I. Clarke and L.A. Kosinski, Edmonton, 1978, 60 pp. (out of print).
- *Policies of Population Redistribution : Proceedings of the Symposium in Oulu, Finland*, ed. by L. A. Kosinski, A. Naukkarinen and J. W. Webb, Oulu, 1978, 34 pp.
- *Development and Population Redistribution in South Asia : Proceedings of the Symposium in Karachi, Pakistan*, ed. by K. M. Elahi, L. A. Kosinski and M.I. Siddiqi, Edmonton, 1980, 50 pp.
- *Migration and Population Redistribution in Asia and the Pacific Region : Proceedings of the Symposium in Nagoya, Japan*, ed. by L. A. Kosinski and H. Kawabe, Nagoya, 1980, 34 pp.

The symposia held at Zaria, Oulu and Karachi were specially organized by the IGU Commission on Population Geography with substantial external funding and limited numbers of selected participants, nearly all of whom presented papers upon specific topics of significance to population redistribution in Africa, in the more developed countries and in South Asia. Consequently, the Commission was able to envisage three separate volumes, mainly comprising papers delivered at the three symposia but occasionally complemented by specially requested papers by authors who had not participated in the symposia. The three volumes are :

- *Redistribution of Population in Africa*

ed. by J. I. Clarke and L. A. Kosinski, Heinemann, London, 1981 (in press).

- *Policies of Population Redistribution*, ed. by J. W. Webb, A. Naukkarinen and L.A. Kosinski, Geographical Society of Northern Finland for the IGU Commission on Population Geography, Oulu, 1981 (in press).
- A volume on "Development and Population Redistribution in South Asia" to be edited by L.A. Kosinski and K.M. Elahi and published possibly in Canada.

As a pre-congress symposium of an International Geographical Congress, the Nagoya symposium differed from its three predecessors by open participation, a much broader spectrum of participants, and central organization by the Organizing Committee of the Congress (though local programme co-ordination was in the hands of H. Kawabe and S. Ogasawara). Consequently the Nagoya symposium, though focusing on the following themes—

- Changing patterns and urban concentration of population ;
- Migration and circulation ;
- Population redistribution, aspects of national plans and development projects—

was attended by a wider variety of participants whose papers were more diverse than those presented at the previous symposia. In fact, it was attended by 34 persons from 18 countries and 5 continents. One sad feature was that despite the fact that Nagoya is a major Pacific port there was a

poverty of contributions concerning the Pacific region.

The Commission brochure upon the Nagoya symposium contains 25 abstracts of papers, including 19 presented and discussed at the symposium, 2 presented in title only because the authors arrived too late, and 4 that were submitted by authors unable to attend but which were found to be relevant to the topics under discussion.

The selection of 8 papers published in this volume was conditioned by their availability and suitability as well as by the fact that some other papers were in the course of publication elsewhere, including a Commission volume. It is therefore a short selection, but one which is coherent and indicative of the current interests of population geographers. For a continent as populous and so demographically diverse as Asia, let alone consideration of the Pacific region, there can be no claim for any measure of comprehensiveness. Nevertheless, presented here are a number of important overviews of many aspects of population redistribution policies (Kosinski, Demko and Day, and Fuchs), of mobility and development transitions (Pryor), of decision making in migration (Ward) of remittances by migrants (Curson), of rural-urban redistribution of population (Vaidyanathan) and of types of density as indices of population concentration (Mookherjee)—all with reference to part of Asia or the Pacific region. The first three papers dovetail particularly closely with minor overlap, but this enhances their value.

Looking at these papers with the lofty eye of an editor (who has deliberately

omitted his own flimsy paper !), one may suggest that they offer some indication of recent trends in population geography. Of course, the theme of population redistribution is one which has attracted considerable attention from population geographers during the last decade, though the term was formerly rarely used, and so increasingly have studies of government policies which affect population redistribution either directly or indirectly. They are evidence of a concern for relevance and for the major social problems of our time, such as the concentration of people into cities, the implications of human mobility and the plight of refugees. In the growth of such studies the IGU Commission on Population Geography can claim a role as a stimulating agent.

One feature of several of the papers presented here is the emphasis given to ethnic, cultural and national diversities and the fact that there is no universal solution to the spatial problems besetting different countries, cultures and communities. The macro-analytical and positivist approaches to geography which became so important in the 1960s and early 1970s - the paper by Mookherjee may perhaps be considered in this light—are giving way to more behavioural approaches, involving consideration of human decision-making in a cultural/social context. The papers by Ward, Curson and Pryor characterize this swing towards behaviouralism. But one would be wrong to assume that population geography as a whole is moving in this direction. Indeed, in Britain, for example, where population data are reasonably accurate and abundant, some population geographers have advocated the cause of spatial demography, concentrating upon the processes of population change (fertility,

mortality and migration) to the near-exclusion of such considerations as distribution, pressure and environmental influences. There is no doubt that a more demographically stringent population geography has much to offer, especially in the context of the better data of the more developed countries, but one would not wish all population geographers to narrow their approach and exclude analyses of the spatial inter-relationships between populations, environments and cultures which have formed the nexus of many of their studies of the past.

In this connection, perhaps it is pertinent to state that as a contribution to the work of the IGU Commission on Population Geography during its 1980-84 session, I intend to edit a volume comprising papers upon the diverse approaches to population geography in different parts of the world as well as their manifold applications. I am therefore writing to many of the well-known authors in the field, and would like to hear also from any population geographers who feel that they might have a particular contribution to offer. In the interim it is hoped that the following group of papers will enhance our understanding of some of the complexities of migration and population redistribution in Asia and the Pacific region.

Finally, I should like to express the sincere thanks of the IGU Commission to Professor Gosal for his kindness in allowing this Special Number of *Population Geography*, to Professor Kosinski for his unstinting services as former Chairman of the Commission, to the various authors for their cooperation, and to our Japanese hosts, especially Dr. Kawabe, for their delightful welcome and excellent facilities.

Durham, January 1981.

GOVERNMENTS' PERCEPTIONS & POLICIES OF POPULATION REDISTRIBUTION IN EAST AND SOUTH EAST ASIA

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The UN sponsored population inquiries were initiated in the early 1970s on the occasion of the World Population Year and continued thereafter to provide information on perception of population problems by the national governments and the policies contemplated or implemented at a national level.

This paper is based on the results of the Third Inquiry among Governments on Population and Development carried out in 1977 by the UN Secretariat. It reports on perceptions and policies concerning international migrations, spatial distribution of the national population, internal migration and settlement patterns in fourteen South East and East Asian countries.

It appears that nearly all countries under consideration were concerned with the spatial distribution of population both as a factor related to problems caused by excessive natural increase and as a problem on its own right. The majority of countries were prepared to pursue policies affecting basic trends in internal migration. Most governments declared their willingness to alter patterns of rural or both rural and urban settlement. Only two countries were interested in increasing emigration, the remaining ones were satisfied with the existing levels of international migration.

The value of information provided by Population Inquiry is limited since not only trends but also perceptions change in time. Governments may be reluctant to reveal their views and intentions, and even if it is not the case the apparent inconsistency might be attributed to the lack of coordination among government agencies and an inevitable element of subjectivity.

One of the characteristic features of the present century is the ever increasing role played by the governments in regulating the social and economic life of countries. The acceptance of the principle of intervention seems to be universal and can be found in both more and less developed countries. The degree and type of interference vary in practice depending on prevailing political philosophy and availability of expertise and resources. Population processes are also affected by this general trend and as the awareness of their importance increases so does the willingness of governments to develop and implement appropriate population policies (UN, 1974, 1979 and 1980B).

The present paper attempts to discuss some of these policies in fourteen countries of Asia as reflected by the results of the 1979 UN Population Inquiry.

The UN Initiatives

The UN 1974 World Population Conference held in Bucharest and the World Population Plan of Action adopted by this conference contributed very significantly to increased awareness of population issues among the governments and public at large (UN, 1975). The Plan made no recommendations as to the specific objectives or

policies to be adopted. Neither did it define in a specific way situations which should be considered acceptable or desirable. The countries were invited to evaluate the existing trends and adopt appropriate policies of their choice. Constant monitoring of the processes and continuous adjustment of the policies were highly recommended.

These general recommendations were subsequently reiterated and further developed by five regional consultations, including one concerned with ESCAP region (Economic and Social Commission for Asia and the Pacific) which was held at Bangkok in January 1975 (UN, 1977). Problems of population distribution as well as internal and international migration were discussed at this consultation and the following statements were made :

"In many countries of the region, rural-urban migration and maldistribution of population had become urgent national problems. Though people should be able to move freely within national boundaries, the following measures should be considered : (a) relocation of existing industries and location of new industries in rural areas ; (b) resettlement of urban squatters ; (c) decongestion of primary cities through rural development and the establishment of regional urban growth centres; (d) identification, development and opening up of public lands for resettlement ; (e) land reforms to improve life in rural areas ; (f) provision of information, incentives, avenues of productive employment and income for people in rural areas which might induce them to remain and to participate in the

socio-economic development of those areas; and (g) settlement of nomadic populations".

"In the ESCAP region, international migration was not regarded as a very important means of alleviating national population pressures but the 'brain drain' cause desirous concern because it hampered development efforts.

The objectives of policy were to stop the 'brain drain' and to protect the rights of migrants and the interests of the countries concerned.

The following measures were recommended : (a) to discourage the 'brain drain', suitable employment opportunities should be provided in the home countries ; (b) international firms operating in developing countries should employ and train more local people and should provide them with suitable amenities, opportunities and facilities in order to retain highly skilled personnel in those countries ; (c) the more developed countries should do all within their power, consistent with human rights, to discourage the inflow of highly qualified personnel from less developed countries and to encourage their return ; (d) to protect and assist migrant workers and to protect the interests of the countries concerned, there should be a standardization of the skills of these workers.

(UN, 1977 : 112—114)

The ESCAP region includes not only countries of East and South East Asia which are of primary concern for this paper but also South Asia and Oceania. Consequently, some of the above conclusions may not be applicable to our area.

The World Population Plan of Action recommended that the monitoring of population trends and policies be undertaken.

“continuously as a specialized activity of the United Nations and reviewed biennially by the appropriate bodies of the United Nations system, beginning in 1977.”

(UN, 1975 : 167)

These recommendations are implemented by the UN Population Division which continuously evaluates the demographic trends in the world and makes the results of these studies available in various publications mainly in the series *Population Studies*, *Population Bulletin* and informal *Working Papers*. In addition, the periodic population inquiries are carried out among governments in which perceptions of population problems and policies contemplated and pursued are inquired into. Two comprehensive reports have recently been published by the UN containing results of these studies and of the Third and Fourth Inquiry among the Governments on Population and Development carried out in 1976 and 1979, respectively (UN, 1979 and 1980 B). The latter document was used as the main source in the present article but some comparisons were also made with the 1976 Inquiry. Only perceptions and policies of the fourteen governments were discussed here and no attempt was made to analyze the population trends. The focus of the article is on the spatial patterns and processes of population, including both internal and international movements of population.

The Importance of Spatial Aspects

Population issues have traditionally been identified with the problems of growth, caused by the increasing gap between the fertility and mortality levels. In 1979, 39 per cent of governments in the less developed countries, representing 79 per cent of the total population of these countries (or 57 per cent of the world population as of 1975) regarded lower rates of natural increase as preferable. Most of them, particularly the governments of large countries, were prepared to fully intervene in order to achieve the desired results. On the other hand, only 23 per cent of the governments in this category of countries representing 2 per cent of the world population would like to see higher rates of increase. The difference in the attitudes between more and less developed countries was quite striking since no governments in the latter category were interested in lowering the rates of the natural growth (UN, 1980 B : 8).

In view of the considerable concern with excessively high increase, it is interesting to see what variables were chosen by the governments in order to solve the problems associated with the increase. It appears that only 9 per cent of the governments in the less developed countries saw no problems with the present rate of natural increase as compared to 29 per cent in the more developed countries. The pro-interventionist inclination was clearly visible in various categories of policies (Table I). The governments of less developed countries were predisposed to intervene in non-demographic processes first followed by spatial distribution, international migration,

Table 1

**Demographic and Non-demographic Variables more Frequently Considered
for Action in Relation to the Rate of Natural Increase**

	Total Mortality	Fertility	Spatial distri- bution	Interna- tional migra- tion	Socio- economic restruc- turing	No problems linked to rate of natural increase	
Number of governments							
More developed regions	42	9	14	19	19	24	12
Less developed regions	116	26	58	98	62	104	10
Total	158	35	72	117	81	128	22
Percentage of governments							
More developed regions	100	21	33	45	45	57	29
Less developed regions	100	22	58	84	53	90	9
Total	100	22	46	74	51	81	14

Source : UN, 1980B: 9

fertility and mortality. This implies that the tendency was to use indirect rather than direct measures. In more developed countries the ranking of options was similar except that the internal distribution was relatively less frequently chosen.

Nearly all governments in less developed region were willing to try and influence natural increase by acting upon location of population alone or in conjunction with the vital processes (Table 2). The tendency to regard location of population as a key variable was also discernible among more developed countries.

The governments of the region under study were divided in their views on the desirability of changes in the levels of natural increase (Fig. 1). Four of them (all in Communist countries) were interested in increased natural growth—Mongolia, North Korea, Laos and Kampuchea. Six countries, including such demographic giants as China and Indonesia, wanted to reduce it. The remaining four countries, Japan among them, had no desire to influence the trends of natural increase. It is interesting to note that among the options considered various socio-economic measures and

Table 2

Combination of Demographic Variables Chosen for Action upon Rate of Natural Increase

	Total Vital processes alone	Vital processes and location of population	Location of population	No problems linked to rate of natural increase
Number of governments				
More developed regions	42	2	16	12
Less developed regions	116	—	70	10
Total	158	2	86	22
Percentage of governments				
More developed regions	100	5	38	29
Less developed regions	100	—	60	9
Total	100	1	54	14

Source : UN, 1980B: 9.

measures related to spatial distribution of population were frequently mentioned. On the other hand, international migration was clearly not a viable policy option to influence the natural increase.

The combinations of options considered by individual countries varied a great deal. Mongolia, South and North Korea, Kampuchea, Laos, Vietnam, Thailand and the Philippines were more inclined to intervention than the others. Singapore, Japan and Burma were on the other end of the spectrum (Fig. 1).

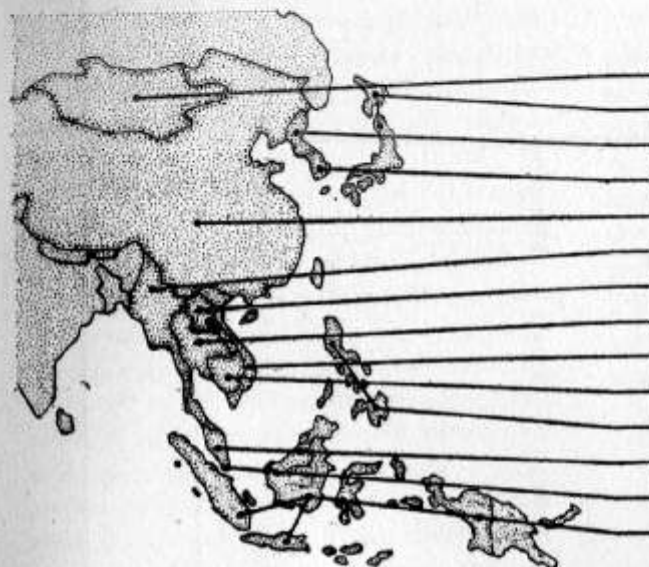
The analysis of the above data clearly

shows that internal and international migrations were to be affected by the policies of the majority of world governments. This was even more true in the case of less developed countries as a whole. In East and South East Asia policies related to spatial distribution were nearly universally considered while those related to international migration were only infrequently regarded as relevant to solving problems posed by excessive population growth.

Perceptions and Policies Related to the Spatial Distribution

The 1979 Population Inquiry included

Policy options selected by Southeast and East Asian governments to solve problems associated with natural increase, 1978



	Policy options					
	Desired changes in natural increase	Mortality	Fertility	Spatial distribution	International migration	Societal organization and technology
Mongolia	+	-	=	⊗	○	⊗
Japan	○	○	○	⊗	○	○
N. Korea	+	-	=	⊗	○	⊗
S. Korea	-	○	-	⊗	⊗	⊗
China	-	○	-	⊗	○	⊗
Burma	○	○	○	⊗	○	○
Laos	+	-	+	⊗	○	⊗
Thailand	-	○	-	⊗	⊗	⊗
Vietnam	-	○	-	⊗	○	⊗
Kampuchea	+	-	+	⊗	○	⊗
Philippines	-	○	-	⊗	⊗	⊗
Malaysia	○	○	○	⊗	○	⊗
Singapore	○	○	○	○	○	○
Indonesia	-	○	-	⊗	○	⊗

+ Increase - Reduce = Maintain
 ⊗ Intervention ○ No intervention

Source: UN 1980B

Fig. 1

a question concerning overall distribution of population. It appears that only Singapore found its distribution entirely acceptable, five governments perceived it as slightly unacceptable (South and North Korea, Mongolia, Burma and Malaysia) and others were even more critical (Table 3).

The majority of countries were prepared to pursue policies affecting basic trends in internal migration. It is understandable that the government of Singapore while satisfied with the spatial distribution

of population was not considering any major intervention in the migration process (Chen and Fawcett, 1979). Malaysia was in the same category even if the existing pattern was slightly unacceptable. Of the remaining countries one half wanted to decelerate the flows and the other half to reverse them. China (Chen, 1972), North Korea, Kampuchea, Laos, Vietnam and the Philippines were in the last category.

Another question inquired into in 1979 was the configuration of settlements and

Table 3

Internal Distribution of Population : Perception of Acceptability and Government Policies

Perception of overall acceptability of spatial distribution of population	Maintain migration flows		Decelerate migration flows			Reverse migration flows		Total number of countries
	No adjustment of settlement pattern	Adjustment of rural settlement pattern	No adjustment of settlement pattern	Adjustment of rural settlement patterns	Adjustment of rural and urban settlement pattern	Adjustment of rural settlement pattern	Adjustment of rural and urban settlement pattern	
Entirely acceptable, no intervention appropriate	Singapore							1
Slightly unacceptable, limited intervention		Malaysia	S. Korea	Burma	Mongolia		N. Korea	5
Substantially unacceptable, substantial intervention							China	1
Extremely unacceptable, radical intervention			Thailand	Indonesia	Japan	Philippines	Kampuchea Laos Vietnam	7
Total number of countries	1	1	2	2	2	1	5	14

Source : UN, 1980B; 120

related policies (Table 3). It appears that only three governments did not report policies aimed at a change of the present configuration. Presence of Singapore in this category is not surprising but it is rather odd that Thailand, which regarded the overall distribution of population as extremely unacceptable, was apparently not willing to contemplate an active policy. However, according to more detailed reports Thailand did consider moves aimed at development of rural areas and decentralization of the capital metropolitan region. A number of policies were outlined in the Fourth Five-Year Plan (1977-81) (UN-UNFPA, 1979-Thailand). South Korea is known to pursue successful policies of metropolitan decentralization (Mera, 1976 quoted after Nelson, 1978). The long-range plan of population dispersion, motivated by economic as well as strategic considerations, provides for development of small and medium towns to redirect the flows of migration away from congested metropolitan areas (UN, 1980A). Rural development programme-New Village Movement was also instituted (UN, 1980B: 144).

Four governments declared their willingness to alter rural configuration of settlements. All regarded their present pattern of distribution as unacceptable, either slightly (Malaysia, Burma) or extremely so (Indonesia, Philippines). All four were known to pursue very active programmes which generated quite a considerable literature (Gosling and Chin, 1979). Indonesia for a number of years attempted to direct migrants away from the congested islands of Java and Bali and a very comprehensive transmigration scheme provided also for development of new rural settle-

ments (Harjono, 1977; Meyer and Mac-Andrews, 1978). In addition, industrial estates were also created in less developed areas (UN, 1980B: 44). In the Philippines the long-established programme of transferring population between the islands (Smith, 1977) has been supplemented by various programmes aimed at encouraging rural development and growth of small and medium-sized urban centres (UN, 1980A). Malaysia's policies of rural resettlement and development and particularly its programme administered by Federal Land Development Authority (FELDA) have been extensively researched and are fairly well known (Pryor, 1971; Saw and Cheng; 1971; Bahrin and Pereira, 1977). Burma apparently has a comprehensive programme of rural development. Attempts are also made to resettle slum dwellers from the capital city to planned satellite settlements (UN-UNFPA, 1979-Burma).

Finally, seven governments, all dissatisfied with the overall distribution of population, were pursuing policies aimed at alteration of both rural and urban configuration. The two largest countries of the region - China and Japan, as well as all Indo-China, North Korea and Mongolia, were in this category. Japan reported the intention to promote industrial activities in non-metropolitan areas and the general rural development. The Chinese government was committed to policies of resettlement from urban to rural areas and from densely populated eastern areas to the frontier regions (UN, 1980A). The previous government of Kampuchea has undertaken one of the most drastic programmes of resettlement of both urban and rural population, but information about it is extremely

limited. Vietnam, on the other hand, has publicized its ambitious plans to resettle some 10 million people during the next two decades (including 4 million by 1981). The programme has several stated objectives: to relieve unemployment problems in parts of the south, to overcome chronic food shortages in the north by opening up new land, and to make more rational use of the country's manpower. Transfers involve rural-rural as well as urban-rural migrations in various parts of the country including moves from Ho Chi Minh city to the New Economic Zones (UN, 1980B: 43). Undoubtedly there are also political objectives of these massive resettlement moves (Lang, 1980). Laotian government was interested in redistribution aimed at better utilization of labour resources (UN, 1980A). In Mongolia, creation of collective farms brought about sedentarization of nomads. Further restructuring of settlements is related to changes in the system of productive units. Rural-to-urban movement is still encouraged and at the same time the government attempts to strengthen lower order urban centres (UN-UNFPA, 1979-Mongolia).

It appears that there is a certain inconsistency between the perceptions of policy issues and actual policies postulated or pursued by the governments of the region.

Perceptions and Policies Related to International Migration

In mid-1979 only South Korea was considered to have a high level of emigration; according to the Fourth Population Inquiry, the government would like to increase the level even further. Also

Malaysia was interested in increasing the emigration. The only country with significant level of immigration was Thailand, and its government indicated its interest in reducing it. All the remaining countries in the region were satisfied with the existing situation with neither emigration nor immigration regarded as significant (UN, 1980B: 126, 132).

However, according to more detailed studies a number of countries have expressed interest in or have sponsored certain programmes related to international migration (UN, 1980A).

Burma has signed an agreement with Bangladesh in July 1978 providing for return of some 200000 Burmese Moslems who escaped across the border earlier that year. Closer co-operation to prevent further illegal crossings has also been established.

The Chinese government indicated interest in encouraging repatriation of ethnic Chinese, entering into agreements providing for temporary contractual work of Chinese citizens abroad and tighter control of illegal emigration. China has actually signed an agreement with Hong Kong aimed at curtailing the illegal flow of migrants into the British colony.

Mongolia routinely uses foreign labour from other Communist countries arriving on fixed term contracts.

Malaysia, Thailand, Hong Kong, Singapore and Indonesia have been affected in recent years by the massive influx of refugees from Indo-China. All have been concerned about the impact of this immigration. A 24-nations conference held in

May 1979 laid a legal foundation for a system of care and further transfer of refugees to countries of permanent asylum. Sometimes the difference between the refugees and the illegal immigrants may be difficult to establish, and governments tend to lump them together while talking about the problems caused by immigration. This is particularly true in the case of Singapore and Hong Kong.

The government of the Philippines in its response to the Fourth Population Inquiry stated that the level of emigration was considered satisfactory. Further consultations summarized in the UN document (UN-UNFPA, 1979 - Philippines : 5) suggest that excessive outflow of trained personnel, especially since the passage of a rather liberal immigration law in 1965, is viewed with concern and special programmes. Balik-Bayan were set up with the intention to entice skilled emigrants to return.

Apparently no government expressed any concern about the massive outflow of refugees either forced to leave their countries of origin or doing it on their own initiative. Information about these flows and about policies aimed at solving the problems created by them come only from countries of temporary or final asylum or from the international agencies.

Conclusion

The data derived from the periodic Population Inquiries sponsored by the UN agencies provide a useful source of information not only about the demographic trends and patterns but also governments' perception and policies. However, their value is limited for a number of reasons :

- a. Not only do trends change in time

but their perception may vary, and as a result the information about governments' views and policies may be dated when it is finally released. The continuous updating service initiated by the UN-UNFPA in the form of Compendium series may be very helpful in the future.

- b. Governments may be reluctant to reveal their real perception of the situation or of policies contemplated.
- c. Different governmental agencies may be responsible for replying to different parts of the Inquiry and lack of coordination may result in the inconsistent responses.
- d. Since perceptions are obviously based upon subjective evaluation of a situation, disparate views of the same phenomenon are to be expected.
- e. There are inconsistencies between the responses to the Inquiries and the actual policies as revealed by the independent analyses.

The present paper dealt with perceptions and policies of fourteen governments in East and South East Asia. The countries analyzed here were very different in many respects :size, level of development, political system, cultural background, degree of social cohesion etc. Not surprisingly, there was a considerable variation in the perception of policy issues and actual policies contemplated and/or implemented.

The questions of spatial distribution of population were high on their priority

lists both as policy options to solve the problems associated with natural increase of population (Table 2, Fig. 1) and as autonomous population issues since the great majority of the governments considered existing patterns of spatial distribution as more or less unacceptable. Nearly all governments were prepared to try and intervene in the basic trends of internal migration by decelerating or reversing the flows. The majority were willing to alter rural or both rural and urban configuration of settlements (Table 3).

At the time of the inquiry nearly all governments were satisfied with existing levels of international migration, but there are good reasons to believe that in this respect concern over the refugee flows

was not always articulated or else they were not treated as part of migration flow.

Comparison of the results of 1976 and 1979 Population Inquiries suggests that there were not too many changes in the perceptions and policies as stated by the governments. It may be a result of inflexibility of public authorities or else may reflect the quality of the responses.

Finally, the detailed review of policies indicates that the governments did take into account results of earlier consultations and recommendations made by the regional agencies. The policy measures considered are similar to those listed in earlier documents published by the UN sponsored meetings (UN, 1977).

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POPULATION DISTRIBUTION PROBLEMS AND POLICIES IN ASIA

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Of the thirty nations of South, South East, and East Asia, over 65 per cent (20) consider their population distribution situation to be unacceptable. The main purposes of this paper are (1) to identify the primary *population distribution problems* in Asia, and (2) to identify the range of explicit population policy instruments or packages designed to alleviate or solve existing maldistribution. As a corollary to these main goals, attempts are made to classify types of spatial population problems and policies and to compare them across nations. Additionally, a qualitative analysis is made to assess the effectiveness of population distribution policies in those cases where there are reasonable data available.

Five policy approaches to population distribution problems have been dominant in the ESCAP region. These are (1) encouraging in-migration to rural areas, (2) accommodating the rural population, both (3) restricting and (4) encouraging in-migration to urban areas depending on the situation, and (5) accommodating the urban population.

Population Redistribution Policy Alternatives for Urban and Rural Areas

TARGET AREAS		IN-MIGRATION	
RURAL		Restrict	Encourage
URBAN		Restrict	Encourage
OUT-MIGRATION			
Restrict	Encourage	Accommodate	
Restrict	Encourage	Accommodate	

Discussion and examples of these will follow in detail, as well as reference in passing to policies to encourage out-migration from the urban areas, which appears to be of lesser significance. Restrictions on in-migration to rural areas and out-migration from urban areas appear to be highly unlikely options for explicit policies and therefore will not be discussed. However, there are several approaches, especially those encouraging out-migration from rural areas and accommodating the urban population, which lend themselves to several important implicit population redistribution policy options.

There are examples of almost every type of population distribution problem and policy to be found in Asia. Clearly, the policies which operate best are a function of the particular context in which they are applied and the commitment to the programme. A very important research need is to identify the implicit or unintended programmes affecting population distribution and to assess their impact.

Problems of population maldistribution and the processes, economic and demographic, which underlie them have become major international concerns in recent years. A recent U.N. survey of 156 member nations regarding their population problems discerned that half of the total (98) perceived that their population distribution was "extremely unacceptable and that *radical intervention* was desirable to bring about a substantial change in either the configuration of their population distribution or the volume and direction of internal migration flows or both" (United Nations, Vol. II, 1979). Another 37 nations found their populations to be substantially unacceptable and requiring substantial intervention (United Nations, Vol. II, 1979).

This awareness of population maldistribution is even more dramatic if one examines only the *developing world*. Of the 114 developing nations 95, or 83 per cent, perceived their population distribution to be extremely or substantially unacceptable (United Nations, Vol. II, 1979). An earlier poll indeed disclosed that a large majority of developing nations considered population distribution problems their primary problem even more important than fertility or population growth problems.

The focal regions of this paper, South, South East and East Asia are not exceptions

to the generalization above. Of the 30 nations in the ESCAP area, 16 or 53 per cent, labelled their population distribution problems extremely unacceptable, and another four, substantially unacceptable. Only two nations of the area (Singapore and Nauru, whose metropolitan regions constitute their entire national space) find their population distribution entirely acceptable!

The demographic trends in Asia in recent years have exacerbated problems of population maldistribution in the region. The magnitude of the problem can be discerned from Table 1. South and East Asian populations have grown by almost 210 million in the five years from 1970 to 1975. Even more significant is the fact that, although the urban population grew by 80 million, the rural population grew by almost 130 million. Clearly, the Asian region is remarkable for huge growth rates of urban population, in both absolute and relative terms, combined with even larger rural population, growing rapidly and serving as an ominous reservoir of potential urban migrants. It should be noted that in 1975 the urban proportion of the populations of South and East Asia were only 21 per cent and 25 per cent respectively.

Purpose

Given this background, there can be little doubt about the significance of spatial

1. ESCAP refers to the United Nations Economic and Social Commission for Asia and the Pacific. In reference to either ESCAP or "Asia" in this paper, we are in general making reference to the developing countries of South East, and East Asia, that is, countries of ESCAP region with the exception of Japan and the Pacific Islands.

Table 1

**Amounts and Annual Rates of Growth in Urban and Rural Populations
by World Regions : 1970-75**

World region	Population change (millions)		Annual percentage growth	
	Urban	Rural	Urban	Rural
More Developed Regions	65.5	-17.8	1.7	-1.0
Europe	21.2	-7.2	1.4	-0.9
North America	13.4	-2.9	1.5	-1.0
USSR	17.1	-4.8	2.3	-0.9
Japan	9.1	-2.4	2.3	-1.6
Less Developed Regions	140.6	169.2	4.0	1.7
South Asia	45.1	91.8	4.1	2.1
East Asia	34.9	37.9	3.4	1.2
Latin America	31.7	6.7	4.3	1.1
North Africa and South West Asia	16.1	8.1	4.7	1.5
Africa (except above)	12.5	24.5	4.8	2.1
Pacific Islands	0.2	0.3	6.4	1.6

Compiled and modified from *World Population Trends and Policies 1977 Monitoring Report, Vol. 1, Population Trends*, United Nations, New York, pp. 114-117.

population problems today, particularly in the developing world. The main purposes of this paper then are 1) to identify the primary *population distribution problems* in

Asia, and 2) to identify the range of explicit population policy instruments or packages designed to alleviate or solve existing *mal-distributions*. As a corollary to these main

goals, attempt will also be made to classify types of spatial population problems and policies and to compare them across nations. Additionally, a qualitative attempt will be made to assess, in at least a cursory fashion, the effectiveness of population distribution policies in those cases where there are reasonable data available.

Types of Population Distribution Problems

There exist many specific types of population distribution problems, particularly in the developing nations. Since these problems have been reviewed in a number of studies (Demko and Fuchs, 1980), they will be treated only briefly here. For purpose of convenience, we may divide maldistribution problems into two major categories, rural and urban.

The most common distribution problem is associated with *rural areas* where there are *too many people* given the resources or availability of resources in that area. Such rural demographic difficulties arise as a result of excessive in-migration to an agricultural region or more frequently because of sustained high fertility rates and consequent population growth which is exacerbated by few economic opportunities, decreasing agricultural productivity, a lack of out-migration (or opportunity to do so) or a combination of all these factors.

Conversely, there may be a problem of *rural areas with too few people*. That is, a nation may be faced with problems of lagging overall economic development as a result of an insufficient or ineffective rural labour force in an area or no effective labour force in frontier areas. Such situations and areas in Asia are indeed rare

but are important particularly as resettlement zones for peasants from overpopulated agricultural regions.

At the other end of the continuum the population problem is manifested in the fact that many societies have *cities or metropolitan places* that have more people than can be supported. Limited and already severely strained governmental resources have been overextended while attempting to cope with urban poverty, squatter settlements, a burgeoning informal employment sector and overloaded infrastructure and services. On the other hand, it is also conceivable that *urban places* may be *too lightly* populated or *too short of skilled population* to provide inputs for economic development.

A further important population distribution problem is that of a weakly developed or unbalanced urban network. That is, the absence or near-absence of intermediate-sized cities between the primate centre, and the rural villages and hinterland. In such cases the principal city or cities attract rural populations, and the network of *regional* urban centres languishes and is unable to provide services to hinterland populations. At the same time, the primate city staggers under inundations of migrants, and rural areas are denuded of young and able workers.

Rural Population Distribution Problems in Asia

Rural Overpopulation : Problems of rural overpopulation are present in most of the countries of Asia to a greater or lesser degree. Rural population densities in East Asia are high and rising slowly, and in

South East Asia are moderate but accelerating (Pernia, 1976). In much of rural South Asia densities are high and dangerously increasing. Heavy concentrations frequently form in the prime rice-growing lowlands of Asia, including the central plains of Thailand, southern and eastern China, Java and Bali in Indonesia and the southwest part of Sri Lanka. Such high population densities often stand in contrast to other regions of the countries which are sparsely inhabited.

The pressure of rising population and stagnating yields on small-sized, often fragmented farms in many countries results in an increase in shifting agricultural practices. Being unfamiliar with the delicate balance of the ecosystem, these 'false' shifting cultivators apply inappropriate farming practices which lead to destruction of forest, accelerated impoverishment of vegetation and soil, and widespread encroachment of largely useless grassland and scrubland throughout many of the countries of South East Asia (Fryer, 1979).

Even the shifting agriculturalists themselves are now being pushed by the scarcity of land relative to the increasing population. Vast amounts of upland areas in Northern Thailand have been turned into near useless grassland by the Meo people who have had their numbers swollen in recent times by migration of tribesmen from neighbouring Laos and Burma (Chapman, 1978). Further rural population pressure has forced farmers to expand into marginal areas such as semi-desert regions, natural flood plains or low deltas with extreme risk of natural or disease hazards.

Problems of land distribution and

agricultural crop pricing further complicate rural problems. Although land reform has been carried out in the Philippines and the Republic of Korea, equitable land distribution has only become a reality in countries using coercion, that is, the socialist countries, and most noticeably the Peoples' Republic of China. Most other countries have suffered from large numbers and often increasing proportions of landless farmers, fragmented holdings and absentee landlords. Small land holdings are common, for example in Nepal, India, Bangladesh and Java in Indonesia.

Further exacerbating the rural situation is the policy of various governments, for example Indonesia (Jones, 1978), Thailand (Robinson, 1978) and India artificially holding down the price of rice. Such policies further impoverish the farmers, decreasing the purchasing power of their products *vis-a-vis* urban sector goods.

Rural Underpopulation : Although sparsely-settled potential farmland is relatively rare in Asia, several countries including Indonesia, Malaysia, China, and to a lesser extent Thailand, have regions of frontier lands available for resettlement.

Uneven regional distribution of population is quite evident in several Asian countries. Sparse population and yet undeveloped lands exist in the western half of the Peoples' Republic of China, which contains less than 10 per cent of the total national population. In Indonesia (1970) population densities of 565 persons per sq. km. in Java and Madura contrast with densities of 38, 9, and 37 per sq. km. on the three largest of the outer islands. In the Philippines population pressure has built

up in the Visayas, Ilocos and Central Luzon areas, while the population has remained fairly sparse (especially up to the last few years) in Mindanao, Mindoro, Palawan and the upper Cagayan Valley. Such regional differences in the ratio of manpower to land have made the situation ripe for population movements, whether spontaneous or government-induced.

Urban Overpopulation : While problems in the rural sector tend to precipitate population redistribution throughout migration, many of the problems of the urban sector in the Asian countries result from the influx of migrants. The large flow of in-migrants combines with high rates of natural increase to produce urban population growth of alarming magnitudes. Although in Asia the urban population is only slightly greater than one-fifth of the total population, it is large in absolute terms and growing at the high rates experienced in other developing areas of the world. From 1970 to 1975 urban areas in South and East Asia² grew by 45.1 and 34.9 million people respectively, with transfer from the rural areas accounting for 41 and 52 per cent of this growth. These statistics show absolute changes in urban population size unequalled in other regions of the world, and percentages of urban population increase attributable to immigration among the highest of the developing regions (United Nations, 1979). In sum, urban population increase in Asia is occurring at unprecedented rates and with a speed seldom experienced in the West. That urban overpopulation

problems have ensued should come as little surprise.

The rapidity of urban growth has brought on serious problems of urban overpopulation relative to Asian governments' ability and resources to cope with them. This is not to say that large cities are inherently undesirable or unmanageable, for there is little evidence at present to substantiate that claim (Richardson, 1980). Rapid urban growth brings with it a plethora of socio-economic problems, such as unemployment, poor sanitary conditions, seriously inadequate housing and space, often multiplying at rates governments are not able to cope with.

The deteriorating urban environment in India is plagued by "chronic shortages of all the essential civic amenities" (Bhattacharya, 1976). The increasing urban misery is probably most apparent in countries such as India, Bangladesh and Indonesia. Serious urban problems, however, exist in most ESCAP countries. Two countries which have brought urban problems under reasonable control, the city-states of Singapore and Hong Kong, formerly grappled with tremendous problems of housing shortage. The lack of housing remains an important problem in most urban centres in Asia with governments sometimes forcibly evicting squatters and slum residents, and having such actions come back to haunt them with slums reemerging in another part of the city. Forced removals have brought on massive demonstrations of protest, for example, in the satellite city of Kwangju

2. South Asia here excludes South West Asia and East Asia excludes Japan.

in Korea (Ro, 1976); and even violence, for example, during the controversy over rebuilding the squatter community of Barrio Magsaysay in the Philippines (Laquian, 1975). Often newly-built government housing is too expensive for the former squatters. If rent is subsidized by the government many of the eligible tenants subcontract their flat to a middle income family, pocket the profit and settle in another slum area, as has happened in several of the Bangkok housing estate projects such as Din Daeng. The problems of the poor being unable to afford even government-subsidized housing rents has also been reported in the Philippines (Laquian, 1975).

Problems abound in both providing urban amenities in a healthy environment and reasonable employment opportunities. However, somewhat ironically, the measure of success of governments in overcoming these problems and making the urban area more attractive often stimulates an acceleration in the pace of new in-migrants to the city and creates new problems. Therefore, policies promoting rural development and extension of more employment opportunities outside the large cities might be viewed as more basic to solving problems of overpopulation of urban areas.

Urban Underpopulation and the Underdeveloped Urban System : A need for more population in certain urban areas is the fourth and final problem area to be discussed. Urban underpopulation can be viewed in two ways : first, that there may be too few skilled or appropriate people for development of specific urban activities ; and second, that there are too few, if any,

intermediate-sized cities to allow the development of a network of cities and markets to siphon off rural migrants before they move to the primate city. The first problem basically relates to the composition of the urban areas and their labour forces. The second problem concerns the need for settlements to achieve a certain threshold size while performing urban functions as centres for distribution, services, transportation, markets and other activities.

The problem of underpopulation is not usually associated with the largest city in Asian countries. In terms of sheer numbers most countries have at least one large city, and underpopulation exists in the sense of a lack of skilled workers. Such skilled workers and administrators are more often seriously lacking in urban centres other than the major or primate city. The large flow of in-migrants to the cities is not ameliorating these deficiencies in the labour market, for the bulk of the in-migrants take the lower-income jobs, quite often in the informal sector.

The problem of underdeveloped *urban systems* has recently become an important issue and planning consideration. This problem can be seen as one of urban primacy, or to consider the other side of the coin, the problem of poor urban system linkages from the large cities to other urban centres in the network. Both issues will be considered in turn.

Primacy, the extreme concentration of urban population and activities in one or a few centres, is a common phenomenon throughout Asia. South East Asia, in particular, appears to have a large number of primate cities. The primacy of the capital

city is most acute in Thailand where Bangkok's population numbers over four million and Chiang Mai, the second largest city, barely 100,000. A comparable gap exists in Burma between Rangoon and Mandalay. Other countries with extreme primacy problems are the Philippines, Taiwan, Cambodia, North and South Vietnam before unification and Indonesia. In Korea, where a system of cities has been emerging, Seoul still predominates despite a successful industrial dispersion policy.

The need to improve urban system linkages has been frequently stressed. In India where many large cities exist, smaller cities and towns have suffered stagnation and decay (Bose, 1975), while the larger ones have received the major influx of migrants (Gosal and Krishan, 1975). The Third Malaysian National Plan (1976-80) pointed out the need for balanced regional growth and the dispersion of industries (Pryor, 1977). Sri Lanka has been cited in terms of its need for a stronger, more integrated urban network (Mendis, 1973), and in Bangladesh a very inadequate transport and communication infrastructure to link the rural to the urban system has been noted (Khan, 1977).

Though large primate cities cannot be labelled undesirable in themselves, they concentrate unduly the limited skilled labour and resources of developing countries and thereby impede the growth and influence of regional and subregional urban centres. This impedes the development of urban network linkages which facilitate improved marketing, diffusion of innovations and integration of the national system.

Population Redistribution Policies in Asia

Population redistribution policies being

employed in the world's nations today are many and varied. They extend over an incredible range from direct and intended resettlement schemes to indirect and partially intended programmes, such as industrial decentralization plans to unintended (unintentional) policies, such as highway construction programmes. Clearly, the policy instruments and packages of instruments are aimed primarily at intervening in the migration process in terms of peoples' decisions a) whether to move, b) how far to move, and c) where to move.

Political leaders often do not view population redistribution objectives as particularly critical (Richardson, 1980). More often than not, population redistribution policies may be considered secondary or complementary to policies of another sector, such as political or economic development policies. In fact, the political orientation of a government may in some part explain the emphasis of their population and development policies. For example, in the Peoples' Republic of China population redistribution policy reinforces rural development programmes. On the other hand, urban sector development and therefore urban in-migration has been emphasized in the development and population policies by the dominant urban elite for the Philippines, Thailand, and Indonesia (Simmons, 1979). The importance of political and military considerations for the Republic of Korea influenced their industrial dispersion policy which has had far-reaching effects on redistributing the population. Although the reasons for manipulating the distribution of the population may vary, the population movements and associated

policies nonetheless often have significant impacts.

Regardless of their primary or secondary emphasis in different governments' policies, the analysis in this paper is limited to the *explicit* population distribution programmes and policies in Asia. Thus, considering the urban and rural targets of policies one may view the policy possibilities in terms of ten possible approaches (Table 2). The policy emphasis may be to manipulate in-migration, or out-migration, or alternatively to accommodate populations *in-situ* and as they arrive. In terms of explicit population redistribution policies it is obvious that in-migration has been the primary target of most intervention in global terms and that accommodation policies are growing in popularity.

Clearly, some of these policy alternatives are more viable than others. Five of these approaches have been more dominant in the ESCAP region :

1) encouraging in-migration to rural areas, 2) accommodating the rural population, both 3) restricting and 4) encouraging in-migration to urban areas depending on the situation, and 5) accommodating the

urban population. Discussion with examples of these will follow in detail, including some reference to policies encouraging out-migration from the urban areas, which appears to be less widespread. Restricting in-migration to rural areas and out-migration from urban areas are highly unlikely options for explicit policies and are therefore not discussed.

Encouraging In-migration to Rural Areas

Probably the most frequently mentioned involvement of governments in population redistribution in Asia is the many programmes for directing movements of people into rural areas. In contrast to western experience several countries have heavily financed and administered large resettlement programmes for populating the more sparsely settled remote, agricultural regions or frontier lands. Among the best known is the transmigration programmes of Indonesia, though other large programmes exist in the Philippines, Malaysia, China, and Sri Lanka, as well as the socialist countries of the Indo-Chinese peninsula,

The transmigration programme of Indonesia was initiated in 1905 by the

Table 2

Population Redistribution Policy Alternatives for Urban and Rural Areas

Target areas	In-migration		Out-migration		
	Restrict	Encourage	Restrict	Encourage	Accommodate
Rural	Restrict	Encourage	Restrict	Encourage	Accommodate
Urban	Restrict	Encourage	Restrict	Encourage	Accommodate

Dutch when extreme maldistribution of population was already apparent. Over the years the population pressure on the dense and fertile lands of Java and Bali contrasted sharply to the sparsely settled outer islands and provided a rationale for government-planned and guided migration. Also, from the very beginning the transmigration programme appeared to be designed to fill a labour shortage in the outer islands. The latter goal was more successfully fulfilled over the years than the very ambitious and more publicized attempt to alter the overall distribution of the population. The early Dutch policy appeared to be mainly prompted by a need for cheap labour for plantation work in Sumatra (Hardjono, 1977).

The transmigration programme over the years has provided the migrant in most cases free transport, one or two hectares of land, and provisions and expenses to make it through the first harvest. The vast majority of the migrants have settled in southern Sumatra in order "to obtain maximum results at minimum expense" (from the Eight Year Plan of 1961-69, cited in Hardjono, 1977). Southern Sumatra has been the focus of the transmigration programme for three reasons: first, because it is close to Java and therefore transport costs are cheaper; second, because the Indonesians have chosen to continue on the former Dutch 'colonialization' (settlement) policy plans; and third, and more recently, to induce a large enough population base to implement a strategy of agropolitan development. Only recently has there been widespread settlement on Sulawesi and substantial interest in outer islands other than Sumatra.

Early Dutch schemes transferred more than 200,000 migrants in total. After independence the Indonesian government reinstated the programme, however, only substantially transferring greater numbers of migrants during the last decade (Table 3). Recently, plans have been made to enlarge both the scale and the scope of the transmigration programme with greater inputs from the government of Indonesia, along with United Nations and World Bank support.

Table 3

Number of Settlers Transferred by Government in Transmigration and Colonialization Programmes in Indonesia

Years	Placed population
1905-49	200,565
1950-58	185,768
1959-early 1969	238,612
1969-74	181,696

Source : Hardjono (1977)

The newer programme calls for more training of migrants, development of co-operatives and marketing systems as well as general increased concern for the provision of rural infrastructure. In short, the programmes now are both comprehensive and extensive. Administrative problems have plagued the transmigration programme through its history with numerous changes of status and authority (Bahrin, 1971). However, since the Basic Transmigration Act of 1972, activities have been brought under one organization and the previous problems of lack of cooperation and coordination with various branches of the

government have improved (Hardjono, 1977).

There have, however, been many criticisms of the programme. Problems have resulted from poor planning and the inability to anticipate the differences between Java and Bali on one hand and the new settlement areas on the other (Hardjono, 1977). Problems have arisen from unsuitable, or too little, land for the new migrants and for later expansion, as well as difficulties in marketing for the successful farmers. Clearly, the transmigration programme appears questionable on a cost-effective basis, although there have been successes along with its failures.

The Philippines have also had a long history of government-planned migrations. Although government encouragement of movements can be traced back to the Philippine Public Land Law of 1903 which reclassified and released public land for homesteading (Krinks, 1970), the large-scale and rapid relocation of people took place after World War II (Simkins and Wernstedt, 1963). Faced with problems of maldistribution of population, the Philippine government has encouraged migration to the more sparsely settled lands of Mindanao, and to a lesser extent Palawan, the upper Cagayan Valley and Mindoro. It has been estimated that 1.25 million settlers went to Mindanao alone from 1948 to 1960 (Simkins and Wernstedt, 1963), though many of these moved on their own initiative responding to the lure of free lands (up to 24 hectares providing one worked at least one-quarter of it for five years, Krinks, 1970). Government support

included free transportation, provisional housing, and interest-free loans for initial expenses. Support, however, has sometimes been lacking due to government inefficiency or lack of funds (Fernandez, 1975).

The rural resettlement programme of the Philippine government is based on four principles (Castaneda, cited in Oliver, 1976): that 1) it is an integral part of agrarian reform, absorbing tenant farmers, 2) it provides land for the deserving landless, 3) it furnishes all necessary assistance, while the settler is responsible for becoming a productive landowner, and 4) it builds new communities. Admirable as these goals are, in reality the poorest settlers fare worse and often lack the resources to take best advantage of their land (Fernandez, 1975) and conversely, the most successful migrants seem not only to be those with better financial backing, but those who often paid their own transport and were part of the wave of earlier settlers. Recently although better lands appear to be closing up, the Philippine government has been attempting to improve the settlement programme by fostering and strengthening cooperatives as well as employing stricter, more rational site and settler selection (Olivar, 1976).

In Malaysia, the rural settlement programmes of the Federal Land Development Authority (FELDA) appear to have been clearly successful. FELDA has not been plagued unduly by political and administrative instability. Also, Malaysia has apparently been willing to invest a greater amount of resources in these projects, and offer greater support for settlers (Ng, 1975). In addition to FELDA, there have been land settlement programmes undertaken by the

various state governments, as well as others under federal jurisdiction, such as FELCRA. Also, there have been several projects promoted on both governmental levels for single men aged 17-25 as well as a few pilot programmes for single women (Senftleben, 1978).

FELDA, established in 1957, did not directly undertake development of new land itself until national government became dissatisfied in 1960 with the rate of opening lands by state and district land-development authorities (Bahrin, 1971). From 1957 to 1975 FELDA settled 327,000 people (MacAndrews, 1978), many cultivating cash crops in contrast to the predominant rice culture schemes of most other countries undertaking rural resettlement. FELDA was designed to promote modernization for the neglected rural Malay community (Shanmughalingham, 1976) and although land settlement projects eased poverty for a part of the population, many others, especially the poorest, were bypassed (Bahrin, 1971). One of the most common criticisms of FELDA is that, although substantial in scale, it is not of the magnitude to have much impact on the problems of the landless and the poor for the country as a whole (Aziz, 1973; Bahrin, 1971). The promotion of landholdings too small to ensure economic viability has also been criticized (Pryor, 1974). However, Simmons (1979) suggested that the land settlement projects appear to have increased agricultural production, diminished rural-urban migration and increased rural income.

Prior to FELDA, massive resettlement schemes were undertaken in Malaysia basically in response to political motivation.

The Briggs plan in a single year resettled "360,000 former squatters and illegal settlers into newly created compact towns and villages" (Simmons, 1979). From 1951 to 1960 nearly one million people were resettled in villages in close proximity to their former homes. The policy was politically motivated to keep the local people from aiding or coming under isolated harassment of insurgents. Settlement creation rather than land development was the object of this policy (Simmons, 1979). This policy was also adopted on a much smaller scale on the other side of the border to the north by the Thais to deal with a similar problem. The Philippine government used a similar strategy to pacify the Huks in the 1950s.

The rural resettlement scheme of the largest magnitude in Asia has taken place in the Peoples' Republic of China. Although precise figures on the number of migrants involved are lacking, a number of sources substantiate that millions have taken part in the movements designed to increase population and agricultural production in sparsely settled, as well as selected more densely settled, rural lands. More than 90 per cent of the population and 70 per cent of the industrial output is concentrated in the eastern half of the country (Yu, 1979). Consequently, solutions of problems of maldistribution are sought in moving large numbers of people westward. Interestingly, China is one country which advocated differential fertility, encouraging minorities in remote areas to have large families while stressing a very small family norm and late marriage throughout most of the rest of the country (Goodstadt, 1978). However, the effects of differential regional

fertility on balancing regional population is most likely quite small in comparison with the number of inter-provincial migrants.

Both urban and rural residents have moved to more sparsely settled areas. The policy of resettlement of urban residents has aimed at increasing rural productivity and fulfilling a need for educated personnel at the village level and simultaneously easing urban congestion. Before 1955, military personnel were frequently used to develop the frontier areas, after which the migration of bona fide civilians was substituted (Tien, 1964). In 1956, an estimated half million settlers moved to the frontier areas. The Youth Volunteer Land Reclamation Corps implemented long-range inter-regional migration in 1955 and, within three years, 1.38 million persons had migrated to the northern frontier areas alone. Opening up rural employment opportunities during the 'great leap forward' movement, in turn, encouraged the 'return to the native villages to join production' movement. Also, important in more recent times has been the 'up to the mountains and down to the villages' (rustification) movement which has motivated 12 million school graduates from 1968 to 1975 to migrate to rural areas. Most settled in their home provinces, but a sizable proportion also went to the border provinces of Singkiang Yunan, Heilungkiang and Inner Mongolia (Bernstein, 1977).

Although Chinese programmes to settle and develop sparsely populated frontier lands and rusticate urbanites can be seen as population redistribution policies they are inextricably tied to economic development policies stressing the rural agricultural

sector and political policies which aim at combating elitism and the 'three great differences' between town and country, worker and peasant, and mental and manual labour. Chinese policies in general have been applied in a comprehensive manner and most reliable evidence seems to indicate they are moving towards their goal of "national distribution of population in order that regional development may be balanced and each region become self sufficient" (Yu, 1979).

The resettlement programmes of Sri Lanka provide an example of a recent, coordinated and well-planned resettlement programme. In order to alleviate population pressure, unemployment, a deficit food supply, and other problems, the Mahaweli project was initiated (Mendis, 1973). The project is a complex integrated regional development programme to be completed in stages which aims to relocate approximately one million people (about 10 per cent of the population) in the central dry zone away from the wet south-west which contains over 75 per cent of the population on 30 per cent of the land. Such a large-scale project has involved multi-faceted planning: the dam will provide jobs while under construction, and when completed, power to run industries enticed to relocate in the area, water for irrigation through canal and reservoir systems, as well as flood control. Administrative, educational and health infrastructure will be spatially allocated, and commercial and industrial concerns will be promoted along with improved transport infrastructure which will reinforce a newly-created hierarchical system of urban market centres.

Although a project as large as the Mahaweli has not been undertaken before in Sri Lanka, the government has had extensive past experience with smaller relocation projects. Such projects have included government colonies which have restored ancient reservoir and channel systems for rice cultivation, village expansion schemes through grants or lease of crown lands for private agricultural development, and settlement schemes which have provided land for unemployed youth (Mendis, 1973).

In Thailand there are a number of resettlement projects scattered about the country, especially for the landless and the poor. These include projects for setting hill tribes, relocating villages displaced by dams and organizing border settlements to control insurgents in the south. The land settlement programme was initiated in 1940, gathered momentum in 1949 with the reorganization of the Department of Public Welfare, and by 1960 had settled 200,000 people (Ng, 1968). The settlements, although successful in giving some of the poor a chance to own land, have not fared too well. For example, there have been cases reported where former residents of areas flooded by dam waters were relocated to inferior lands. In general, in Thailand the government settlements appear not very significant in contrast to the spontaneous migration of enterprising farmers to frontier areas.

Rural land settlement has also been important in the population redistribution policy in Nepal. Population increase and the absence of employment opportunities outside the agricultural sector has led to a large surplus of manpower in the hill

country (Kansakar, 1978). With the eradication of malaria in the lowland Terai region, rural population redistribution offered a viable approach for alleviating the population pressure in the highlands while increasing agricultural productivity in the lowlands. Therefore the Nepal Resettlement Company was founded in 1964 to plan resettlement of the Terai through the sale of land, provision of infrastructure and the settling of 'squatters' problems. Unexpected problems arose, however, with a large influx of Indians who took ownership of much land and many available skilled jobs. The fifth Development Plan (1975-80) called for increased redistribution of population towards the Far Western Terai to optimize the man-land ratio in that more sparsely settled area. Important as it may be, it is still doubtful if the present population redistribution policy can greatly diminish population problems in the light of the high and sustained birth rates in Nepal.

Finally, in order to complete the discussion on rural settlement projects, other activities may be at least mentioned regarding resettlement of war-ravaged agricultural land in Cambodia, Vietnam and Laos. Parts of the region are still in chaos, however, and little substantial information is available.

In sum, it is hard to weigh the successes and failures of rural land settlement programmes. Often settlers are little better off than they were before moving, due to the small size of landholdings and little opportunity for expansion. Fernandez (1975) noted in Palawan (the Philippines) the reemergence of a class system in the new settlement very similar to that found

where the settlers came from. Prosperity, in essence, was heavily contingent upon access to resources. "The best that can be said for the Philippine programme to date is that it gave the settlers a chance to own land" (Fernandez, 1975). In Indonesia, discord over the Javanization of the outer islands brought the government's motives into question. Similarly in Malaysia, the relative neglect of the poor ethnic Chinese farmers has led to hints of political dissatisfaction. In the Philippines the fierce civil strife in Mindanao and the south may at least in part be traced to Christian settler encroachment on what the indigenous Muslim Philipinos felt was their land. The programmes in Malaysia and China appear to be relatively successful, however, and the large Mahaweli project in Sri Lanka has much potential. It appears that, with adequate investment and good management, rural land settlement programmes can aid in ameliorating problems brought on by maldistribution of population.

Policies to Restrict Out-migration from Rural Areas

Policies to discourage migration out of rural areas are not common. Restrictive or negative migration policies are found applied to urban areas rather than rural regions. Probably the best example of this type of policy is found in China where, in order to control the growth of urban areas, measures were introduced to curb the outflow of persons from the villages. The various measures employed included the institution of a continuous population register, centralized labour hiring procedures, control of food rationing cards, and

railroad checkpoints to turn back unauthorized migrants (Tien, 1964).

Policies to Accommodate the Rural Population

Recently, there has been a growing awareness that industrialization and urbanization will not necessarily lead underdeveloped countries to 'modernization' and an eradication of poverty. This, along with a new search for ways to decelerate rural migration to the cities, has led to a rethinking of development policies and priorities. Increasingly, investments and development projects have begun to focus on the rural areas and the poor. Planners are initiating programmes to integrate the rural areas into the national economic and urban network, increase productivity and the incomes of the farmers and provide them access to social infrastructure such as medical facilities, schools, and transport networks. Such projects envision increased rural investments to ease the economic and social inequities between the countryside and the city. Ideally, rural districts will become self-sustaining and self-governing with the societal fabric remaining intact on the one hand, and becoming an integrated part of the national economy and political structure on the other. Examples of such small-scale, accommodationist projects can be found throughout the ESCAP region. Many of these projects stress grass root community involvement with social services provided by the government, such as the Lampang Project (Development and Evaluation of Integrated Delivery Services project) in northern Thailand. It is an attempt at the integrated provision of health, nutrition and family planning services for a rural

district (Thailand, Ministry of Public Health, 1975). More comprehensive is the Bicol project (Rondinelli, 1978) which has planned an integrated regional hierarchy of urban service centres in eastern Luzon (Philippines) for provisions of social services and marketing facilities. Numerous other integrated rural development programmes have been implemented which provide social service and transport infrastructure utilities and clean water, agricultural extension, as well as improved credit and marketing facilities (Findley, 1977).

Despite the recent stress on integrated rural development projects, few countries in Asia appear to be firmly enough committed to this strategy to provide funds at the required magnitude. Also, without the needed land reform and checks on absentee landlords and avaricious money lenders, progress will come only slowly. In short, both important financial and structural changes must be forthcoming to make programmes in integrated rural development a success.

Population Redistribution Policy Affecting the Urban Sector

Policies to Restrict In-migration to Urban Areas: The poor and newer migrants to the cities are most usually the targets of explicit policies to discourage staying in urban areas. Such policies are basically of two types: residence disincentives in the city and physical removal of slums or informal sector activities. Jakarta has required city residence identification cards; Korea has instituted a graduated resident tax on the basis of city size; and Manila requires a residence certificate in order to receive free

schooling. However, none of these policies has worked very well for they are difficult to enforce and readily evaded.

A number of countries has sought to eliminate squatters, slums and informal sector activities. In Manila, slums have been removed for government housing projects (Laquian, 1975), whereas in Seoul a 'squatter ban' was implemented (Ro, 1976). In Jakarta, numbers of tricycle-taxi drivers have been taken off the streets, and in Seoul, Bangkok, and Jakarta hawkers have been at times removed from the streets. They mostly return, however, even if they have been removed to the countryside, as was the case in Manila and Jakarta. Such policies have proven to be, in general, not particularly effective because they treat the symptoms and not the causes of the problems. It has been stated that, "if these basic benefits-that is, legalization of occupancy, ownership of land, and access to public facilities-are provided, the people will be greatly motivated to improve their own shelters as well as (to have) closer participation in their own community development" (Ro, 1976, 66).

Policies to Encourage In-migration to Urban Areas: There are a number of explicit governmental policies which encourage population movement into urban areas. The most important include measures to reinforce primacy and the economic attractiveness of large urban centres, growth pole strategies aimed at regional centres, new town establishment and more general efforts to build an urban hierarchical system. These policies are interrelated in their relevance to the problems of city size and urban network balance.

A *laissez-faire* attitude toward urban growth in developing nations usually results in disproportionate growth of large urban areas and primate cities. Urban areas benefit from economies of scale and agglomeration and positive externalities which prove attractive to industrial and commercial concentration. In addition, government administrative offices, educational and medical institutions and many other activities tend to concentrate in such centres. Highly centralized administrative and political systems which are found in many countries of the ESCAP region further reinforce the concentration of population and activities especially in primate capital cities.

The policy of creating new towns has been employed by several countries in order to distribute their urban populations and to encourage in-migration to cities other than the largest. Pakistan established a new national capital at Islamabad, whereas India has developed two new state capitals at Chandigarh and Bhubaneswar. Tsuen Wan, the new town in Hong Kong planned and expanded under government direction, might well be the largest new town in the world. It has increased from a population of approximately 10,000 in 1957 to 650,000 at last report (1978). In the Philippines the government has established a 'free port' in Mariveles, Bataan with tax free privileges for industries as well as government provision of infrastructure (Simmons, 1979). In Korea, the government has promoted a series of new towns ringing Seoul.

The general success of such programmes, however, has been limited. For example, in Korea at the Kwangju Relocation

Centre, plans to relocate 200,000 slum dwellers were delayed when those already located there fiercely demonstrated against the government and then migrated back to Seoul because of the failure of the government to provide either jobs or basic services (Ro, 1976). Similarly, the New Town Development for easing the concentration of population within Seoul into the contiguous South Han area has fallen drastically short of its goals on account of lack of provision of city services and the high prices of land driven up by speculators.

The promotion of new towns is similar to the policies for growth centres, which have been in vogue for the last ten to fifteen years (Richardson, 1977). Both strategies have similar demographic goals, that is to attract in migrants to urban areas other than the primate city. Growth centre policies, as commonly interpreted, rely on geographical clustering of economic activity in order to 1) develop counter magnets to divert migrants from large cities, 2) generate beneficial spread effects to their surrounding hinterlands, and 3) aid in the creation of a functional urban hierarchy to provide better spatial integration for national economic, social and political activities (Hansen, 1980, 47). It should also be noted that, although growth centres were originally envisaged principally as a national and regional scale policy, the planning concept has now been expanded to include growth centres on a subregional and lower level (Richardson, 1980).

Growth centre strategies have become very popular to include into national and regional planning schemes. Almost all countries in Asia have adopted the

notion of regional development poles at one time or another in their national schemes. The Thai 1977-81 national plan explicitly outlines development policies connected with the designated growth centres for each of the four major regions of Thailand (Thailand N. E. S. D. B., 1977, 227). However, given the amount of resources that would be required for such a strategy and the extreme dominance of Bangkok, this policy seems to be meeting the fate of past growth pole rhetoric, that is, promoting little in actuality. Similarly, recent Philippine national plans have attempted to stimulate investment in economic and social development in the eleven regional capitals, and the Malaysian general plan stresses the build-up of the urban areas' four regional centres (Pryor, 1977). Other examples may be drawn from most of the other countries in the ESCAP region. The results, however, are paltry at best, primarily because of the huge financial investments needed. Such inputs have either not been forthcoming or available, and specific quantitative and operational guidelines for the timing, scale or location of growth centres are quite elusive. Thus planners and policy makers today appear more pessimistic about the potential of growth centres (Hansen, 1980). Apparently the best strategy is to complement activity in potential and growing centres, limit expenditures to a few realistic sites, and remain flexible in adapting to the needs of specific country situations. This is not to say that no successful growth centre policies can be found. One example may be cited in the development of the new industrial city at Ulsan, Korea which serves as a partial countermagnet to the large port city of Pusan.

Other countries, such as Sri Lanka and India, have made plans for developing functional urban hierarchical systems. However, these policies have often not made much progress for much the same reasons as cited for growth centres. The plan for development of small towns in Nepal was apparently stillborn (Kansakar, 1978). Urban hierarchy schemes, like growth centre strategies, require large infusions of capital and long periods of government intervention if they are to be successful. More ambitious projects and plans to determine the appropriate networks of small and intermediate-sized urban centres have been recently undertaken, for example, the previously mentioned Bicol integrated rural development and market network scheme in the Philippines (Rondinelli and Ruddle, 1976; Rondinelli, 1978).

Finally it might be instructive to examine the policies of socialist countries in Asia, such as China and Vietnam which have had programmes to deconcentrate the large urban areas and promote investment in smaller centres and rural areas. Perhaps the most extreme example was the Khmer Rouge government programme in Cambodia to evacuate and rebuild the cities (Hildebrand and Porter, 1976), but little information regarding these programmes is available.

A related set of policies involves the dispersal of industries and institutions from the larger to the smaller urban centres. This policy may also serve to deflect rural in-migrants towards the smaller cities. The Indian government involvement with industrial dispersion since the 1950s experienced greater success with the large heavily

government-supported industries which were located according to economic efficiency criteria, than with the less expensive industrial parks for small and medium-sized industry, which were located with regional equity goals in mind (Simmons, 1979). This at least partly reflects the location of the earlier programmes in big cities and later programmes in the rural areas. Pakistan also adopted a policy of industrial dispersion. Unfortunately, however, the plans were too rapid and on too large a scale, and low occupancy resulted (Richardson, 1977). The Philippine government, in order to spur industrial relocation, especially of the textile industry, has promoted tax incentives, transport facilities, utility subsidies and low-cost housing programmes. Malaysia has used locational tax incentives to encourage industry away from the Klang Valley, and Indonesia has established several industrial estates outside of Jakarta (Simmons, 1979).

In Korea, industrial dispersion has been massive. In addition to government arrangements for large industrial parks in most medium-sized cities, a vigorous policy based on defence considerations relocated industries to the south. Also, in a little more than a decade, new industrial towns such as Ulsan, Pohang and Gumi, have virtually sprung from the ground. Contrary to the mixed results of other countries in the ESCAP region, the Korean programme of industrial dispersion has been highly motivated and probably the most extensive and successful in Asia. By 1975, 221,000 jobs were involved in their industrial estates policy (Richardson, 1977). At the same time they have also attempted to disperse educational institutions: new university

applicant openings and new vocational schools have been assigned to areas outside of Seoul, and middle school students have been prohibited from moving to big cities (Shin, 1977). Deconcentration of administrative institutions has been attempted as well. Although there has been a measure of success in these efforts, the extreme attraction of Seoul both physically and psychologically has been difficult to overcome.

Policies to Restrict Out-migration from Urban Areas: There appear to be very few policies which discourage urban or urban-rural movements. In most ESCAP countries this type of movement is not a cause for concern and when it does take place, there would be little reason to intervene. One policy of this type which could have some effect is the 'city resident' tax in the Republic of Korea which is progressively higher in cities of larger population. This may discourage movement from a smaller city to a large one, but in reality it appears to have had little effect (Ro, 1976).

Policies to Accommodate the Urban Population

Those policies concerned with improving urban amenities and the environment make up the bulk of options for encouraging urban residents to stay in the urban areas. Such policies are not explicitly meant to be part of a population redistribution strategy and indeed, with such amelioration of the environment not forthcoming, people often will persist in living in urban environment which are frightfully bad. It appears that "such external diseconomies are (often) not internalized costs for private producers; or,

if they are internalized, they are not sufficient to balance the external economies of agglomeration" (Hansen, 1980, 2). For individuals, the external diseconomies seem not so excessive as to cause many individuals to leave. That aside, adequate and attractive urban amenities will induce people to remain in the cities. The progressive urban development policies of Hong Kong and especially Singapore are examples of what may be accomplished under concentrated government effort (although it should be noted that these are unusual city-states). Singapore is undoubtedly one of the cleanest cities in the world and probably among the most efficiently-run.

One of the more serious deficiencies of rapidly growing urban areas has been the lack of adequate housing. These problems, however, have been successfully handled by Singapore and Hong Kong by constructing public housing estates at an astonishing rate. Both cities house around half their populations now in government-built estates (Choi, 1976; UNFPA, 1976). In Hong Kong, the construction projects have been used for planned deconcentration and more equal distribution of the population (Choi, 1976; Peng, 1978).

Korean development plans have included a designated 'Green Belt' area for Seoul, but this policy looks much better on paper than in reality, for 72 per cent of the 'Green Belt' area is extremely mountainous (Ro, 1976).

Summary and Conclusions

Population distribution problems in Asia are obviously many, varied, and complex. The combination of huge and

overcrowded urban centres with high natural growth rates of populations and huge rural populations growing rapidly and sending migrants to these cities is staggering national economic development efforts. The explicit attempts to ameliorate such difficulties include almost the entire range of policy efforts available, including the more restrictive measures.

In the Asian nations the most common policies employed have been accommodationist measures in both rural and urban areas. Also very important in the region are migrant redirection programmes designed to deflect migrants to new rural settlement areas or to intermediate-sized cities. Restrictive measures are sometimes attempted but generally found to be ineffective.

It should be clear from this review that much remains to be done in this area. One of the most pressing needs is that of evaluative studies which would attempt to determine the efficacy of the redistribution measures employed. There exists little concrete information on cost and time effectiveness of new town policies, or integrated rural development programmes and even less on their comparative usefulness. In addition, there is a pressing need for Asian nations as well as other countries to establish structures for comparing and sharing information regarding distribution problems and policies.

In conclusion, it should be noted that in every nation many of the processes involved in causing and/or ameliorating population maldistributions are implicit, unintended and unmeasured. For example, export trade & policies may have tremendous impacts on agricultural priorities and prices

as well as urban policy, both of which, in turn, may significantly affect migration and other redistribution mechanisms. One of the highest research priorities must be the identification and evaluation of such implicit and unintended policies.

Finally, it must be noted that in most Asian nations population growth is extre-

mely rapid. Given the tight relationship between natural growth and migration it is imperative that family planning and other fertility reduction programmes be continued with some vigour. Population distribution problems are indeed grave and elusive and likewise will demand strenuous national efforts and coordinated policy planning at all levels.

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CONFLICTS BETWEEN EXPLICIT AND IMPLICIT POPULATION DISTRIBUTION POLICIES IN ASIAN DEVELOPMENT PLANS

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While a majority of Asian nations have already adopted explicit population distribution policies, it has been suggested that the unintended spatial impacts of implicit policies designed for purposes other than population redistribution may contradict and outweigh the intended effects of explicit policies. Implicit policy areas are identified and their spatial impacts assessed. Those discussed include foreign exchange policies; trade and tariff policies; sectoral investment and infrastructure priorities; industrial and agricultural incentives; interest rate and credit policies; tax policies; agricultural price supports and ceilings; wage regulations; transportation policies; energy and public utility pricing; social welfare programmes; and the concentration of fiscal resources and government decision-making. Examination of development plans of the Republic of China and Thailand reveals serious conflicts between explicit goals and policies and various implicit policies. The implications for planning policy and further research are assessed.

A majority of Asian nations have already adopted *explicit* population distribution policies directed towards specific population distribution or redistribution goals. Among the most common goals are restraint of growth of a primate city (Simmons, 1980), promotion of growth in intermediate-size cities (Hansen, 1980; Lo and Salih, 1979) or the redirection of rural migrants, often through colonization schemes (Bahrin, 1980). To achieve these goals Asian, as well as other developing nations, have employed a wide array of economic, social and administrative measures, often in conjunction with national and regional development planning (Table I).

However these measures, and the programmes and policies, of which they are components, comprise only a part of the influence of government policy intervention upon population distribution and redistribution. The unintended spatial impacts of *implicit* policies, that is those economic or social policies designed for purposes other than population redistribution but which nevertheless affect redistribution, may in fact be greater than the intended effects of explicit policies. Population redistribution impacts conceivably may be created by foreign trade and exchange policies, tax policies, interest rate policies, agricultural price supports or ceilings, social welfare

Table I
**Population Redistribution Policy Instruments
 in Developing Countries**

Directed toward	Policy emphasis	
	Positive/incentives	Negative/disincentives
Employing organizations	—Direct state investment in industrial and non-industrial enterprises	—Use of permits and controls to limit new construction or expansion of enterprises in selected areas
	—Industrial and urban infrastructure investment including industrial estates, new towns, and free ports	—Tax or other financial disincentives to limit construction or expansion
	—Transportation and utility subsidies	—Bans on government investment or construction in selected areas
	—Grants, loans, rebates and tax incentives	—Political or administrative decentralisation, including dispersal of agencies from capital and primate cities
	—Regional and urban coordinating agencies	
	—Promotion of labour-intensive industrial technologies	
Individuals and families	—Housing, including self-help squatter settlement programmes	—Land use zoning
	—Social infrastructure, including medical, education, and cultural facilities	—Areally differentiated tax disincentives and user charges
	—Job training and human resource development	—Discriminatory access to jobs, education, and services
	—Rural infrastructure, inclu-	—Police registration and residence permits
		—Administrative and legal controls

- | | |
|---|--|
| ding transportation and utilities | on migration to closed cities or areas |
| —Rural public works programmes | —Compulsory resettlement of rural residents |
| —Land reform | —Slum clearance and squatter resettlement |
| —Land colonisation and settlement | —Urban 'rustication' programmes (including locally issued ration cards and rural work assignments) |
| —Relocation and settling in grants | |
| —Rural credit programmes | |
| —Agricultural extension services | —Family planning and fertility control programmes directed toward areas of relatively high fertility |
| —Rural marketing services | |
| —Rural price and income policies | —Restriction on residence of immigrants. |
| —Development of rural labour-intensive technologies | |
| —Employment agencies and information services. | |

programmes, government regulation of various economic activities and wages, the degree of governmental concentrations in the capital region, and more generally the governmental institutional structure (Richardson, 1977; Renaud, 1979).

Since the unintended effects of implicit policies in these areas may contradict the intended effects of explicit policies and programmes and involve in the process a considerable waste of resources, it is a matter of some urgency that the population redistribution consequences of implicit policies be identified (Jones, 1978, 70).

However major reviews of population aspects of development plans have either minimised or overlooked distribution policies, whether implicit or explicit (Bilsburrow, 1976; Whitney, 1976; Stamper, 1977).

Ideally, as Renaud (1979 : 120) has noted the quantitative measurement of the effects of implicit policies and their comparison by monetary values involved in national spatial budgets would be desired, but the data and accounting problems involved are quite serious. Richardson (1977 : 41) has suggested that development

planners might logically begin by identifying the likely consequences of explicit and implicit policies upon population distribution and redistribution; a second step would be to determine whether there are conflicts between the policies; a third would be to seek alternative means to achieve non-spatial development objectives by substituting for those instruments having undesirable population distribution consequences, different policy instruments which avoid the undesirable spatial consequences.

This paper basically follows the approach suggested by Richardson and examines conflicts between explicit and implicit population distribution policies in rural development plans of two Asian nations: the Republic of China and Thailand. The first section of the paper contains a discussion of various implicit policies and their possible spatial consequences. This is followed by an examination of the development plans for the selected Asian nations with particular reference to population distribution goals, the major explicit policies intended to promote the goals, and the major implicit policies which appear to be in conflict with the explicit goals and policies. It concludes with a summary of the findings and an assessment of their implications.

Implicit Spatial Policies

The list of implicit policies affecting population distribution is potentially a very long one since virtually all government policies, programmes, and regulations may eventually affect locational decisions of economic entrepreneurs and decisions of individuals regarding choice of place of work or residence. It is only

possible here to review some of the major areas of policy which may have strong unintended impacts (Richardson, 1977:39-41; Renaud, 1979 : 119-127). The precise, impact of such policies will, of course, depend on the detailed characteristics of the policies and the nature of their application in specific country contexts. In general, however, the following thirteen areas of government policies may be considered as having the potential of exerting strong, unintended impacts on spatial distribution of population and economic activities.

1. Foreign Exchange Policies : Many nations have adopted policies of exchange controls which result in an over-valuation of their currency for trade purposes. This will normally result in a favouring of industrial and consumer goods importers at the expense of agricultural and other primary goods exporters; the likely unintended result is to favour the existing industrial and commercial areas at the expense of rural and peripheral regions of the country (Morgan, 1975 : 326).

2. Trade and Tariff Policies : The spatial impact of such policies will, of course, vary depending on the type of protection found in such policies. Trade policies and tariffs favouring agricultural or raw material exports would favour economic and population growth of rural or resource areas of a nation. More commonly, however, a developing nation will have adopted policies of industrial protection; such policies will "accentuate the concentration of population and economic activities in a few locations and plant the seeds for further cumulative imbalances" (Renaud, 1979 : 122). Furthermore protectionist policies which are designed to stimulate 'import substitution'

industries will most likely favour the primate city, especially since such industries are likely to maintain strong forward linkages, in the form of materials and technology, with the developed countries (Morgan, 1975 : 327). Such import substitution policies may involve an extraordinarily high degree of hidden subsidies and bias against the agricultural sector, totalling in the case of Pakistan, for example, 6.6 per cent of total domestic expenditures (Beier, Churchill, Cohen and Renaud, 1975 : 47).

3. Sectoral Public Investment Priorities : Although the effectiveness of indirect and infrastructure investments as a spatial policy instrument remains a question (Richardson, 1977:43-44), the spatial pattern of public investments and priorities, including infrastructure investment, will have an obvious impact on economic activities and ultimately population distribution. While in most nations the spatial patterning of public investments is now consciously employed as an explicit policy instrument, in some it remains hidden in the form of sectoral accounts and few nations have yet adopted clearcut spatial accounting of their investment budgets (Osborn, 1974).

4. Industrial and Agricultural Incentives : The relative weight given to industrial and agricultural incentives will play an obvious role in influencing spatial patterns of economic and population growth. However, a more subtle effect derives from the characteristics of the programmes. Industrial incentives favouring small-scale industries may stimulate rural and peripheral regions; more commonly such incentives favour high technology, large-scale industries which are likely to locate in primate or other existing large cities.

5. Interest Rate Policies : High interest rate policies are likely to dampen or preclude investment in rural or backward regions (Richardson, 1977:40). Low interest rate policies presumably would be more favourable to investment in such areas.

6. Tax Policies : Regressive policies will work against poor and backward regions; highly progressive tax structures should have the reverse effect by discriminating against the elite, generally resident in the primate cities, and by serving to redistribute income to rural and lagging regions.

7. Agricultural Price Supports and Ceilings : Agricultural price supports will tend to shift the terms of trade in favour of rural regions; however the systems of price ceilings and subsidies for food staples found in many developing countries will favour urban residents.

8. Wage Regulations : A nationally uniform minimum wage will make more attractive investment and employment in existing centres by depriving the less developed regions of the investment attractions of lower cost labour. A spatially discriminated system of minimum wages will, of course, have other impacts depending on the precise nature of the spatial differences in minimum wages.

9. Government Regulation of Transportation Tariffs and Transport Policies : In many nations transport costs are regulated and do not conform to true costs. The nature of differential rates by distance, and for different types of commodities—raw materials, intermediate goods, finished goods—may serve to provide subsidies for particular locations. Similarly passenger rates are often regulated in a manner to

induce spatial discrimination. The spatial pattern of available transport, often under government ownership, will have obvious impacts on the economic activities and population distribution.

10. Pricing of Energy and Public Utilities : As with transport rates, government policies may regulate energy and utility prices in such a manner as to result in spatial discrimination in costs to consumers. Pricing of energy or water, for example, may be less in a primate city than in peripheral regions or even the source areas of the raw materials involved. Sewage and waste disposal costs may be subsidised to the benefit of large cities.

11. Accessibility to Social Welfare Programmes : Although the efficacy of social welfare services-including educational, housing, and medical-as an explicit instrument of population redistribution is questionable (Fuchs and Demko, 1979 : 456-457; Renaud, 1979), the availability of such services plays a role in entrepreneurial and migrant locational decision-making. The spatial patterns of availability of such services will therefore have an influence on population redistribution. In most LDCs the range and quality of such services is greatest in the primate city and other established larger cities, reinforcing other implicit biases in favour of those centres. Relatively few Asian nations, Sri Lanka being one conspicuous exception, have consciously attempted to reduce spatial discrimination in availability of such services in order to dampen incentives for movement to the primate city. In most nations the availability of such services remains an area of implicit policy, with

resulting conflicts with explicit redistribution policies.

12. The Degree of Spatial Concentration of Fiscal Resources and Government Decision-making : The excessive centralisation of these services in the capital or primate city of most LDCs has been cited as a major factor reinforcing the cumulative concentration of economic activities and population in the same centres (Renaud, 1979:126). Unless deliberate attempts are made to decentralize these resources and services, in effect these nations have adopted an implicit policy leading to further concentration.

13 Other : In addition to the above, other policies, specific to an individual country, may serve to have unintended effects on population distribution in conflict with stated spatial distribution goals. In Taiwan, as discussed below, such policies include general growth policies, land use and environmental policies.

Implicit Policies in Asian Development Plans : Identification and Evaluation

While a general scheme for the identification of implicit policies, as outlined above, can be developed in a relatively straightforward manner, its application to specific nations presents serious operational problems. The range of implicit policies are rarely discussed comprehensively in development plans. As Pryor has noted in a similar context "Any detailed understanding...will require recourse to more specific sources such as legislation, departmental annual reports, working papers, administrative procedures and project plans, parliamentary enquiries and consultant reports"

(Pryor, 1975:79) The precise identification of all implicit policies for even a single nation becomes in itself a time-consuming and formidable task. The following analyses of implicit policies for specific countries have been based primarily on an evaluation of their development plans, and available subsidiary documents, but also incorporate the results of interviews with planning officials. While hardly exhaustive, this procedure has permitted the identification of the major implicit policies operating in the selected nations.

A second area of difficulty lies in the assessment of the degree of impact of implicit policies. As Richardson has noted, "a satisfactory methodology has yet to be developed for measuring the *net* spatial impacts of several non-spatial policies operating simultaneously and for separating out these impacts from those of spatial policies" (Richardson, 1977:73). In the absence of a methodology for measuring impact of explicit and implicit policies, the following country analyses are therefore limited to determining the *direction* of implicit policies, with a view to identifying those which contradict expressed goals and explicit policies. While obviously less desirable than an analysis measuring the degree of impact, such an identification of conflicting implicit policies is a necessary first stage in designing alternative policies to eliminate policy conflicts.

The two nations whose development plans are examined here—the Republic of China (Taiwan) and Thailand—are not 'worst case' examples, selected to illustrate extreme classes of implicit and explicit policy conflicts; in fact among developing countries they represent nations in which such con-

flicts are probably less common than is generally the case. Both nations have sophisticated planning organisations with skilled and well-trained staff; both have clearly enunciated, in their development plans and supplementary documents, explicit spatial population redistribution goals and have formulated or already implemented explicit programmes and instruments intended to achieve these goals. If evidence can be found in these nations of implicit policies which contradict the explicit policy goals and programmes, we can reasonably conclude that such conflicts will be even more prevalent in nations lacking such sophisticated organisations or spatially oriented development plans.

Explicit and Implicit Policy Conflicts : The Case of Taiwan

In the post-war period, Taiwan's economy has enjoyed rapid and sustained growth while shifting from an overwhelmingly agricultural character to a predominance of manufacturing industry (Li, 1976). During the period 1961-72 yearly growth averaged 9.5 per cent, and as a result the Republic of China's experience is often viewed as a model of economic growth for developing nations. These high growth rates were achieved under a series of six consecutive four-year plans, initiated in 1953 and extending through 1976. Earlier plans were predominantly sectoral in emphasis but recent plans have increasingly incorporated regional allocations and considerations. The growing concern with spatial planning is also reflected in the initiation of regional planning in 1960, island-wide comprehensive development planning in 1970, and the promulgation of

a Regional Planning Law in 1974 (Chang, 1974).

The growth and distribution of Taiwan's population are perceived as major problems by the nation's planners. Despite a decline in the annual population growth rate from a high of 3.9 per cent in the late 1950s to approximately 2.0 per cent in recent years, population has increased from eight million in 1952 to approximately 17 million at present (Economic Planning Council, 1977:4), with the result that the ratio of people to arable land is the highest in the world, save for a few city states. Accommodation of a projected increase in population to 22 million in 1996 poses serious environmental and land use problems (Fuchs, Liu, Street, and Sun, 1978).

Equally serious, in the eyes of Taiwan's planners, are the problems posed by the concentration of the population growth in major urban centres of the western coastal plains and in Taipei, the metropolitan area of which contains nearly 4 million people. The resulting rank-size distribution is not so unbalanced by world standards (Pennell, 1974). Over the period 1950-75, while Taiwan's population doubled, that of its five major cities tripled; the growth of Taipei's metropolitan area has averaged 5.6 per cent over the last fifteen years (Chang and Sun, 1978:72).

Explicit Policy Goals and Instruments : In response to the perceived problems of over-concentrated urban growth, Taiwan's planners have formulated goals of urban decentralisation including : (1) decentralisation of growth within currently "over concentrated" centres such as Taipei and Kaohsiung and (2) the promotion of a

"better balance" among regions and within the urban hierarchy (Economic Planning Council, 1975, 1976a, 1976b). Decentralisation within the more crowded metropolitan centres is to be achieved through such explicit policy instruments as the development of satellite and new towns, as well as industrial estates, in the outskirts of existing centres and the dispersal of governmental activities and manufacturing and wholesaling establishments to outlying areas.

An improved urban hierarchy and better regional balance is to be achieved by a mix of policy instruments : the development of small and intermediate-sized cities as regional and local growth poles through both public infrastructure investments and tax incentives offered to the private sector, the reduction of out-migration from lagging regions by increased public infrastructure investment in these areas, and the development of an appropriate transportation system to support regional development goals.

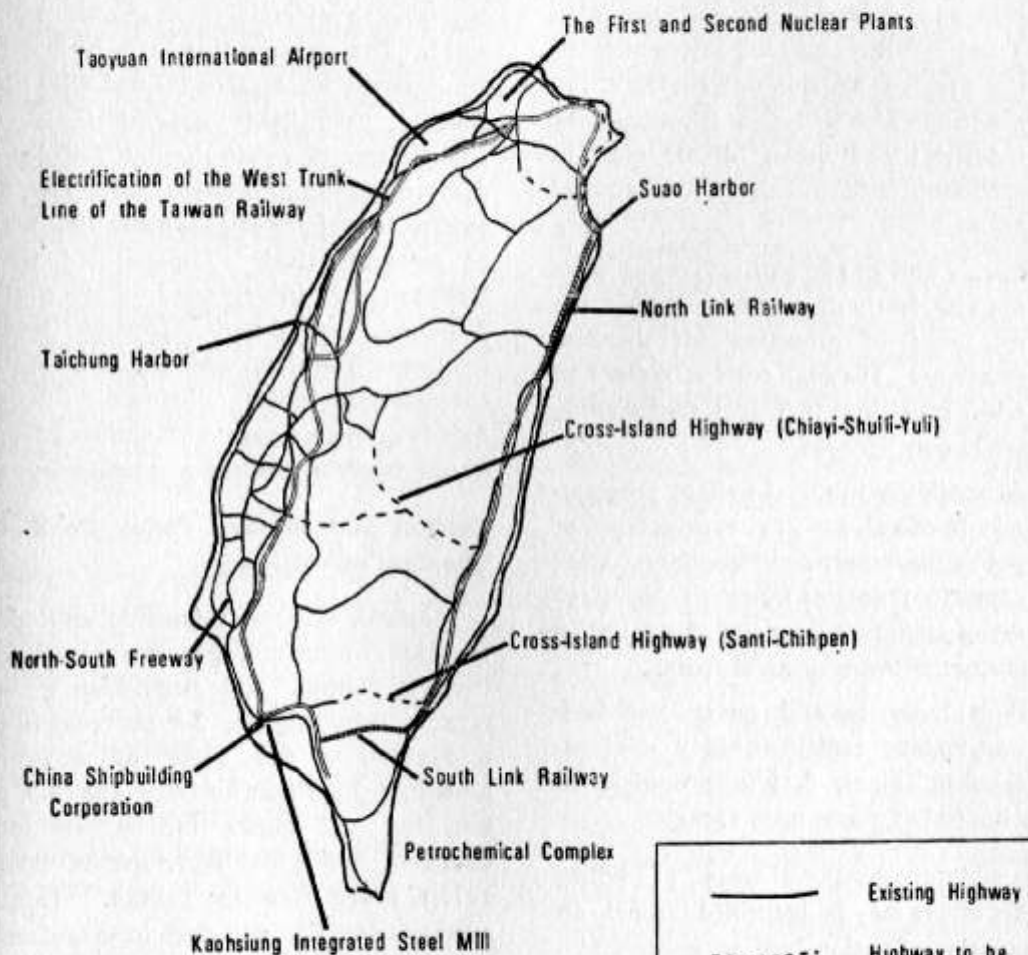
Implicit Policy Conflicts : An examination of areas of potential implicit policy impact in Taiwan reveals that most existing implicit policies are likely to either support spatial population distribution goals or function in a more or less neutral manner. However several exceptions may be noted :

1. The current policy of emphasising higher technology industry employing a more skilled labour force is likely to lead to growth in larger urban centres, rather than in smaller centres.
2. Transportation policies and programmes, on balance, probably favour the further concentration of population in the major urban centres of the western

FIGURE 1

TAIWAN

MAJOR DEVELOPMENT PROJECTS



	Existing Highway
	Highway to be Constructed
	Existing Railroad
	Railroad to be Constructed

Source : Urban Planning Department,
 Economic Planning Council,
 Executive Yuan,
 Republic of China.

coastal plain (Figure 1). While projects such as the North Link and South Link Railways and new cross-island highways will improve accessibility of the eastern regions, they are overshadowed in economic significance by the electrification and modernisation of the West Trunk rail line and the construction of the parallel North-South Freeway, the result of which will be a stimulation of industrial and urban development in corridor fashion along the coastal plain.

3. Energy and public utility pricing does not sufficiently discriminate among the true cost of provision in alternate locations. The high costs of water and sewer provisions in Taipei, for example, are largely ignored.
4. Accessibility to social welfare programmes (medical, housing, various types of public insurance, and especially higher education) remains far greater in large urban centres, especially Taipei, than in smaller towns or rural areas.
5. Fiscal resources and government decision-making remain unduly concentrated in Taipei, despite proposals for dispersal of government agencies.

In addition to these areas of policy conflict others may be identified through an examination of various policy goals enunciated in the development plan and other government policy statements. The policy goals of urban decentralisation would appear to be in conflict with various expressed goals, and supporting programmes, for achievement of maximum economic growth, regional income equity, the preservation of agricultural and particularly

paddy land, and environmental protection (Fuchs and Street, 1980). Maximum rates of economic growth would be most efficiently achieved by further concentrating development and population. Regional income equity moreover would be fostered by encouraging migration from sparsely settled areas. The preservation of agricultural lands could be better achieved with high-density centralised concentrations of population rather than through low-density decentralisation. Pollution abatement, and environmental protection generally, would be more effectively implemented where industry is concentrated rather than dispersed, for example, through sewage treatment. The simultaneous pursuit of such contradictory goals obviously involves hidden economic costs with various government programmes working at cross purposes.

Explicit and Implicit Policy Conflicts : The Case of Thailand

Thailand, with a less dynamic and more traditional economy, provides many contrasts to Taiwan. The population growth rate remains higher, 2.6 per cent in the mid-seventies, and rates of economic growth, 6.2 per cent for GDP and 3.3 per cent for per capita income (National Economic and Social Development Board, 1977); lower than in Taiwan. Despite average annual growth rates in manufacturing production of 8.6 per cent, the economy is still heavily agriculturally based and vulnerable to international fluctuations in agricultural commodity prices. Only 17 per cent of the total population lives in urban areas.

A particularly striking characteristic of Thailand is its unusual degree of urban

primacy, the sharp differences in income, access to services existing between Bangkok and peripheral provinces, and the continuing large in-migration to the Bangkok region. At present some 60 per cent of urban dwellers reside in the Bangkok metropolitan area which, with a population of some 4 million, is more than 46 times larger than Cheingmai, the second largest urban centre. This degree of primacy is probably the largest in the world. With 10 per cent of the total national population, Bangkok accounts for 29 per cent of national production and income. The growth of Bangkok has created serious problems of congestion, environmental degradation, and social welfare. Nevertheless levels of income and access to services are so much higher than in other centres, and in rural regions, as to exert a substantial pull effect resulting in an increasing rate of in-migration especially from the Northeast, North, and upper Central Region (Sternstein, 1979a, 1979b; Goldstein, 1971).

Explicit Goals and policies : Concern over the increasing spatial imbalances evident in Thailand has resulted in adoption in the Fourth National Economic and Social Development Plan (1977-81) of explicit national population redistribution objectives and policies (National Economic and Social Development Board, 1977). Among the explicit redistribution objectives specified in the plan are the following :

1. Limitations on the growth of the Bangkok Metropolitan Area;
2. Development of regional growth centres outside Bangkok;
3. Support of intra-regional as opposed to

inter-regional migration, including support of rural-urban movements into regional centres.

A comprehensive series of measures, intended to achieve these goals, is itemised in the Plan. The limitation on the growth of the Bangkok Metropolitan Area is to be supported through the channelling of investment and growth elsewhere; the planned development of its suburbs and outskirts; restrictions on the use of its port to Bangkok alone and the development of a new deep sea harbour elsewhere to accommodate other regions of the country; the dispersal of government agencies; the imposition of taxes for services provided to residents; stricter land use controls; and measures to stimulate outmigration.

Various measures are also itemised in support of the development of identified regional growth centres. They include the provision of necessary infrastructure; use of fiscal and monetary incentives to stimulate private investment; development of industrial estates; improvement of planning capabilities and of the fiscal resources available to regional centres; and development of integrated rural-urban regional planning.

Support of intra-regional as opposed to inter-regional migration is to be gained through various measures including the reduction of inter-regional differences in income; the improved distribution of social services, including education, particularly in rural and remote areas; various rural development measures including land reform, consolidation and development and improved irrigation, credit and marketing facilities; improved family planning services in rural and remote

regions; and more decentralised governmental decision-making.

Implicit Policy Conflicts: Despite the clear recognition of spatial distribution problems and the extensive listing of remedial measures, Thailand exhibits a number of implicit policies conflicting with the explicit policies:

1. Trade and tariff policies are essentially framed to protect 'import-substitution industries'; because of their concentration in Bangkok they serve to foster continued growth there.
2. Credit policies, because of the large collateral required for loans in rural areas, favour large landowners and therefore tend to displace small farmers and encourage substitution of mechanisation for labour (National Economic and Social Development Board, 1977 : 13).
3. The system of price and export controls on agricultural products has been designed to protect urban consumers at the expense of farmers. It aggravates differences in income between the urban and rural sectors and encourages rural-urban migration (National Economic and Social Development Board, 1977 : 21).
4. The proposed change in minimum wage policy (National Economic and Social Development Board, 1977 : 11) from geographical differences to differences based on occupation and industry, will favour growth in Bangkok as opposed to smaller towns.
5. While the need to improve transport facilities in rural areas has been recognised for some time, in practice disbursements for rural and feeder road projects have lagged substantially behind authorisations (National Economic and Social Development Board, 1977 : 14).
6. Utility policies have favoured urban areas, particularly Bangkok. Only 19 per cent of rural villages were electrified in 1976 (National Economic and Social Development Board, 1977 : 16) and charges for water and electricity are lower in Bangkok than in the provinces.
7. Various special measures to help slum dwellers and the urban poor in Bangkok (National Economic and Social Development Board, 1977 : 94, 269) will most likely work against programmes to encourage out-migration from the capital.
8. Proposed increases in salaries for government workers and the maintenance of special benefits for such workers (National Economic and Social Development Board, 1977 : 101, 122) again favour Bangkok because of the inordinate concentration there of government workers.

Conclusions and Implications

This paper has had two primary objectives:

1. development of a checklist of implicit economic and social policies that may have unintended effects on population distribution, counteracting the effect of explicit population distribution goals and policies;
2. analysis of selected Asian development

plans, employing the checklist, to determine if contradictions exist between explicit and implicit policies.

The Asian nations selected—the Republic of China and Thailand—are ones with sophisticated planning organisations that have already formulated national development plans with explicit and detailed spatial planning complementing the more traditional sectoral planning. Nevertheless, in each plan there is evidence of implicit policies which counteract the expressed population distribution goals and explicit policies and programmes designed to achieve those goals. These empirical findings therefore substantiate the speculations of Richardson (1977), Renaud (1979), and Jones (1978) that such conflicts and contradictions represent a major problem in achieving population distribution and settlement goals.

The extent of the problem globally may be gauged from the results of a recent U.N. survey which revealed that in the less developed regions, as of 1976, nearly 80 per cent of the governments had adopted policies to alter migration trends, 69 per cent had adopted policies to bring about an adjustment of rural population configurations, either alone or together with urban configurations, and 46 per cent had policies to adjust urban configurations, either alone or together with rural configurations, (United Nations, 1979 : 74-75). It is unlikely that the majority of these governments possess sophisticated planning organisations, with the same concern for spatial planning, as are found in the Asian nations under study and it is reasonable to assume that conflicts between implicit and explicit distribution policies are widespread in their

development plans. At a global scale therefore a very substantial, if indeterminate, waste of scarce development funds must occur through the simultaneous implementation of contradictory policies. Elimination of such waste should be a urgent priority for planners, particularly in the LDCs which can least afford waste of development funds.

The evidence presented here of conflicts in the explicit and implicit policies of Taiwan and Thailand, reinforces the urgency of developing a satisfactory methodology for measuring the impacts of implicit policies and separating their impacts from those of explicit policies. Without such a methodology, it is clearly impossible to evaluate with any precision even the impacts of explicit policies and policy instruments. The difficulties in such evaluations, intricate for any public policy measures, have been recognized as compounded in the case of population redistribution instruments by existing inadequacies in the data base, the necessity to determine relative cost-effectiveness for an enormously wide-range of interacting measures, the need to consider relevant time-horizons for anticipated effects, the problems of areal scales appropriate to individual measures, and the difficulty of separating autonomous and policy-induced trends (Fuchs and Demko, 1979:451; 1980: 47). To this list of difficulties must now be added the effects of implicit policies, which whether reinforcing or counteracting explicit policies, will distort the evaluation results unless somehow taken into account.

The development of an appropriate evaluation methodology, accommodating these intricate demands, is not likely in the

immediate future. In its absence, efforts in population distribution planning and the design of efficient and cost-effective policies programmes and instruments will be seriously handicapped. Nevertheless much useful work can still be done using 'softer' approaches. In the specific case of implicit spatial distribution policies, a useful beginning step would be the identification of implicit policies which unintentionally contradict explicit policies, with the aim, as suggested by Richardson, of finding substitute measures that would achieve the non-spatial goals without the adverse spatial impacts. While the primary burden

for developing an appropriate cost-benefit methodology will fall upon the economist, the geographer because of his unique spatial perspective can here play a vital role in indentifying the conflicts which so commonly elude the vision of planners.

Acknowledgements

The author acknowledges with gratitude the advice regarding implicit policies in Taiwan and Thailand received from Dr. Paul K. Liu, Academia Sinica, Republic of China, and Mr. Utis Kaothien, National Economic and Social Development Board, Thailand.

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INTERNAL MIGRATION AND DEVELOPMENT TRANSITIONS IN SOUTH EAST ASIA

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Current and future trends in the migration component of demographic and geographic change need to be understood in relation to pervasive changes in social and economic structure, settlement system and regional development programmes of developing countries. The first part of this paper summarizes recent and likely future trends in urbanization, and the relative contribution of migration as a component of urban growth in South East Asia. This is followed by a discussion of the spatial impact of internal migration in four countries of the region (Thailand, Malaysia, Indonesia and the Philippines), as case studies of the forces more generally in operation. The conclusion relates the case studies to development transitions and some problems of theory construction. It is suggested that *mobility syndromes* may provide a helpful concept as against more formal 'stages' which tend to presuppose unilinear evolution without adequate attention being given to the time-dependent and space-specific characteristics of mobility in a particular culture.

It is the author's conviction that present and future trends in the internal migration component of demographic change can only be adequately understood in relation to far more pervasive and interdependent changes occurring in the social and economic structures of developing countries, and the multi-faceted responses of individuals to those changes in terms of spatial mobility and overall patterns of population redistribution.

The first part of the paper summarizes recent and likely future trends in urbanization, and the relative contribution of migration as a component of urban growth in South East Asia. This is followed by a discussion of the spatial impact of internal migration in four countries of the region, as case studies of forces perhaps more

generally in operation. The conclusion discusses the case studies in relation to development transitions and 'mobility syndromes', and some problems of theory-construction are mentioned.

Urbanization Trends in South East Asia

Laquian (1973) has expressed the common judgement that

"The inundation of Southeast Asian cities with migrants from the countryside, combined with relatively high natural growth rates in urban places, creates problems that inevitably result in personal, social, economic and political tensions."

But alongside this assessment one can place such statements as the following more qualified evaluation of problems :

With the exception of Jakarta, the net volume of migration is not large enough to cause serious urban problems. Strains on urban facilities caused by urban growth are due primarily to natural increase and not to migration. However, the rapid turnover of population in some cities may be a cause of concern.....temporary migration can be a source of urban problems even though it may not contribute greatly to urban growth (Suharso *et al.*, 1976).

It becomes necessary, therefore, to qualify the idea of 'inundation' with the realization that urbanization as a process of population redistribution by locality size has been proceeding *relatively slowly* in South East Asia when compared with Latin America, Africa, East Asia and the Middle East (Jones, 1975). The growth of urban areas has been more rapid where the growth of the total population has been more rapid, but the rural base population from which rural-urban migration occurs is predominant in most of South East Asia: this latter fact stresses the current low levels and rates of urbanization, but also the magnitude of the reservoir of *future* migrants should changes in economic and social conditions encourage or force them to move.

There is, nevertheless, considerable variation between the countries of the region in the patterns of urban change, and in the volume of temporary and permanent migrants in the cities.

Table 1 shows the wide variation in total population numbers in 1980 for the ten countries tabulated, and 42 per cent of

the region's population is now found in Indonesia. Recent and likely future levels of urban population distribution are indicated from recent UN estimates. In the 25 years to 1975, all ten countries witnessed considerable total population growth, but only Brunei, Singapore and the Philippines surpassed the 33 per cent level. Even by the year 2000, these three are the only countries likely to pass the 50 per cent inflection point on the logistic curve describing progress through the urbanization transition. While most countries will at least double the proportions of their populations in urban places by 2000, with considerable impact on employment, education, health, housing and other needs and services in cities, nevertheless in most countries the greatest absolute population growth will occur in *rural* areas. For example, Thailand's urban growth 1975-2000 is projected to be 16.5 million persons or 236 per cent, while its rural growth is projected to be only 77 per cent, but involving 27 million persons. The need for integrated rural/urban and economic/demographic planning becomes apparent.

Calculations by Goldstein (1977) of the impact of migration on urban growth are shown in Table 2. They are based on the national growth rate method which assumes that rates of natural increase, and of net immigration from other countries where applicable, are identical in urban and rural areas. The rate of migration per thousand population varied markedly between countries, and also over time (not shown here). Urban rates were consistently positive, and rural rates consistently negative, but migration made a significantly higher contribution to urban growth in the *less* urbanized countries of Kampuchea,

Table 1
Population and Urbanization, South East Asia, 1975-2000

Country	Total population (millions)		Per cent urban			Per cent growth Urban Rural	
	1980	2000	1975	1980	2000	1975-2000	
Brunei	0.2	0.2	60	62	74	83	-7
Burma	35	55	22	25	37	190	43
Indonesia	155	237	19	21	31	185	48
Kampuchea	9	16	22	26	40	246	51
Lao PDR	4	6	11	13	20	215	56
Malaysia	14	22	30	33	45	172	43
Philippines	52	90	36	38	51	185	55
Singapore	2	3	90	93	97	49	-56
Thailand	49	86	16	18	27	236	77
Vietnam	49	76	17	19	29	202	48
S.E. Asia	371	592	22	24	35	189	52

Source : UN Population Division, 1975, "Trends and Prospects in Urban and Rural Population, 1950-2000" (ESA/P/WP. 54).

the Lao PDR and Vietnam, than in the relatively more urbanized countries of Singapore, the Philippines, Brunei and Malaysia. In the decade 1950-60 the average annual number of net urban migrants was 778,000 on these admittedly crude estimates, but by 1970-75 it had reached 1.3 million. When the fertility of these additional migrants is taken into account, the geometric contribution of migrants to urban growth can be appreciated, even while the actual tempo of urbanization and in-migration continues to slacken. The generally unsuccessful attempts to control urban in-migration, as in Jakarta around 1970, could not in any event influence the lagged but major contribution in natural increase.

Impact of Internal Migration in Four Countries

Four case studies help illustrate the varying regional impact of internal migration within countries of South East Asia in recent years, within the broader patterns of change just discussed. Net urban/rural population shifts are the result of a complex array of migration streams. The data discussed below were derived from origin/destination matrices for the Philippines, Indonesia, Thailand and Peninsular Malaysia (for further details, and qualifications regarding the data see Pryor, 1979, 307ff). The indices of internal migration were derived as follows :

Table 2

**Average Annual Migration Rates, and Migration as a Component of Urban Growth,
South East Asia, 1970-75**

Country	Average annual migration rate per 1000 initial population (including reclassification)		Migration component of urban growth (per cent)
	Urban	Rural	
Brunei	14	-18	39
Burma	28	-7	52
Indonesia	24	-5	46
Kampuchea	39	-9	57
Lao PDR	31	-3	57
Malaysia	20	-8	39
Philippines	16	-8	31
Singapore	10	-62	37
Thailand	24	-4	41
Vietnam	28	-5	56
S. E. Asia	23	-6	45

Source : Goldstein (1977, Table 7).

Thailand : 5-year (1965-70) migration data for the 71 provinces as at 1970.

Peninsular Malaysia : district of previous residence (PR) data for the 70 districts (no information available on migration exchanges with and between the East Malaysian states of Sabah and Sarawak); as at 1970.

Indonesia : province of previous residence (PR) and lifetime (LT) data for the 26 provinces as at 1971.

Philippines : 5-year (1965-70) and lifetime (LT) data for 67 provinces as at 1970.

At the time of the 1970 census, *Thailand's* 34 million people, spread across some 71 provinces, had major concentration in the Bangkok metropolitan region—provinces Phra Nakhon and Thon Buri jointly totalling 3.1 million, and six other provinces had over one million persons each; 5.2 per cent of the total population were classed as 5-year migrants. The largest net additions from internal migration between 1965-70 were in Thon Buri (120,000), and Phra Nakhon (49,000), followed by Nong Kai

and Khamphaengphet (both 40,000); the main net migrant-sending provinces were Khon Kaen (the supposed development centre and migrant 'magnet' of the north-east), Roi Et, Ayutthaya and Phichit.

Peninsular Malaysia's 11 states and 70 districts had a total population of 8.8 million in 1970. Kuala Lumpur district had 876,000, followed by Kinta with 483,000 (including the city of Ipoh in the tin-rich Kinta Valley); island, highland or more remote north-eastern districts had as few as 16,000 inhabitants. 16.1 per cent of the peninsula's population were classed as PR migrants, having previously lived in a locality other than the one in which they were enumerated in 1970. The recipients of the largest net numbers of internal migrants were the districts of Kuala Lumpur (93,000) and Johor Baharu (35,000); and Keluang, Ulu Kelantan, and Kuantan each received about 16,000 net in-migrants; net migration losses were greatest from Muar and Batu Pahat in Johor state, and from Kota Baharu in the isolated north-east of the country.

There is interesting evidence for the relative role of migration in urban growth in Peninsular Malaysia (Table 3). It is clear that in most states natural increase was a more important contributor than migration or area re-classification (Pryor, 1979).

In the state of Selangor, containing Kuala Lumpur and Kelang, 48 per cent of the urban growth between 1957-70 was due to natural increase, and 41 per cent was due to internal migration. There is other evidence that both urban and rural areas grew at the same rate, namely at the national rate of 2.6 per cent per annum during

1957-70, suggesting that while city growth undoubtedly occurred, urbanization as a process of overall redistribution did not.

Table 3

Percentage Explanation of Urban Growth in Peninsular Malaysia, 1947-70

	Percentage explanation of urban growth		
	Natural increase	Internal migration	Area re-classification
1947-57	35	32	33
1957-70	61	18	21

The *Indonesian* population of nearly 120 million was divided among a relatively small number of provinces (26), but the uneven population distribution meant that numbers ranged from a few hundred thousand in peripheral provinces to 25.5 million in Jawa Timur. Jakarta had 4.5 million, and the contiguous and relatively developed province of Jawa Barat had 21.6 million; 6.1 per cent of the population were classed as PR migrants. The impact or net internal migration was highest in Jakarta (1,337,030), Lampung (903,000), and Sumatera Utara (273,000); the largest net contributors of out-migrants were the provinces of Jawa Tengah, Jawa Barat, and Jawa Timur.

The Philippines, with a total population of nearly 37 million in 1970, had province populations ranging from 11,000 in the remote islands of Batanes, to 2.8 million in Rizal and a further 1.3 million in the contiguous area of Manila—the latter two provinces together constituted the primary metropolitan region; 4.9 per cent

of the population were classed as 5-year migrants (1965-70). The net impact of internal migration was highest in Rizal (338,000), Bukidnon (33,000), Cotabato South (30,000), the latter two in the southern, less developed Island of Mindanao; the largest net out-migration was from Manila (metro-sprawl to Rizal), Cebu and Iloilo.

The highly urbanized province of Rizal received large numbers of out-migrants from the central city of Manila, but Kuala Lumpur district, Jakarta, and the two provinces making up Bangkok still grew markedly from a combination of natural increase and in-migration. Some essentially rural provinces were also among those undergoing considerable net in-migration. Net *absolute* increases or losses in part reflected population size, so that net migration *rates* may indicate other patterns or intensities, as Table 4 illustrates. These

summary rates demonstrate that more recent trends can differ in direction as well as in level from the lifetime (place-of-birth) patterns, as in the case of Manila. But inspection of the data from which they were drawn reveals that higher rates do occur in less populous provinces: thus, for example, higher net migration rates in the Philippines indicate the *relative* importance of the growth of the Agusan del Sur and Kalinga-Apayao, and the loss from Mountain Province and Eastern Samar. Similarly, in Malaysia, the relatively less developed and remote districts of Ulu Kelantan, Dungan, Tanah Merah and Padang Terap have rates of 20 per cent and over, presumably a reflection of general progress in rural development, and of agricultural settlement projects and their servicing in particular. In Indonesia, the significance of in-migration to Jakarta, to the transmigration centre of Lampung in

Table 4
Selected Net Migration Rates in South East Asia

	Province	5-year/ PR rate	LT rate
Thailand	Thon Buri	+13.0	—
	Phra Nakhon	+ 2.3	—
Malaysia	Kuala Lumpur	+10.6	—
	Johor Baharu	+12.8	—
Indonesia	Jakarta	+29.4	+36.5
	Jawa Tengah	— 5.4	— 7.1
Philippines	Manila	—14.2	+ 5.1
	Rizal	+11.9	+42.2

Sumatera, and to urban Irian Jaya, is emphasized by the rates both for lifetime and 'recent' migrants.

The sizes of the base province populations, the number, shape and relative contiguity/dispersal of the areal units, the differing census definitions (Pryor, 1976), and the varying levels and rates of development and sub-national distributions of urban and rural populations, are but some of the factors contributing to the patterns of net internal migration rates. The small number of provinces in Indonesia masks the interprovincial migrations within that country, but Jakarta and Lampung with net in-migration rates of around 30 per cent are well ahead of the leading destinations elsewhere. The metropolitan provinces of Thon Buri, Kuala Lumpur and Rizal have moderately high net in-migration rates, but the low or negative rates in 'old' Bangkok (Phra Nakhon) and Manila reflect overspill into adjacent provinces. The district of Kuala Lumpur, on the other hand, is statistically overbound, except that growth is rapid right through the Kelang Valley. Other high in-migration areas lie in the frontier agricultural and land settlement regions of the four countries. Out-migration provinces are either relatively accessible to attractive metropolitan regions, or are more isolated 'lagging' regions with considerable population pressure on limited resources. 'Active' and 'passive' segments of the economic peripheries can be identified in each country.

One significant aspect of the internal mobility of a country which cannot be tapped by the data used here is the varied category of dynamic circulation. South

East Asian rural populations in particular place heavy economic and social reliance on commuting and circular movement, keeping a 'foot in both camps' in rural and urban work-forces (however informal) and residences (however inadequate or illegal). The symbiotic relationship achieved by this means has been discouraged by some planners, but the labour-absorptive capacity of the informal sector through a system of circulation may have temporal and qualitative flexibility in its favour even where, as sometimes happens, it paves the way for more permanent relocations.

Calculations have been made, for each of the four countries discussed here, of the probability of moving to the province(s) constituting the metropolitan region from all other provinces in the country (Pryor, 1979, 316ff). P_{ij} , the probability of moving the i th to the j th province, is calculated by dividing the elements of each row m_{ij} of the migration matrix (the set of origins by the set of destinations) by the respective row sum ($\sum_j m_{ij}$). For Thailand, Phra Nakhon and Thon Buri were combined as 'Bangkok', and because of the net out-migration from Manila, Rizal is taken as the metropolitan growth region for the Philippines.

Probabilities of moving to Kuala Lumpur were considerably higher than for the main metropolitan regions of the other three countries. Each country had three or four provinces with high probabilities of migration to the capital, and immediate contiguity was of great importance with the exception of West Sumatera in Indonesia, and more notably the provinces of the Bicol-Visayan region of the Philippines. Conversely, distance and isolation by

mountain and sea barriers effectively reduce the probability of migration from many other provinces. There is little likelihood of migration to Bangkok from the north, north-east and more remote southern provinces; to Kuala Lumpur from the east coast and northern districts of the peninsula; to Jakarta from the Nusatenggara and some of the Sulawesi and Kalimantan provinces; and to Rizal from much of Mindanao or even from north-central Luzon. Thailand has the smallest and most highly focussed grouping of source provinces for migration to the metro-region around Bangkok, while Peninsular Malaysia had the largest grouping of contributing districts 'feeding' Kuala Lumpur. It is notable that not even the insular nature of Indonesia and the Philippines effectively counteract the attractions of Jakarta and Rizal to some outlying areas: the economic peripheries and migration fields can be very extensive.

Elsewhere the author has used the Markov chain model to illustrate the hypothetical outcome of contemporary migration processes. The technique and its theoretical assumptions cannot be discussed here in detail (see Pryor, 1979, 320ff), but it assumes the continuation into the future of present patterns and processes of internal migration until they reach the eventual Markovian condition of equilibrium. A large number of steps was required to reach equilibrium with migration data for these four countries, reflecting the relative stability of the existing settlement systems, and the slow pace of redistributive trends. Nevertheless, significant changes would occur in population distribution if current trends continued unabated:

(1) In Thailand, Phra Nakhon and Thon Buri would both end up with a smaller proportion of the total population than at present, if current migration patterns continued to equilibrium; conversely, Roi Et, Mahasarakham, and Ubon Ratchathani would gain significantly in the long term.

(2) In Peninsular Malaysia, Kuala Lumpur district would increase from 14 to 20 per cent, a truly primate situation, if present trends continued indefinitely; the secondary centres of Kelang, Kuantan and Temerloh would also increase, while Kinta would fall slightly.

(3) In Indonesia, Jakarta would rise from 4 to 9 per cent and Lampung from 2 to 11 per cent; Jawa Tengah and Jawa Timur would decrease drastically, by about 8 per cent each, while the most populous province, Jawa Barat, would retain its primacy with 17 per cent of the population at equilibrium.

(4) In the Philippines, Rizal would move from 8 to 21 per cent of the total population, comparable to Kuala Lumpur; Agusan del Sur would rise from 0.5 to 7 per cent, while Manila would fall from 3 to 1.6 per cent.

It should be reiterated that these trends are purely hypothetical, and would only occur (after many years) if present migration patterns continued uninterrupted, and if (quite unrealistically) no other factors intervened to effect the system. The main value here is to stress the slow rates of redistribution and the varying trends in metropolitan primacy in the four countries: these warrant evaluation from the viewpoint of regional planning and policy intervention alternatives.

Summary and Some Theoretical Implications

While each socio-geographic situation is unique and dynamic in its migratory processes, three more general patterns can be identified from the data discussed briefly in this paper. First, in Thailand, Malaysia, Indonesia and the Philippines in-migration streams tend to be focussed on the single largest metropolitan region in each country, and other evidence suggests that they contribute largely to the traditional rather than modern sectors of these metro-districts. Second, out-migration or overspill movements from the national capital into surrounding provinces are notable in Thon Buri (Bangkok) and Rizal (Manila), but less important at this stage in Kuala Lumpur and Jakarta—though both the latter undoubtedly have important economic hinterlands and migration fields which penetrate well beyond the city limits. Slums and squatter settlements are found sprawled along transport corridors, flood zones and other difficult landscapes, but overspill also involves modern sector residential areas for the emerging middle class of urban commuters. Third, dispersal or less focussed migration to frontier or pioneer agricultural regions and land development projects is particularly important in Malaysia, Indonesia and the Philippines, and prospectively also in Thailand. To some extent this is a modern sector phenomenon as an agro-business approach replaces subsistence farming or virgin forest, but the 'modernization' of individuals may await the second or later generations of migrant families, by which time changes in education and cultural values may have become more congruent

with the apparently objective artefacts of modern agriculture and planned settlements.

These trends and processes have clearly had a major impact on the landscape, and on social, economic and political life in recent decades, and even a cursory investigation of government attitudes to and perceptions of population growth and distributional problems reflects this situation (United Nations, Population Division, 1979, a, b, c; 1980). Not only is there a general dissatisfaction among governments of the region with trends in population redistribution, but this goes hand in hand with a more general concern over continuing rapid population growth: Thailand is typical in its multi-faceted policy to decrease its rate of growth from 2.5 per cent in 1977 to 2.1 per cent in 1981 through integrated measures to reduce fertility, reduce mortality, reduce immigration (especially undocumented and refugee arrivals), reduce emigration, adjust spatial distribution, and adjust economic and social factors including improved income distribution and greater access to education and public health in rural areas. So the general dissatisfaction with population growth and distribution is gradually being translated into policies, programmes and projects linked in varying degrees with national economic and social development goals and formal development plans.

Just as internal migration patterns and processes are increasingly seen to be linked with fertility trends and wider social changes, so matters of government policy are increasingly seen as inseparable from three interdependent processes now shaping the demographic and socioeconomic

character of the major countries of the region. The urbanization transition, that process by which some countries tend to move from low to higher levels of population concentration in 'urban' places, has been modelled as a logistic curve. The fairly low levels of urbanization in South East Asia are explained in part by the high absolute population increase in rural areas. However, the tempo of urbanization (the difference between urban and rural growth rates) is accelerating so that planning geared to urban physical problems cannot be separated from factors affecting natural increase.

The demographic transition is by no means a unitary process in the region, and while its movement may overlap, it rarely coincides with changes in the tempo or level of urbanization. Only Singapore has unequivocally entered demographic transition as generally conceived in the West, and the growing 'reservoir' of potential rural-urban migrants in other countries of South East Asia requires government action on a number of fronts—employment, education and health as well as fertility *per se*.

The mobility transition as proposed by Zelinsky (1971) describes the experience of a number of Western countries where the modernization process has been accompanied by "definite, patterned regularities in the growth of personal mobility through space-time during recent history". Zelinsky suggested a number of linked phases in the mobility transition, comparable to those of the 'ideal-typical' demographic transition. Experience in less developed countries over the past decade indicates that the various transitional processes are not necessarily in phase with each other, and certainly differ

from country to country. Zelinsky's own emphasis on the spatial/temporal dimensions can in fact be used to bolster the argument *against* generalizing across a number of countries at some arbitrary point in time. It seems more realistic, and more constructive for theory-building, to assume that there is *no* neat meshing of different if interdependent processes, and *no* mechanistic sequence in the patterns of modernization. We can then speak of, not unilinear 'stages' of mobility transition, but of at least five *mobility syndromes* or sets of interrelated mobility characteristics, one of which may be identified in a particular social-spatial-temporal setting. These approximate to Zelinsky's 'stages', but deny the necessary movement from one syndrome to another in some predetermined sequence :

- circulation between traditional, dispersed agrarian settlements, often accompanied by a low rate of natural increase (high fertility, high mortality),
- major rural-urban migration, often with significant rural-rural migration and temporary rural-urban circulation, and accelerating natural increase as mortality falls (some migration may be to the modern sector, but more often in rural/land settlement areas than in the cities),
- inter-urban migration and urban circulation in the context of a small/declining rural work force; low fertility and natural increase with 'modern' values widely diffused through the settlement system,

- major inter-and intra-metropolitan mobility in the presence of a low or even zero rate of natural increase in an advanced or post-industrial society (on Australia, see Burnley, Pryor and Rowland, 1980), and
- in the post-industrial society, communications technology may modify or replace migration and circulation; internal and international migration tends to be by the highly skilled in the quaternary sector; fertility is severely controlled at, or possibly below, replacement level.

Where any transition does occur in mobility characteristics overall, this is more likely to involve some complex interaction with other social and demographic changes and to be influenced by a wide range of implicit and explicit government policies and those of private enterprise. It is becoming apparent that while it is possible to generalize about some mobility patterns, specific cultural factors, such as those facilitating rural-urban circulation in Indonesia, and urban-rural migration in Malaysia, militate against any universalism in theory, and against any ready transfer of policy measures from one country or situation to another. Neither stage-theory nor policy have been able to take adequate account of urban involution, nor of the modern/traditional sectors of migrant origins/destinations, factors which are basic to an understanding of and intervention in migration patterns in the region.

Further, although Western researchers have long assumed that 'traditional' values will, or even should, inexorably become 'modern' the evidence now indicates to the

contrary that, talk of transitions notwithstanding, traditional patterns of economy and society are persistent and interactive with modern ones; indeed, they are reinforced by some of their supposed 'combatants'—international development agencies, bilateral technical programmes and multinational corporations, not to mention government planners who cannot ignore market forces and established ways of getting things done. This applies both to policy mechanisms aimed at population control in urban and rural areas, and equally to policy mechanisms aimed at population redistribution within or between such areas.

Finally, it is possible that neat theoretical schemata such as Zelinsky's cannot be validated in South East Asia, (a) because of cultural and national differences of many kinds (time-dependent and space-specific); and (b) because of the impact of implicit/explicit, direct/indirect government policies which have the (often unplanned) effect of circumventing earlier urbanization and mobility trends (e.g. high rates of rural growth coupled with government attention to rural development areas and agricultural in-migration are not accounted for in Zelinsky's hypothesis but are increasingly typical of countries in South East Asia).

Perhaps we need new hypotheses which are more culture-specific and oriented to countries in this region; give greater attention to the complexity of mobility behaviour and the diversity revealed by comparative studies (e.g. the circulation which is so important in Indonesia but absent in the Philippines); focus on urban and agricultural involution

and the links between mobility, modernization and demographic change (i.e. the causal links, rather than descriptions of supposed transitions); and which acknowledge the roles of both population control

policies and population redistribution programmes and national settlement policy in specific countries. Such emphases would enhance both data collection and theory construction.

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DECISION MAKERS IN MIGRATION— PAPUA NEW GUINEA

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This paper questions the validity of the assumption, particularly in the case of Papua New Guinea, that the decision to migrate is made by the individual. The methods of data gathering, e.g. by questionnaire surveys or long-term anthropological studies, influence the conclusions reached. The former method tends to underplay the role of other people and institutions, which is emphasized here.

Factors which restrict the migrant's decision are discussed. It is concluded that the patterns and volumes of migration flows, and the characteristics of the migrants, are determined as much by the systems or organizations involved as by the individual and are best studied using anthropological techniques. The implications of the place Papua New Guinea has in the international economic system are considered basic to an understanding of current migration patterns. The motives of the individual migrant, and his choices, are conditioned and constrained by factors beyond his control and form only a small part of the explanation of those patterns.

The decision to migrate, and why it is made, is a topic which all students of migration ponder, increasingly perhaps as control of movement becomes a part of public policy. As McKay and Whitelaw (1977) have pointed out most "attempts to provide an explanatory framework for inter-regional population flows in economically advanced nations" contain, amongst others, assumptions that "the decision to move and the choice of destination are made freely by the individual . . . within a 'free market' framework in which choices can be made between a wide range of alternatives". They also point out that other assumptions may be of equally dubious validity, such as "that there is one single migration process operating . . . for all members of the popu-

lation" and that migration serves "as an equilibrating mechanism, dampening differences between areas" (1977). The persistence of the last of these, with its echoes of 'push-pull' models, is somewhat surprising given the current prevalence of models of uneven development, cumulative processes of concentration and the like. The focus of this paper is the assumption that the decision to migrate is an individual one.

Such an assumption, leaving aside the obvious case of forced migration, influences the material and method of data collection and hence the conclusions drawn. The argument often tends to circularity along the following lines :

Assumption—The individual makes the decision.

Question —What were his reasons ?

Method —Ask him for *his* reasons.

Evidence —A list of *his* reasons.

Conclusion—These were the reasons for his decision and these reasons are why he migrated.

They are individual reasons, therefore the assumption is confirmed. Yet the risk of misinterpretation or partial explanation is high in such a process, especially in cross-cultural situations.

In the case of Papua New Guinea the most extensive bodies of data which explicitly include information on why respondents migrated are derived from two questionnaire surveys, one dealing with 16 towns (Garnaut, Wright and Curtain, 1977 and May, 1979) and the other with 50 rural villages (Conroy and Skeldon, 1977). In both surveys respondents were asked why they had left their home village and a range of supplementary questions were asked to clarify the reasons preferred. In both surveys the desire to earn money was the most common reason given. This raises, or begs the questions as to whether the money was sought as an end in itself, or as a means to some other end. It also avoids the question of for whose benefit the money was sought. These questions were not answered in an entirely satisfactory manner and, perhaps as a result, the weight of evidence presented in the surveys points to individual motivation closely related to the attractions of the monetary economy.

A second set of sources of information on motives for migration is the considerable number of studies, primarily by anthropologists, based on longer term association with particular communities. The reasons for migration which emerge from these studies tend to be stated in much more complex terms, and to be more closely related to the whole fabric of village socio-economic conditions, group aspirations and community norms. The methods of data gathering have clearly influenced the conclusions drawn from the two types of study.

The emphasis on individual motives and decisions tends to underplay the roles of people other than the migrant, and of institutions in stimulating and channelling or checking migration. This paper discusses how some of the key decisions in the individual's migration history may be made by others in Papua New Guinea. Most migration within Papua New Guinea can be classified as circulation between villages and towns, movement between towns, or movement between either towns or village and non-village rural areas. A schematic diagram showing the sequence of decisions involved in such moves has been published elsewhere (Ward, 1980).

Most Papua New Guinea nationals are born and brought up in rural villages and their migration history starts in the village. A village-resident may take either of two courses - leave or stay. If a decision is made that he or she should leave, the next choice is whether to do so by undertaking agreement (contract) labour; by joining an institution (army, school, etc.); or independently of such formal systems and by finding one's own transport. The next decisions

relate to the sector into which the migrant moves - to work on a plantation, to live in a town, or perhaps move to a school or to a rural resettlement scheme - and the part of the country chosen as destination. Obviously the four decisions are closely interrelated and are separated here only for analysis.

Once in a new location a person is again in a period of continuing decision making - to stay there, to return to the village, change sector, or change location. If the decision is to return to the original village, that village will not be the same - social and economic conditions will have changed: the person's own age, status and position will be different. After the return a new movement cycle may start, or the person may stay in the village. If the person does not return to the village but decides to move, for example, to another town, that decision may be severely constrained by lack of information, money for travel or a number of other social barriers. Equally, the decision may be made entirely by the employers. If we consider each decision, we can begin to see how limited are the individual's choices.

Papua New Guinea's economy is dualistic in that a large segment, in terms of numbers involved, is non-monetary and subsistence oriented, and a smaller segment is monetized and oriented to exporting or service provision. It must be stressed however that although the majority of agriculturalists are primarily concerned with production of subsistence crops, most also grow coconuts, coffee or some other cash crop to provide for monetary needs. Thus the dualism is far from absolute - the two economies are closely related, not least

in that the non-monetary village sector often supports the families of those engaged in wage labour, thereby removing some of the labour force from the capitalist sector (see below). Migration often involves movement from one economic sector to the other as well as relocation.

Papua New Guinea's monetized sector consists largely of enclaves of peripheral capitalism which are firmly linked into the world system. The forces shaping that system obviously affect the migrant and his community but until later in the paper this level of analysis may be taken as given.

The decision to leave the village has attracted most attention in questionnaire surveys, and in the Rural Survey (Conroy and Skeldon, 1977), 57 per cent of respondents are reported to have left to obtain money. Yet this suggests a degree of planning which is often not present. Case histories abound in Papua New Guinea in which young men migrate on the spur of the moment—following a dispute; on meeting a friend by chance while visiting town for the day. The village has very low place utility for many young men in Papua New Guinea. Until marriage they have few social or economic roles. It is a time of freedom. The normative context is permissive of lengthy and erratic absences and the frequency of sudden decisions to leave suggests that the desire for cash may be a very generalized one rather than highly specific to the migration decision. For some a planned decision is made though this may be made by the family. In much of rural Papua New Guinea, the extended family or kin group forms an economic unit and decisions are made by the group or its

'big man'. A migrant is often chosen by his kinsfolk and it is not personally responsible for the decision. The family may decide which member will go away to work, or to school for the group's benefit and asking the individual who may have had little say in the matter is unlikely to elicit accurate information.

The choice of 'system' is often severely constrained, in the early years of contact with the outside world the only system available in many areas was the contract or agreement labour system, which provided the only legal avenue for earning cash through labour. Particularly in the earlier periods of contact, a decision was often made to send a group of men off together to fulfil some village need. Sometimes the labour recruiter, or government officer would exert pressure on the village leaders, who in turn pressured the younger men. Where head taxes were levied, the group was sometimes forced (by lack of alternative cash sources) to select and send members to earn money through agreement labour.

Once signed on for agreement labour, subsequent decisions were usually out of the individual migrant's hands. Whether he was sent to a plantation or another type of workplace was determined by the government official or private recruiter. The same applied to the decision on destination. The potential employer often had more influence on the source of his labour than the labourer had on his destination. In requesting agreement workers from private recruiters or government labour scheme officials, employers would frequently specify the source area from which they would prefer the workers to come. Thus, in 1963,

a rubber plantation near Port Moresby was asking for workers from the Kainantu or Lufa areas of the Eastern Highlands while stating that Kundiawa labour was 'definitely not required'. The following year the preferred areas were Minj and Mendi in the Western and Southern Highlands and by 1965 men from Kainantu had joined the 'not required' group (Department of Labour, File 63-2-5 Part 1). This is an example of those plantations whose policy was to request labour from an area whose men would have little experience of plantation work. As a result they could be expected not to be critical of conditions or treatment. Other plantations had a policy of seeking workers from one area over a period of many years in order to build up more stable labour relations. In either case the decision lay with the employer. It was only in the later years of agreement labour that the recruits had enough knowledge, and freedom of choice, to decline to go to a particular plantation or area.

The decision to return was also made by others. Workers engaged in contract or agreement labour for fixed terms—two years in the later phases of agreement labour. For most of the period of its operation government regulations required repatriation to the home village at the expiry of the term. Only in the later years were recruits able to sign off other than at home, and not until the 1960s was non-agreement labour sufficiently legal, or available, to make 'desertion' a feasible strategy. In general, therefore, the unskilled agreement worker had few opportunities for making individual decisions about his migration path after the initial move.

Today, the unskilled youth does have the opportunity to move outside the agreement system. Elsewhere I have referred to such moves as being 'independent' or 'individual' migration (Ward, 1971) but the terminology is not particularly satisfactory. However, it conveys the point that such movement is not dependent on prior fare payment by an employer or agency and the other decisions are not firmly predetermined. Yet the choices of sector and destination area are constrained. In the first place the information field of the potential migrant is usually very specific, being shaped by the knowledge gained by previous migrants of possible employment areas, and by the location of current absentees from his village. Migration patterns in Papua New Guinea conform very poorly to gravity-type models. The information fields tend to be based on the long-distance movement of the agreement labour era, while factors such as risk of sorcery (which may be very high where local traditional enemies can reach you) make distant places more attractive than nearby ones.

Not only is the 'independent' system one of constrained choices, it is still one in which kinfolk are important as the decision makers, or at least as the sources of pressure. This is also true of the decision to return home, though here the individual, away from his older kin, often has more control over his own actions. People in the village often make vigorous attempts to get absentees to return home to what they see as a much more fulfilling way of life (Strathern, 1975).

In the case of the institutional system,

which a person enters by joining a government instrumentality, or the staff of a company, we find a modern parallel to the agreement system. If a rural child is chosen to go to secondary school in Papua New Guinea the destination is likely to be chosen for him or her. The choice of tertiary institution will be made by those awarding scholarships. If a person joins the army, or the civil service at a professional level, initial place of residence will usually be determined by the employer, and subsequent moves will be made by posting rather than individual choice. In a country where the government is by far the biggest monetary-sector employer, directed movement is very important, especially in inter-urban movement. McKay and Whitelaw (1977) stress the need in post-industrial societies to "recognise...the role...of large public and private multi-locational organisations in imposing significant constraints on internal migration." I would argue that this applies also in the developing world, and that, to date, this is a neglected area of research.

What are the implications of the limited extent to which individuals may be responsible for their own migration decisions? In the first place the survey technique of questionnaires applied to individuals clearly needs supplementing with in-depth consideration of the whole decision-forming group, be it nuclear or extended family, economic unit, or wider community. Such studies are obviously extremely time consuming and unlikely to be possible for statistically valid samples which might allow extrapolation of results to whole populations. I suspect that this may not matter if what we seek is understanding of process rather than

numerical description. It is for this reason that I feel that the most valuable migration studies for Papua New Guinea have been those which have used anthropological techniques with relatively small communities rather than more strictly demographical studies based on large surveys or census data.

The second point relates closely to one made recently by Mitchell (1978) when he argued that migration is essentially an epiphenomenon. In other words, migration is a fringe phenomenon whose explanation lies not in its own characteristics but in the wider context from which it springs. It is implicit in the type of migration which I have outlined for Papua New Guinea, that much of the explanation of the patterns and volumes of migration flows, and of the characteristics (such as age, sex, marital status or occupation) of the migrants themselves, must be sought in the systems or organisations in which they are involved. The structure and operational practices of an organisation, be it a government department, a multi-locational company, or an employment service may be as important as determinants of population movement as those elements which we more commonly consider.

The third point takes us back to the question of the importance of the place which Papua New Guinea, like other Third World countries, has in the world system, or the international economic system. Without wishing to imply anything like the degree of determinism which is explicit in much of the Marxist analysis, I would argue that the fact that Papua New Guinea is now clearly a part of the zone of peripheral capitalism, must be acknowledged and its implications taken into

account. An understanding of the varied and changing nature of the articulation between the capitalist and non-capitalist modes of production (and reproduction) in that country is basic to an adequate explanation of current migration patterns. Curtain (1980) has pointed this out recently and, following Burawoy (1976) argues that the migrant labour system is a key element in the "dual dependency between the two modes of production—the precapitalist and capitalist". The plantations of the capitalist sector provide the only source of cash for many, while the maintenance of the worker's family is left to the village, precapitalist sector as wage levels remain adjusted to the single person's needs. As I have noted elsewhere (Ward, 1980), the situation for many areas in Papua New Guinea is akin to that which Wallerstein describes in his summary of the economics of slavery (1974). Slavery could survive only when it linked two systems exchanging preciosities so that "each can export to the other what is in *its* system socially defined as worth little in return for the import of what in its system is defined as worth much" (Wallerstein, 1974). Once Africa was absorbed into the periphery and the two systems became firmly linked, the exchange of preciosities was no longer possible as one value system applied to both sides. The use of agreement labour was not slavery but in many respects it represented an exchange of preciosities. Once changes in the value of labour occurred in the source communities, for example, because it could be devoted to alternative forms of money-earning, the system could not continue. As has been pointed out elsewhere (Curtain, 1980; Ward, 1980), to date the change from agreement to

agreement labour, and related changes in migration patterns have rarely been examined in the light of the broader aspects of what Germani (1965) calls the 'objective level.' This requires explicit examination of migration as a reflection of the interaction of political and economic systems of which the individual migrant may scarcely be aware.

In summary, it is clear that the explanations which have been offered thus far for the patterns of population movement in Papua New Guinea, including attempts to explain the decisions assumedly made by migrants, are very incomplete. Satisfactory

explanations will require balance and integration between various levels of explanation. The motives of the individual actors may be only a small part of that explanation, not least because they may not be conscious of the forces and structures which constrain their choices, shape their information fields, and channel their movements. Just as "the peculiar notion of consumer sovereignty which bedevilled factorial ecologies and the micro-behavioural theories of residential location" should be, and perhaps is, being demythologized (Watson, 1980), so the peculiar notion of individual motive and choice in migration should be demythologized.

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REMITTANCES AND MIGRATION— THE COMMERCE OF MOVEMENT

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Migration-oriented societies are often intimately bound, socially and economically, to those of their members who have emigrated and are resident abroad. The pattern of remittance exchanges offers one way of tracing the sequences of interaction and the levels of obligation, reciprocity, interdependence and dependency that exist between individuals widely separated in physical space yet preserving intimate social and economic links. This paper comments upon the role of remittances in a variety of emigrant situations, traces the way remittance patterns change over time and evaluates the importance of remittance payments for personal and national economies. It considers the concept of 'remittance-societies' in the South Pacific and elsewhere, and briefly examines the various mechanisms involved in the emigration-remittance cycle, including the expectation of interaction and interdependence that exists between migrants and their home-based kin and the sacrifices and hardships often endured by many migrants to meet obligations back home.

There is a considerable body of evidence to show that migrants in a wide variety of historical and cultural settings maintain strong social and economic ties with their area of origin, particularly their home village or town (see for example, Caldwell, 1969; Connell *et al.* 1976; Curson, 1979; Frucht, 1968; Hugo, 1977; Manners, 1965; Pfefferman, 1968; Philpott, 1973; Shankman, 1978; Simon, 1973; Watson, 1974; Wu, 1967). A major consequence of such ties is the flow of remittances between the migrant and his home-based kin. Remittance exchanges would thus seem an important instrument in the preservation and continued viability of social relationships over geographical space. To this end the inter-connections that exist

between migrants and their area of origin are often important enough for us to consider legitimately that the world of the migrant and his homeland are not separate entities but rather part of a single socio-economic system. The study of remittance exchanges offers one way of measuring the strength of the migrant-homeland relationship. Such exchanges are particularly interesting from a number of points of view. In the first place, they involve sequences of interaction and exchange between people, widely distributed in space, which are governed by the considerations of time, expectation, obligation and reciprocity, to adapt a phrase of Barth (1966). Secondly, they have become an instrument of social and economic change in many

societies. Thirdly, they provide us with an insight into the problems of choice and compromise with respect to the allocation of time and resources which face all migrants.

Although remittances have attained considerable importance in the economy of many countries in recent years, it should be stressed that they are no novelty. Indeed the history of remittances is almost as long as the history of migration.

This paper is divided into five brief sections: it considers remittances in terms of their initial purpose, the channels and institutions involved in remittance flows, the internal organization of remittances from the point of view of migrants and recipient kin, the social and economic impact of remittance flows, and finally the emergence of 'remittance societies'. No attempt is made to provide the results of any fresh study; rather the purpose is to survey and evaluate some of the work already published in this field.

The Complexity of Remittances

Remittances do not always lend themselves to easy analysis. They are complex exchanges involving the interplay of personal motivation, expectation, obligation and responsibility, all of such are influenced by a wide range of geographical, political, social, and economic factors. In studying remittance, at least eight points would seem important:

1. Firstly, there are often problems of data. Most studies of remittances do not

provide detailed material relating to what proportion remittances compose of income or what motivations determine their flow. Official sources are equally lacking in this regard and it is often very difficult to obtain detailed figures concerning the size, volume, origin and destination of remittance payments, let alone any information pertaining to their original purpose or ultimate disposition.

2. The second point concerns the nature of remittances themselves. Accepting a liberal definition, these can involve a bewildering array of transfers and exchanges ranging from such things as cash transfers, debt repayments, gifts, donations, transfers of goods and services to the distribution of profits and commercial payments¹.

3. Thirdly, the pattern of remittance flows is complicated by the multiplicity of institutions and channels involved in or touched by such exchanges. In many cases there exists a large number of institutions, agencies and individuals involved in the transfer of remittances from migrant to homeland. Harney describes the assemblage of individuals affected by remittance exchanges from Italian migrants in North America to their kin in Italy—'notary, lawyer, banker, pawnbroker, local bureaucrat, travel agent all dependent upon remittances and their purposes' (Harney, 1977). In many cases officially pegged exchange rates have led to an institutionalized black market for foreign funds with a vast array of money changers, brokers and shopkeepers dependent upon remittance checks (Henricks 1974).

1. The present paper largely excludes consideration of remittances in kind, and concentrates on cash transfers.

4. Remittances also reflect the nature and stage of the migration process varying according to whether the migration is permanent or temporary and whether the migration is individualistic or family-linked involving obligatory ties and responsibilities.

5. Above all, remittances depend upon the relationships that exist between the migrant and his kin, how this relationship is perceived by both in terms of needs, expectations and responsibilities and how such things change over time. Remittances are thus variable in terms of the motivations behind them and the purposes they are designed to meet.

6. Remittances inevitably depend upon the social and economic fortunes of both migrant and the home-based kin and are particularly sensitive to changes in the circumstances of either. Periods of unemployment, sickness, low income etc. can interrupt the regular flow of cash from the migrant to his home.

7. Remittances operate at a variety of spatial levels and often show considerable geographical variation. International remittances combine with intra-national and intra-community to provide an integrated system within any particular country.

8. Finally, there is a strong emotional element that pervades the relationship between the migrant and his kin. Part of this is the social and economic imperative

of maintaining close links with the home community as a refuge in times of stress or economy. Another part is undoubtedly the desire to participate, albeit in a modified way, in the affairs of the home community.

The Purposes of Remittances

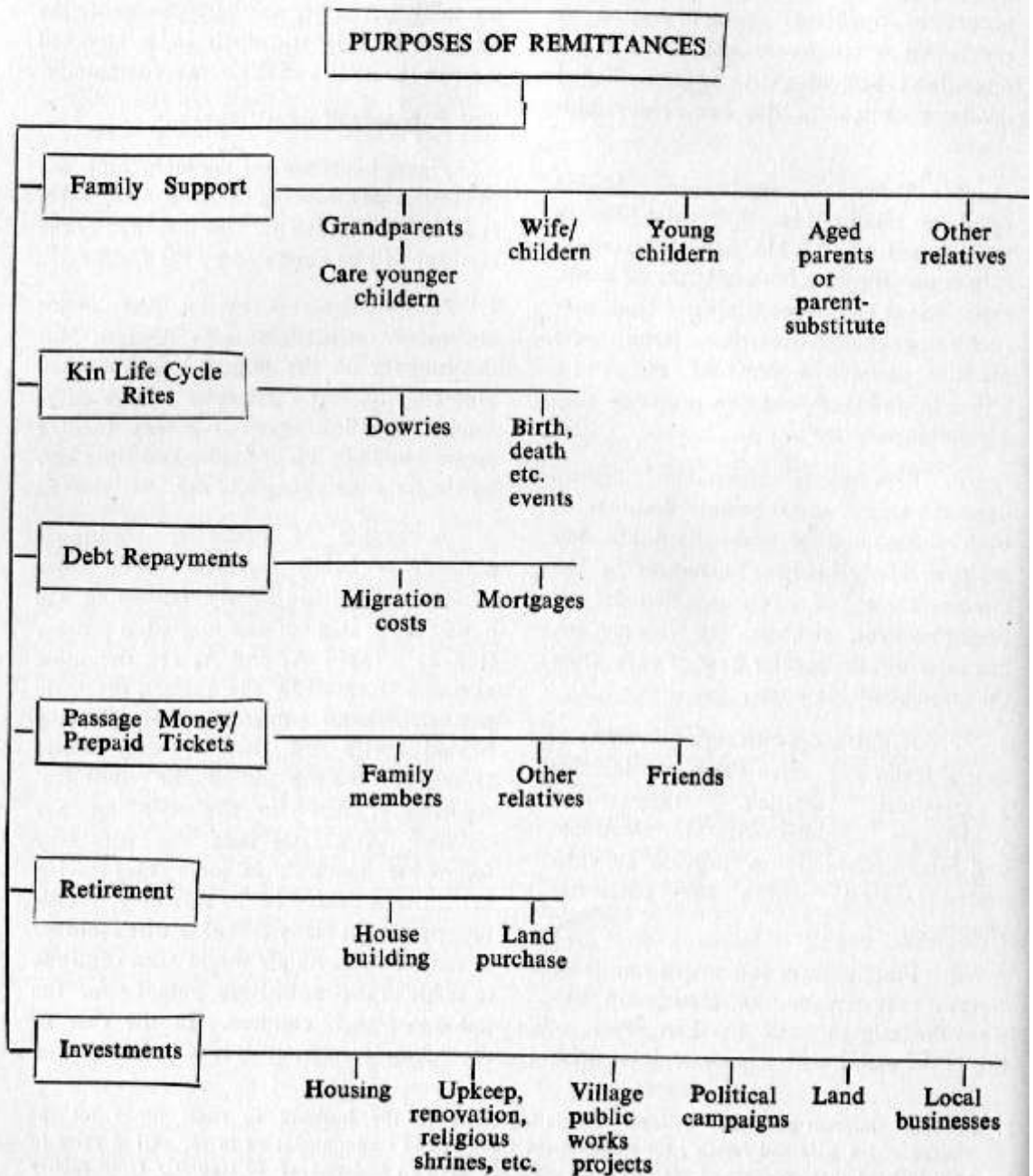
Figure I summarizes the main purposes of remittances, bearing in mind that there is no surety that the purpose intended by the remitter will be honoured by the recipient.

1. *Family Support* : By far the major amount of remittances seem destined for the support of the migrant's home-based kin. Clearly, many migrants feel a deep-rooted obligation to remit money for the support and upkeep of family and close kin, particularly the young and old.

A number of particular remittance patterns to family members would seem to exist and all are closely related to the nature and stage of the migration process (Fig. 2). Types A_1 and A_2 are the most common forms. In the former, the male partner/husband migrates first, leaving behind a wife and often a young family. Over the ensuing period the 'husband' regularly remits to the wife for her upkeep². At a later date the wife may follow her husband, in some cases leaving her children behind in the care of a substitute parent (in many cases the wife's mother or sister). The couple would then continue to remit to the substitute parent for the upkeep of their children. In the case of A_2 , a female migrant leaves her children

2. In some migrant situations a 'legal' obligation exists for the husband to remit funds for the upkeep of his wife and family; for example the Cook Island's administration in the period prior to 1970 insisted that prospected married male emigrant sign an undertaking to regularly remit money to their wives.

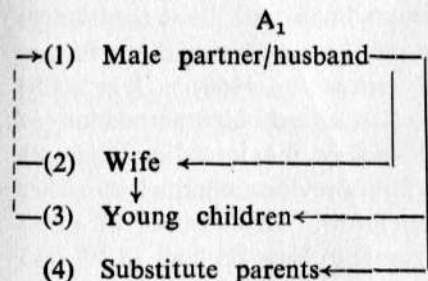
FIGURE 1



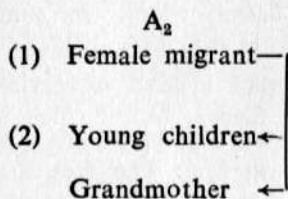
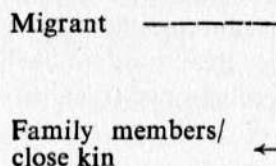
REMITTANCE PATTERNS

FIGURE 2
FAMILY SUPPORT

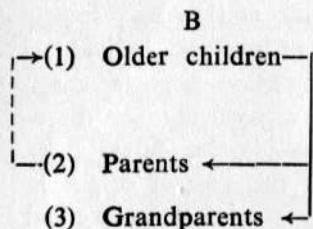
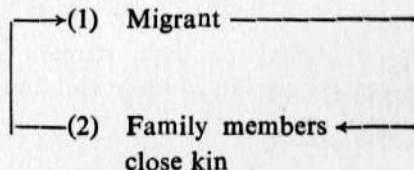
FIGURE 3
OTHER



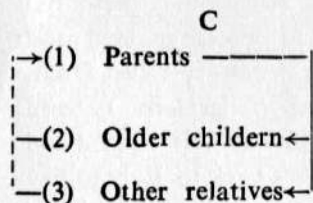
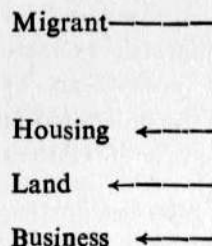
Contribution life-cycle celebrations



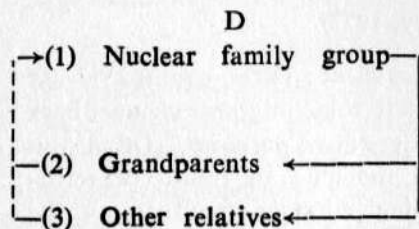
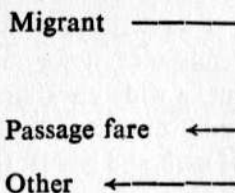
Passage money
 Prepaid tickets



Investment retirement



Debt repayment



---> Migration
 (1) Order of Migration
 —> Remittance Flows

with her mother and thereafter undertakes an obligation to remit to her mother's household. This latter case is well documented in the West Indies (see Philpott, 1973). Some of this West Indian evidence also suggests a female bias in the resultant remittance flows in that daughters, much more than sons, are likely to receive regular remittances from parents (Barrow, 1977).

In some cases teenage or adult children may migrate, leaving behind their (elderly) parents (Fig. 2-B). There seems to be, in such cases, strong obligation to remit for the support of parents and in some cases even grandparents. In time, parents (and grandparents) may follow their children in their migration.

At least two other major variants would seem to exist: type 'C' where parents migrate leaving behind grown-up children, and 'D' where the nuclear (or extended) family may migrate *en masse*. In both cases migrants accept an obligation to remit although the obligation may be much stronger in the case of 'C' than 'D'.

2. *Life-Cycle Celebrations* : Apart from a deep-rooted feeling of obligation to one's immediate family, migrants are often caught up in the round of important life-cycle events such as births, deaths and marriages, that take place back home. At such times remittance flows may become hyperactive and a widely scattered network of kin may mobilize to channel back significant inputs of cash and goods (Fig.3-A).

3. *Passage Money* : Another major purpose of remittances is in the direction of providing direct assistance to potential

migrants by either sending prepaid tickets or by cash contributions towards migration costs (Fig. 3-B). In many cases this purpose has become so important 'that remittances have become the wherewithall of further migration' (Frucht, 1968). It would seem likely that a fairly high proportion of the passage money for intending migrants originates from previous migrants in either of these two forms. Of a sample of Cook Island migrants to New Zealand in 1964-65 some 45 per cent had financed their passage in this manner (Curson, 1980). In some cases contributions of this nature involve an obligation to repay in cash or services at some time in the future.

4. *Debt Repayment* : The fact that many migrants owe their presence in the destination area to the activity and investment of kinsfolk often involves individuals in an obligation to repay passage costs. While most of these repayments are directed to relatives outside the home area some flow back to the area of origin in the form of repayments to contributing kin. In some migrant situations potential migrants are forced to mortgage land and farms to provide the necessary travel funds. Harney describes the obligations entered into by Italian migrants in this respect and the flow of remittances back to Italy to pay mortgages contracted to make the original trip (Harney, 1977).

5. *Investment* : There is some evidence to suggest that some migrants channel back funds for investment purposes. Often this is linked to thoughts of return or retirement planning and more often than not the funds are invested in housing, land or small businesses. In some cases such investments are closely tied to consideration of

prestige and to the migrant's stake in the social and cultural life of his village. Watson reports how many Hong Kong Chinese migrants in London regularly channel funds back to the village for civic projects such as schools, community halls and temples. Although such contributions are voluntary, the migrant knows that his name and the amount he donated will be prominently displayed during the opening ceremony (Watson, 1977).

6. *Retirement Planning* : It is undoubtedly true that many migrants preserve the belief that they will ultimately return to their homeland either when they have made enough money or when they retire. Unfortunately there is little evidence as to how many actually do so, although the 'gues worker' situation in Western Europe indicates that large numbers ultimately do return when they have accumulated enough cash. Given this situation, many migrants channel funds back to the village so as to build a house or purchase land for their ultimate return. Watson describes just how significant this can be with relation to Chinese restaurant workers from Hong Kong in London regularly remitting funds for building new village house as a symbol of their wealth, prestige and intention to return (Watson, 1974).

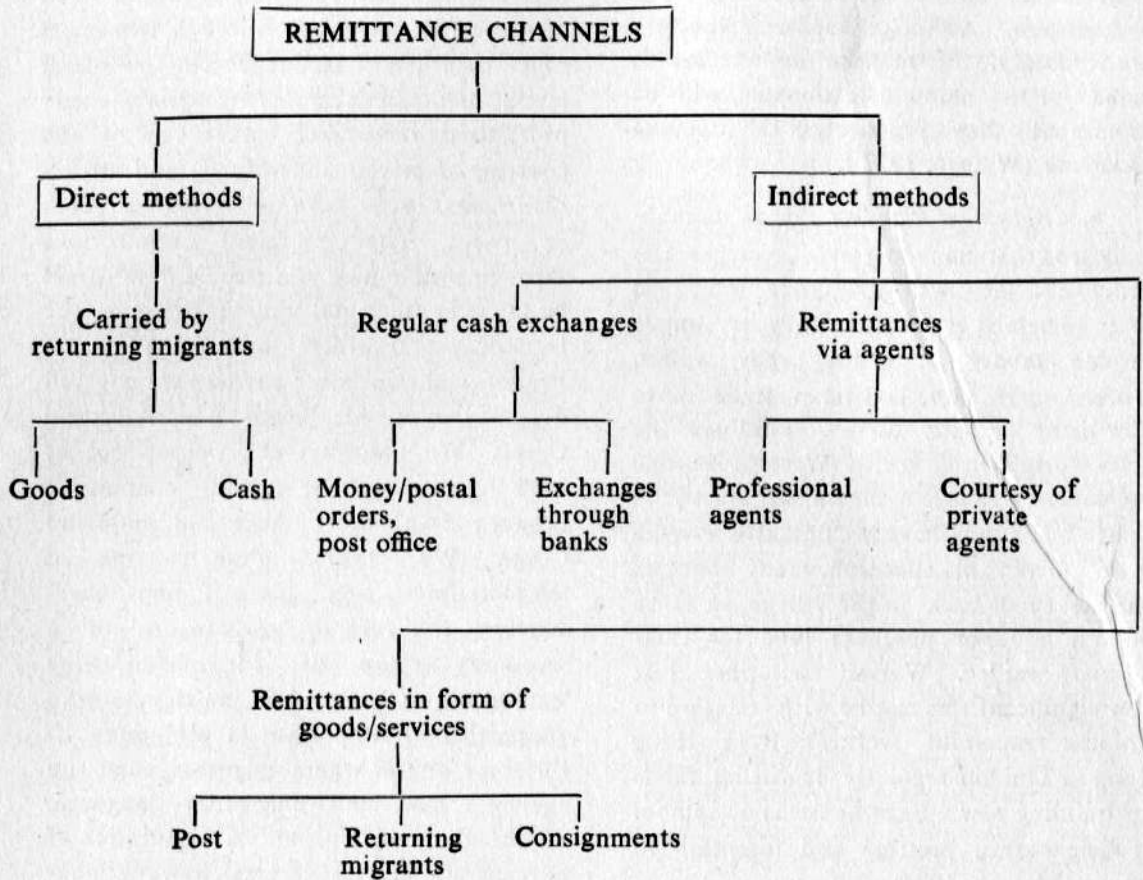
Remittance Channels and Institutions

Figure 4 provides a schematic outline of the principal institutions, agents and channels involved in the remittance sequence. Broadly these fall into two major categories *Direct Methods* and *Indirect Methods*. The former usually involves money and goods being carried by the returning migrants themselves either on temporary visits or on

their ultimate return. Although this category is important in the overall flow, it is the second category which holds the most interest. As Figure 4 indicates *Indirect Methods* fall into three basic subgroups *regular cash transfers* normally in the form of money/postal orders through the post office or drafts or exchanges via the major banks; *remittances carried by agents*, either professional remittance agents or by the courtesy of private individuals, and finally *remittances in the form of consigned goods or services*. The principal institutions through which most remittances flow would be the post office and trading banks in the form of postal orders and bank drafts. Professional remittance carriers are not well documented outside South East Asia and China. Wu describes the importance of such agents and the regular commuting between South East Asia and mainland China (Wu, 1967). Perhaps one of the most fascinating aspects of remittances concerns the role of 'go-betweens' or a secondary group of intermediaries—the 'caretakers' or 'brokers' of remittances who are particularly important in situations of illiteracy and/or where migrants come up against a new and unfamiliar language. The handling of remittances, negotiation of bureaucratic and minor legal byways, loan-sharking and problems of transportation are the main concern of such 'caretakers'. These agents normally take a small percentage from the transaction but at least they are familiar with the language and the administrative conventions. In Harney's words :

"Your remittance may change the cadastral structure of your village, make your sister more marriageable,

FIGURE 4



(after Wu, 1967)

or fix your mother's cottage roof, but a percentage of it at both ends falls in myriad and wonderful ways to the middle-class brokers" (Harney, 1977).

Such seem to have applied not only in Europe during the period of major out-migration but also in South and Eastern Asia. In both, the role of the private agent has a long and important history. In China, there was, for example, a wide variety of such agents dating back to the 15th century who had, by the 20th century, achieved a highly organized system of collection and distribution centres operating through a widely remifying network of offices and agencies scattered throughout South East Asia (see Wu, 1967).

The Internal Organization of Remittances

Some of the most interesting features of remittances have to do with their internal organization, especially with respect to the problems of choice and compromise that face all migrants in the allocation of their time and resources between kinsfolk home and the demands of their immediate environment. The expectations and strategies of home-based kin are no less fascinating. The available evidence suggests that migrants contribute substantial amount of time and money to remittances. A survey of migrants in Birmingham cited in Rose *et al.* records that remittances made up 6.6 per cent of the average net weekly earnings of West Indians, 6.3 per cent for Indians and 12.1 per cent for Pakistanis (Rose *et al.*, 1969)³. Cook Islanders in Auckland exhibit much the same sort of pattern. A survey of island households carried out by

the author during 1969-70 indicated that, of all islanders earning between \$30 and \$50 a week (the most common group), remittances claimed 7.6 per cent of their net weekly income (Curson, 1980).

One of the most important points to emerge from studies of migrants in cities is the extent to which they are prepared to make sacrifices and endure hardship and material discomfort in order to save money so as to fulfil goals back home. There is enough evidence to suggest that in many cases the migrant's scale of preferences differs in significant ways from the indigenous working class in many industrial cities, especially in respect to patterns of saving, consumption, aspiration and obligation. In examining Pakistani migrants in Britain, Dahya argues that their choice of poorer housing in the innermost parts of the cities is related to this particular motivation, i.e. their selective segregation reflects the realisation that their social and economic goals can better be achieved under such conditions (Dahya, 1974). Thus the emphasis for many migrants is on saving and austere living conditions so as to meet their traditional social and economic objectives. Dahya further supports this view by quoting from the evidence of the Select Committee on Race Relations and Immigration in 1970 which stated that migrants remitted £60 million to Pakistan every year. 'For these reasons', reads the Report, 'it would be natural for migrants, many of whom are the lower paid, unskilled employment, to seek the cheapest housing available . . . (which) all tend to be in the poorer housing in the centres of towns and cities' (cited in Dahya, 1974).

3. These amounts related to the £17-£23 per week wage group, the largest wage-earning group in the survey.

Mayer found much the same to be the case with respect to 'Red' Xhosa migrants in East London. Among such migrants there was 'an avoidance of town goods and town gratifications' (Mayer, 1971), so as to better meet their obligations to their rural kin.

Finally, it may be that remittances are a manifestation of the particular cognitive model held by many migrants as to the nature and goals of their migration⁴. Expenditure on non-essentials (beer and tobacco always being recognized as essentials) has no place in a system which recognizes migration as being either a temporary phase mainly to gain money, or a traditional investment involving obligation and responsibility. Perhaps a part of this is playing the role of 'household head in absentia' not only channelling funds back but also remaining the de facto director of household affairs. It is worthwhile remembering that Mayer's 'Red' migrants regularly sent home instructions for the organization of everyday village life.

The adjustments, compromises and expectations at the origin area are no less fascinating. Situations have been reported of 'villagers' adopting a particular strategy to ensure an uninterrupted flow of remittances from migrant relatives. In discussing the Greek island of Ithaca, Lowenthal and Comitas describe how many villagers went to great pains to mask the extent of material change taking place and to maintain the facade of traditional unchanged lifestyle and values so as to coerce remittance payments from kin (Lowenthal and Comitas, 1962).

More common perhaps in the situation described in Pakistan by Dahya. Here it falls on the family head to remind migrants perpetually of their responsibilities and the need for an uninterrupted flow of remittances so as to build up the family's economic resources for the future (Dahya, 1973).

Undoubtedly migrants have a deeply instilled sense of expectation and responsibility. Both Manners and Philpott describe situations where children are impressed with the obligations and responsibilities of the migrant from a very young age. Much time is spent in praise of migrants who meet their obligations and regularly make substantial cash remittances, while those who neglect their responsibilities are roundly condemned. It seems that an ideal behavioural pattern is instilled in children from an early age. According to Philpott, the basic principles are fairly straightforward, 'the migrant is expected to send money ('breaks') and clothing ('woggi') to his mother or mother substitute' (Philpott, 1973). Failure to do so results in a degree of approbation being levelled by the community at those who overlook or renege on their obligations. One of the mechanisms of the social control of remittances would seem to be the role of gossip. Rumours of non-remitting sons or husbands play an important role in a system where prestige and esteem accrue to those who fulfil their expectations. People spend a considerable amount of time estimating how much particular households are receiving in remittances or commiserating with the kinsfolk of defaulters and condemning their

4. Philpott refers to this as the 'migrants' ideology' (Philpott, 1968 : 474),

own non-remitting kin. The importance of inter-household gossip has been reported by Brody for Ireland and by Watson for Hong Kong (Brody, 1973; Watson, 1974).

The Socio-Economic Effects of Remittances

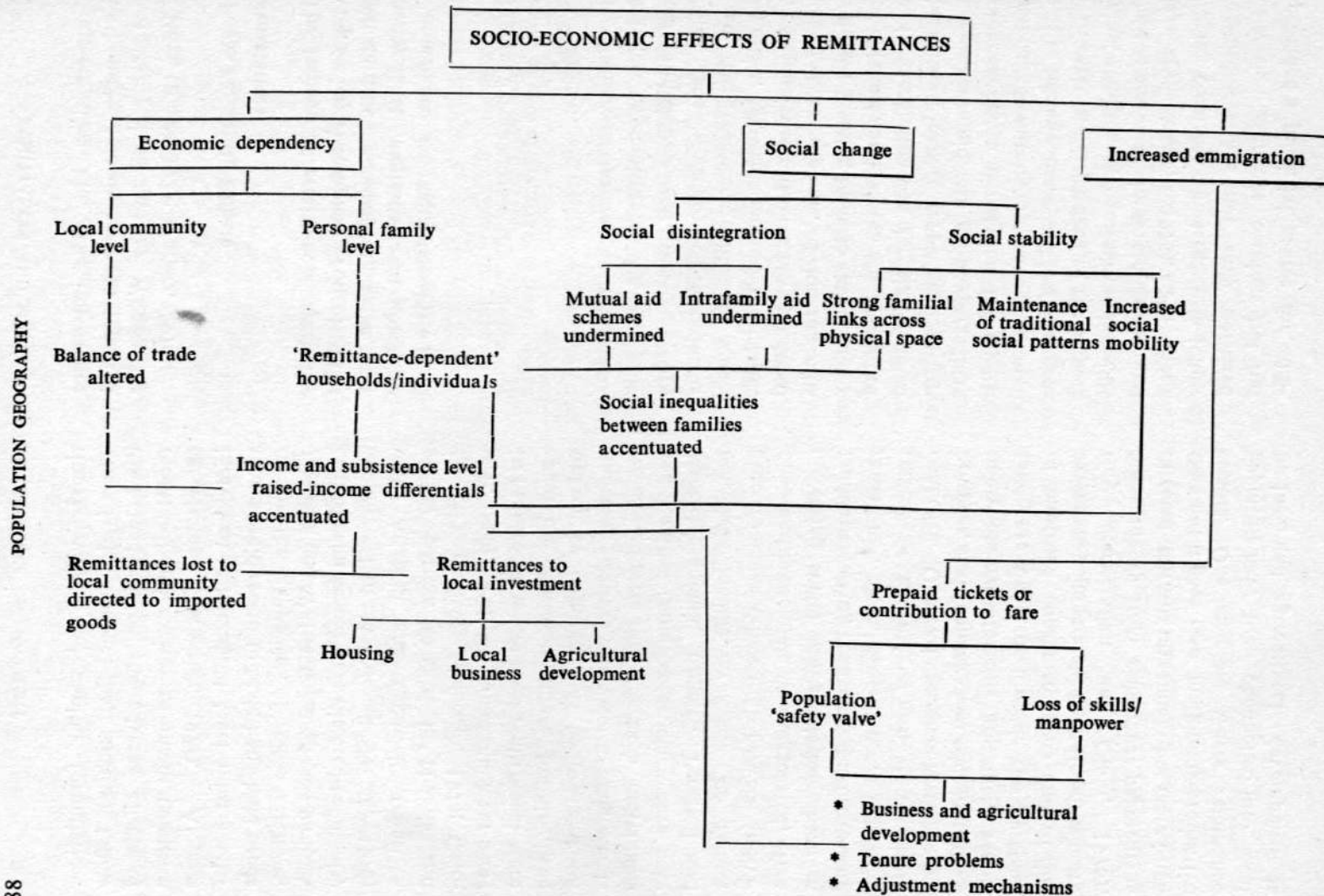
The impact of remittances upon the receiving society is complex. Too often has it been blithely assumed that the flow of money that migrants sent back to their homelands is unquestionably a good thing.

Figure 5 summarizes the major socio-economic effects of remittances under three broad heads :

1. *Economic Dependency* : The impact of the inflow of remittances has not only affected individuals and family groups but also has in many cases radically changed the economic life of whole communities. At the macro-level (island, state, community remittances have produced balance of trade problems. Prior to remittance flows becoming basic to the economy of many islands and states, the amount of money in circulation was largely regulated by the value of export crops and metropolitan grants in aid. In good years there was more money in circulation for imported goods. Remittances have allowed imports to become more or less independent of exports. Regardless of the export situation, remittances continue to provide purchasing power of imported goods and services (Shankman, 1978). For many developing countries the large-scale inflow of remittances has not only bolstered scarce foreign exchange earnings but has also provided a potential source for addi-

tional savings and capital formulation. There is also evidence that such an inflow has helped cushion the adverse effects of recent oil price rises in many countries (Ecevit and Zacharish, 1978). At the individual or household level most remittances are directed to basic household needs or for the support of close relations. Johnston and Whitelaw record that 96 per cent of remittances were directed to family support (cited in Connell *et al.*, 1976) while Adepoju and Caldwell found a similar pattern to exist in Nigeria and Ghana respectively (Adepoju, 1974; Caldwell, 1969). Philpott found much the same in Montserrat where most remittances were spent on education, house building, the upkeep of children left behind and on financing relatives who want to emigrate. It would also seem that, for both individuals and families, remittances can have substantial economic benefits. Personal and household income levels can be raised, even if income differentials between individuals and households are exaggerated, often increasing social differentiation between families receiving remittance payments and those not. Remittances can, therefore, increase or accentuate inequalities within countries. One basic problem seems to be, however, that in many cases once immediate household requirements are met, remittances are directed towards the purchase of imported consumer items and to this extent they go straight back (from) whence they come (Salt and Clout, 1976). Some money from remittance payments is directed towards investment but more often than not it goes into marginally-productive sectors. One example where remittance payments have been channelled into local business and agricultural development is

FIGURE 5



India and Pakistan, where remittances from migrants in Britain have gone some way to upgrading village agricultural and irrigatory practices as well as enabling some individuals to acquire land (Rose *et al.*, 1969 and Dahya, 1973). Opportunities for investment in many emigrant societies are often severely limited. The exception is perhaps in the area of housing and remittances; and the savings of returned migrants are often directed to this end. A survey of returned Turkish migrants indicated that about half invested in this area (Abadan, 1972 cited in Salt and Clout, 1976), as did about two-thirds of returned Croatians (Baucic, 1971 cited in Salt and Clout, 1976). It is possible that many households have a scale of priorities for the disposition of remittance payments. Dahya gives the following list of priorities for Pakistani households:

1. Settlement of the debt incurred in financing the migration.
2. Improvement of existing landholding, acquisition of further lands.
3. Building a *pakka* (permanent) house for the family.
4. Arranging the migrant's marriage; also marriages for his siblings.
5. Rural business such as a flour mill, a brick kiln.
6. Urban shop premises for rental.
7. Rural-urban business, transport.

(Dahya, 1973)

A number of studies report the increasing economic dependence of many households on remittance payments, and although the relative importance of remittances to total household income varies considerably,

most studies indicate it to be high. Hugo found, for example, that 60 per cent of total household income among a series of villages in West Java came from remittances from urban-based kin (Hugo, 1977). Philpott records that 57 per cent of Montserratian households were dependent upon remittances for between 70 and 100 per cent of their cash income, and makes the point that the percentage was much higher in the case of female-headed households (Philpott 1973). Remittances are estimated to account for between three-fourths and four-fifths of the cash income of many villages in Algeria (Salt and Clout, 1976). In their study of Indian villages Connel *et al.* found a relationship to exist between the number of adult male wage-earners absent from the village and the volume of remittances that flowed back to the village; remittances as a proportion of total household income varied from 5 to 56 per cent (Connell *et al.* 1976). It scarcely needs to be added that remittances as a source of cash income are not limitless and are closely linked to the migrant's personal fortune as well as being conditioned by broader socio-economic events. Thus dependence upon them can bring increased vulnerability if for a variety of reasons the flow is interrupted or cut off. When recession hit Western Europe in the wake of the oil price rise in 1973, for example, migrant workers were the first to suffer and the number of 'guest workers' fell by almost one-quarter of a million between 1974 and 1975. The ensuing decline in earnings plunged a number of countries into financial crisis (Newland, 1979).

2. *Social Change* : It is often presumed that remittances are a positive force for

change in the village area, increasing the per capita income of villagers, providing money for investment and increasing social mobility. Yet there is another side to the coin.

Brody's study of a rural community in Western Ireland vividly illustrates the destructive nature of remittances on the traditional social system. He documents how remittances from children abroad have undermined established ties between households and particularly the traditional forms of mutual aid and co-operation. Brody recounts how years ago villagers would take turns in co-operating in everyday agricultural activities and how *cooring*⁵ provided security against the future. With the increased reliance on money from migrant kin the pattern has changed radically. 'The replacement of *cooring* by monetary support, the shift from dependence on neighbours and extended kin to dependence on nuclear family', he writes, 'has left each household in extraordinary isolation' (Brody, 1973). Power adds, 'Observers of the Irish agricultural scene point to a devastatingly destructive individualism that makes simple co-operative tasks such as road building extraordinarily difficult' (Power, 1976).

Brody in fact sees remittances and *cooring* as functional alternatives. Migrants' remittances insulate and buttress family farms against shortage and difficulty in much the same way as communal aid did in the past (Brody, 1973). Remittances have also produced changes within the family group. In Ireland, money from abroad has severely fragmented social relationships

within the family group, particularly with respect to undermining the traditional authority and centrality of the father (Brody, 1973). Frucht found much the same pattern in his study of the impact of remittances in Nevis. Summing up he states, 'A traditional mode of life in which social relationships were mediated through neighbourliness and common participation in productive and ritual tasks has been replaced almost completely by a mode of life mediated by the cash nexus in which invidious comparisons and the 'grudge' become the hallmark of social relations' (Frucht, 1968).

Not all remittance flows have been so destructive of the social base, however. Watson, in his study of Hong Kong migrants from the village of San Tin, shows how regular remittances have allowed villagers to maintain and strengthen traditional village patterns (Watson, 1977). One of the most positive effects of remittances would be the increased social interdependency and interaction that are maintained by individuals widely separated in physical space. The extent to which migrants are aware of and involve themselves in the fortunes of their home-based kin is often amazing. Not only do migrants maintain close and intimate ties with their homeland but they also initiate social relationships with other migrants from the same area of origin.

3. *Increased Emigration* : As indicated earlier, one of the basic purposes for which remittances are intended is to pay for or contribute to the passage money of intending migrants. 'The cumulative nature

5. Communal work, the cooperative association of a number of households in agricultural tasks.

of remittances . . . (thus) acts as a dislodging factor on isolated village populations providing both the prime cause as well as the necessary means of emigration' (Curson, 1979). In this respect it is possible to see the remittance-emigration cycle as playing a positive role in siphoning off excess population growth in the rural area. Yet the loss of manpower and skills that often results has far-reaching implications for land tenure, agricultural development and the general demographic and socio-economic viability of the community.

Remittance Societies

Many writers have commented upon the importance of the cash inflow from remittances to the overall economy of the individual countries from which migrants come. Almost 20 years ago, Lowenthal and Comitas acknowledged the trend from what they called 'peasant to remittance society' (Lowenthal and Comitas, 1962). There seems little doubt that today in a number of 'migrant-societies' many households and even whole communities have become totally reliant upon the cash exchanges from migrants abroad and that remittances have become a principal resource, often replacing agricultural activities as the main source of income. Such a state of affairs is not new. Sotirios Agapitidis reported that 'over half of the average annual deficit of the Greek balance of trade was covered by migrant remittances in the period 1914-28' (cited in Lowenthal and Comitas, 1962) and in Barbados remittances contributed between one-tenth and one-fifth of the value of annual imports in the period 1904-20 (Starkey cited in Roberts, 1955). Although

detailed figures are not available, the flow of remittances to Great Britain from overseas migrants in the mid and late 19th century must have significantly contributed to personal and national income. In the 38 years after 1848, for example, almost £33 million flowed into Britain from migrants in North America with additional amounts from Australia and the other colonies (BPP, 1886). Undoubtedly a large proportion of this would have been from Irish migrants remitting to their families in Ireland. Brody in fact records that between 1846 and 1864, some £13 million were remitted by the Irish abroad to their homeland (Brody, 1973).

More recently, the literature abounds with references to the importance of remittances to national and local economies and the dependence of many such countries on such transfers for their economic and social viability. It is perhaps in those smaller islands/states of the Caribbean and South Pacific where the impact of remittances has been most profound. In the South Pacific, Shankman records that in 1974 approximately half the personal income of most West Samoans came from overseas remittances—an inflow of the order of \$WS4-5 million a year in the 1970s, making the income from remittances 10 times that of the receipts from agriculture (Shankman, 1978). Evidence from the Cook Islands provides an even more exaggerated example. Cook Islanders in New Zealand remitted almost \$NZ 1.1 million to the Islands in 1979-80, roughly \$NZ400 per island household and probably two-thirds to three-quarters of the Island Group's cash resources (Personal Communication NZ Post, 1980).

There is also plenty of evidence from the West Indies. Frucht's study of Nevis indicated that by the early 1960s remittances were running at a level of more than \$BWI 600,000 a year, approximately \$BWI 200 per island household (Frucht, 1968), while Lowenthal claims a figure of £28.5 million was remitted by overseas migrants to Jamaica in the 10 years after 1953. He also claims that remittances totalled £8.1 million in 1963, more than 3 per cent of the gross domestic product and about half the visible trade deficit (Lowenthal, 1972). Manners furnishes figures for a range of islands in the West Indies and finds remittances running annually at about 5-6 per cent of insular income (Manners, 1965). An unofficial estimate suggests that more than \$12 million annually was remitted to the Dominican Republic by U.S. residents in the early 1970s (Hendricks, 1974).

Outside the insular world of the Pacific and the Caribbean the role of remittances is often just as important. Some of the most significant flows have been connected with the movement of labour from East and Southern Europe and North Africa to Western Europe. West Germany particularly, has become a major source of remittances. In the 10 years after 1963 between DM, 250,000,000 and DM8,450,000,000 were remitted annually by migrants in West Germany to their homelands (Salt and Clout, 1976).

Clearly the sums flowing back to the migrant areas of origin are substantial. By the early 1970s remittances were contributing in an important way to the economy of many European, Middle Eastern and North African countries. In 1972, for

example, remittances from migrant workers were Spain's second source of foreign exchange and in the same year external remittances made up 22 per cent of Yugoslavia's foreign currency earnings (Salt and Clout, 1976). Hume estimated that in 1972 the annual amount of remittances from migrants in Europe to their home countries was more than \$2,000,000,000 (Hume, cited in Salt and Clout, 1976).

Although the importance of remittances to individual countries varies from year to year there seems little doubt that, for many countries characterised by large emigrant flows, return remittances may account for between one-half and four-fifths of their cash resources and anything from 10 to 60 per cent of their total imports.

Conclusions

Remittances are interesting for they involve expectations of interaction and exchange, obligation and responsibility. Continued migration is an essential component not only because it provides more people to remit but also because regularly it keeps migrants in touch with the fortunes of those at home (Curson, 1979). Completed migration can, however, halt the process in so far as no close kin for which responsibility are felt, are left in the area of origin. The system is thus finally balanced. Most importantly, for many migrants the home community remains a primary reference point and a prime determinant of behaviour. To the migrant, remittances may thus represent his continued stake in the village economy and social hierarchy (Connell *et al.*, 1976).

Remittances should not be seen as an

isolated contribution of cash to rural families. More likely is the situation where many individuals and families opt for a strategy of multiple-income status, relying on some cash income from casual wage-labour, some from subsistence agriculture, some from pensions, some from relatives working close by and some in the form of remittances from relatives abroad. People see all these as providing a reservoir of disposable income and the relative importance of each item to the whole changes according to prevailing circumstances and personal requirements. Remittances must, therefore, be seen as part of a wider economic system.

It is difficult to assess the positive contribution of remittances on the migrant's home community. Possibly remittances are the credit side of a long-term investment cycle where the debits of passage cost, the

education expenses of children lost to the community and the costs of the loss of training, skills and manpower are recouped at a later date by the return flow of cash. At a simpler level, remittances are a logical consequence of out-migration, a commitment in the form of financial support for close relatives left behind. The social effects of remittances are equally as difficult to equate. Certainly there is ample evidence to show the destructive effect of such flows on the social base, particularly with the respect to traditional social and economic values and relationships. On the credit side, however, remittances have emancipated many villagers from semi-subsistence agriculture and poorly paid or distasteful jobs, have raised per capita income and, perhaps most importantly of all, have increased social interdependency and interaction over space.

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RURAL-URBAN REDISTRIBUTION OF POPULATION IN WEST ASIA

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Urbanization and rural-urban redistribution of population are taking place at a rapid pace in West Asia, perhaps more rapid than in any other developing region. The paper addresses itself to three questions :

- (i) What are the dimensions of rural-urban redistribution of population and what is the role of the additions and deletions, reclassifications, net migration and natural increase in such redistribution ?
- (ii) How do these factors differ between areal units within each country and between countries of the region ?
- (iii) What are the implications of these for policy ?

The paper summarizes the data problems encountered and methods used in the analysis of rural-urban redistribution and proceeds to discuss the situation in the region, which is based on the national definition of urban. The pace of urbanization has steadily accelerated in the region as a whole as well as in the oil producing and non-oil producing countries.

While the major component of urban growth is natural increase, rural-urban migration remains the major component of rural-urban population redistribution, and in some countries rural-urban migration is replaced by international migration as the major factor. The effect of reclassification of localities on urban growth and rural-urban redistribution is small. Considering the redistribution of urban population by size class, it is noticed that the percentage of urban population in the capital city and in the 100,000+ class has increased, while the percentage of those below 100,000 has declined. There is also a trend towards suburbanization although data are not adequate to demonstrate this trend. Another feature in the region is the growth of settlements along an 'urban belt' which can lead to a megalopolis in each country.

Finally, four types of policy options are considered in the paper :

- (i) Policies for reducing natural increase;
- (ii) Policies for regulating rural-urban migration;
- (iii) Policies regarding urban population deconcentration;
- (iv) Policies concerning international migration.

1. The views expressed in this paper are those of the author alone and not necessarily those of UNESCO. The author thanks Mr. Samih Boustany for compiling the data utilized in this study.

West Asia is geographically and culturally a distinct area, interesting for the study of population redistribution. Although politically divided into many states, this region is fairly homogenous in language and culture and there is also considerable movement of people within the region. Over one-half of the population in West Asia are living in places defined as urban. Urbanization is not a new phenomenon in West Asia which has been the cradle of many civilizations centred around great cities like Damascus, Baghdad and Aleppo. However, the dimension, pace and character of present-day urbanization in this region is likely to be different from those of the ancient times because of the complexity introduced by modern technology and social organization. Urbanization is taking place in the West Asia region at a fairly rapid pace because of economic expansion stimulated by growing oil revenues as well as the momentum of demographic growth. This is happening through the expansion of many existing urban localities (especially metropolitan areas) as well as conversion of rural places into urban. This is the classic situation inherent to the urbanization process—multiplication of points of concentration and increase in the size of individual concentrations (Eldridge, 1942). For example, the annual rate of growth of population in Kuwait city between 1961 and 1965 was of the order of 18 per cent, while that of Riyadh between 1962 and 1968 was 10 per cent. For most major cities of the region, the annual growth rate of population exceeded 5 per cent. At the same time, the number of places listed as urban has grown steadily in every country.

This paper addresses itself to the follow-

ing questions :

1. What are the dimensions and trends of rural-urban redistribution in the countries of the region, and what is the role of different factors (additions and deletions, migration and natural increase) to rural-urban redistribution ?
2. How do these forces differ between areal units within each country and between countries in the region ?
3. What are the policy options for regulating rural-urban redistribution ?

Data Problems

The data problems faced in the analysis of urbanization in the region have been thoroughly discussed in another paper (Seetharam *et al.*, 1973) and it will suffice to summarize them :

1. Problems of comparability of definition
2. Problems of varying time periods
3. Problems related to international migration
4. Problems of boundary changes and reclassification
5. Problems of measurement and analysis of rural-urban migration.

These problems may be examined very briefly. Table 1 presents a summary view of the definitions of 'urban' available in censuses. It is obvious that comparisons between countries and over time are vitiated by differences in ways of defining urban. United Nations after two decades of efforts to standardize the definitions has at last

Table 1

National Definition of Urban by Countries and Census Dates

Country/census date	Definition of urban
Bahrain 1971	Totality of towns, i.e. Manama, Muharraq, Hedd, Jiddhafs, Sitra, Rifa'a and Awali.
Democratic Yemen 1973	Centres of <i>Mudireya</i> (second level administrative units).
Iraq 1947-65	Population living within boundaries of municipal councils.
Jordan 1961	Urban includes the population resident in all localities of 10,000 or more population (excluding Palestinian camps), all district capitals regardless of size, all localities of 5,000 to 10,000 inhabitants in which two-thirds or more of the economically active males were reported in non-agricultural occupations and the suburbs of Amman and Jerusalem with at least two-thirds of males in non-agricultural pursuits.
Kuwait 1965 and 1970	Kuwait city and Labourers city;
1975	Definition not clear.
Lebanon 1970 survey	All agglomerations with over 5,000 inhabitants.
Saudi Arabia 1964	Cities of the five Emirates (second level administrative units).
Syria 1960	<i>Mohafaza</i> and <i>Mantika</i> centres.
1970	<i>Mohafaza</i> and <i>Mantika</i> centres and localities of 20,000 or more population.
UAE 1975	Some <i>Makhfar</i> (second level administrative units) are defined urban.

Source : *Demographic and Related Socio-economic Data Sheets for Countries of the ECWA Region*, No. 2, January 1978. This is further updated with reference to the latest national censuses and surveys.

decided to accept the national definitions as something we have to live with; their latest estimates of population made in 1979 are based on the national definitions. The view of the present author is that the definition of urban should be based on the single simple criterion of population size, since there is a sufficient correlation between population size and characteristics regarded as urban. The second problem of varying time periods is unavoidable and can be handled by interpolation or extrapolation to some common dates like 1960, 1970 and 1980. Problems (3), (4) and (5) are important for estimation of rural-urban migration by the census survival or place-of-birth methods which are applicable only for 'fixed' urban and rural areas and where the national population is taken to be 'closed'. This would require adjustment of data according to a fixed set of localities and for ensuring closure of the population.

Measures of Urbanization and Rural-Urban Redistribution

The following measures are used in this study :

1. *Level or degree of urbanization* is the proportion of the total population living in areas defined as urban.
2. *Index of the pace of urbanization* is measured by the Eldridge index which expresses the change in the 'proportion urban' as a percentage of the maximum possible change in the 'proportion urban,' i.e. the 'proportion rural' at the initial period. This rate can be annualized by dividing the period rate by the number of years. Symbolically if u_1 and u_2 denote the 'proportion urban' at

time 1 and 2, and n is the intercensal period ;

$$\text{Eldridge index} = \frac{u_2 - u_1}{(1 - u_1)n} \times 100$$

3. *Rate of urban growth* is the geometric or exponential rate of increase in the urban population during an interval, such as the intercensal period.
4. *Tempo of urbanization* is the difference between the urban and rural rates of growth. This measure known as URGD measure is recommended by United Nations.
5. *Index of rural-urban redistribution* is the per cent point change in the per cent urban divided by the number of years. Symbolically it can be expressed as follows :

$$I = \frac{1}{n} \left(\frac{U_2}{P_2} - \frac{U_1}{P_1} \right) \times 100$$

where P_1, P_2 refer to the total population and U_1, U_2 the urban population in the first and second census.

6. *Net rural-urban displacement or redistribution* is defined as follows :

$$D = \left[U_2 - P_2 \times \frac{U_1}{P_1} \right]$$

When calculated for a 'fixed' set of localities, this can be broken into 2 components, namely, redistribution due to migration and redistribution due to natural increase.

7. *Rural-urban redistribution due to natural increase* is

$$D_{NI} = \left[NI_U - NI_T \times \frac{U_1}{P_1} \right]$$

Where NI_U and NI_T denote the amounts of natural increase in urban and total population respectively.

8. *Rural-urban redistribution due to net migration is :*

$$D_{NM} = \left[NM_U - NM_T \times \frac{U_1}{P_1} \right]$$

where NM_U and NM_T stand for the amount of net migration for the urban and total population respectively. The latter will be equal to the net international migration for the country.

The measures of the level, pace and tempo of urbanization are fairly standard and need no further elaboration. However, some explanations of the redistribution measures are in order. The index of redistribution is a special case of the index of dissimilarity and used in geographical

analysis and can be obtained by computing the change in the per cent urban. This index follows the same principle as the index of interstate redistribution (Eldridge, 1964). The lower limit of this index is zero and would occur only if there were no change in the per cent urban. The upper limit is 100 and would be attained only if there was no urban population at the beginning and all the population were moved to it at the end of the period. This index is therefore the percentage of the nation's population as of the end of the period that would have to be reshuffled between rural and urban in order to regain the distribution that existed at the beginning of the period. A limitation of this index is that it measures only net redistribution, and will not be affected if there is a heavy movement of population into urban from rural with an equally heavy movement from urban to rural.

Adding the displacement due to migration we get :

$$\begin{aligned} D_{NI} + D_{NM} &= \left[NI_U - NI_T \times \frac{U_1}{P_1} \right] + \left[NM_U - NM_T \times \frac{U_1}{P_1} \right] \\ &= \left[NI_U + NM_U \right] - \frac{U_1}{P_1} \left[NI_T + NM_T \right] \\ &= (U_2 - U_1) - \frac{U_1}{P_1} (P_2 - P_1) = \left[U_2 - P_2 \times \frac{U_1}{P_1} \right] = D \end{aligned}$$

which shows that D can be decomposed into the two components of redistribution due to natural increase and net migration. There remains the third component due to reclassification which can be obtained by the difference between the urban population at the second census and the aggregate population at the second census of the urban localities of the first census ('fixed urban').

The indices of rural-urban redistribution due to migration and natural increase can be derived by relating the amounts of net displacement or redistribution to the total population of the country at the second census. This can be regarded as a rate when related to the average population.

Level of Urbanization

Table 2 presents the estimated urban

population in West Asia as of 1980 according to the national definitions. The overall level of urbanization for the region (55.7 per cent) is higher than those found in most other parts of Asia with the exception of Japan, and roughly corresponds to an intermediate stage of development in the Kingsley Davis sense. The capital surplus oil producing countries have a higher level of urbanization (68.9

per cent) in comparison with the non-oil producing countries (43.0 per cent). Kuwait (88.4 per cent), Gulf States (76.9 per cent) and Lebanon (75.8 per cent) have the highest level of urbanization while Oman (7.3 per cent) and Yemen Arab Republic (10.2 per cent) are the least urbanized countries in the region. It may be noted that these two countries are included among the least developed countries of the world.

Table 2

Urban and Rural Population of West Asian Countries, 1980

Country	Population (in thousands)			Percentage of total population	
	Total	Rural	Urban	Urban	Rural
WEST ASIA	47,842	20,787	27,055	56.6	43.4
<i>Capital surplus oil producing countries</i>	25,031	7,785	17,246	68.9	31.1
Iraq	13,089	3,716	9,368	71.6	28.4
Kuwait	1,372	159	1,213	88.4	11.6
Oman	891	826	65	7.3	92.7
Saudi Arabia	8,367	2,778	5,589	66.8	33.2
Bahrain, Qatar & UAE	1,317	304	1,013	76.9	23.1
<i>Non-oil producing countries</i>	22,811	13,002	9,809	43.0	57.0
Jordan	3,190	1,394	1,796	56.3	43.7
Lebanon	3,161	765	2,396	75.8	24.2
Syria	8,644	4,296	4,348	50.3	49.7
Yemen Arab Republic	5,926	5,322	604	10.2	89.8
Democratic Yemen	1,890	1,193	697	36.9	63.1

Source : UN *Selected Demographic Indicators by Countries*, August 1979.

Table 3 presents the trend in per cent urban in the countries of West Asia over the period 1950-80. In 1950, the region had only 23.4 per cent of its population in urban areas as against the present level of 55.7 per cent. The capital surplus oil-producing countries had 27.1 per cent of their population in urban areas in 1950 as against 20.9 per cent observed for the non-oil producing countries. The difference between the per cent urban in oil producing countries and non-oil producing countries

has increased from 6.2 to 25.9. It seems that the capital surplus oil producing countries have not only had higher levels of urbanization than the non-oil producing countries in the past but they have also tended to increase these levels at a faster pace than the non-oil producing countries.

This leads us to the consideration of the two indices of the pace of urbanization in Table 4. The West Asian countries have not only reached moderate *levels* of

Table 3
Trends in Percentage Urban in West Asian Countries, 1950-80

Country	1950	1960	1970	1980
WEST ASIA	23.4	32.5	44.5	55.7
<i>Capital surplus oil producing countries</i>	27.1	37.6	54.1	68.9
Iraq	35.1	42.9	58.4	71.6
Kuwait	59.1	72.3	76.5	88.4
Oman	2.4	3.5	5.1	7.3
Saudi Arabia	15.9	29.7	48.7	66.8
Bahrain, Qatar & UAE	57.0	64.0	70.3	76.9
<i>Non-oil' producing countries</i>	20.9	28.2	35.4	43.0
Jordan	34.7	42.7	49.6	56.3
Lebanon	28.2	44.4	61.8	75.8
Syria	30.6	36.8	43.3	50.3
Yemen Arab Republic	1.9	3.4	6.0	10.2
Democratic Yemen	18.8	28.0	32.1	36.9

Source : UN, *Selected World Demographic Indicators by Countries*, August, 1979.

Table 4

**Eldridge Index and Urban-Rural Growth Difference for
West Asian Countries**

Country	<u>Eldridge index</u>			<u>Urban-rural growth difference</u>		
	1950-1960	1960-1970	1970-1980	1950-1960	1960-1970	1970-1980
WEST ASIA	11.2	17.8	20.2	4.4	5.0	4.4
<i>Capital surplus oil producing countries</i>	14.4	26.4	32.2	4.7	6.5	6.1
Iraq	12.02	27.15	31.73	3.2	6.1	5.8
Kuwait	32.27	15.16	50.64	5.5	1.8	8.2
Oman	1.13	1.66	2.32	3.8	3.5	3.7
Saudi Arabia	16.41	27.03	35.28	7.6	7.8	7.4
Bahrain, Qatar & UAE	16.28	17.50	22.22	2.9	2.7	2.9
<i>Non-oil producing countries</i>	9.2	10.0	11.9	3.8	3.2	3.2
Jordan	12.25	12.04	13.29	3.3	2.7	2.6
Lebanon	22.78	31.29	36.65	6.8	6.9	6.5
Syria	8.93	10.28	12.35	2.7	2.6	2.7
Yemen Arab Republic	1.53	2.69	4.47	5.6	5.6	5.5
Democratic Yemen	11.33	5.69	7.07	5.0	0.6	2.1

Eldridge Index = $\frac{P_2 - P_1}{100 - P_1} \times 100$, where p_2 and p_1 are percentage of urban population at times 2 and 1.

URGD = Urban growth rate—rural growth rate, where the growth rate is calculated as follows : $r = \frac{P_2 - P_1}{P_2 + P_1} \times \frac{2}{t} \times 100$, where p is the population at times 2 and 1 and t is the time period.

urbanization but their *rates* of urbanization are very high. The pace of urbanization in West Asia has steadily accelerated with the Eldridge index increasing from 11.88 for 1950-60 to 17.78 in 1960-70 and to 20.18 in 1970-80. Except Oman and the two Yemens, which have the lowest values for this index, the remaining countries have decade indices exceeding 10, and three countries (Iraq, Kuwait, Saudi Arabia) have decade indices exceeding 30, which implies that the population will be completely urban in

3 decades if the present pace of urbanization continues.² Such high indices of urbanization are hardly found in other parts of the developing world (Vaidyanathan, 1970; 1974). There is also clear indication that the pace of urbanization is far greater in the oil producing countries than in the non-oil producing countries.

The urban-rural growth difference (URGD) recommended by United Nations, (United Nations, 1970) reveals that the urban

Table 5
Index and Volume of Rural-Urban Redistribution*

Country	Index of redistribution			Rural-urban redistribution (in thousands)		
	1950-1960	1960-1970	1970-1980	1950-1960	1960-1970	1970-1980
WEST ASIA	9.1	12.0	11.2	2,173	3,887	5,113
<i>Capital surplus oil producing countries</i>	10.5	16.5	14.8	1,281	2,704	3,511
Iraq	7.8	15.5	13.2	534	1,450	1,727
Kuwait	13.2	4.2	11.9	37	31	163
Oman	1.1	1.6	2.2	6	10	20
Saudi Arabia	13.8	19.0	18.1	660	1,178	1,514
Bahrain, Qatar & UAE	13.0	6.3	6.6	44	35	87
<i>Non-oil producing countries</i>	7.3	7.2	7.7	892	1,183	1,602
Jordan	8.0	6.9	6.7	136	159	214
Lebanon	16.2	17.4	14.0	301	430	443
Syria	6.2	6.5	7.0	283	407	605
Yemen Arab Republic	1.5	2.6	4.2	61	126	249
Democratic Yemen	9.2	4.1	4.8	111	61	91

*The volume of rural-urban redistribution is calculated by the product of the index of redistribution and the total population as of the second census.

2. According to these estimates, Lebanon also has an index exceeding 30 but this figure is questionable because of the weakness of the statistical base and the risk involved in interpreting these figures under the present circumstances.

growth rates are significantly greater than the rural growth rates. The difference between urban and rural growth rates (URGD) is especially striking for Iraq, Kuwait, Saudi Arabia and Lebanon. While the rural population in these countries has declined, the urban population has grown at an annual rate of 6 to 8 per cent per annum. The URGD measure for 1970-80 is below 3 percentage points in the case of Jordan, Syria, Democratic Yemen and the Gulf States.

Table 5 presents the rural-urban redistribution of population in the West Asian countries both in absolute and relative terms. The total volumes of rural-urban redistribution in the 1950-60, 1960-70 and 1970-80 decades amount to 2,173,000, 3,887,000 and 5,113,000 respectively. The highest volume of rural-urban redistribution has occurred in Iraq (1,727,000 during 1970-80) followed by Saudi Arabia (1,514,000). The amount of rural-urban redistribution in the capital surplus oil producing countries during 1970-80 has been 3,511,000 as against 1,602,000 in the non-oil producing countries.

The index of rural-urban redistribution expresses the volume of redistribution relative to the population at the second census, and permits comparison over time and between countries. This index for West Asia as a whole has increased from 9.1 in 1950-60 to 12.0 in 1960-70, then declined slightly to 11.2 in 1970-80. The figures for the capital surplus oil producing countries are consistently higher than those observed for non-oil producing countries. The highest indices for 1970-80 are observed for Saudi Arabia (18.1), Lebanon (14.0) and Iraq (13.2). In Iraq, Saudi Arabia, Jordan and Lebanon, the index of redistribution for

1970-80 has fallen below those for 1960-70. In Oman, Gulf States (Bahrain, Qatar and UAE), Syria and the two Yemens, the index of redistribution for 1970-80 has been higher than those for 1960-80. The factors influencing these changes can be identified only when the components of redistribution for each decade can be determined. Unfortunately, the data enabling such an analysis are not available.

Components of Urban Growth and Rural-Urban Redistribution

The components of urban growth and rural-urban redistribution are natural increase, net rural-urban migration and the net effect of reclassification and declassification of localities and annexation to or detachment from present urban areas. For studying these components, there is need to identify the effect of reclassification and separate this component from the total urban growth. What remains will be the growth of a 'fixed' set of localities, which can be further decomposed into the two components-natural increase and net migration. Such estimation is possible only for two countries of the region, namely Iraq and Syria. In the absence of firm estimates of birth and death rates for rural and urban areas separately, the rate of natural increase has been assumed to be the same for both rural and urban areas. The estimates of the components of urban growth for Syria and Iraq are shown in Table 6. In both cases, the contribution of reclassification to urban growth has been small (about 10 per cent). There are, however, significant differences between these two countries in the relative contribution of migration and natural increase. In the case of Iraq, the contribution of natural

Table 6

Components of Urban Growth and Redistribution for Syria and Iraq

Country	Period	Total	Natural increase	Net migration	Reclassification
<u>Amount in thousands</u>					
Syria	1960-70	1,094	714	269	111
Iraq	1957-65	1,625	783	690	153
<u>Percent to total urban growth</u>					
Syria	1960-70	100	65.2	24.5	10.1
Iraq	1957-65	100	48.1	42.5	9.4
<u>Percent of rural-urban redistribution</u>					
Syria	1960-70	100	—	70.8	29.2
Iraq	1957-65	100	—	81.9	18.1

increase and net migration are nearly equal (48.1 and 42.5 per cent), while in the case of Syria the relative contribution of natural increase (65.2 per cent) is far greater than that of net migration (24.5 per cent).

Some of the observed differences may be due to differences in definition of urban in the two countries, but this factor cannot explain entirely the observed differences. In Iraq, the leading role of rural-urban migration has been due to the rapid economic expansion stimulated by growing oil revenues, besides population pressure in rural areas arising from rapid growth of population and scarcity of arable land.

In the Gulf countries and Saudi Arabia, international migration is a significant factor

in urban growth. The average annual growth rate for Riyadh in Saudi Arabia has been 10 per cent per annum (1962-68), while Doha in Qatar and Kuwait city had grown at the rate of 15 per cent and 18 per cent respectively, largely due to the influx of expatriates. In Jordan, Amman grew at the average annual rate of 9 per cent between 1952 and 1961 and by 6 per cent between 1962 and 1967. Following the Arab-Israeli war in 1967, Amman again received between 100 000 and 140 000 refugees from the West Bank of Jordan. In Lebanon, following the civil war of 1975-76, there has been considerable redistribution of population. For example, sizeable population of Muslims moved out of the predominantly Christian areas and

vice-versa and in addition there has also been sizeable overseas emigration; their differential impacts on rural and urban areas are bound to affect the rural-urban population distribution.

The causes of rural-urban migration in the countries of this region are basically the same as elsewhere: 'push' factors such as lack of employment opportunities, low wages and low productivity in the rural areas, and the 'pull' factors in towns such as employment opportunities, higher wages and the availability of social services including health, education and recreation facilities. In the past, natural increase rates were high in both rural and urban areas (between 3 and 3.5 per cent per annum) because of high fertility (CBR of 40-45 per thousand) and low mortality (around 10 per thousand). Till very recently, fertility was higher and mortality lower in urban areas than in rural areas of several countries; consequently, the natural increase rate was higher in urban areas. Thus the urban growth rates of 5 to 7 per cent observed in Iraq, Jordan and Saudi Arabia have been due to both heavy rural-urban migration (2 to 4 per cent) and high rates of natural increase (3 to 3.5 per cent) and these had tended to reinforce the redistribution of population in favour of urban areas. In the Gulf countries, rural-urban migration has been entirely substituted by international migration. For example, out of the 18 per cent annual growth observed for Kuwait city in the 1960s, 15 per cent was due to international migration.

Considering future prospects, one may speculate that when the countries become more and more urbanized, the rural

population will shrink and the number of potential migrants from rural areas will also decline. At the same time, international migration is likely to taper off when the supply of local labour expands as a result of continuous high rates of natural increase. On the other hand, the population base of urban areas is steadily enlarging, thereby contributing to a greater amount of natural increase in urban areas. Thus natural increase is bound to emerge as the major component of urban growth in future, even if the natural increase rate of urban areas declines as a result of a drastic fall in fertility. A decline in rate of natural increase in urban areas relative to rural areas will lead to a negative population shift for urban areas. Thus migration will remain the major component of rural-urban redistribution of population, even when natural increase emerges as the major component of urban growth.

Redistribution of Urban Population

An aspect of rural-urban population distribution that deserves attention is the size distribution of urban localities and the urban population by size classes (Table 7). A major feature of the settlement pattern in this region is the absence of a hierarchy or system of urban localities as generally observed in most western countries and the concentration of urban population in the single largest city or a handful of such cities. Each country has at least one large urban centre of 100,000 inhabitants or more and these centres become the focal point of development activities. In every country, the capital city also tends to be a primate city with an over-whelming proportion of the

population and economic resources located in the capital. In most countries 20-30 per cent of the total population is located in the capital city, 40 per cent in the case of Lebanon and Bahrain and over 60 per cent in Kuwait. The Gini coefficient of concentration is in the range of 0.7 to 0.8 in most countries. The Three-City Primacy Index indicated an excessive concentration of urban population in the largest city. The exception to this situation is observed for Oman and North Yemen where less than 10 per cent of the total population live in the capital cities. This is because of the heavy dependence until recently on agriculture as the mainstay of the economies of these countries. More recently, oil revenues have become the major source of income for Oman, while remittances from workers abroad have become important for Yemen.

Even though there is a lack of a 'system of settlements' within each country, the geographical arrangements of cities seem to follow a logical pattern if West Asia is treated as a total entity. There is a large city located in each distinct geographical zone, and each of these is linked to the others through a network of smaller towns along a north-south highway (as in Lebanon and Syria) or along a river valley in the case of Iraq, or along the seashore in the Gulf States. There is a tendency towards the growth of an urban belt or megalopolis along the major transport artery in several countries.

In most countries, the largest city (which is usually the capital) has grown more rapidly than the rest of the urban population and is followed by other cities of the 100,000+ class. Moreover, the number of cities in the 100,000+ class increased in every country, as a result of reclassification from the lower classes. For example, in Iraq, Basra, Mosul and Kirkuk have grown in population, the first because of its importance as a port in the Gulf, and the last two as a consequence of the discovery of oil and growth of the petroleum industry. In Lebanon, Tripoli has become an important centre of commerce and industry in North Lebanon, while in Syria, Aleppo, Homs and Hama are the other cities of the 100,000+ class which have grown in importance. In Saudi Arabia, Mecca, Madina, Jeddah and Dahrhan have grown rapidly, where there are more than one city in the 100,000+ class, these tend to serve as nodes of distinct geographic regions within each country.

Secondly, the percentage of urban population in localities of 100,000 inhabitants or more has increased in every country in the region. This tendency towards the concentration of urban population within a few urban localities is also indicated by the Seetharam Index of Concentration.³ Thus there is a shift towards the larger classes and a stagnation or relatively slow growth of small and medium-sized towns (especially those of the 5,000-20,000 and

3 The Seetharam Index of Concentration is derived as follows :

$$\frac{1}{K} \sum \frac{U_{k+}}{U}$$

where K refers to the number of size classes and U_{k+} refers to the Kth size class, while U refers to the entire urban population (Seetharam, 1974).

Table 7

Distribution of Urban Localities by Size Class and Their Population

Country	Census year	S I Z E C L A S S					Total
		5,000-10,000	10,000-20,000	20,000-50,000	50,000-100,000	100,000+	
<u>Number of urban areas</u>							
Iraq	1957	31	13	9	5	8	66
	1965	40	11	11	8	9	93
Syria	1960	39	16	5	2	3	65
	1970	58	28	11	2	5	104
<u>Percentage distribution</u>							
Iraq	1957	47	20	13	8	12	100
	1965	43	27	11	9	10	100
Syria	1960	60	25	8	3	4	100
	1970	56	26	11	2	5	100
<u>Population (in thousands)</u>							
Iraq	1957	228	181	288	320	1194	2121
	1965	276	328	373	624	2235	3836
Syria	1960	270	228	150	165	1092	1905
	1970	400	373	336	130	1955	3194
<u>Percentage distribution of population</u>							
Iraq	1957	10.3	8.2	13.0	14.5	54.3	100
	1965	7.2	8.6	9.7	16.3	58.2	100
Syria	1960	14.2	12.0	7.9	8.6	57.3	100
	1970	12.5	11.7	10.5	4.1	61.2	100

20,000-50,000 size classes). If we assume that the rates of natural increase do not differ according to size class, this would indicate that the rates of migration are greater for the larger urban centres than for smaller areas. Secondary urban centres capable of

absorbing rural migrants are few in these countries and even these are weak in secondary and tertiary sector industrial activities in comparison with the metropolitan cities. Clarke and Fisher (1972) attributed the growing concentration of

population in a few places to two factors: "patchy population distribution" and "islandic pattern of economic development." Both these factors persist despite a decade of planning, and seem hard to overcome because of the nature of the terrain, soil conditions and other geographical limitations which make human settlement possible only in a few places like sea-shores, river valleys and oases.

A third important feature of the redistribution of urban population in the region is the growing suburbanization or a shift in the population towards suburbs. Many cities (example, Baghdad, Damascus, Beirut and Kuwait) have spilled outside their former city boundaries and have incorporated neighbouring towns. Unfortunately, the census data for these countries do not distinguish between the population of the 'city' proper and 'urban agglomeration' as recommended by UN. This is an area which requires painstaking data collection and research to assess the extent of suburbanization and its contributing factors.

Policy Options for Regulating Rural-Urban Redistribution

(i) Policies for reducing natural increase

Since natural increase is the major component of urban growth and a factor for rural-urban migration and its importance is likely to increase in future, the highest priority should be given to measures to reduce the rate of natural increase in both urban and rural areas. Since policies to increase mortality are unacceptable on ethical and other grounds, education about family planning methods and provision of

family planning services, especially in urban areas would help to reduce fertility in the long run, and thus bring about a reduction in the natural increase rate. Experience of countries which have initiated family planning programmes (for example, Egypt and India) shows that these programmes in the absence of social development measures take too long to produce the desired results. Although several West Asian countries have family planning associations and family planning services are available within the MCH programmes of most countries, these countries do not have any policies for promoting family planning.

There is growing interest in this region for population education as a means of bringing about the awareness of population problems including problems of urbanization. Already Democratic Yemen and Bahrain have started introducing population education programmes, and Jordan and Syria have also prepared population education projects and are likely to implement them beginning in 1981. There are limited population education activities in most countries, such as organization of seminars and workshops, but these are not adequate to bring about a major change in attitude and behaviour. Moreover, population education has to address itself specifically to problems of migration and urbanization besides that of fertility and mortality.

Expansion of education and employment opportunities for women can contribute to substantial reduction in fertility. The effect of education can be both direct and indirect; among its direct effects are the postponement of marriage and to a lesser extent avoidance of marriage; among

its indirect effects are the emergence of attitudes, knowledge and behaviour favourable to reduction in fertility. Female participation rates are lower in urban than in rural areas, except among the highly educated. Studies in Yemen, Syria and elsewhere have shown that female seclusion (the veil) is more an urban than a rural phenomenon. In rural areas women do not object to working with the men in the fields because they regard the entire village as an extended family, while in urban areas they are obliged to work with strangers. Encouragement of small-scale industries in urban areas can create an appropriate milieu for employment of women.

(ii) *Policies for regulating rural-urban migration*

Rural-urban migration is inevitable and is also necessary for economic growth and is a mechanism of adjustment between labour demand and labour supply. Therefore, the measures usually advocated or adopted in these countries such as preventing migrants from arriving in the cities or sending them back to rural areas, provision of amenities like roads, schools and hospitals in rural areas as a means to reduce migration or diversion of migration to secondary cities have all proved counter-productive. Instead of attempting to restrict urban growth or limit migration which are bound to fail, efforts should be concentrated upon anticipating these and taking positive measures which would make life in urban areas comfortable for migrants and others, while at the same time efforts should be made to create employment opportunities in rural areas through integrated rural development, rural settlement or colonization projects, extension of social services

including education, health and recreation facilities in rural areas. What is needed is comprehensive regional planning where rural and urban are not viewed as separate entities but as part of a total system, and where the requirements of specific areas, institutions and populations are taken into account. Within this framework it should be possible to plan for self-sufficient neighbourhoods within the cities which are well integrated into the city and the region, development of industrial growth poles in medium-sized towns (20,000-50,000 population) and creation of marketing facilities in small towns (5,000-20,000 population) to promote commercialization of agriculture. Such measures can alleviate the pressure on the capital cities through the conversion of scattered settlements into viable units which can benefit from economies of scale and lead to diffusion of economic and social modernization.

(iii) *Policies for Urban Deconcentration*

A major problem faced in the large urban centres is the shortage of housing, and the growth of slums and shanty towns. Efforts should be directed towards rationalizing housing and land use patterns through projects for sites and services, public housing, planning and zoning, establishment of industrial estates and construction of new towns and satellite cities. Suitable standards of self-help housing should be evolved in keeping with the climate and cultural milieu of the cities and regulated self-help housing should be encouraged. No country in the world has ever succeeded in slum-clearance efforts, while efforts to reorganize the slums have been often successful. The slums and squatter settlements may be provided with clean drinking

water, community baths and toilets, basic educational facilities at least up to primary level and some recreation arrangements. The migrants' propensity for self help should be canalized by providing land and building materials.

(iv) *Policies concerning international migration*

West Asia is unique in respect of the quantum of international migration affecting urban growth. There are two types of international migrations-voluntary immigration in response to job opportunities, especially to the Gulf countries, and refugee migration to Lebanon, Jordan and Syria. The voluntary immigration is well regulated in most countries through issue of work permits, visa restrictions, etc. However, some amount of illegal immigration still persists despite these measures. There are already indications of a fall in demand for expatriate unskilled labour in several Gulf countries, and if this tendency persists, voluntary immigration may be expected to be reduced. However, the refugee migration is likely to remain an intractable problem until the Arab-Israeli dispute is amicably resolved. The immigrant workers and refugees are often living under appalling conditions and are denied access to basic social services. The policy should be

directed towards ensuring the basic human rights and access to education and health to the migrants and refugees.

Conclusion

Rural-urban redistribution of population is proceeding at a rapid pace in the West Asian countries, and a great majority of the countries have already attained moderate levels of urbanization (around 50 per cent urban). Kuwait (88 per cent) Gulf States (76.9 per cent) and Lebanon (75.8 per cent) have the highest level of urbanization while Oman (7.3 per cent) and the Yemen Arab Republic (10.2 per cent) are the least urbanized countries in the region. While the major component of urban growth is natural increase, rural-urban migration remains the major component of rural-urban population redistribution, and in some countries rural-urban migration is replaced by international migration as the major factor. The effect of reclassification of localities on urban growth and rural-urban redistribution in the region is small. It is the view of this author that rural-urban shifts are inevitable consequences of the urbanization process and instead of being overwhelmed by it, policy makers should make an objective assessment of the situation and take positive measures to alleviate the problems of rapid urbanization.

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POPULATION CONCENTRATION : A CONSIDERATION OF DENSITY MEASURES AND CORRELATES

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The purpose of the paper is to explore the nature of association of certain external and internal density measures with each other and with a set of selected variables in four states of India. Pearson's Simple Coefficient of Correlations and Stepwise Multiple Regression were used for analysis of data. The results reinforce the notion of a clear distinction between external and internal density measures and their associative factors in India; the two measures of internal density, although highly correlated, were found to have varied relevance to the dependent variables. The study points out the need for further research based on more detailed and standardized data on the external and internal measures of density.

The degree and nature of population concentration and their effects on the quality of life have long engaged the attention of social scientists. Following the work by Calhoun (1962) on the deleterious effects of density on animals, the relationship between human density and the social "pathologies" such as crime, delinquencies, sickness, and mortality became subject of prime research interest among the scholars. However, the vast literature in this area evinces the fact that the results of the research efforts are still inconclusive¹. Whereas some researchers, using various measures of external and internal density and controlling for other possible contributory variables such as race, ethnicity and income, found density to account for

various kinds and degrees of pathology (Galle et al., 1972; Schmitt, 1957) other studies showed contradictory results (e.g., Mitchell, 1971; Freedman et al., 1975). Although efforts are continuously being made to refine and standardize the measures of the various forms of density, it has been rightfully argued that part of the controversy in the field has been due to "methodological weaknesses", one of them being "the failure of researchers to derive measurements of density and crowding which are appropriate for the theoretical models under consideration," and that "the selection of a particular density or crowding measure can have (an important bearing) on the obtained results" (Dunstan, 1979).

1. For a current bibliography of the literature in this area, see Gurkaynak, M. R., and Le Compte, W. A. eds. (1979).

However, even with the lack of agreement on the possible effects of density on human quality of life, a general consensus has emerged in the literature. It has been generally acknowledged, for instance, that gross or residential density, i.e. number of people per unit total or residential area, is a separate variable (at least in the United States) from the space per person indoors as persons per room, persons per building and so on (Dye, 1975); although the relative importance of the two is yet to be agreed upon (Schmitt, 1966). The other major attainment in the area of population concentration studies has been the realization that, contrary to animal findings, in the human society population density as such may not necessarily be the culprit that it was commonly suspected of being. As Stokols (1972), among others, noted (Rapoport, 1975; Rusbult, 1979 for references), it was not actual density (the people per unit area), but the *perceived* density, a negative sense of crowding, that could be responsible for the stress-related pathologies commonly associated with density. More importantly, from the viewpoint of international or cross-cultural generalization purposes, it was further realized that the perception of an "excessively high density," or how an individual would perceive and react to the density surrounding him, would depend to a large extent on factors related to his sociocultural, environmental and physical attributes and experience. Thus, as Rapoport puts it, "The likelihood that these (perceived crowding and isolation, two extremes of affective density) can only be interpreted in terms of cultural contexts makes extremely hazardous the use of Hong Kong data to judge the likelihood of behavioral sink

phenomena in the United States" (1975). Needless to say, this note of caution is equally pertinent to conclusions drawn from density studies conducted in the developed industrialized countries being applied in the developing countries; the perception of crowding from the same people per unit area, indoors or outdoors, is unlikely to be the same in the United States and India, for example. For that matter, it is equally conceivable that the response pattern to the same stimulus, i.e. the perception of similar density levels, could vary between the rural and urban areas within the same country (cf. Dunstan, 1979). Unfortunately, however, systematic research on density and quality of life using different measures of external and internal density, [especially from an urban-rural spatial comparative, perspective, is almost nonexistent in the developing countries, such as India. The few studies conducted during the last few years (Chen, 1977; as cited in Dunstan, 1979; Schmitt, 1963; Mitchell, 1971) were primarily confined to the larger cities or metropolitan areas.

Research Framework

In the context of the preceding discussion, the purpose of the present exploratory research was to address itself to a number of questions: (1) In view of the severe scarcity of space in India, are the commonly used external (person per unit area, outdoors) and internal (person per unit area, indoors) density measures positively interrelated to the extent of being two measures of the same variable, or as in the United States, are they two independent variables, "separate dimensions to the common notions of density?" Would the interrelationship between the two (i.e. external and

internal density), as well as their relationships with the dependent variables vary significantly according to the urban or rural patterns of the environment? Are the two commonly available measures of internal density (person per room, and one-room, household) duplicates of each other, or do they portray distinctly separate dimensions with varying degrees of relevance to the demographic and socio-economic characteristics of population in the urban and rural settings?

Four states of India, Kerala, Maharashtra, Punjab, and West Bengal, with a total of 61 districts, for which district-wise comparable data for the urban and rural areas were readily available, were selected for the study. One measure of external density, person per square kilometer (EXDEN), and two measures of internal density, person per room (IDPPR) and one-room household (IDORH), were used as the independent variables.² Three demographic variables, registered birth rate, death rate and infant mortality rate, and one measure of literacy, per cent literate, were selected as dependent variables.³ Stepwise multiple regression was used to determine the relative importance of the external and internal density measures. In order to avoid the problems of multi-collinearity, the two indices of internal density were not used in the same regression model. Constraints of data precluded any effort to utilize finer measures of external and internal density, and to test the association

between the independent (density) and dependent variables controlling for income, education, social class and residential location, factors considered to be related to density; as such, no attempt has been made to formulate or test any hypothesis on the effects of density.⁴

Findings and Conclusion

Relationship between the three measures of density are presented in Table 1. As expected, the internal density indices are found to be highly intercorrelated to the point of redundancy. The external and internal density measures portray a substantively weak (albeit statistically significant) negative association in the rural areas, and almost no relationship in the urban areas under study, thus supporting our contention that the two kinds of measures should be used as distinct independent variables in density-related research. Table 1

The correlations between the density measures and the four dependent variables show interesting patterns and reinforce the notion of a clear distinction between the external and internal density measures and their associated factors in India (Table 2). In view of the continued research interest on the possible detrimental effects of crowding on human fertility, the strong, negative relationship between birth rate and internal crowding (one-room household, person per room) in the urban areas is worth noting. Also of significance are the

2. For source of data, see Census of India (1975; 1973; 1972a-f).

3. BMDO2R Programme.

4. For convincing arguments against using gross density and mean or median based measures of crowding (e.g. mean person per room), as sole measures of external and internal density respectively, see Dunstan (1979).

Table 1
Correlations Between the Density Measures

Variables	External density EXDEN		Internal density			
	Urban	Rural	IDPPR Urban	Rural	IDORH Urban	Rural
External density (EXDEN)	X	X				
Internal density (IDPPR)	-.04	-.46*	X	X		
Internal density (IDORH)	-.04	-.37*	.92*	.96*	X	X

*Significant at .05 level.

Table 2
Correlations Among the Density Measures and Selected Variables

Variables	External density EXDEN		Internal density			
	Urban	Rural	IDPPR Urban	Rural	IDORH Urban	Rural
Birth rate	-.19	-.69*	-.62*	.24	-.71*	.33*
Death rate	-.30*	-.68*	-.39*	.34*	-.43*	.47*
Infant mortality rate	.22	-.63*	.07	.25*	.21	.37*
Literacy rate	.15	.45*	-.47*	-.62*	-.52*	-.64*

* Significant at .05 level.

high negative associations between the three demographic variables and external density in the rural areas which may possibly reflect the benefits such as improved health, family planning and educational facilities, accrued from the various village improvement projects usually set up in more densely populated rural areas. Clearly, in the

rural areas external density, rather than internal congestion, is more closely related to the demographic variables. (Table 2) The association of the external and internal measures of density with literacy further emphasizes their different dimensions. While, possibly for reasons ventured above, rural literacy rate appears to be favourably

Table 3

Stepwise Multiple Regression* of Density Measures on Selected Variables

Dependent variable	Model	Urban			Rural		
		Independent variable	R	R ²	Independent variable	R	R ²
Birth rate	1	IDORH	.71	.50	EXDEN	.69	.47
		EXDEN	.74	.55	IDORH	.69	.47
	2	IDPPR	.62	.39	EXDEN	.69	.47
		EXDEN	.66	.43	IDPPR	.69	.47
Death rate	1	IDORH	.43	.19	EXDEN	.68	.46
		EXDEN	.53	.29	IDORH	.70	.49
	2	IDPPR	.39	.15	EXDEN	.68	.46
		EXDEN	.50	.25	IDPPR	.69	.47
Infant mortality rate	1	EXDEN	.22	.05	EXDEN	.63	.40
		IDROH	.31	.10	IDROH	.64	.41
	2	EXDEN	.22	.05	EXDEN	.63	.40
		IDPPR	.23	.05	IDPPR	.63	.40
Literacy rate	1	IDORH	.52	.27	IDROH	.64	.41
		EXDEN	.53	.28	EXDEN	.67	.45
	2	IDPPR	.47	.22	IDPPR	.62	.39
		EXDEN	.48	.23	EXDEN	.67	.45

* F level significant at .01 level.

related to external density, effects of room crowding, both in the rural and urban areas, prove to be otherwise. Poverty, commonly associated with internal congestion, may be a key factor in this case, and should be controlled in future studies in any effort to determine the independent effects of density (Table 3).

An examination of the regression results, reveals two noteworthy points. First, in the urban areas internal density indexed by one-room household consistently accounted for greater variation in the dependent variables (except for infant mortality rate), than either the person per room index or external density. One-room household thus appears to be a more sensitive measure of internal density in the urban areas than the other more commonly used measure of person per room. Secondly, in the rural areas, the three demographic variables were revealed to be more closely associated with external density than internal congestion.

To conclude, in response to the queries set forth previously, the results suggest that external and internal density measurements are two separate variables, or at the least, two distinctly separate dimensions of

human crowding in India. The inter-relationships between them were found to be substantively weak in the rural areas and almost non-existent in the urban areas under consideration. It is further suggested that although the two measures of internal density were found to be highly correlated, they should not be considered as duplicates of each other; this exploratory analysis clearly indicates the measure of one-room household to be more relevant than the person per room measure in the urban areas.⁵ In this era of spatial planning and policy formulation, especially in context of the developing nations, clarity and consensus on conceptual definitions of the phenomena of population concentration is of paramount importance. It is increasingly being realized that the simple and more commonly used measures of external density alone may not be adequate and that specific and alternate forms of internal density measures should also be cautiously explored. Finally, planners and policy makers, as well as the social scientists and researchers, need to be aware of the cultural parameters of the society in defining 'measures of population concentration' as well as in assessing their effects on the environment.

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5. This topic on the nature and correlates of density in India is discussed in detail in D. Mookherjee, "Density and Environment : An Exploratory Study of Urban Rural Patterns," forthcoming.

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