The Indonesian Journal of Geography, Vol. 16. No. 52. December 1986, pp. 21-31.

# POPULATION DISTRIBUTION AND POPULATION GROWTH IN YOGYAKARTA SPECIAL REGION

by Ida Bagus Mantra\*

## **ABSTRACT**

The Sultanate of Yogyakarta which, during the struggle for independence and subsequently has been known as the Special Region of Yogyakarta, is located in the southern part of Central Java. It constitutes much of the heartland of Javanese culture, for Yogyakarta was the center of the pre-colonial Kingdom of Mataram.

Within Yogyakarta Special Region, there is a marked contrast in the population density between Bantul and Sleman regencies on one hand, and Gunung Kidul and Kulon Progo on the other hand. The basic reason for this difference is the fact that the soil of Bantul and Sleman regencies is primarily young and volcanic, while there is also a good water supply and intensive irrigation network.

The annual rate of population growth in Yogyakarta Special Region is much lower compared with other provinces in Java. During 1961 and 1971 the rate of population growth was 1.1 percent, for the period 1971—1980 became 1.09 percent. This region experienced a net loss of population through migration, and that the losses were greater in the poor areas of Gunung Kidul and Kulon Progo.

#### INTRODUCTION

Yogyakarta Special Region, one of the 27 provinces in Indonesia, consists of one municipality and four regencies (Yogyakarta Municipality, and Bantul, Sleman, Gunung Kidul, Kulon Progo regencies). Yogyakarta with a large

Dr. Ida Bagus Mantra is Senior Lecturer in Population Geography Faculty of Geography and Research Associate in Population Studies Center, Gadjah Mada University, Yogyakarta, Indonesia.

population 2,966,549 in 1985 and a population density of 931 per square kilometer in 1985 (Central Bureau of Statistics, 1986) is economically one of the poor areas in the whole Java Island. Except for Jakarta, which is entirely urban, Yogyakarta had the highest population density of all provinces in Java.

The annual rate of population growth is much lower than the other provinces in Java. This paper discusses some factors which influence the low rate of population growth in Yogyakarta Special Region.

## PHYSIOGRAPHY

Yogyakarta Special Region is triangular in shape with the apex being Merapi Volcano, which rises to 3,500 meters and is one of the active volcanoes in Indonesia. Physiographically, Yogyakarta can be divided into the Merapi volcanic area, the limestone plateau of the Sewu Mountain Range, the Merapi volcanic foot plains, the alluvial volcanic plain of the southern coast, and the West Progo Mountains or Menoreh Range (Pannekoek, 1949).

The plains surrounding Merapi Volcano and the alluvial areas of the southern coast consist of fertile soil and are sufficiently well irrigated. These are the areas of wet rice production. The most fertile wet areas in Yogyakarta are located in Sleman and Bantul regencies and cover 34.2 percent of the total area of Yogyakarta (Mantra, 1981). The water from the Progo and Opak rivers irrigates approximately 90 percent of the rice field. On the other hand, the southern part of Gunung Kidul Regency consists of a limestone plateau and is both physlically and economically a very poor area. Its topography, underground water resources, soils, and level of living area are therefore, significantly different from the rest of Yogyakarta Special Region and of Java as a whole (Khan, 1963).

The climate of Yogyakarta is tropical; the wind patterns and rainfall distribution are dominated by the monsoon. The dry season is from April to September while the driest months are generally July, August and September. The wet monsoon lasts from October to March, with the heavy rainfall in December, January and February (Evans, 1963). The two main rivers, the Progo and the Opak, run parallel from north to south and are the major source of irrigation for the rice fields (Figure 1).

The region consists of one municipality and four regencies (Yogyakarta Municipality, Bantul, Sleman, Gunung Kidul, and Kulon Progo regencies), subdistricts (Kecamatan), villages (kalurahan/desa), and hamlets (dukuh) constitute the lower levels of the administrative hierrarchy. In 1984, there were 73 subdistricts, 556 villages, and 6,686 hamlets in Yogyakarta Special Region (Table 1 and Figure 2).

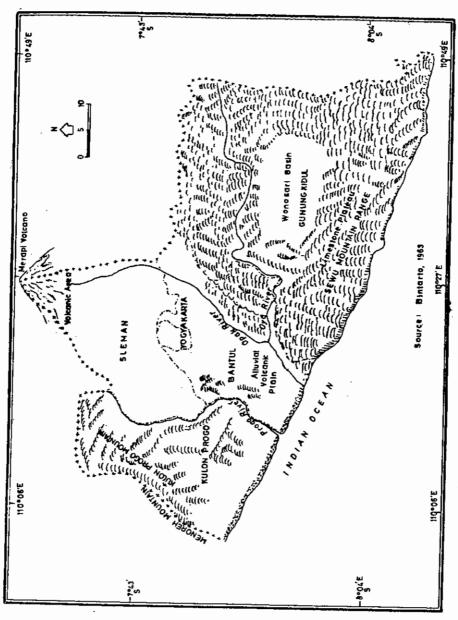


Figure 1. Physiographic Map of Yogyakarta Special Region

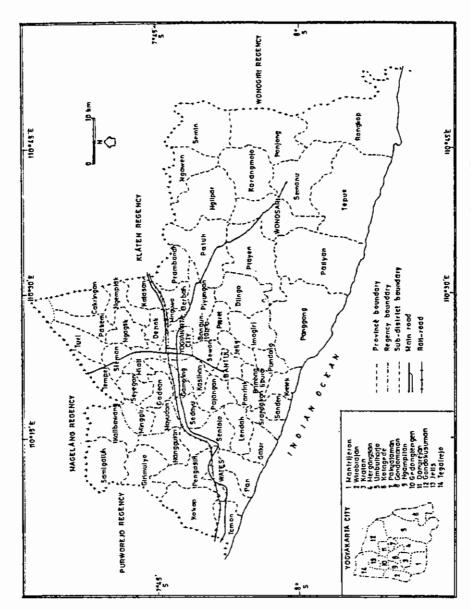


Figure 2. Administrative Map of Yogyakarta Special Region

TABLE 1. NUMBER OF SUBDISTRICTS, VILLAGES AND SUBVILLAGES IN YOGYAKARTA SPECIAL REGION, 1984.

No.	Regencies and Municipality	Subdistricts	VIllages	Subvillages (Dukuh) hamlets
1.	Yogyakarta Municipality	14	163	2,325a
2.	Bantul	17	75	947
3.	Sleman	17	86	1,175
4.	Gunung Kidul	13	144	1,325
5.	Kulon Progo	12	88	, 914
	Total	73	556	6,686

Source: Statistical Office, Yogyakarta Special Region, 1984.

#### POPULATION DISTRIBUTION

From 1961 to 1971, the total population of the region grew by 11.5 percent (from 2,231,062 to 2,488,544), from 1971 to 1980 the population grew by 10.9 percent and during 1980—1985 by 7.5 percent (Table 2 and Figure 3).

Except for Jakarta, which is entirely urban, Yogyakarta has the highest population density among provinces in Java. As seen in Table 2, in 1961 the population density of Yogyakarta was 704, in 1971 became 781, and in 1980 and 1985 became 863 and 931 respectively. Within Yogyakarta Special Region, there is a marked contrast in the population density between Bantul and Sleman regencies on one hand, and Gunung Kidul and Kulon Progo on the other hand (Table 2). The basic reason for this difference is the fact that the soil of Bantul and Sleman regencies is primarily young and volcanic, moreover there is also a good water supply and intensive irrigation network.

# POPULATION GROWTH

The annual rate of population growth in Yogyakarta Special Region is much lower than other provinces in Java. During the period 1961—1971 Yogyakarta Special Region experienced the lowest rate of population growth (1.1 percent), during 1971—1980 became 1.09 percent, but for the period 1980—1985 the rate of population growth was slightly increasing, that is, 1.23 percent while the other provinces in Java decreasing.

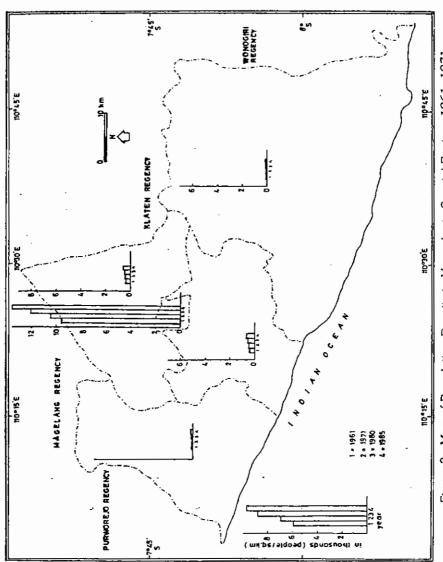
a) The administrative unit of a subvillage in the city is different from that in the rural areas. In the city it is more like a neighborhood unit, and on the average one neighborhood unit consists of 30 households of 152 persons.

TABLE 2. POPULATION NUMBER AND DENSITY IN YOGYAKARTA SPECIAL REGON, 1961, 1971, 1980 AND 1985

Recency or Municipality	Area in Square		Total Po	Total Population		ă	Density per square kilometer	tuare kilome	ter
Amadama o Camara	kllometers	1961	1971	1980	1985	1961	1971	1980	1985
Yogyakarta Municipality	32.50	306,296	340,908		442,966	9,622	10.512	12.689	13.630
Bantul	506.85	306,296	568,618	635,908	687,177	986	1,122	1.252	1.356
Sleman	574.82	516,653	588,304		746,793	98	1.023	1.178	1.299
Gunung Kidul	1,485.36	571,823	620,085		696,309	382	418	444	469
Kulon Progo	586.24	337,127	370,629		393,304	576	632	649	671
Yogyakarta	3,185.77	2,231,062	2,488,544	2,231,062 2,488,544 2,760,578 2,966,549	2,966,549	704	781	863	931

Source: Central Bureau of Statistics (1963). Central Bureau of Statistics (1986).

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Figure 3. Map of Population Density in Yogyakarta Special Region. 1961, 1971. 1980 and 1985

Of the four regencies, Bantul and Sleman had the highest rates of population growth during 1961—1971 and 1971—1980, followed by Kulon Progo and Gunung Kidul (Table 3). Thus, the highest growth rates were found in those regencies which already had the highest population density. By contrast, the level of fertility as indicated by the total fertility rate was slightly higher for Gunung Kidul than for the other three regencies, which means that the low rate of population growth in Gunung Kidul during 1961—1971 was not caused by the low fertility (Mantra, 1981).

TABLE 3. RATE OF POPULATION GROWTH IN FOUR REGENCIES IN YOGYAKARTA SPECIAL REGION 1961—1971 AND 1971—1980.

 Regency	1961—1971	1971-1980	
 Bantul	1.32	1.21	
Sleman	1.31	1.58	
Gunung Kidul	0.80	0,69	
Kulon Progo	0.96	0.30	

An estimate of the annual rate of net migration for the four regencies in Yogyakarta Special Region experienced a net loss of population through migration and that the losses were greater in the poor areas of Gunung Kidul and Kulon Progo (Table 4). Thus the net rate of migration is inversely related to the intensity of land utilization.

TABLE 4. ANNUAL RATES OF NET MIGRATION IN FOUR REGENCIES IN YOGYAKARTA SPECIAL REGION 1961—1971.

Regency	Rate of Growth Growth %	Rate of Natural Increase %	Rate of Net Migration %
Bantul	1.3	1.6	-0.3
Sleman	1.3	1.6	-0.3
Gunung Kidul	0.8	1.7	-0.9
Kulon Progo	1.0	1.6	-0.6

Source: Mantra (1981: 20)

The high rate of out-migration from Yogyakarta can also be detected from the census result taken in 1971, 1980 and Intercensal Survey 1985. Four questions on population migration were asked in those three censuses, and one of them was "Province of Birth". Thus a person can be regarded as a migrant when he/she was born in one province and residing in another at the time of

enumeration (Lifetime migrant; Mantra, 1985: 192). Based on these data, it was found that in 1971, 1980 and 1985 the lifetime inmigration, the lifetime outmigration and the lifetime net migration for Yogyakarta Special Region are as follows (Table 5).

TABLE 5. LIFETIME MIGRANTS BASED ON PROVINCE OF BIRTH YOGYAKARTA SPECIAL REGION, 1971, 1980 AND 1985 (PERCENT).

Lifetime Migrants	1971	1980	1985
Lifetime Inmigrants	5.8	6.6	7.7
Lifetime Outmigrants	11.9	9.2	22.1
Lifetime Net migrants	-6.1	-2.6	-14.4

Source: Mantra (1985): 196).

Table 5 indicates that in 1971 there was 5.8 percent of the total population whose province of birth was outside Yogyakarta Special Region, in 1980 and in 1985 the percentage was higher, that is, 6.6 and 7.7 respectively. On the other hand, there were 11.9 per cent in 1971, 9.2 in 1980 and 22.1 in 1985 who were born in Yogyakarta Special Region but lived in other provinces. Thus, the percentage of lifetime outmigrants is higher than that of the lifetime inmigrants, and as a result either in 1971, in 1980, or in 1985 the lifetime net migrant was negative

As viewed from the place of origin and the place of destination of the lifetime migrants in Yogyakarta Special Region, it is found that in 1985 there were 229.125 people whose place of birth was outside Yogyakarta Special Region. These lifetime inmigrants came mainly from Central and East Java, Jakarta Metropolitan (DKI Jakarta), West Java, South Sumatera, North Sumatera, and Lampung. On the other hand there were 656,190 people who were born in Yogyakarta Special Region but lived in other provinces. Most of these outmigrants went to Lampung, DKI Jakarta, Central Java, West Java, East Java, South Sumatera, North Sumatera, and Jambi (Table 6). In the whole area of Indonesia in 1985, Yogyakarta has the highest rate of lifetime outmigration followed by West Sumatera.

#### CONCLUSION

From the above discussions it is concluded that there is a great deal of location fluidity in the population. In a comparative sense, migration is more important than the ratio of births to deaths in understanding the growth rates of the

Yogyakarta Special Region and various other regencies. Such an extremely dynamic situation illustrates the importance of migration in the aggregate sense. This is the reason why the annual rate of population growth in Yogyakarta Special Region is the lowest among provincies in Indonesia.

TABLE 6. LIFETIME MIGRANTS BASED ON PROVINCE OF BIRTH YOGYAKARTA SPECIAL REGION, 1985.

Province	Yogyakarta resi- dents by province of birth	Yogyakarta born by province of present residence	Lifetime Net Migration
Aceh	1,168	1,177	- 9
North Sumatera	5,869	17,537	- 11,668
West Sumatera	4,549	6,668	~ 2,114
Riau	1,350	6,975	- 5,625
Jambi	602	13,990	- 13,388
South Sumatera	8,134	33,638	- 25 504
Bengkulu	1,010	5,383	<b>– 4,373</b>
Lampung	6,016	157,332	-151,316
Jakarta Metropolitan	16,257	130,633	-114,376
West Java	14,765	87,2 <del>64</del>	<b>~ 72,499</b>
Central Java	129,605	114,314	15,291
Yogyakarta Special Region	_	<del>-</del> ·	
East Java	27,795	43,026	<b>— 15,231</b>
Ball .	2,176	2,350	174
West Nusa Tenggara	455	2,559	2.104
East Nusa Tenggara	600	863	263
East Timor	113	361	-248
West Kalimantan	1,282	3,197	- 1,915
Central Kalimantan	374	682	-308
South Kallmantan	3,127	2,824	-303
East Kalimantan	339	10,477	<b>— 10</b> ,138
North Sulawesi		661	-661
Central Sulawesi	114	790	-642
South Sulawesi	374	4,214	- 3.840
Southeast Sulawest	114	6,385	- 6,271
Maluku	750	561	-189
rian Jaya	1,586	2,334	<b>748</b>
Abroad	567		-567
Total	229,125	656,190	-427,065

Source: Central Bureau of Statistics (1986).

## REFERENCES

- Bintarto, R. 1963, Man, Rice and Problems in Jogjakarta. Indonesian Journal of Geography. 3 (4-6):34-39.
- Central Bureau of Statistics, 1963. Population Census 1961. Republic of Indonesia. Preliminary Figures, Series: SP. 1. Djakarta: Biro Pusat Statistik.
- Central Bureau of Statistics, 1986. Population of Indonesia, Serie SUPAS No. 5. Jakarta: Central Bureau of Statistics.
- Central Bureau of Statistics, 1986. Statistical Year Book of Indonesia 1985. Jakarta: Central Bureau of Statistics.
- Evans, W. Buell, 1963. Climatic Resume for Jogjakarta. Indonesian Journal of Geography 4-6; 15-28.
- Kantor Statistik DIY, 1984. Statistik Daerah Istimewa Yogyakarta Tahun 1984. Yogyakarta: Kantor Statistik DIY.
- Khan, M. Halim, 1963. Gunung Kidul (An introduction to problem area in Java). Indonesian Journal of Geography. 3(4-6): 47-60.
- Mantra, Ida Bagus, 1981. Population Movement in Wet Rice Communities. Yogyakarta: Central Bureau of Statistics.
- Mantra, Ida Bagus, 1985. Pengantar Studi Demografi. Yogyakarta: Nur Cahaya.
- Pannekoek, A.J., 1949. Outline of The Geomorphology of Java. Haarlem: Geological Survey.