

OVERPOPULATION IN AGRICULTURAL AREAS OF JAWA

Zemědělské přelidnění Jávy. — Typickou formou relativního přelidnění Indonésie a především Jávy, kde žije na 65 % obyvatelstva státu, je agrární přelidnění. Jeho základní příčinou je pokles variabilní složky kapitálu, a dále je také způsobuje rychlý růst obyvatelstva, takže podíl obdělávané půdy na jednoho obyvatele se stále zmenšuje. Na tomto ostrově, kde 68 % činných je zaměstnáno v zemědělství, prakticky již neexistují půdní rezervy a další odlesňování se jeví jako nežádoucí. V současné době je na Jávě na 8 mil. lidí, pro než není v zemědělské výrobě celoroční zaměstnání; odcházejí buď natrvalo, nebo na část roku do měst, kde stejně už existuje zjevné přelidnění. Určitým řešením je přesun „nadbytečných“ lidí na rezervní plochy Sumatry, Kalimantanu, Sulawesi po případě dalších ostrovů. Pokud se však současně s tím nezmění způsob obdělávání půdy, pak tyto přesuny mají cenu omezenou.

The provision of means of existence in sufficient quantity is not merely a technical question, not exclusively a question of developing the forces of production, but likewise the social relations of production. There exist technically very advanced countries that have found the answer — to the better or worse — to the problem of production of sufficient quantities of essential requirements for existence, but even there numerous people have not found a useful place in society. If the question of the distribution of products and means of production has not been treated as a vital moment in social relations, even highly developed capitalist societies encounter the problem of excessive populations, surplus manpower.

This problem is much more acute in the newly developing countries, where for decades and even centuries the economies were biased in favour of the needs of the metropolitan countries.

A basic cause giving rise to the relative overpopulation is the growth of the organic composition of capital with the resulting drop in the demand for manpower, on the one hand, and, on the other, the increase in the total labour force, respectively the proletariat. The striving for maximum profits leads the entrepreneur to make fullest use of labour power in a variety of ways. As a result unemployment increases. In the case at hand the most frequent is the so-called hidden or agrarian over population, since we are dealing with an agrarian country (industry has a 17% share in the creation of the social product).

According to the 1961 census Indonesia has a population of 97 085 00, 64,8% of which refer to Jawa with Madura that form an administrative unit. Of the total number of inhabitants in Jawa 62% are of working age, of which 68% are active in agriculture, not quite 10% in industry and crafts, including mining and building industries. For Indonesia as an economically underdeveloped country this economic structure is typical. The population problem of Jawa represents one of the key social and economic problems of the whole of Indonesia.

Many factors can together be held responsible for the agrarian overpopulation of the island. One of them is the rapid growth of the population, the considerable natural increase. For example in 1815 Jawa had 4.4 million inhabitants, in 1845 9,3 million, in 1930 41,7 and by 1961 63,05 million persons. The natural increase ranged from 1.5 to 1.7%.

There is an enormous density of population in Jawa. On the average this density amounts to 400—700 persons per 1 km² of total land. The very fertile soil in the proximity of Malang holds more as 2300 persons per 1 km² of irrigation ricefields, in Madura 1800 to 4000 persons of total inhabitants of Malanga (excepting plantation areas).

With the constantly increasing population the per capita area of cultivated soil on Jawa and Madura is decreasing. E.g. in 1939 there was 0,17 hectare per capita, in 1957, 0,15 and in 1959, 0,14 hectare of all kinds of fields; the corresponding figures for land under irrigation (sawah) are: 0,07, 0,06, 0,05 hectares.

By December 31, 1959 Jawa had a total of 8,429.000 hectares of cultivated agricultural land, and 16.378.440 working peasants (excluding plantations and plantation labourers).

According to these figures one peasant has roughly 0,51 hectare of soil to cultivate. Long experience with migrants to Sumatra and with the traditional peasant way of work on Jawa has shown that one labourer can cultivate roughly one hectare of land per year, using today's techniques. This simplified calculation shows that the reserve army of peasants on Jawa amounts to about 8 million people, who are useless to agriculture today, and might be useful elsewhere, if no basic change in agricultural production were to take place. This reserve army works on the fields only part of the year, in the off season periods they find occasional work in sugar-mills, hotels, transport (betja) etc. This fluctuation of unusually vast dimensions shows the same rhythm as the cultivation of the main plant, rice, which makes large demands on manpower. This fluctuation takes place four times a year. Part of the country population of Jawa goes into the towns or industrial centres either permanently or seasonally. The consequence is pressure on the employment market which, in any case, is saturated with a more than sufficient number of town workers.

One of the ways of solving the production of food and also the relative over-

crowding would be to make use of land not under cultivation, which exists in large quantities in Indonesia as in a number of countries of south-east Asia. It would be a question of determining which regions provide most suitable conditions for agricultural production as well as the manner of putting these areas in use. There are vast expanses of potentially productive areas on Kalimantan, Sumatra, Sulawesi, and to a more limited extent on the Islands of Maluku. A total of 45 million hectares of "reserve" land has been estimated so far in Indonesia; all these could be used for agriculture. (Production Year-book FAO, 1958.)

By the outbreak of the second world war a total of 127.391 families had been moved, i.e. 509.564 persons, if we count an average of 4 persons per family. Between 1950 and 1959 roughly 33—46 thousand persons migrated annually. The migration of populations is hampered by obstacles that slow down such campaigns or make them quit impossible. There are, for instance, considerable problems connected with clearing of forests in the rainy period or in difficult terrain, with the construction of irrigation systems, the construction of villages, etc.

In the new areas the family is allotted 2.5 hectares of land, of which 1 ha is intended for the cultivation of basic products, 0,75 ha for export produce, and another 0,25 ha for the erection of a house, farm buildings and a garden. 1/2 hectare per family is set aside for the construction of communication lines, administrative buildings, temples, etc. Another problem to be solved in those newly settled areas is that of the local population who fees itself treated by the new settlers.

The growth of the local population in the newly settled areas is another factor in favour of considered planning of migrations of the inhabitants of Jawa, or possible other islands to those potentially productive lands. Although a reserve of 45 million ha seems considerable at first, it is in reality limited by the growth of the native population. In the first place it is a question of some 5 million ha which can be irrigated after certain, comparatively inexpensive adaptations. It is, in other words, a question of finding the right proportions between the number of new settlers respectively labour power, and the extent of land allocated with regard to the growth of the native population. With a 2% increase the population on Sumatra, Kalimantan and Sulawesi increases annually by about 500.000 persons, so that resettlement of Jawanese to sawah land is not a feasible proposition.

The resettlement of the population to those reserve areas is undoubtedly one of the ways of solving some of the burning social and economic problems of Indonesia. The most densely crowded parts lie in central Jawa and particularly on the territory of Jjogjakarta. Second place is held by eastern Jawa. The differences in the mobility of Jawanese population in 1956—60 were as follows:

	West Jawa	Central Jawa	Territory of Jogjakarta	East Jawa
Number of Migrants Per 1000 Inhabitants	200 000 11,6	500 000 30,1	934 000 455,8	366 000 18,9

On the other hand, Sumatra is one of the main immigration region of Indonesia, which receives almost three quarters of Jawanese emigration. Mainly the southern part of the island (Lampung), where there is excellent soil of volcanic origin. It is volcanic ash after the eruption of Krakatau.

So far the controlled migration had the task of removing the "surplus" population of Jawa and some other islands and to settle new areas for agricultural production, in the existing primitive manner. Experiences and the tempo of controlled migration have shown that this is not a manner to solve the problem of relative overpopulation. At best this manner solves only the narrow problem of nutrition for the newly settled families. Controlled migration is only one, and certainly an important way of solving the population problems of Indonesia. But the situation would show only small changes as the result of this resettlement policy if none of the other conditions in the overcrowded areas change. In the first case it demands changes in the methods of production in agriculture itself. The existing system of palawidja, by which tobacco, soja or groundnuts are sown after the rice crop in one and the same year admittedly increases the area under crops by 15% annually (referring to 1959), but the production of basic foodstuff remains practically unchanged. A solution of a kind could be achieved by the introduction of two crops of rice on one paddyfield in one year. This would involve irrigation and the use of fertilizers of all kinds. Which, to a large degree depends on the growth of industry.

Jawa has a problem with yields, which, before the war, were slightly larger than they are at present. At the present time it amounts to 21,3 q for rice, in India about 14 q, in Burma 17 q, in Malaya 18 q, in Japan 47 q, South Vietnam 21 q.

In my opinion the problem of relative overpopulation of Jawa and the other islands has to be solved in situ. It involves a consistent agrarian reform, the extension of irrigation to larger areas, the introduction of two annual rice crops from a maximum area under cultivation, larger yields per hectare and in this connection an increase in the production of fertilizers of every kind. In this manner could be avoided the costly and often ineffective resettlements of the population on the scale planned at present.

In other words, agricultural production — with which country is concerned in the initial period of the construction of its economy — must be organized

in such a manner as to afford effective division of labour between the individual islands according to the most suitable conditions for production. This will determine their economic relations, the problem of specialisation of production according to the conditions and requirements of the national economy. The surplus population of Jawa, where it still to exist even after the introduction of two crops of basic foodstuffs, could be absorbed into the construction of industry, which is decisive for the solution of surplus populations.

References

ANTIPOV V. I.: Indonesia, Moskva 1961.

Sensus penduduk 1961 republik Indonesia, biro pusat statistik, Djakarta 1962.

Statistical Pocketbook of Indonesia, Djakarta 1960 and material published by the research institute of the Ministry of Labour, Djakarta, for the years 1959 and 1960.

BHATTA J. N.: Regarding Internal Migration in Indonesia (with special reference to South Sumatra) Djakarta 1957.

Ichtisar statistik transmigrasi, publ. Djawatan Transmigrasi pusat, Djakarta, material for the year 1958—1961.