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Beenstock, Michael



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OFFICE MEMORANDUM

TO: Distribution

DATE: March 18, 1977

FROM: ^{MB} Michael BeenstockSUBJECT: Transmigration and Indonesia's Economic Development

Occasioned by my pending departure from AEPGA, the attached notes summarize a number of personal reflections on this controversial subject. While they are obviously consistent with our recent report on Transmigration II, III and IV, it is the unwritten privilege of valedictorians to invent their own terms of reference.

Attachment

MBeenstock:mjc

Distribution: Messrs. Andreu, Berman, Blackwood, J. Brown, Bruce, Creyke, Darnell, Dax, Fennell, Gray, Haq, P. Hasan, Howell, Joyce, Leiserson, Lesueur, McGarry, Melkye, Nijhawan, Pickering, R. Powell, O.T.W. Price, Prins, Sadove, Sandberg, Storrar, Vergin

TRANSMIGRATION AND INDONESIAN ECONOMIC DEVELOPMENTHistorical Perspective

Records show that concern about the overpopulation of Java dates back at least as far as the first part of the nineteenth century. The fear has always been that population growth in Java would outstrip the indigenous resource availability and that starvation would be inevitable unless some solution were found. One hundred and fifty years later, politicians and social scientists are still grappling with this same problem which is apparently tending to recede further into the future with an almost embarrassing sense of relief to those who have failed to find a solution comprehensive enough to match the apparent enormity of the problem of Javanese overcrowding.

"...one wonders what colonial officials may have thought after the census of 1930 (when the population was found to be 41.7 million) about the possibility of supporting almost double that number on Java by 1974." /1 No doubt the threat of impending social disaster on account of population pressure was as real to some in 1930 as it is to others today. Unfortunately, absence of data does not enable us to determine whether the Javanese have been getting richer or poorer over the long term, although it is clear enough that the doom foreseen by previous generations of certain students of Java has not materialized. Indeed, a recent survey in Java indicates /2 that only 9% of respondents thought that living conditions in Java have deteriorated over the previous generation, whereas 62% thought they had improved. Incidentally, the same survey showed that only 4% expected Javanese prospects to deteriorate, whereas 76% thought they would improve. In addition, GDP per capita in Java has recently been growing annually by about 4.2% /3 and while as with any other economy, economic development may harm the prospects of those whose activities have become obsolescent through the application of superior technologies, the vast majority of the Javanese appear to be getting better off, and believe that their prospects are likely to improve in the future.

While the causes of this secular improvement have not been fully studied, one deduction is clear; 70 years of transmigration have contributed little if anything to this improvement. During this period there have been on average no more than 13,500 official transmigrants per year, or as much

/1 B. White, "Population, involution and employment in Rural Java," Development and Change, Vol. 7, 1976, p. 268.

/2 In a study being prepared by Dr. W.S. Johnson.

/3 See "Identification of Transmigration Projects II, III and IV," Annex 3, p. 8, (Yellow Cover, March 4, 1977).

as the population growth in Java in less than 72 hours.^{/1} All the evidence suggests that regardless of the apparent pressure on the land, productivity on Java has increased despite the virtual doubling of the population in less than 50 years. These observations are not intended to convey that all is well on Java. Rather they suggest that all is not as bad as some people make out, and subsequently that there is no justification for embarking on risky development strategies such as transmigration, where the argument has been that the threat of mass poverty in Java makes higher risk strategies worthy of practical consideration. In this context, as will be argued later, there is time to consider more constructive options than transmigration as far as the economic development of Indonesia is concerned. In particular it will be argued that in a land-scarce country such as Indonesia, but where cheap labor is in abundance, industrial-based development is likely to be the most suitable development strategy. Agricultural-based transmigration, which involves the search for scarce land and the application of scarce capital would subsequently seem to be especially inopportune. At least it does not justify the effort both inside and outside Indonesia that is currently being put into transmigration, both in absolute terms and relative to the development strategy that is logically implied by Indonesia's factor endowments.

The Case for Large-Scale Transmigration

Why then has transmigration continued to attract so much interest in Indonesia, and why is it that in various circles aspirations are currently favorable regarding the future role of transmigration? The historical interest in transmigration is related to two major facts about the Indonesian economy. First, Java has never been a rich area of the world, and while it is a very crude and often misleading measure of well-being, the average GDP per capita in Java in 1973 was about US\$120, while in Malaysia it was US\$570, and in Bangladesh it was US\$80. About 10% of the Indonesians are estimated to be on a living standard which is consistent with absolute poverty - where an adequate diet cannot be afforded.^{/2} Most probably the majority of these people are currently living in Java. Like the historic interest in transmigration, the present interest in transmigration is propelled by the "push" factors of low living standards in Java.

The second major motivation for transmigration has been the "pull" factor of the Other Islands. This factor is related to the apparent underpopulation of these islands. Since the Javanese economy is predominantly agricultural, and since so much of the land in the Other Islands has not been cultivated, it has seemed obvious that the well being of the Javanese may be improved by transmigration in agricultural settlements in the Other Islands.

^{/1} A history of transmigration may be found in "Identification of Transmigration Projects II, III and IV," Annex 2.

^{/2} See "Identification of Transmigration Projects II, III and IV," Annex 3, Appendix 1, where it is shown that previous estimates of absolute poverty in Indonesia have been alarmist.

Low Javanese productivity and the apparent high land availability on the Other Islands, have formed the pillars of over 70 years of transmigration policy. The removal of any one of these pillars would immediately eliminate the attractiveness of transmigration. It is curious to note, however, that while in other parts of the world, these two conditions have tended to generate dynamic and unassisted land settlement, in Indonesia land settlement in the last century has been essentially stagnant.

The low level of productivity in Java is unquestionable, as is the familiar picture of the teeming nature of Javanese cultivation high upon the slopes of the mountainsides. It is also unquestionable that the population density in the Inner Islands of Java, Bali and Madura is many times greater than the most densely populated of the Other Islands. However, these population densities, expressed in terms of gross land availability, which includes lands that have no economic potential, are obviously not adequate to form a reasonable judgment regarding imbalances in the distribution of the population. A comparison of the population densities in the Sahara Desert and West Germany would not of course indicate that the West Germans should migrate to the Sahara. Clearly what is needed is a measure of population density that takes account of both the economic potential of the population in the numerator and the economic potential of the land in the denominator. In addition it would be desirable to recognize the numerous technological considerations, especially the accumulation of infrastructure, which make certain areas highly productive (this is especially true of industrial and urban areas), despite high population densities. Often the term "population pressure" is used indiscriminately to cover a multitude of potentially vacuous economic phenomena. The mere presence of large numbers of people in a confined area is clearly not the equivalent of "population pressure." Concern is usually only raised when low productivity may lead to poverty. However, this is not necessarily related to the number of people. It is more meaningful to speak of pressure on resources than population pressure per se, if only because the latter terminology often suggests birth control and policies such as population movement, whereas the former lays emphasis more positively on the expansion of the resource base to meet the needs of the people.

No serious attempt is made here to construct an index of population densities that may meaningfully be applied to form judgments on the appropriateness of transmigration. Rather, our objective is the negative one, of showing how difficult it is to form rough-and-ready judgments about purported imbalances in the distribution of the population. The first column in the table expresses the total population as a ratio of the total land area in the various parts of the archipelago. This ratio or variants of it, are frequently being deployed to justify transmigration as a means of rectifying the imbalance in the distribution of the population. The population density is indeed twelve times greater in Java than in Sulawesi, and about 60 times greater than in Kalimantan. The second column in Table 1 expresses the ratio of the rural population to the area of land that is regarded as being suitable for agricultural purposes. However crude and unreliable this index may be, it is very much less so than the by now familiar appeals to gross population densities which are often voiced by the proponents of transmigration, regardless of their transparent meaninglessness. This index at least omits some of the population whose livelihoods are most probably not related to the land, as well as including that land that is of supermarginal economic value.

True, but
unconformable

Table 1: POPULATION DENSITY PER SQ KM (1976)

	Gross area <u>/a</u>	Net area <u>/b</u>
Java, Bali and Madura	637	4,492
Sumatera	51	3,185
Kalimantan	11	<u>/c</u>
Sulawesi	51	758
Other	13	2,607
<u>Total</u>	<u>71</u>	<u>3,126</u>

/a Total population ÷ total area.

/b Rural population ÷ area of land in categories 1-3. See Annex 2, Table 4 of Identification of Transmigration Projects II, III and IV.

/c Kalimantan has no land in categories 1-3.

Instead of Java, Bali, and Madura being 60 times more densely populated than Kalimantan, the net area criterion would if anything suggest the contrary. The differential between Java, Bali and Madura and Sumatera is dramatically reduced by this measure of the net area criterion, indeed to the point where, given the uncertainties inherent in land categorization and the appropriateness of the numerator, there is probably no significant difference between the two.

Naturally, other ratios could be selected with different numerators and denominators, suggesting greater or smaller imbalances. Unfortunately, up to a point it would be difficult to discriminate between them. A logical case therefore has yet to be made that there is a significantly large imbalance in the geographical distribution of the population that would imply a role for large-scale transmigration in the Indonesian archipelago. Most probably, there is no more imbalance in the geographical distribution of the Indonesian population than there is in say France, the US or Egypt. At least one should proceed with this assumption until the contrary is demonstrated to a reasonable degree of satisfaction.

The Principles and Practice of Land Settlement

Transmigration in its various forms has been a vehicle of land settlement. Therefore any discussion of transmigration will be incomplete without an assessment of whether or not it serves as a suitable vehicle for land settlement. In particular, what should be the role of the authorities in the land settlement process? This of course is a very large subject, and has been reviewed elsewhere.^{/1} Here we may only discuss the main results.

/1 See "Identification of Transmigration Projects II, III and IV," Annex 3, pp. 35-68.

Nature abhors a vacuum. This basic principle is equally true of the land settlement process. If land is available which affords better prospects than settled land at the margin, the pattern of land settlement will alter in favor of the more productive land. The essence of this marginal productivity theory is that land will on the whole be settled where its marginal product is expected to be the highest. Subsequently, along the frontier of the land that is settled, the marginal productivity of the land will be roughly equal. Differences in productivity might reflect, for example, differences in climate tastes, transportation linkages, etc.

Virtually the entire history of land settlement throughout the world has been a spontaneous development reflecting the dynamics of the marginal productivity theory, as well as political pressure. On the whole, people have migrated on the basis of improving their economic and social well-being. They have seized on land settlement opportunities where they have deemed it to be in their best interest. This was as true in the case of the settlement of North America in the last two centuries, as it was in the times of Abraham, and as it is in many areas of South America today.

If the pattern of land settlement reflects the self-interest of the settlers - what is the legitimate role of government in the land settlement process? In practice, there may be natural constraints to spontaneous and unassisted land settlement which might be easier for the authorities to contend with than the individuals themselves. For example, land beyond the frontier which has good economic potential might not be settled because the private entry costs are prohibitive. The presence of an access road would reduce the settlement costs for the individual, but nobody is prepared to be the first settler. In other words, the social costs of settlement are below the private costs of settlement. The authorities should undertake the construction of access roads since this reduces the divergence between social and private settlement costs in a way that is socially beneficial. The same principle applies to malarial eradication and the like, where what is too expensive for the individual might be quite cheap for society as a whole.

The narrowing of the divergence between social and private settlement costs (as well as the usual roles of government regarding land titling, the maintenance of law and order, etc. etc.) is the basis for the legitimate involvement on the part of the authorities in the land settlement process. This principle does not imply an initiating role on the part of the authorities in the land settlement process; only a secondary but nonetheless important role as a "trouble-shooter."

Indeed, the evidence suggests that where the authorities have tried to be initiators in the land settlement process, the results have been particularly unsuccessful - "that few spheres of economic development have a history of, or reputation for, failure to match that of government-sponsored colonization in humid tropical zones. Horror stories abound about expensive ventures that resulted in colonies where few, if any, settlers remained after several years... The evidence is irrefutable, and failure can be attributed only to the institutions responsible for selecting the areas and the colonists,

planning and executing the development program, and subsequently maintaining or abandoning the infrastructure and services in the region."/1

Furthermore, there is a conflict between the spirit of pioneering and the prepackaged nature of government-directed land settlement. "Deliberate programs for settler recruitment have constituted a failure element; self-reliant pioneer colonists are not necessarily attracted by the programs, and the executive agency tends to be drawn into expensive, paternalistic operations." (Nelson, p. 273.) The wrong settlers are chosen, then. Indeed, the only reliable selection process would seem to be that of nature herself.

Care should be taken in interpreting these observations. The crucial test is not whether government-directed ventures have failed, but whether there was a significant incidence of failure related to the unassisted ventures on the supermarginal lands. Failure on marginal lands is of course to be expected, and it is possible that the government might be tempted to settle submarginal lands i.e. where the unassisted settler does not wish to go. Nelson suggests that the incidence of failure was indeed significant. "In all of these cases, as in the directed pioneer projects, viable agriculture proved to be possible. The success or failure of the projects depended on the institutional conditions that guided the proportions of the production factors in the exploitation of the region. The directed projects were saddled with high public expenditures and a rigid design based on information that could not be as accurate as assumed without excessive expenditures for studies on hydrology, sociology, anthropology, soils, and so on. Spontaneous primary settlement was not burdened by high overheads, and projects launched in the consolidation phase had the benefit of a considerable accumulation of information on the factors listed above." (p. 275).

In other words, government-directed settlement projects have tended to fail for at least three main reasons: (a) the difficulties inherent in selecting pioneers; (b) the lack of flexibility inherent in organized settlements; (c) underestimates of risks given the information base.

Dozier /2 too notes that "adequate and fruitful evidence exists that not even the most bountiful combination of other conditions can be effective without the proper kind of colonists to go with it" (p. 198) and that it will seem that a "real danger exists in overproviding and overplanning for the colonists to the extent that independence and incentive disappear, will never develop." (p. 206). In other words, there is an inherent conflict between formal selection procedures which tend to attract dependent people and the needs of the land beyond the frontier which are for independent and highly motivated pioneers.

/1 M. Nelson, The Development of Tropical Lands; Policies Used in Latin America, The Johns Hopkins University Press, Baltimore, and London, 1973, p. 265.

/2 Craig L. Dozier, Land Development Colonization in Latin America, Frederick A. Praeger, New York, 1969.

There have been several comparative studies of the economic success of unassisted and directed settlements. Apart from Nelson's results which indicate that the private and unassisted settler is more likely to succeed, (p. 264), Dozier notes that "... we find examples of spontaneous colonists whose returns are considerably higher than those of neighboring colonists on directed projects in the same tropical forest setting." (p. 205). Likewise, in the Philippines, Horokova ^{/1} shows that the unassisted settlers have out-performed the assisted settlers on the basis of a variety of different economical and social criteria, and Fitzgerald reports for Kalimantan ^{/2} "Field evidence suggests strongly that the most successful settlers are those pioneering largely as a result of their own initiative... The least successful pioneers would seem to be government-sponsored."

Past experience in various parts of the world emphasizes the highly political nature of land settlement and of the movement of peoples. No attempt will be made here to discuss the politics of land settlement, only to observe that there is no endemic reason why land settlement should inevitably fall under government control and sponsorship. Instead, our remarks are directed at the economic interest that various vested interests might have in the politics of transmigration.

In the Indonesian case, most probably the high degree of government control is largely attributable to the direct economic interests that civil servants have in the bureaucratization of land settlement in transmigration (as well as other areas too). The profits from corruption inevitably favor a political economy of extensive government involvement, and the administration has the power to further its own interests. At the other end of the bureaucracy, the so-called beneficiaries of transmigration are politically powerless, since they are dependent on the favors of the civil servants who are after all transferring resources to them from the community at large. Such a system is inherently prone to abuse and the result is usually stagnation rather than economic and social development.

A second important factor behind the high degree of government involvement is the poor quality of the land in the Other Islands that is available for transmigration. In Latin America and especially Brazil, where there is an abundance of prospective supermarginal land, land settlement does not need to be pushed since through the dynamics of the marginal productivity theory, it happens naturally. By contrast, in Indonesia the unsettled land or alternatively the land that is still under shifting cultivation, are sub-marginal (the reason why they are empty in the first place), given the scarcity of capital, and in accordance with the marginal productivity theory, land settlement and related migration are virtually absent. In this situation the authorities are politically tempted to provide artificial stimuli to

^{/1} Eva Horokova, Problems of Filipino Settlers, Occasional Paper No. 4, Institute of Southeast Asian Studies, Singapore.

^{/2} Dennis P. Fitzgerald, "Pioneer Settlement in Southern and East Kalimantan."

land settlement through the provision of subsidies and an inefficient allocation of capital for land settlement where the economic rates of return are unduly low.

The fear is that if the authorities were to pursue a market-oriented land settlement policy, there will be little or no transmigration. This would only happen if the land itself did not justify it. If this were the case, the reality would have to be accepted. However, if such basic realities are not accepted, serious economic development can scarcely begin.

These observations at best suggest that the Indonesian authorities alter the design of their transmigration policies in a fundamental fashion since they directly initiate land settlement on a comprehensive basis, and concentrate instead on the less ambitious role of "trouble-shooter" by mainly providing infrastructure in a way that profitably reduces the divergence between private and social settlement costs. At worst they suggest that the authorities should withdraw from transmigration altogether. However, this would only be necessary if the lands beyond the frontier are not attractive enough in themselves to induce unassisted settlement. Unfortunately soil reviews ^{/1} indicate this to be the case. The absence of satisfactory soils makes any discussion of transmigration largely academic.

Indonesia's Development Strategy

This paper does not indicate that transmigration in the settlement of new lands can be expected to play an even minor role in the economic and social development of Indonesia. However, it is often asked, if the other islands do not have the economic potential to permit a reasonably ambitious program of transmigration, what other options do the Indonesians have in averting the ever-threatening overpopulation of Java? If indeed transmigration is recommended on these grounds, this paper would suggest that Indonesia's prospects are dire indeed. Even if as has already been argued, the threat of overpopulation in Java has been overplayed, before transmigration may be demoted as an integral part of Indonesia's development strategy, it is necessary to identify development options more constructive than transmigration.

Clearly this paper cannot include a blueprint for Indonesian economic development, yet a number of striking pointers exist. Despite the advent of the Green Revolution, the agricultural sector which in Indonesia accounts for about 44% of GDP and 68% of the labor force, has only grown by about 4% per year, whereas the overall growth rate of GDP has been in excess of 7% per year. Moreover, as marginal lands come under cultivation agricultural growth has every prospect of decelerating. Despite the vast open spaces on the Other Islands, it has been increasingly recognized that Indonesia is a land-scarce community. It is also a capital-scarce community. Its main

^{/1} See "Identification of Transmigration Projects II, III and IV," Annex 1,

resource is its labor force which is essentially hard-working and shows every indication of adaptability to changed economic stimuli./1

Many other Southeast Asian countries have found themselves in similar situations to Indonesia - of land and capital scarcity, where cheap labor is in abundance. Hong Kong, Korea, Taiwan, Japan and others at various times and under stimuli not significantly different to those prevailing in Indonesia, have embarked upon an industrial development strategy, using the reserves of cheap labor to add value in the process of light manufacturing at first and then heavy manufacturing at maturity. It must seriously be asked why, despite the same kind of impulses, Indonesia has failed to follow what might loosely be called the Southeast Asian model of industrial development. Indeed, this is most probably the greatest puzzle about the Indonesian economy.

Some believe that Indonesia is not an exception, and is on the verge of taking off. Indeed one study (under preparation by Prof. A. Strout of MIT) envisages that it is only a matter of time before Indonesia follows some of her neighbors down the path of development through industrialization. Indeed the world economic consequences of such a development on the part of a nation of 130 million could be major and a possible obstacle for the Indonesians to overcome.

A number of obvious constraints to growth, however, may be identified, some of which are more easy to remedy than others. The expropriations during the Sukarno era have done much to dampen private initiative both domestically and internationally as far as the Indonesian economy is concerned, and only time and appropriate government policies will restore a more favorable climate for private initiative. In addition, the widespread practice of corruption acts as a tax on entrepreneurial initiative which is bound to put Indonesian businessmen at a disadvantage over their overseas competitors both regarding domestic and overseas markets. The comparative advantage of cheap labor can easily be spoiled by a comparative disadvantage generated by bribery and corruption. While the eradication of corruption can only be hoped for, fiscal measures may be explored to offset the explicit taxes on initiative that corruption generates.

Another major constraint may be identified as the exchange rate which is most probably seriously overvalued. Since the last devaluation against the dollar in 1971, Indonesian price levels have risen by about 50% in relation to world price levels expressed in dollars./2 An overvalued exchange rate will have a deindustrializing influence on the economy, since it stifles the development of import substitution at the same time as reducing the profitability of exporting. This overvaluation has become

/1 See J.B. Donges, B. Stecher, and F. Wolter, Industrial Development Policies for Indonesia, J. C. Mohr (Paul Siebeck), Tubingen, 1974, pp. 40-44.

/2 For an analysis of the exchange rate, see "Identification of Transmigration Projects II, III and IV," Annex 3, pp. 23-26.

particularly serious since the oil price hikes of 1973-74, and the climate is being established that will not only hinder future economic development, but which will also undermine existing achievements in the development of the industrial and agricultural sectors alike.

It would also seem that there is considerable scope for improving labor policy, which at present mitigates in favor of capital which is scarce rather than labor which is in abundance. Thus, what growth Indonesia achieves is to some extent malignant rather than balanced. Alternatively, a more efficient growth path may be achieved if the restrictions on labor imposed by present labor market policies are relaxed./1

Infrastructure is a further prerequisite to industrial growth. In many parts of Indonesia roads are impassable in the rainy season, power supplies are unreliable, telecommunications are poor. While the provision of satisfactory infrastructure cannot, of course, guarantee development, its absence can obviously impede it when the other circumstances appear conducive to development. For example, farmgate prices are inordinately below market prices simply because of the difficulties in transporting the outputs no more than fifty miles to the market place. In an international setting, the absence of satisfactory infrastructure is bound to place Indonesia at a serious disadvantage.

These remarks are not of course intended to form the basis of a development strategy for Indonesia, although it does appear that there is much that may be done at the macroeconomic level to improve matters. A task force on the causes of Indonesia's economic backwardness in the context of the development of her Southeast Asian neighbors could form the basis of a development strategy for Bank operations in Indonesia.

Conclusions

These remarks, while inimical to transmigration, are intended to be constructive in the sense that the talents and efforts that are being invested into transmigration policy would most probably bear more fruits in other areas regarding the Indonesian economy. At the very least these efforts are disproportionate to any contributions transmigration is likely to make to the Indonesians. The search for suitable transmigration projects seems to be reminiscent of the search for the needle in the haystack. The debate of whether or not the needle exists is in danger of making the entire issue both boring and ridiculous. The time has surely come to move on to more fruitful pastures.

/1 See further, "Identification of Transmigration Projects II, III and IV," Annex 3, pp. 37-42.