80 YEARS OF TRANSMIGRATION IN INDONESIA

1905 - 1985

P. LEVANG & O. SEVIN

ORSTOM/INDONESIA TRANSMIGRATION PROJECT - PTA-44
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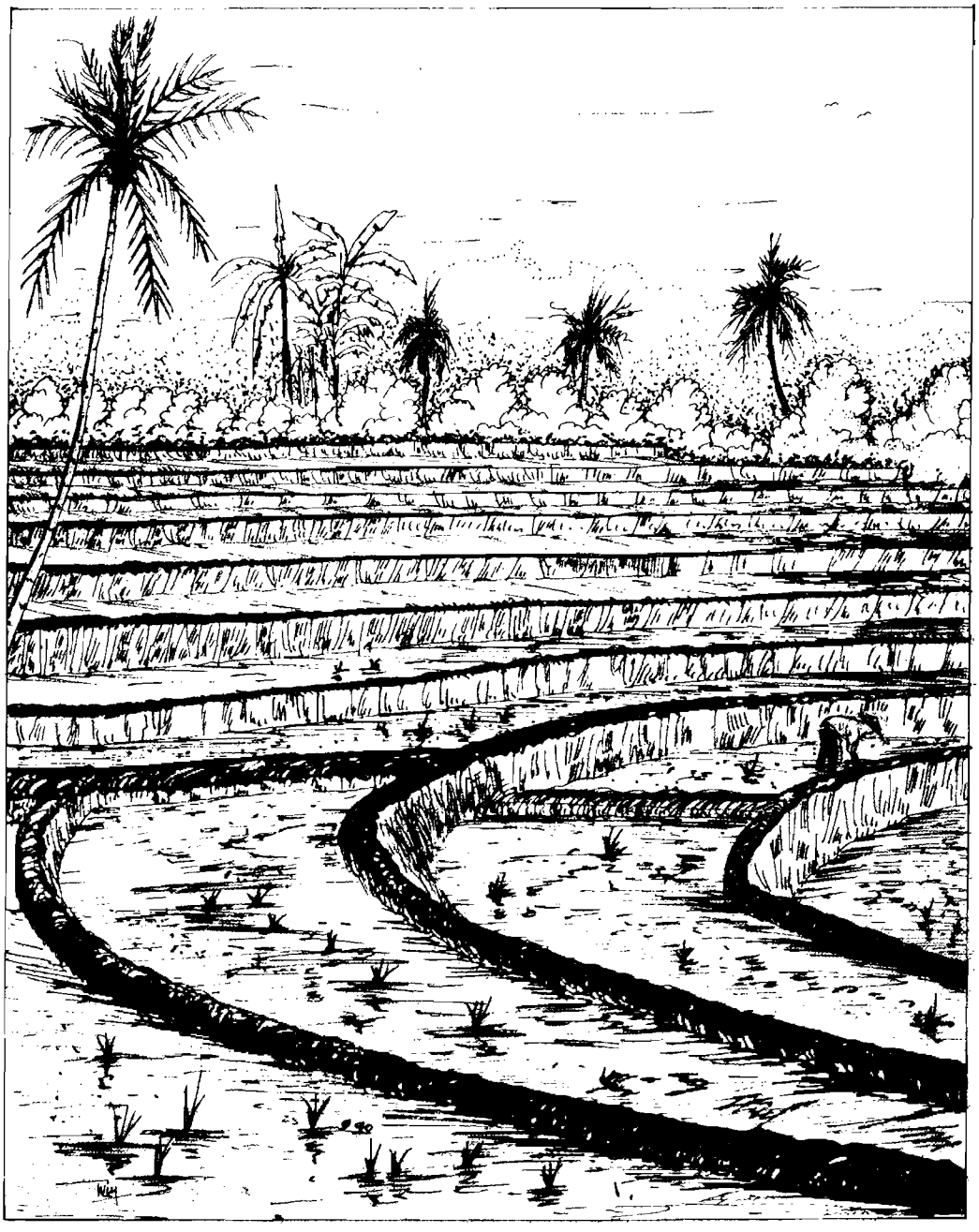

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Table of Contents

80 YEARS OF TRANSMIGRATION IN INDONESIA 1905 - 1985

P. LEVANG & O. SEVIN

Transmigration differs from mere migratory movements between islands, owing to its being organized at the highest government level. The State itself takes charge of the migrant from his starting point to his village of destination, and provides him with the means to work (land, housing, tools...). Transmigration was born in 1905 in Lampung, with the arrival of the first settlers in the vicinity of Gedong Tataan, in Bagelen, as part of the *Kolonisatie* Programme launched by the colonial government. Despite its ups and downs, the programme now called "Transmigration" has survived until today.

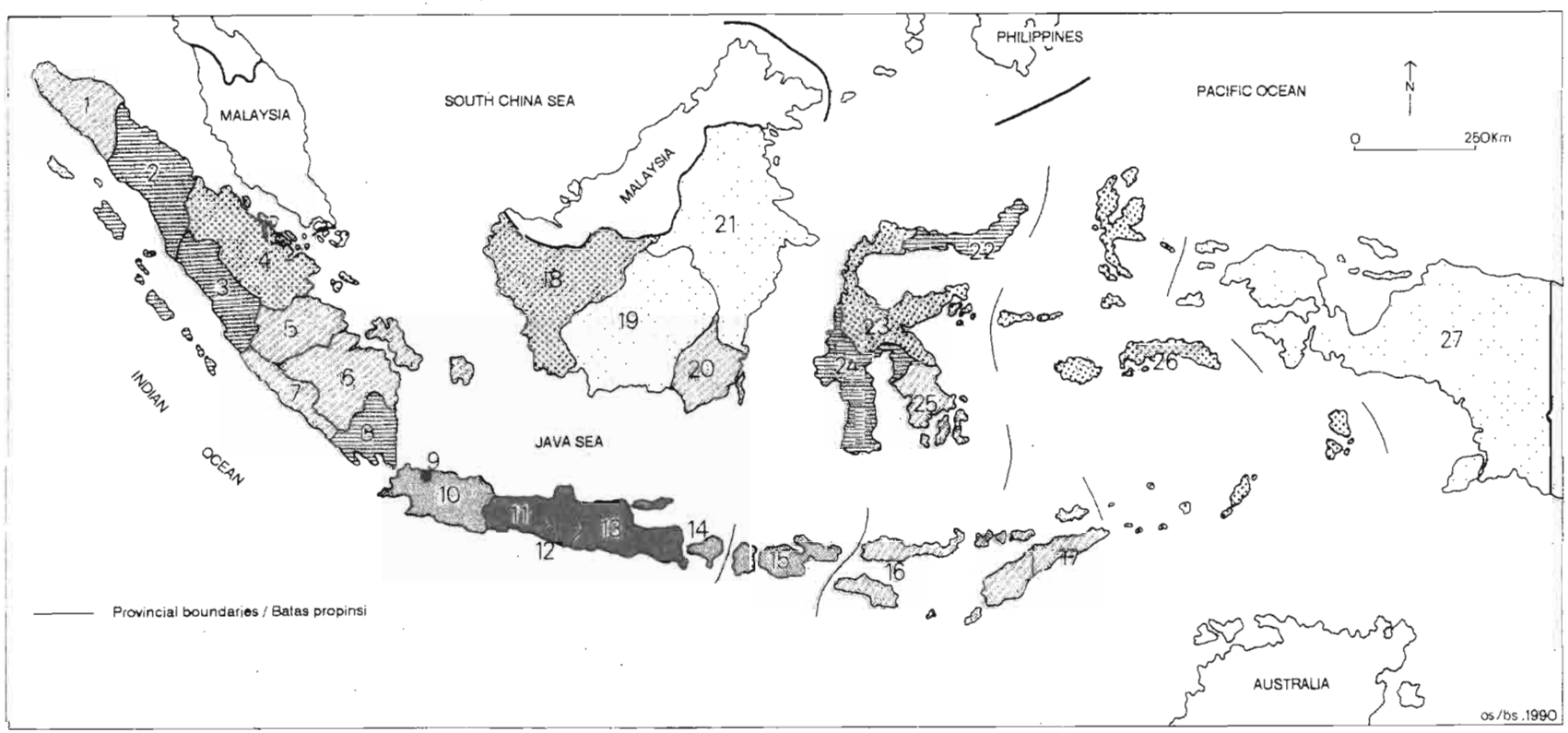
Obviously, the land pressure, as well as the demographic imbalance which contrasts Java to the Outer Islands and has kept increasing since the turn of the century, rendered a redistribution of the population into the whole archipelago essential. In 1930 the population in Java and Madura rose to 41,700,000 inhabitants, over twice as many as in the rest of the islands. In 1980 the census indicates a figure of 147 millions inhabitants in Indonesia, with 91 millions for Java and Madura only. These two islands now weigh 62% of the country's total population! (fig. 1).

One cannot deny the evident filiation from *Kolonisatie* down to Transmigration. But the fact remains that, according to circumstances, the goals of pioneer colonization have evolved along the same lines as the relationships between the peasantry and the State. Eighty years after the start of the programme, the results of Transmigration are rather mitigated. Settlers play a leading role among local farmers; Transmigration has contributed to the disenclosure of several provinces, channeled numerous migratory movements and helped to give shape to a lot of local organizations. However, beside undeniable successes, the programme has also met with dismal failures. Quite a significant number of migrants have returned to Java, some of the centers have totally disappeared while others are in such a condition that a thorough rehabilitation has become imperative. In other words, no matter the period nor the economic and political situation of the time, a certain number of factors remain constant and of the utmost importance : the careful selection of sites, the improvements liable to be made on poor soil, and the judicious choice of a well-adapted farming system.

KOLONISATIE AND TRANSMIGRATION ; A FILIATION

Set up at the very beginning of the century, the *Kolonisatie* programme is the true ancestor of nowadays Transmigration: there have been no modifications to the aptitudes required from the migrants, and many projects started before the war were resumed after the independence. Yet, beyond the obvious filiation, the goals assigned to colonization plans undertaken by the various governments, which

Fig. 1
POPULATION DENSITY BY PROVINCE/*KEPADATAN PENDUDUK MENURUT PROPINSI - 1980 -*



Population density / Kepadatan penduduk
inhab./km² jiwa/km²

0 10 30 60 120 600+

DKI JAKARTA 11023 inhab./km² jiwa/km²

Sources / Sumber : Biro Pusat Statistik 1980

PROVINCE / PROPINSI

1. D.I. Aceh
2. Sumatera Utara
3. Sumatera Barat
4. Riau
5. Jambi
6. Sumatera Selatan
7. Bengkulu
8. Lampung
9. D.K.I. Jakarta
10. Jawa Barat
11. Jawa Tengah
12. D.I. Yogyakarta
13. Jawa Timur
14. Bali
15. Nusa Tenggara Barat
16. Nusa Tenggara Timur
17. Timor Timur
18. Kalimantan Barat
19. Kalimantan Tengah
20. Kalimantan Selatan
21. Kalimantan Timur
22. Sulawesi Utara
23. Sulawesi Tengah
24. Sulawesi Selatan
25. Sulawesi Tenggara
26. Maluku
27. Irian Jaya

succeeded one another in Batavia then in Jakarta, have evolved to such an extent that it is more relevant now to refer to "Transmigrations".

KOLONISATIE ; A "DEBT OF HONOR"

The original *Kolonisatie* was considered as a "debt of honor" to put it into Van Deventer's own words. Enlightened colonists who formed the *Ethici* group (Van Deventer, Van Kol, Brooshooft...), appalled at the sight of Javanese impoverishment, endeavoured to convince the opinion that, if the Indies had helped to the reconstruction of the Netherlands after Belgium's secession in 1830, it was high time the "mother country" started thinking of helping her colonies in return, while the Batavia government had to cope with a chronic deficit of public expenditures. They denounced the *batig slot*, i.e. the Indies' contribution to the Kingdom's budget which, from 1867 to 1876, fetched 187 millions florins. That sum appears to Van Deventer as a "debt of honor" which must be used to alleviate Java's misery. Public works, education, emigration, master-words of the reforms boosted by the advocates of the "ethical policy", are all the more favorably welcomed by the Batavia government as the Sumatra planters' lobby, mostly in Deli, is desperately looking for labor.

The first experiment, conducted in 1905 in Bagelen, Lampung, being appraised as conclusive, *Kolonisatie* gets organized. A bank is created (the *Lampongsche Volksbank*) to back up the project, implement the infrastructures and grant the settlers allowances. This financing helps to realize new implantations in the province, in Wonosobo, west of Kota Agung, in 1922.

Kolonisatie, though, will have to wait till the years 1932 through 1941 to be at its peak. After a low period at the end of the twenties and a financial scandal leading to bankrupt in 1928, the world crisis that hit the country as early as 1930 and plunged it into destitution compelled the authorities to give fresh impetus to the programme. Three areas, totalizing 71,000 hectares, and a new town, Metro, are planned for in Lampung between Tegineneng and Sukadana. At the same time, other experiments are carried out in the Gulf of Bone (Celebes) and in the Palembang, Bengkulu and Jambi Residencies (Sumatra). On the eve of the war, more than 200,000 settlers have been installed.

The distinctive feature of *Kolonisatie* in the interwar years in that it is mainly an agricultural pioneer land development system, intended to supply Java and the Sumatra plantations with rice. This explains why migrants settling on clearings in forested areas always had the benefit of heavy equipment such as irrigation networks. Just before the war, it was already obvious that *Kolonisatie's* prime objective, which had been, as defined by the generous members of *Ethici*, to relieve the demographic pressure in Java, was virtually abandoned. While 200,000 Javanese have been transplanted and the government is expecting an outflow of 60,000 persons a year, Java's population grows from 30,100,000 inhabitants in 1905 to 49,000,000 in 1940.

EMERGENCY SOLUTIONS IN THE AFTERMATH OF WAR

From August 17, 1945, day of the proclamation of the independence, until the retreat of the Dutch in 1949, the country undergoes a series of violent crises. The Dutch, on one hand, don't seem willing to give up their colonies, whereas on the other, nationalist fighting wings are engaged in guerilla. When everything gets back to order in the early fifties, the productive capacity of Indonesia doesn't even amount to half what it was in 1940, while the demobilization of the liberation forces is about to bring forth serious problems.

After some attempts at spontaneous colonization in Lampung due to small groups of rather uncontrolled soldiers from the *C.T.N.* (*Cadangan Tentara Nasional*, or auxiliary troops), who resolve themselves into independent squads and build pioneer villages, first around the Gedong Tataan colonization centers, then near Sukoharjo and Talang Padang, the government draws up a policy of reintegration for the military. In 1951, a *Biro Rekonstruksi National* (*B.R.N.*) is instituted and commissioned to provide discharged soldiers with professional training or direct them to agricultural colonization projects.

Lampung is at that time the only province liable to receive settlers without delay. Soldiers are apportioned ground covering 5,500 hectares. Credits running short, the infrastructures are reduced to a minimum. The system adopted is that of village nuclei supposed to develop on their own.

Invested with a real pioneer status, the *BRN* are entrusted with the improvement of particularly though areas : Barisan Mountains along the Way Tenang, not far from Sumber Jaya and Tanjung Raya, slopes of mount Tanggamus, infertile zones in Rawa Seragi... Vast stretches of *Imperata* grass land going from the Gulf of Lampung coast to the surroundings of Ketibung and Tanjung Bintang. This programme on the whole will have benefited 25,000 people before it is brought to an end as a result of the 1958 disturbances in which some settlers took an active part. Then follows an era of intense reflection on the aims and tasks of Transmigration.

FROM THE *B.R.N.* EXPERIMENT TO THE FIRST FIVE YEAR PLAN : questions and reflections

For a good fifteen years, a strong uncertainty prevails as to the future of organized colonization projects. The Transmigration programme is running slow. Lampung and Sumatra remain privileged destinations.

Towards a revision of the programme ?

Doubtful about its ultimatum destiny, Transmigration falls to the tutelage of successive ministries : Labor and Social Welfare in 1947, then Home Office ... Ministry of Cooperatives (1962), and even a Veterans' Ministry after the incidents of 1965.

The conclusions are always the same : completely unrealistic projects leading to disillusions equal to the expectations. In 1947, for example, 31 million persons are planned to transmigrate within 15 years. In 1951, a new plan publicly announces the transplantation of 48,675,000 over 35 years! Reality of course is cruelly disappointing : in 1953, to stick to this one figure only, no more than 40,000 people are taken charge of!

Deception is such as to call the programme to question again. Some officials go as far as to declare Transmigration an enormous waste, and would rather spend the money on the modernization and intensification of agriculture in Java, or on developing the infrastructures. In the provinces, local authorities are somewhat reluctant to receive new settlers whom they must almost entirely support. Some even talk of a javanization of the archipelago.

Lampung, a privileged destination for transmigration

Yet, if such a javanization is indeed enforced upon the islands, it doesn't at that time reach but Sumatra, where 84% of the migrants are sent, versus 10% for Kalimantan, 4% for Sulawesi and 2% for the rest of Indonesia (table 1). Within Sumatra itself, Lampung remains the privileged destination : 34.450 families settle there between 1950 and 1968.

Transmigration is then characterized by the sole carrying out and extension of programmes dating back to colonial times, although with considerably less resources. For instance, in Lampung, among the 24 projects created from 1950 to 1968, 10 are located between the Seputih and Pegadungan rivers, thus lengthening the previous *Kolonisatie* area centered around Metro, the new town built in 1937.

Unlike in former days, the means devolved to the programme are extremely limited. Irrigation works lag behind and settlers are compelled to plan upland rice with maize, cassava and vegetables, according to the *tumpang sari* technique much in favor in Java.

In fact, during that whole period, the underlying basic assumption, not always clearly voiced, is that Javanese and Balinese transmigrants convey a superior form of culture and that from a mere acquaintance with them, fascinated by their example, the population of the Outer Islands will improve their own agricultural methods. The central government secretly hopes to set bounds to the expansion of semi-migratory agriculture and to unobtrusively increase the rice production. Kalimantan's Dayak are expected to stand amazed in front of the Javanese rice-growers technical feats and, after a comparative study, to definitely turn away from their *ladang*. Those illusions will burst to pieces when the first five year plan is set up which will give Transmigration its structure and therefore save it.

TRANSMIGRATION FROM 1940 UNTIL 1986

Year	Sumatra		Kalimantan		Sulawesi		Others		Total
	Persons	%	Persons	%	Persons	%	Persons	%	
Prapelita									
1940/41	203200	88.4	3100	1.3	23600	10.3	0	0.0	229900
1951/59	197500	89.2	12100	5.5	5300	2.4	1400	0.6	221300
1960/69	116100	76.5	23000	15.2	10400	6.9	2300	1.5	151800
Repelita I									
1969	11112	62.3	2599	14.6	4137	23.2	0	0.0	17848
1970	8350	41.8	2539	12.7	8863	44.3	233	1.2	19985
1971	12496	55.6	4383	19.5	5120	22.8	485	2.2	22484
1972	31757	65.1	7027	14.4	9538	19.5	473	1.0	48795
1973	57396	56.8	12465	12.3	30210	29.9	1001	1.0	101072
Total	637911	78.9	67213	8.3	97168	12.0	5892	0.7	808184
Repelita II									
1974	29729	65.0	5502	12.0	9898	21.6	595	1.3	45724
1975	14284	45.5	6362	20.3	10322	32.9	425	1.4	31393
1976	22652	44.7	9869	19.5	18152	35.8	0	0.0	50673
1977	58865	58.3	23605	23.4	18124	17.9	448	0.4	101042
1978	73621	65.7	18800	16.8	17261	15.4	2290	2.0	111972
Total	199151	58.4	64138	18.8	73757	21.6	3758	1.1	340804
Repelita III									
1979	151000	60.4	51500	20.6	27500	11.0	20000	8.0	250000
1980	210500	56.1	82600	22.0	62000	16.5	20000	5.3	375100
1981	276520	60.4	92960	20.3	59035	12.9	29440	6.4	457955
1982	295595	61.6	123250	25.7	31685	6.6	29440	6.1	479970
1983	216095	72.5	38205	12.8	31715	10.6	11890	4.0	297905
Total	1149710	61.8	388515	20.9	211935	11.4	110710	6.0	1860930
Repelita IV									
1984	153695	54.1	78320	27.6	31430	11.1	20820	7.3	284265
1985	599375	61.8	240395	24.8	79395	8.2	50675	5.2	969840
1986 (12 may)	59785	55.3	24810	23.0	16085	14.9	7415	6.9	108095
Total	812855	59.7	343525	25.2	126910	9.3	78910	5.8	1362200

Source: HUGO J.G., HULL H.T., HULL V.J., JONES W.G.,- The Demographic Dimension in Indonesian Development. Oxford University Press. 1987, pp.182-183.

BIRTH OF THE NEW PLAN : THE RESURGENCE OF TRANSMIGRATION

The resurgence of Transmigration occurred at the beginning of the 1970s, in a very particular economic and political climate that in itself explains the why and the how of many new trends. The events of 1965 mark the breaking point from a past made of romantic nationalism and anti-imperialistic struggles, which, after its time of glory, had led the country to the brim of chaos. The new team in power hold resolutely pro-occidental views, and have the support of international organizations such as the I.M.F. and the World Bank. They have to face a highly deteriorated economic situation : inflation rating up to 650% in 1966, G.N.P. growth barely over 2%, a permanently adverse balance of payments and incompressible imports of one million tons of rice a year.

The first plan, started in 1969 and elaborated with the help of the World Bank, is essentially designed as a stabilization plan, whose main goal is to establish a self sufficient rice output by 1974; which means a 50% raise of production in five years! Transmigration necessarily becomes a decisive element in that scheme.

Meanwhile, governmental structures are taking shape and the technical bodies stand out in the new frame. Among those, the Public Works engineering corps will get increasingly involved in the nation's development.

The Public Work policies of the first and second plans

The first two plans are characterized by a wild enthusiasm for great works. Wonderful projects are set out for the improvement of the peripheral tidal swamps of Sumatra and Kalimantan. Claimed to be a real enterprise of conquest over virgin lands, this set of operations still doesn't get sufficient technical and financial means to belong to the tradition of the great improvement works of colonial times. Instead of creating a double irrigation and drainage system, of diking cultivated areas and pump-circulating the water, Transmigration centers have to make do with a single network of canals to ensure circulation, irrigation and draining altogether, resorting only to tidal power.[1]

Such techniques are put to use for the development of the Upang and Musi delta, 60 km below Palembang. A Transmigration center is built at the mouth of the rivers, on a long and narrow island covering about 15,000 ha between two branches of the delta. Further up north in the Jambi province, two centers are equipped in the same way in Rantau Rasau, on the Batanghari delta. In Kalimantan, in prolongation of the Polder-Plan started in colonial days, the tidal swamps along the coast around Banjarmasin are drained over 140,000 ha and 40 villages of transmigrants are installed there!

Ten years later, however, the results prove unsatisfactory. Yields are so low that dreams of a "rice granary" turn short. If as a general rule drainage is properly worked out, irrigation is not, and the surging up of acid sulfates greatly affects rice growing.[2]

Finally, at the beginning of the 1980s, the Indonesian authorities, alarmed by the extent of the financial costs of such tidal swamp reclamation projects, decide to put that *pasang-surut* programme to rest, and to take up to upland projects again.

Transmigration, the keystone of regional development

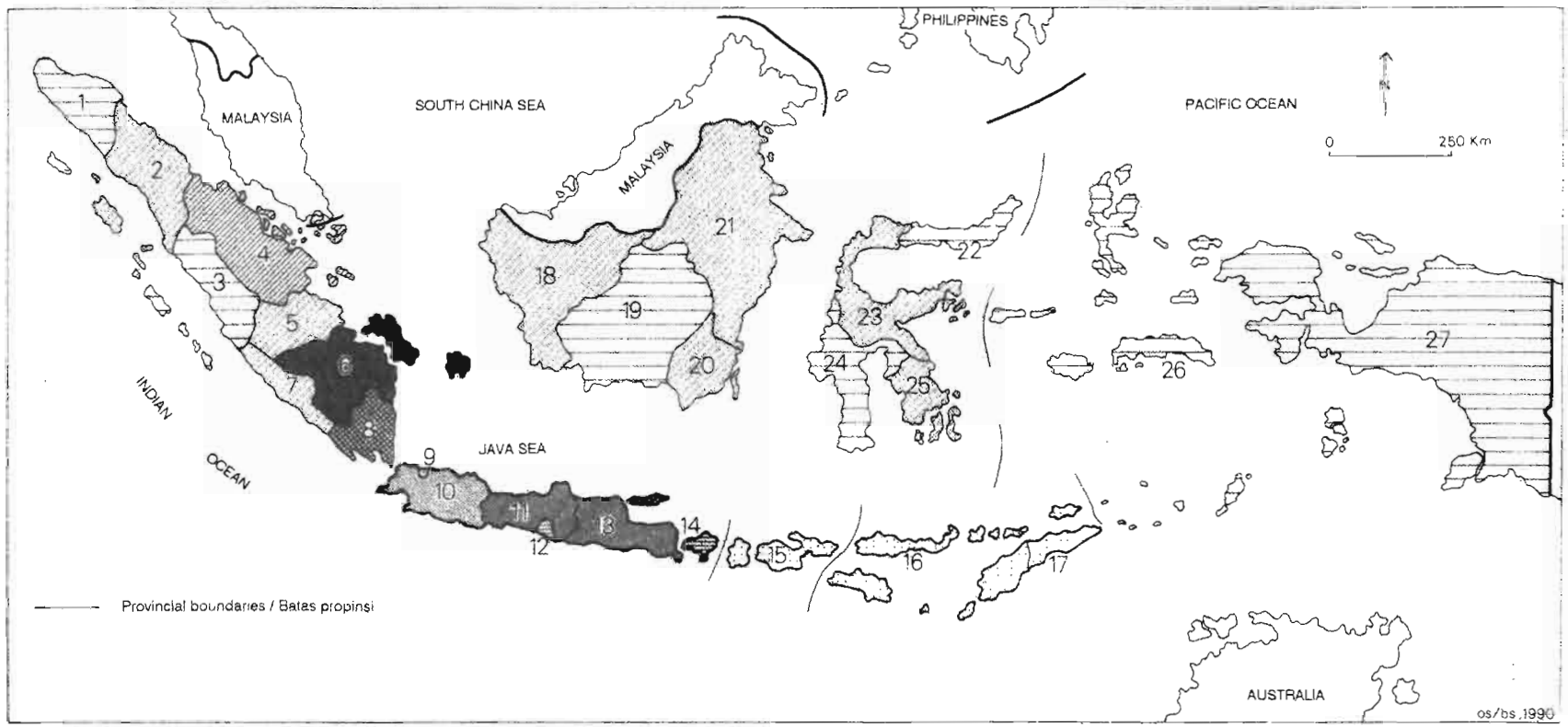
At the start of the 1980s, Transmigration must get ready to accept a considerable challenge : to carry out the migration of 500,000 families as part of the 3rd plan (April 1979 through Mars 1984), then 750,000 as part of the 4th (April 1984 - March 1989) (fig. 2). Now at the same time voices are heard in increasing numbers denouncing the centers' lack of dynamism and demanding measures for the rehabilitation of most of them.

Aware of the magnitude of the task, the Ministry of Transmigration decide to associate the provincial authorities for a better integration of the centers in the local economy with using them as factors of the region's edification.

1 SEVIN O. -Transmigration et aménagement des marais maritimes sur la côte sud de Kalimantan (Indonésie). in Actes des Journées de Géographie Tropicale. Paris, Septembre 1987.

2 SEVIN O. -Lowland rice and water management on the southern part of Kalimantan. ORSTOM-Transmigration Project (PTA-44). Jakarta, 1984. 125 p.

Fig. 2
TRANSMIGRATION FROM 1905 TILL 1982 (In and out migrations)
TRANSMIGRASI sejak 1905 s/d 1982



Out migrations / Daerah asal
Families / Keluarga
0 10000 50000 100000 +

In migrations / Daerah penempatan
Families / Keluarga
0 15000 30000 60000 120000 +

PROVINCE / PROPINSI

1. D.I. Aceh
2. Sumatera Utara
3. Sumatera Barat
4. Riau
5. Jambi
6. Sumatera Selatan
7. Bengkulu
8. Lampung
9. D.K.I. Jakarta
10. Jawa Barat
11. Jawa Tengah
12. D.I. Yogyakarta
13. Jawa Timur
14. Bali
15. Nusa Tenggara Barat
16. Nusa Tenggara Timur
17. Timor Timur
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19. Kalimantan Tengah
20. Kalimantan Selatan
21. Kalimantan Timur
22. Sulawesi Utara
23. Sulawesi Tengah
24. Sulawesi Selatan
25. Sulawesi Tenggara
26. Maluku
27. Irian Jaya

Sources / Sumber : Departemen Transmigrasi, 1983.

- Transmigration in the center of Kalimantan; the main instrument in regional development

In the early eighties, the Central Kalimantan province becomes one of Transmigration's primary targets. The 3rd plan allows for the migration of 230,000 families (a figure shortly to be brought down to 175,000) into a province totalizing at the time only 954,000 inhabitants!

The province of Central Kalimantan had been artificially created in 1957 in order to satisfy a claim from the Dayaks. Habitat there was exclusively riparian, rivers being the only means of penetration into a region whose road system was limited to 30 km of carriageway around the capital Palangkaraya.[3].

Transmigration gives up the development of the coasts which had prevailed until then, to take better care of the colonization of Dayak Land inside the island. A 600 kilometer wide zone, sideswiping the province along the insular shelf and the sedimentary plains, is reserved for organized colonization. Transmigration takes over the logging companies that had for the first time in 1970 opened logging roads in the primary forest. The method consists in selecting major routes to connect the various valleys together, in drawing a few junctions if necessary, and in distributing villages along those newly built roads. Moreover, by thoroughly upsetting the demography, Transmigration renders some of the infrastructures in the province profitable, such as the dispensaries, the elementary and secondary schools that also benefit the local population.[4]

- "Local Transmigration" in Lampung

Meanwhile in Lampung, Transmigration becomes a victim to its own success. The province's total population, from 80,000 inhabitants in 1850, then 450,000 in 1930, has risen over 5 millions in 1986. This fantastic growth originates deep discrepancies. Whereas Transmigration endeavoured to colonize mainly the plains stretching east of Metro down to the sea and from the center to Pringsewu, waves of spontaneous migrants swarmed up to gradually conquer forested mountain masses. The only areas left untouched are the north-east marshes and the remote Mesuji country. Beside a patent imbalance in the regional economy, the constant flow of totally uncontrolled Javanese populations who keep clearing slopes to plant coffee generates as years go by a tremendous erosion of the soil. The rivers' solid load is from then on as heavy as in Java, but above all, terrible floods regularly surge up that plunge the west part of the province into mourning, particularly around Kota Agung and Wonosobo.

A resolution is adopted to close Lampung to Transmigration. The government even contemplate encouraging emigration; they finally reach the decision to create two natural parks, over 395,000 ha, and to protect and reforest a 1,300,000 ha area on the sides of the Barisan Mountains. By the end of 1986, 55,000 families have been resettled. Within the frame of the project, 180,000 hectares are reserved for "local Transmigration" in the north and north-east region, around Pakuanratu, Menggala and Mesuji. Those new settlers, granted nearly as many advantages as other transmigrants, are expected to help give the start to a more harmonious development of the province.

Nevertheless, despite the difficulties encountered by colonization programmes in the last eighty years, beyond the numerous changes in political trends, the questions and doubts about the goals and tasks to be assigned to the transmigrants, some permanent factors have come to light.

3 SEVIN O. -L'économie agricole des Dayak du Centre Kalimantan. BAGF no 493, pp 99-109, 1983.

4 LAHUEC J.-P., SEVIN O. -Reconnaissance Survey for the Selection of Transmigration Sites in Central Kalimantan. Phase 1. Geography. ORSTOM-Transmigration Project (PTA-44). Jakarta, 1981.

BEYOND HISTORICAL UPS AND DOWNS ; THE PERMANENCE OF RESTRAINTS

Between *Kolonisatie* and Transmigration, in spite of historical changes, some factors have remained clearly constant, concerning the transmigrant, the natural environment, and the possible improvements.

THE TRANSMIGRANT ; A MOST UNCOMMON MAN

From the dregs of the cities to the "trans inti"

Authorities were often tempted to use agricultural colonization projects as a good way to get rid of the cities' dregs (beggars, minor delinquents, welfare cases) on account of the "return to nature" and "redemption trough work" dogmas. All such attempts led to disaster. On the other hand, their positive effect was to emphasize the importance of a careful selection of Transmigration candidates. Drawing the lessons from the first failures, the ten commandments of colonist recruitment were written out :

1. Select genuine farmers ; non farmers are a burden to the project and jeopardize its success.
2. Select strong and healthy individuals; they alone will bear the initial difficulties of pioneer life.
3. Select young people: this will allow for a reduction of demographic growth in the areas of origin.
4. Select families: they are the basis of peace and order in the villages.
5. Avoid families overloaded with young children; the burden would be too heavy for the start.
6. Avoid taking in plantation workers; nine times out of ten they are badly resented within the colony.
7. Do not tolerate marriages for the sake of recruitment: they will cause ulterior trouble.
8. Do not accept pregnant women; the settler needs all of his wife's work capacity during the first year.
9. Do not accept unmarried men ; they're bound to get involved with other settlers' wives sooner or later.
10. Allow villages to migrate as a whole ; in that case, the first nine commandments may be ignored.

These ten rules are still valid today, the recruiter's aim being above all to ensure work and stability in the pioneer areas.

Leaving his native village sets the colonist free from parental tutelage and a heavy social pressure. Such authority must be substituted for rapidly. To that effect, the presence of municipal officials (district wardens, village secretaries) or retired army men is very positive.

The proximity of the new neighbors, of sometimes different cultures or religions, may create tensions liable to lead to serious conflicts. For example, the cohabitation of pig breeding Balinese with fanatic Muslims from Madura must absolutely be avoided. Where cultural differences are too prominent, it is preferable to organize homogeneous living quarters.

To prevent desertions and ensure stability in Transmigration villages, priority must be given to heads of family aged between 30 and 40. Young couples with no children at all are more unstable and tend to leave the centre on the first hitch. Recruiting townsmen or wage-earners ought to be ruled out as well; being used to a regular and somewhat higher income, these are not able to cope up with the hardships of the first years. Most likely they'll bring trouble and induce a great number of families to leave the centers after them.

Desertions are often due to candidates lacking pioneer spirit and self-reliance. The importance of the aids granted by the Authorities to Transmigration centers have often turned settlers into State-relief beneficiaries.[5] The correlation is narrow between the close-down of governmental aid and new outbreaks of desertion.

For a few years now, the Ministry of Transmigration has been recruiting young men with secondary school

5 Transmigrants are taken in charge by the Ministry from their region of origin. Upon arrival at the centers families are allotted a 2 ha land parcel (3 ha for P.I.R. projects and 5 ha for some World Bank projects), half of which has already been cleared, a dwelling-house, farming tools and domestic utensils. Each family receives food aid in kind for 12 to 18 months according to the project. Depending on the local authorities, some are given out seeds and seedlings, fertilizers and pesticides. During 5 years, settlers are exempt from taxes and are granted practically free medical assistance, scholarships, etc...

diplomas, to educate them to modern agricultural techniques. Dispatched in the various centers, these "super-transmigrants", otherwise *trans inti*, play an essential part in the teaching and adoption of new technical themes such as fertilization or pest control.

A peasantry whose adaptability has been widely overestimated

At a time when corn yields in Europe were seldom over 10 hundredweight per hectare, some of Java's rice fields produced more than 35 hundredweight. All the credit for it was bestowed on the Javanese or Balinese peasant whose technicality won him the reputation of an exceptional rice grower. Notwithstanding the merits of Javanese techniques, that reputation is largely overrated. The first observers had quite overlooked the decisive role of a highly favorable climate and of a soil of uncommon fertility. The first attempts at colonization in Lampung would soon prove that transplanting rice growers was not enough to generate rice fields.

Yet, the ideal transmigrant exists. To outline his characteristics would be to describe an efficient agriculturist, open to modern techniques and successful in his native province. That exercise, however, would hold little interest, such a person having no reason to migrate.

The transmigrant's main motivation has always been to become a land-owner. In his native region, he owns no land or too little to live off it. Compelled to take up day labor in order to survive, he doesn't have the means in hand, nor the techniques that would enable him to improve his results. Accustomed to working by the job and obeying an employer's instructions, he very seldom has the qualifications required to manage a farm by himself.

Upon arrival at the centre, the transmigrant has no capital to start with. He is rather young, with little experience and work capacity, and his knowledge is limited to traditional skills and the crops used in his native province. If he meets with identical climatic and edaphic conditions, his sole eagerness to work will bring him rapid success. Unfortunately, such is rarely the case.

AN ALL TOO OFTEN DECEIVING NATURAL ENVIRONMENT

With recently formed soils essentially developed on basic rock and regularly fertilized by volcanic ash, the Java and Bali islands stand more as an exception than as a rule. Only a few areas in Sulawesi and some of the Moluccas offer identical conditions. In Sumatra, where the ground is more ancient and volcanism less active, the fertile zones are limited to the Barisan mountain chain. On the old shelf of Kalimantan, the only productive soils are made of quaternary alluvial deposits along the banks of the larger rivers.[6]

With rare exceptions, fertile soils are already occupied by autochthonous populations, or situated in enclaved territories, or else show uneven topography. Owing to this, the areas generally devolved to transmigrants are mainly covered with acid soils, greatly dissaturated with a low exchange capacity. Traditionally devoted to shifting cultivation, any attempt at permanent food cropping will rapidly degrade these soils and replace primary forests by *Imperata* grasslands.[7]

The vast peat swamps in the low plains of Sumatra and Kalimantan are also the source of insoluble problems for the transmigrants. Water control difficulties add up to the chemical bareness of the soil.

Settlers installed on poor soil have neither the means, nor the techniques, nor the knowledge which could help them out. At that stage, the State's interference becomes essential.

DEVELOPMENT WORKS : AN ABSOLUTE NECESSITY

Transmigration centers with a food crop oriented farming system have always had the authorities' favor. The extension of cultivated areas must contribute in absorbing the national food product deficit. Further-

6 SIEFFERMANN G., LEVANG P. -East Mentaya Priority Area (Central Kalimantan). Phase 2 Report (part 1), Physical environment. ORSTOM-Transmigration Project PTA-44. Jakarta, 1982.

7 LEVANG P. -Shifting cultivation for Transmigration projects ? How "primitive" techniques could help to solve development problems in Central Kalimantan Transmigration areas. Ilmu Pert. (Agric. Sci.) 3 (6), p. 275-283.

more, such projects facilitate the installation of a greater number of families at a low cost.

Yet, since the turn of the century, it had been pointed out that only the colonies supplied with large rice fields are succesful. Too much economy when equipping the centers often implies higher future costs to straighten out critical situations.

Irrigation is a guarantee of success

Irrigation, when it is possible, allows permanent intensive food crop cultivation, on soils of moderate to poor fertility.

One of the Javanese or Balinese farmer's earnest wishes is to own an irrigated rice field. The irrigation network will not only be happily welcomed, but made the best use of. The peasant knows traditional rice growing techniques and is already well acquainted with rice protection and fertilization. A little extension effort and a system of advance loans on crops (the *BIMAS* type : loans in kind redeemable on harvesting) are all that is needed to bring success to such a project.

Soil preparation techniques associated to irrigated rice growing reduce soil leaching, the main factor in nutrients waste. Permanent flooding helps to control casual weeds and also to solubilize nutrients. The use of selected varieties, together with high fertilization and a careful phytosanitary protection, gives better, regular yields. Reducing agricultural risks through irrigation is the prerequisite to an increase of the input level by the peasant.

This sort of development, of course, implies that the land is irrigable, that water is available, and above all that the State is able to finance the operations. When credits are scarce, cheaper solutions must be considered.

An alternative to irrigation : *tadah hujan* rice fields

Building a bunk system to dam up rain water helps to turn usually dry-land grounds into flooded paddy fields: *sawah tadah hujan* (literally rain-water reservoir paddy-field).

This technique, elaborated by Sidomulyo peasants (South Lampung) has had many competitors in the region. During the rainy season, the water supply is high and regular enough to maintain flooding. A deliberately man made plough sill diminishes percolation and prevents the leaching out of nutrients. Despite insufficient water control, some of the irrigated rice field favorable conditions are thus realized.

It is through such a technique and the replacement of the 5 month-cycled upland rice by selected 3 month-cycled varieties (*IR36, Cisadane*) that average yields have risen from 700 to more than 2,000 kilos of paddy per hectare, with a constant input level. The shorter cycle allows time for growing a second crop, on dry land then : peanut, golden gram (*Phaseolus radiatus var. aureus*), maize and others.

The quality of the soil doesn't always make it possible to use that method. In such case, rather than trying to adjust the land to the crop, it is simpler to choose crops adapted to the land. Various perennial crops will enable the transmigrants to take best advantage of the pieces of ground generally conceded to them.

Plantations

Hybrid coconut palm, oil palm and rubber plantations often represent the only hope of rehabilitation for most centers specializing in food crops on dry land. All Second Stage Development Projects (S.S.D.P.) emphasize the importance of these three crops, but the list is not exhaustive. The main selection criteria are a good tolerance to acid, relatively poor soil, and a satisfactory response to fertilization. The high cost of inputs also implies a high trade price of the produce.

Converting food crop small-holdings into plantations cannot be left to individual enterprise. Settlers on the whole are not familiar with the techniques involved. Palm oil and latex treatments require huge mill units. To be profit making, a mill must be ensured regular supplies and first rate infrastructures. It has been proved necessary to call on Plantation Societies (*PTP*) to realize and control plantations fitting and functioning.

The already well run-in *PIR* system (*Perkebunan Inti Rakyat*), or Nucleus Estate System demands considerable investments. There are, however, cheaper solutions, relying more on transmigrant labor.

Rather than improving the environment through irrigation, or resorting to perennial crops, a third solution is still worth considering : searching for food crop production systems adapted to poor soil conditions.

Changing techniques, changing man.

A great number of solution were tested by Research Institutes. None of them was definitely adopted by the transmigrants.[8] The reason for their failure is simple. In order to maintain or ameliorate the fertility level, a strict control of the rate of organic matter in the soil must be effected. That means restituting harvest residues, animal manure, and composting.

Increasing the yields necessarily depends on a high fertilization and a thorough protection of the crops. All the solutions proposed by the Institutes only suggest larger inputs which represent greater costs for the peasant, and therefore greater risks. Without the technical knowledge needed to master such new themes, most settlers who tried those solutions ended up with debts at the fall of the project.

On the contrary, improving farmers' technical skills enables them to develop agricultural systems more appropriate to environmental conditions. For instance, in Way Jepara (Central Lampung), a particularly dynamic producers' pool (*kelompok tani*) worked out a scheme based on maize monoculture in replacement of the traditional *tumpang sari* technique. Far from being revolutionary, their system nevertheless yields two harvests a year, with averages of 3,000 and 2,200 kilos of maize per hectare instead of the previous 700 kilos of paddy and 500 kilos of maize per ha each year.

Improving the technical knowledge is the essential prerequisite to the adoption of farming systems requiring high input levels. But changing men is a long and exacting task, which often turns out to be as expensive as material improvements, and much more difficult too.

Within the last five year plans, the authorities have privileged quantity over quality as a goal. Therefore, thousands of settlers are now on their own in centers that do not offer the equipments needed to render them fit for production.

On unfertile soil, and without the help of major improvements, -Transmigration centers as agricultural development projects- rapidly tend to failure. Yet, an agricultural failure does not necessarily involve a whole centre into failure.

The labor reserves

Unable to support their family on their agricultural activity only, transmigrants are compelled to look for off-farm jobs. Some of them are fortunate enough to live on favorable locations.

Bereng Bengkel, 17 km away from Palangkaraya (capital of the Central Kalimantan Province), set upon 4 to 6 meter thick acid peat, is the prize-winner among agricultural failures. Only a few vegetables, sown in ash and liberally fertilized, manage to survive. Six month old cassava seedlings barely grow over 30 cm in height and bear leaves that show signs of every possible deficiency. Curiously enough, the families' position is better there than in most centers with a more favorable environment. The reason for that is the proximity of the capital, where transmigrants may find well paid jobs in the building and public works industries. As it is, these men make an income superior to that which an agricultural activity would bring them.

A great many Transmigration villages in the Way Abung area (North Lampung) remain alive thanks to nearby sugar-cane and pineapple large estates. Heavy consumers of seasonal labor, estates of this kind could not work without the cheap labor reserve that Transmigration centers constitute in the neighborhood. Such a patent convergence of interests leads to wondering whether the closeness of those implantations is just a mere chance.

Anyway, they lack of employment opportunities in the vicinity drives men out of the centers for longer periods of time. Sooner or later, the transmigrant has to move

8 LEVANG P., MARTEN R. -Batumarta. Agro-economic survey of a Transmigration center in South Sumatra. ORSTOM-Transmigration Project PTA-44. Jakarta, 1984. 100 p.

closer to his new working place and quit the Transmigration center altogether. In Sebamban (South Kalimantan), the great majority of heads of family stay away from the villages for more than 6 months per year.[9] In Sintang (West Kalimantan), the situation is even worse : some of the centres totalize over 30% desertions.[10]

Transmigration's final balance shows as many detractors as advocates. The argumentation on both sides has in fact remained unchanged for the past eighty years. Above all, a centre's success or failure cannot be evaluated upon occidental standards only, nor from exclusively agricultural criteria. One too often tends to overlook the difficult economic situation of numerous zones of origin in Java and Bali. Besides, the population pressure and the labor force in the Outer Provinces are not always sufficient to get development started. In many cases, Transmigration can be considered, if not as the main factor, at least as the catalytic element of development.

BEYOND CONTROVERSIES AND ABYSMAL FAILURES ; SOME UNDENIABLE SUCCESSES

From the beginning of the century, the various organized colonization programmes, whether due to the Dutch *Kolonisatie* or to the Indonesian Transmigration, have always been the target of many a controversy, which unfortunately conceals a great number of ignored successes.

TRANSMIGRATION AT ISSUE

Three main topics are debated : Transmigration, held responsible for an unprecedented ecological disaster, would only act as a poverty transferring device, with, as a most tangible result, the destruction of the Outer Islands populations' ethnic identity.

Transmigration, the alleged cause of an ecological disaster

Transmigration is essentially reproached with being responsible for an unequalled deforestation which endangers the tropical ecosystem's balance. The Kalimantan and Irian Jaya provinces are the most frequently given as examples, backed up with the number of hectares destroyed and a few commentaries on the modifications to climate, or on the vital role of the primeval forest, our planet's respiratory system. The problem with such an argumentation is that it totally fails to look at the pioneer colonization and land use extension phenomena from the historical angle.

It must not be forgotten that, in the history of Occidental Europe, no demographic growth, no economic expansion no *renaissance* whatsoever occurred without the clearing of virgin land. On the contrary; the French Renaissance, for instance, in the XIIth century, was preceded by a period of active grubbing movements strongly encouraged by the Authorities. Tax immunity and other franchises were freely enough awarded to the "Hosts" who did so well in tearing out the forest of "Ile de France" and transformed Caesar's endeared "long-haired Gaul" into "Campagna".

Of course it can be retorted that rain-forest is considerably more delicate, and that soil erosion is quite a problem... in a word, that the tropical world must be dealt with very carefully. And it is actually true that certain areas, formerly forested, then over-exploited by sedentary farmers unable to restore its fertility to the soil, have turned into vast stretches of *Imperata*. But it would be forgetting that colonists, who generally come after the logging companies, are often blamed for irreversible damages caused by the latter.

Transmigration reduced to a mere resettlement of poverty

The second reproach voiced against Transmigration is that it solely consists in transferring underqualified labor and "trouble makers" from Java to the Outer Islands. It is evident that the different governments which succeeded one another in Batavia then in Jakarta

9 LEVANG P. -Sebamban I. Case study of a Transmigration project in South Kalimantan. ORSTOM-Transmigration project PTA-44. Jakarta, 1984. 95 p.

10 LEVANG P. et al. -Usaha untuk memperbaiki taraf hidup transmigran di Sintang. Survey agro-ekonomi di daerah Transmigrasi Sintang, Kalbar. ORSTOM-Transmigrasi proyek PTA-44. Jakarta, 1986. 61 hal., 23 gbr.

always had in mind to avoid the problems generated by poverty and to maintain peace and order in the big cities. And it can't be denied either that they have been strongly tempted to force deracinated country people crowding to the cities into emigrating. But to reduce Transmigration to the mere deportation of undesirables is purely unfounded.

Every inquiry conducted in Transmigration centers between 1980 and 1988 leads to the same conclusion: people who enroll on Transmigration registers are not subproletarians : these would hardly know how to proceed, so complex are the formalities to comply with. Candidates, on the opposite, belong to the educated : a good majority of the heads of families settled in Central Kalimantan villages have achieved primary studies and, surprising as it may be, some even are secondary high school graduates.[11]

If need be, a close examination of the transmigrant's ordinary diet will put and end to the myth of the settlers' impoverishment. All the inquiries made in Sebamban (South Kalimantan) as well as Batumarta (South Sumatra) or Tumbang Sangai (Central Kalimantan) show that the transmigrants' situation is always better than their previous one in the native provinces.

The shock, after the first failures -almost always related to the lack of organization that followed the immediate post-war period- must not hide the fact that the transmigrant is deeply devoted to his land and house. True, some of the centers developed in the 1950s, near Marabahan in South Kalimantan, have been completely eradicated, and quite a few around Sintang, in West Kalimantan, have lost a great deal of their population; but it is no less true that for the East Java peasant, becoming a land owner, even in unfavorable conditions, is the realization of a very old dream.

The destruction of the Outer Islands population's ethnic identity

Third aspect of the controversy, organized migrations are said to imperil the Outer Islands population's culture. Of course, that statement bears some truth : the acknowledged aim of the Ministry of Transmigration is to contribute to the country's unity by erasing local particularisms. But it must be considered from a relative point of view. The example of Central Kalimantan is, in that respect, highly revealing.

In the Kalimantan Central Province, the Dayak's acculturation dates back a long time and is already well underway when the first transmigrants arrive. Longhouses have totally disappeared and Islam is progressing so fast that the population is more than 70% Muslim in the lower valleys, and about 50% upstream. The analysis of ethnic components show that migrants form 65 to 70 % of the population downstream a town like Sampit.[12]

11 SEVIN O. -Transmigration in Central Kalimantan. A geographical viewpoint. ORSTOM-Transmigration project (PTA-44). Jakarta, 1987. 140 p.

12 SEVIN O. -Migrations et mise en valeur d'une basse plaine marécageuse : l'exemple des cocoteraies de la basse Mentaya. Kalimantan, Indonésie. ORSTOM, CAH. SC. HUM. Vol. XXI, 4, 85, pp 481-496.

TRANSMIGRATION :

THE CATALYTIC ELEMENT OF REGIONAL DEVELOPMENT AND SPONTANEOUS MIGRATIONS

The improvements of unused land for the purpose of Transmigration entails the construction of a whole system of roads and bridges in order to disenclose a region. Creating a centre brings employment opportunities for local enterprises in the public works, building, transport and agricultural equipment fields. The sudden arrival of thousands of families implies the organization of a commercial distribution network, first to supply them with their keep, then to possibly sell their production. Transmigration generates important needs which it partially meets in making credit and labor available.

Seldom spoken of, the improvement of Public Services is yet one of Transmigration's essential successes. The disappearance of the traditional authorities, their temporary replacement by the Ministry of Transmigration's officials, finally changed for new men, have enhanced the impact of the great national popularization campaigns. The comparison with the zones of origin and their surroundings always turns out to the advantage of Transmigration born villages.

Such topics as birth control, hygiene and diet improvement, medical follow-up of infants, are always best carried out in Transmigration centers. The development of technical assistance : agricultural extension workers specializing in food crops, plantations and animal husbandry, however insufficient still, is the first step to the betterment of the farmers' technical level. On the *Camat's* (sub-prefects) own admittance, even tax and duty collection is easier in Transmigration areas.

But the main asset of Transmigration indisputably remains that it provides a better access to education. School attendance rates in primary school draw near 100% in almost all of the Transmigration centers, and run far above those of the native provinces.

In spite of tough conditions sometimes, the aforesaid favorable factors turn a great many centers into real magnets for spontaneous migration. From the moment the centers are opened, transmigrants are soon joined by their families, or their friends in search of land.

The spontaneous migrant's profile is different from the transmigrant's. Usually, the spontaneous settler doesn't meet the selection requirements. For instance, numbers of bachelors coming on a seasonal migration find their kindred souls in Transmigration villages and decide to stay. Generally speaking, the candidate for migration scarcely puts his trust in the official propaganda : but he will follow blindfold the most boastful among his friends. When he fills his application form, the transmigrant ignores whether he will be sent to Sumatra, Kalimantan or even Irian Jaya. The spontaneous migrant, on the contrary, has a well determined village or region in mind. According to the word of one of them, the real adventurer is the official transmigrant. As to the spontaneous, he is strongly motivated and fosters ambitious hopes of success. He relies solely on himself, and is therefore fundamentally different from official transmigrants who keep requesting government aid.

On the areas of some interest to them, fertile zones or regions close to Java, spontaneous migrants soon outrun transmigrants. In Lampung, for example, spontaneous colonists start with drawing to a Transmigration centre ; they settle on its premises, and later on buy adjoining land from the local population. Gradually they hem in whole hamlets of indigenous villages, and after a few years gain their administrative independence by creating a new village.

But as a first step, spontaneous migrants often settle directly on the centers where they take the transmigrants' place. They make up for the gaps left by desertions and, most likely, give rise to more. A lot of transmigrants are prone to surrender their lots to spontaneous settlers as soon as the price of land tends to go up. Such is the case in Central Lampung, where the Jepara Transmigration zone, opened at the end of 1956, doesn't totalize today but 15% official transmigrants. In Central Sulawesi, the Sausu project, on highly fertile soils, attracts crowds of spontaneous settlers who will

pay over Rp 500,000 for a transmigrant's lot. Three years after the centre's creation, 17% of the land have already changed hands.[13]

This kind of situation, without being a real failure, means a considerable waste of money, since many families have been transferred at a loss. For every project liable to attract a lot of spontaneous settlers, the Ministry could save on the recruitment and transfer of entire families. Until today, Transmigration however unwillingly, has but facilitated the flow of spontaneous migrants. It would best serve its purpose now to take advantage of that movement in organizing it from start to finish.

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In spite of the countless difficulties Transmigration has encountered, and still does, it is irrelevant to reflect on it according to the usual standards of success or failure. Transmigration aiming at several targets at a time, neither successes nor failures are ever thorough.

Thanks to colonists' individual enterprise, some initially very critical situations may evolve at length in a positive direction. The Wonosobo (South Lampung) colony's history is a perfect illustration of such evolution. Failure will only be mentioned in case of a total desertion of a centre. That type of accident has fortunately seldom occurred in Transmigration's recent history.

Neither successes nor failures, many are the centers that are just surviving somehow. They belong to the following two categories :

- upland food crop projects, set up on poor soil and without major improvements,
- *pasang-surut* projects (tidal irrigation and draining), in which water control is inadequate.

Such centers may keep at a standstill for many years, awaiting the improvements that will enable them to get their economy started. Bringing irrigation to Punggur (Central Lampung) put an end to 20 years hard survival within two cropping periods.

Some centers, although planted on fertile soil or granted the necessary equipments, still know infrequent and limited successes only. In favorable circumstances, centers are bound to develop greatly, either from internal growth or by attracting lots of spontaneous migrants. When this stage in their development has not been planned for, and when land areas, large enough to accommodate the second generation of migrants, are lacking, centers rapidly clog up. In Malonas (Central Sulawesi) serious conflicts on real estate have arisen about the reserve territories, as early as on the 5th year. The centre, a small coastal valley surrounded by steep hills, is absolutely unable to expand outside its confined limits.

When ulterior development has been ensured by the availability of huge pieces of virgin land, a Transmigration centre can become the prime mover of regional economy. It so happened in the zones of Kota Mobagu (North Sulawesi), Parigi (Central Sulawesi), Metro and Pringsewu (Lampung), which represent Transmigration's unmatched triumphs.

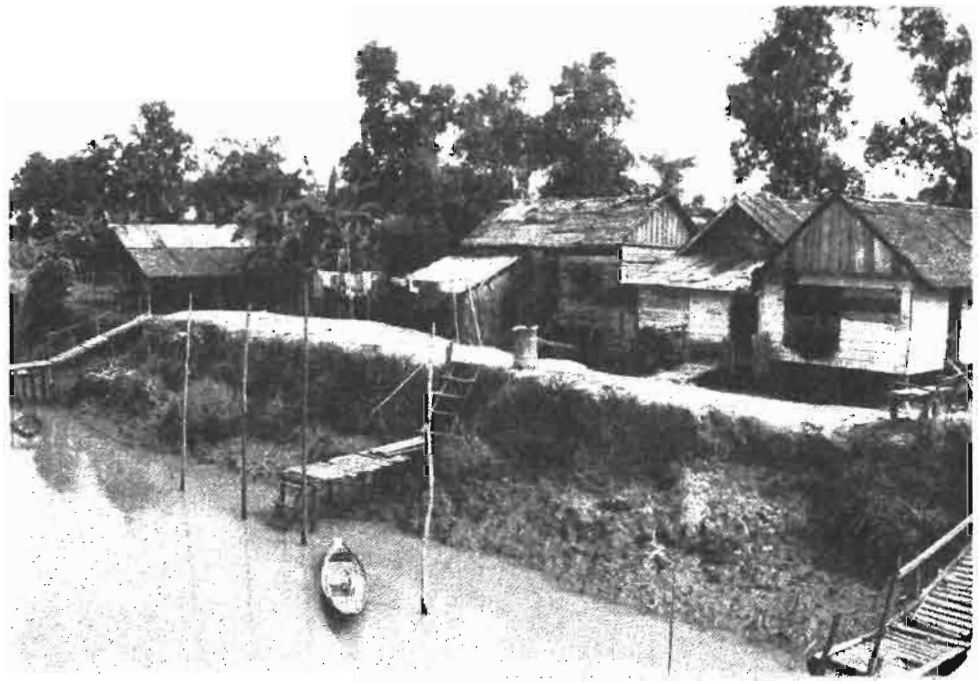
13 EDMOND T., LEVANG P., MARTEN R. -Sausu Malonas Tolai. Lessons in successful Transmigration. Agro-economic study of three Transmigration centers in the Sulawesi Tengah Province. ORSTOM-Transmigration project PTA-44. Jakarta, 1986. 76 p., 25 photos.

Around Kota Mobagu, settlers of Mopuya and Mopugat have converted the rain forest into one of the main soybean producing areas of Indonesia. Their success has widely spread beyond the Transmigration villages' narrow boundaries.

From Parigi to Sausu, thousands of Balinese migrants have turn vast coastal swamps into a real rice granary. In these two zones, the significant amount of production to be marketed, and the peasants' higher standard of living have led to the founding of prosperous little towns.

In Pringsewu and Metro, beside the agricultural success, organized migrations have caused the springing up of a real urban network. Pringsewu's is a particularly interesting example. Opened in 1926 at the expense of the primary forest, Pringsewu's colonization area was the main magnet of Javanese migration for over 50 years. Since the end of the 1970s, the region has known a demographic pressure of about 1,200 inhabitants per square kilometre, and an emigration rate slightly inferior to the natural population growth. Today, a great number of young couples without land are turning towards North Lampung, compelled to transmigrate as their grandparents had been.

A victim to its own success, Transmigration has created again in Lampung the situation it was meant to compensate in Java.



Development is at a standstill in most *pasang-surut* projects. Musi river, South Sumatra.
Pembangunan terhenti di sebagian besar proyek pasang-surut. Sungai Musi, Sumatra Selatan.

Five month old cassava hardly survives on six meter thick peat. Bereng Bengkel, Central Kalimantan.
Ubi kayu yang berumur lima bulan hampir tidak dapat hidup di tanah gambut yang tebalnya enam meter. Bereng Bengkel, Kalimantan Tengah.

Even cassava is unable to compete with *Imperata* after five years cultivation on low fertility soils. Sebamban, South Kalimantan.
Ubi kayupun kalah bersaing dengan alang-alang di tanah yang kurang subur yang telah digarap selama lima tahun. Sebamban, Kalimantan Selatan.

Poor soils inevitably mean poor transmigrants. Seputih Surabaya, Central Lampung.
Di tanah yang tidak subur mau tidak mau transmigrannya juga tidak akan makmur. Seputih Surabaya, Lampung Tengah.

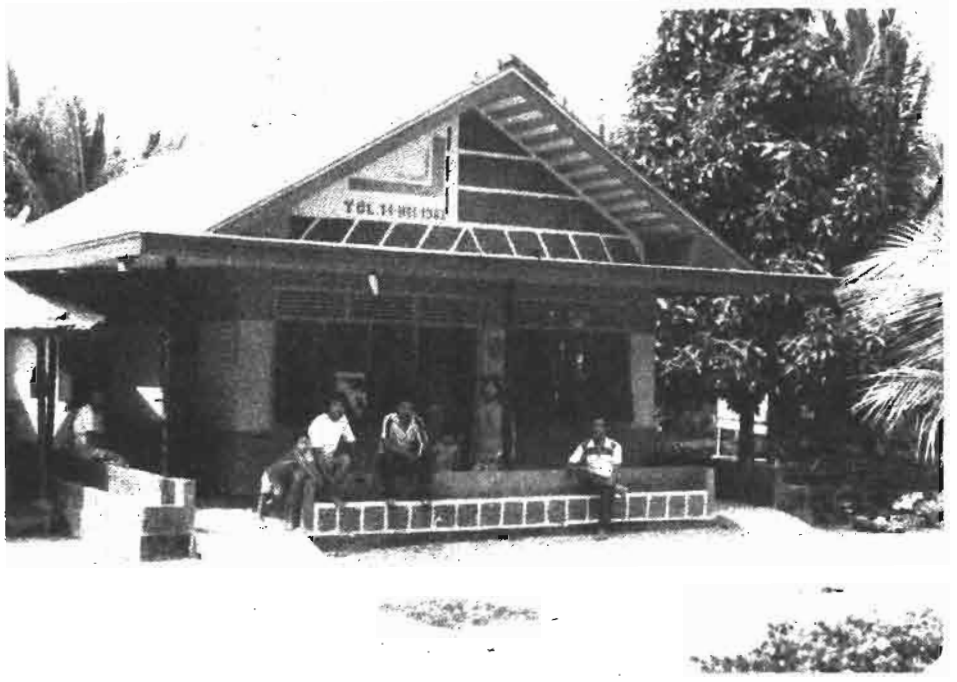
Successful Transmigration regenerates the same landscapes... and the same problems as in Java. Bumiarum, South Lampung.
Transmigrasi yang berhasil membuat lingkungan hidup dan masalah yang sama seperti di Jawa. Bumiarum, Lampung Selatan.

Still primeval forest in 1926, Pringsewu now reaches 1200 inhabitants / km^2. Pringsewu, South Lampung.
Pada tahun 1926 Pringsewu masih merupakan hutan rimba, tetapi sekarang sudah dihuni 1200 jiwa / km^2. Pringsewu, Lampung Tengah.

Irrigation embetters marginal soil conditions. Metro, Central Lampung.
Produktifitas tanah yang kurang subur dapat ditingkatkan dengan irigasi. Metro, Lampung Tengah.

Irrigation and a high technical level upgrade the farmers standard of living. Trimurjo, Central Lampung.
Irigasi dengan teknologi pertanian yang tinggi meningkatkan kehidupan transmigran. Trimurjo, Lampung Tengah.

Fertile soils enable three harvests of soybeans and maize a year. Mopuya, North Sulawesi.
Di tanah yang subur kacang kedele dan jagung dapat dipanen tiga kali setahun. Mopuya, Sulawesi Utara.



Fertile soils mean quick success for Transmigrants. Malonas, Central Sulawesi.
Di tanah yang subur transmigran akan cepat berhasil. Malonas, Sulawesi Tengah.