

Paper presented at the International Conference on Cocoa Economy '93.  
19-22 October 1993, Bali, Indonesia

## FROM RAGS TO RICHES

Or how peasants shift from food self-sufficiency to market oriented tree crops in six years

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### Abstract

Batumarta, the first Transmigration center conceived to integrate food crops, perennial crops and animal husbandry has not evolved according to the experts' expectations. Rubber cultivation quickly overtook all other activities. Considered a failure by the experts, the project has made the transmigrants wealthy. The paper stresses the necessity of taking into account the peasants' goals within the framework of development projects for perennial crops.

### Keywords

Peasants - Farming systems - Food crops - Tree crops - Plantation development - Rubber - Transmigration - Sumatra - Indonesia.

*Translated from French by Mrs Anne Williamson*

O.R.S.T.O.M. Fonds Documentaire  
N° : 38685, 2A  
Cote : B

10 DEC. 1993



A transmigrant's dream house : tinted window-panes and neoclassical colonnades.

Notice the rubber trees behind the house.

## **FROM RAGS TO RICHES**

### **Or how peasants shift from food self-sufficiency to market oriented tree crops in six years**

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Since 1976, most of the region separating the Ogan and Komering rivers in the province of South-Sumatra has been the site of a vast Transmigration project. Located half-way between the cities of Baturaja and Martapura, the Transmigration area is simply called BATUMARTA.

Batumarta is not a typical Transmigration center. Thanks to the financial support of the World Bank and the technical assistance from numerous national and international organizations, Batumarta was conceived from the outset as a pilot project, a model for future transmigrations. Although conceived by renowned experts, the proposed cropping systems do not obtain settlers' approval. To begin with, these migrants disregard or misuse recommended component technology. Then, as soon as the rubber trees begin producing, they abandon outright food crops. Again, paying no attention to experts' recommendations, the colonists overtap their plantations for the purpose of immediate consumption. Considered to be a failure, Batumarta is not unfamiliar with extremely stringent regulations applied to all the ulterior Nucleus Estate and Smallholders projects.

In 1982-83, a detailed agro-economic survey, carried out in four volleys during the complete growing season, permitted us to meet 60 transmigrant families from Units I and VII. Afterwards, we followed the development of these centers through occasional visits. A new survey, of these same families, done in 1990, sought to evaluate eight years evolution of a Transmigration center. We concluded that Batumarta is a failure only for the project's conceivers. From the settlers' viewpoint, Batumarta is a phenomenal success. Analyzing the failure of some and the success of others is particularly instructive.

### Batumarta : pilot project

Batumarta is quite different from a traditional Transmigration project. Regrouping more than twenty units designed to accommodate a total of ten thousand settler families permits the profitability of extensive, good-quality infrastructures : macadam access roads, permanent market, rubber processing unit, etc.

The project funding, furnished by the World Bank, provided a budget of 5,000 - 6,000 US \$ per family, twice that usually granted. This higher cost is due mostly to the quality of services offered to settlers. In addition to the usual supplies, each family receives free a head of cattle and, above all, a hectare of rubber plantation, ready to be tapped. Lastly, because the conventional two-hectare land allocation has been proven insufficient, each family now receives a five-hectare real-estate (Irawan, 1981 :5).

Looking for success regardless of the price, the promoters of the project do not make cutbacks on administration or technical and scientific support. International agencies, ministries, consultants, research institutes and universities intervene at all stages of the development of the centers. Nothing - planning, research, management - is left to chance.

The farming system proposed to the migrants is one of the integrated types. Each family's land allocation is divided into six plots :

- 25 ares of *pekarangan* - or house-plot - designed for growing fruits and vegetables for the family's own consumption ;
- a plot of 75 ares near the house and another of 100 ares two kilometers away, both intended for food crop production ;
- a plot of 100 ares of rubber plantation meeting estates standards. Set up by the *PTP X* (National Plantation Company), the plantations are given to the settlers at the end of the sixth year and in a ready-to-tap condition ;
- a plot of 100 ares intended for rubber planting by the migrant himself ;
- lastly, a land reserve of 100 ares.

The proposed model associates harmoniously fruits, vegetables, food crops, cash crops and animal husbandry. It ensures both food self-sufficiency and access to financial income. Associating agriculture and animal husbandry permits the development of animal draught and resorting to organic manure to maintain soil fertility

The relatively low level of chemical fertility in the Baturaja lands seriously worries the promoters of the project. Working with the International Rice Research Institute and many Indonesian universities, the Central Research Institute for Agriculture is in charge of perfecting effective and sustainable cropping systems for the transmigrants. Multilocal tests, carried out over many years, lead to the choice of a particularly effective cropping pattern joining intercropping and interplanting. Corn, upland rice, cassava, peanuts and mungbean rotate in the soil under constant cultivation. A well-studied manuring plan and effective phytosanitary control ensure not only high yields

and high income, but also a regular improvement of the level of soil fertility (Inu, 1978 : 53-88). Lucky transmigrants.

### **Batumarta, from dream to reality**

The field surveys undertaken in 1982-83 (one year before tapping the first rubber trees) leave no doubt : the economic situation of the Batumarta migrants is in no way different from that of other Transmigration centers (Levang & Marten, 1984 : 47-69). Indeed, the settlers stubbornly refuse to use the recommended cropping systems. Strange transmigrants.

For the experts, this refusal is due to the migrant's low technical skill, the burden of tradition or simply the peasant's irrational behavior. All these explanations only mask the serious maladjustment to peasant expectations of the models proposed by the agronomist. The recommended cropping systems present two unsurmountable obstacles for any peasant : they require too much manpower and too many inputs.

Even when using animal draught for soil tillage, the proposed model needs between 600 and 800 man-days per hectare, almost twice the average work force of a family of settlers. According to our figures, up to a maximum cultivated surface of 54 ares, the return for family work of the average settler amounts to 1,000 Rp per man-day. For larger surfaces, the compulsory resort to paid manpower (1,500 Rp per day in 1982) considerably reduces this return (Levang & Marten, 1984 : 88).

Although heavily subsidized in 1982, expenses for inputs : seeds, fertilizers and pesticides came to 144,000 Rp for one hectare, that is an advance payment equal to about one hundred days of paid labor.

On top of this, the proposed systems do not take into account the risks linked to cultivation. On one hectare of irrigated rice paddies in Java, few peasants would hesitate to apply the indispensable inputs for the crop. In Batumarta, the risks are not the same. As in all the recently opened Transmigration areas, infestations of wild boars, rats and other pests frequently destroy the hope of a harvest to zero.

The concept of risk adversity, well-known to peasants, is identical to basic good sense. The Javanese peasant has a reputation throughout the archipelago of being optimistic when confronted with ill-fortune. The well-known repartee "*masih untung...*" which can be translated by "only happy that..." implies that things could have been worse. At Batumarta, faced with his field devastated by a horde of wild boar, the Javanese settler thinks he is lucky having only lost his harvest. If he had spread the recommended fertilizer, he would also have debts.

Batumarta barely survives. Disregarding experts' recommendations, peasants use a relatively low intensive food cropping. On the average, they cultivate 130 ares in the

first cropping season, essentially upland rice intercropped with corn and cassava at the edge of the field. In the second cropping season, the cultivated surface is reduced to 80 ares of diverse crops, corn, legumes, watermelon and sweet potatoes.

The yields remain low, even lessen from year to year. The amount of work done by peasants is not sufficient to keep weeds under control. The application of homeopathic doses of inputs is insufficient to compensate for the mediocre chemical fertility of the soil. The rice output does not guarantee the families' self-sufficiency. The well-known *tiwul*, mixture of rice and cassava in proportions favoring the latter, is the family staple. For an average annual income of 430,000 Rp per family, 48 % comes from off-farm work. Off-farm activities are indispensable to family survival. The infernal cycle starts. Forced to leave the farm estate to look for day-labor, peasants reduce the time given to weeding. The consequent reduction in the production level reduces the families' food stocks and forces them to off-farm work even more.

After five years of this kind of life, many families speak of quitting the center, of returning to Java or Bali. But to find what ? Most migrants no longer possess anything in their homelands. At Baturanta, they own five hectares of land. Unfortunately, it is not particularly fertile, but it does belong to them. Does not the improved social status linked to land owning merit certain sacrifices ? The rubber trees should soon begin producing. Who knows whether the sale of latex will not help improve the settlers' economic condition ?

### **The more you tap, the more you earn**

Rubber will change the colonists' life beyond all hopes. For the first six years, they hardly pay attention to these plantations that will one day be theirs. Many migrants lay eyes on their first rubber tree when they arrive in Sumatra. The *PTP X*, invested with the development of rubber tree plantations, occasionally hires paid manpower, above all during the first three years. The heads of family, preferring work with food crops, usually send their spouse to the rubber plantations. Later on, around the sixth year, the heads' children go to the tapping school to learn harvesting techniques and grafting.

The plantation lots are given to the migrants only at the end of the sixth year. From the moment the panels are opened, even in spite of low production, the sale of latex brings into settlers' families an average of 30,000 Rp per month. By working 4 to 5 hours daily to harvest rubber, the migrant doubles his monetary income from the first year of production.

Mentalities evolve in harmony with tapping frequency. Fast, too fast. The rubber tree has many advantages over competing crops. Hardly slowed down at all during the two-month long dry season when leaves fall, its continuous production brings a regular income to the producer. A strong competition among the rubber processing factories in the South-Sumatra province guarantees a high price for the producer's ware (Nancy

et al., 1989 : 9). The small amount of work necessary for the harvest results in a high return for the workday. Lastly, and above all, the more you tap, the more you earn.

In this game, food crops are on the losing side. The rubber cultivation fixes the opportunity cost of family work at a threshold that is incompatible with upland food crops demanding more work for a poor return. It does not take long for the settler to understand that it is cheaper for him to buy, rather than produce his rice. In less than two years since the opening of the panels, upland rice, corn and cassava disappear from the landscape. *Alang-alang* (*Imperata cylindrica*) reasserts its rights.

At first worried by the transmigrants' lack of interest in rubber tree cultivation, the experts now find a little too much. Easy money provokes frenetic consumption. This can be seen in the abusive consumption of bark. To increase their immediate gains, the settlers increase tapping frequency. From the recommended three weekly tappings, they increase to one, or even two per day. The greediest migrants are caught tapping their neighbors' trees at night. After these initial excesses, tapping is stabilized at one day of rest for four consecutive days of tapping. In eight years of production, the virgin bark is depleted. It should last twice as long.

Overtapping, waste, massacre - experts cannot find the right word to describe the settlers' "irrational" behavior. In the small world of rubber tree specialists, Batumarta is regularly cited as the example not to follow. Considered a failure, the project is the impetus for the extremely strict regulations applied to all ulterior Nucleus Estate and Smallholders projects (Gouyon, 1991 : 14). The new directives are clear : the peasant, incapable of correctly managing the capital generously provided by the government, must be rigorously controlled by the personnel of the plantations.

### **Backing up to better jump forward**

At Batumarta, the transmigrants who remain indifferent to the experts' arguments say, "why should we bother with moderate tapping to earn an average salary during thirty years when we can earn a high income over fifteen years ?".

By choosing the latter solution, the colonists can rapidly improve their residence. At the moment of our second survey, in the entire sample population, only 24.6 % of the families still lived in the house built by the Transmigration project ; 33.3 % built a housing costing between 500,000 Rp and 2,000,000 Rp ; 42.1 % of the transmigrants built their dream-house from budgets ranging from 2 to 13 million rupiah.

The lowest housing expenses concern essentially two kinds of families : those who experience misfortunes and those who have children in higher education. For the former, when sickness, hospital stays, death of a spouse or divorce strike, they often tend to sell the rubber tree plantation. For the latter, the very heavy expenses of child education postpone upgrading the residence.

Although all families give priority to child education, all do not accord it in the same importance. Because of the age-limit for transmigrant recruits, heads of families are young when they arrive at the centers. Most have a ten-year grace period before having to pay heavy school fees.

Schooling and housing are not the families' only expenses. During the seven years between our two surveys :

- 63.2 % of the families spent between 100,000 Rp and 2,250,000 Rp to visit their parents who stayed in Java or Bali. At the beginning, the heads of the family left alone. When the rubber trees begin producing, departures become a family affair and a more and more frequent event ;
- 64.9 % of the families have marriages costing between 300,000 Rp and 4 million rupiah for one or more children. These days, a wedding costing less than 500,000 Rp is considered cheapskate. Other social expenses like *selamatan* (communion meals) are subject to high inflation since they went from 50,000 Rp on the average in 1983 to 500,000 Rp in 1990 ;
- 29.8 % had elevated health costs ranging from 100,000 Rp to 1,500,000 Rp ; three families, unable to borrow the sum necessary to pay a family member's hospital stay, had to sell part of their land grant.

Lastly, 70.2 % of the families set up new rubber tree plantations. Between 1987 and 1990, the rubber tree plantation area more than doubled in the Transmigration zone of Batumarta. Rubber trees replaced *alang-alang* in the former food crop fields. Rubber trees gnawed away at the last vestiges of not-yet-converted secondary forest. Rubber trees come all the way up to the *pekarangan* around the houses.

Transmigrants' reversion is surprising. Within the space of six years, Javanese or Balinese peasants metamorphose from food crop growers into planters, shift from food self-sufficiency to market orientation. Completely ignorant of rubber tree cultivation upon their arrival at the centers, they now know everything about harvesting techniques and budding. The kind of house, number of televisions, motorcycles and children at university testify to the families' standard of living. An anecdote often heard in Batumarta illustrates the breadth of changes undergone since the early years of the center : "Ten years ago, all the heads of families were prepared to work eight hours a day with a hoe in the hot sun for 1,000 Rp and two meals. But nobody offered jobs. Today, the same heads of families propose 2,000 Rp for four hours work tapping rubber trees in the shade. And they find no one".

Batumarta, a failure ? For the six years following his arrival, Putu Sedane has supported his family with 10,000 Rp per month with cassava replacing rice, and peppers all the rest. Today, he owns 12 hectares, 4 of which are rubber producing plantation. And his monthly income is 1 million rupiah. If Transmigration only produced "failures" like Batumarta, all civil servants of the Ministry would now be rubber planters.



## The lessons of Batumarta

The Batumarta of today bears no resemblance to its creators' ideas. From this viewpoint, the project could be thought of as a failure. Nonetheless, analyzing the errors made at Batumarta's origin and throughout its development is quite instructive.

Wanting to associate on the same estate, a low return food crop sector, perennial crops and a little stock breeding is certainly more a bureaucrat's dream than a peasant's reality. The project, in its very conception, shows a deep misunderstanding of the Javanese peasant. How many times have we heard asserted that the Javanese peasant is inseparable from rice-growing? Evoking the well-known weight of tradition "excuses" the peasant's attachment to routine and refusal of progress. Would a profound desire to produce his own food push a Javanese peasant to hide himself invariably in autarky? Do not some go so far as to inscribe rice-growing in genes?

The rapidity with which the Javanese settlers dropped food crops surprised more than one observer. Above all, the peasant seeks security. Having no access to civil service, producing his own food is a perfectly logical choice. Even the most diehard rice-grower will not resist the lure of a regular, high and certain income. The experience of Batumarta tarnishes the idealized image of the peasant producing his own food.

Associating agriculture and stock breeding does not succeed much better. Unable to let his animals wander, the peasant sacrifices two work-hours daily for feeding. Only the importance of animal draught justifies the workload represented by cattle breeding. As soon as income from rubber trees permits abandoning food crops, Batumarta settlers get rid of the cattle given by the project.

As for the agronomists' proposed cropping systems, does one really have to wonder why they were not accepted? What to think about these labor time-tables perfected by complicated computer simulations? What marvelous systems that eliminate both peaks and low points of work? Sustainable systems where three successive crops protect the ground all the time... Would the Javanese peasant work for his own pleasure? The low cost of manpower must have made some think that the peasant would work for nothing.

Nothing could be more inaccurate. The Javanese peasant is as careful as anyone about the return of his work. All proposals aimed at earning twice as much by working twice as much are irremediably condemned to failure. Unless, of course, the family's immediate survival is at stake. All proposals allowing one to earn more by working the same amount arouse some peasants' interest. A proposal letting one earn more while working less is immediately adopted. Is not the peasant's sweetest dream to limit his work to counting rice-sacks delivered respectfully by numerous share-croppers?

If the peasant is as careful as all that about the return of his work, why does he stubbornly refuse to apply the recommended doses of inputs? The production increase

would considerably raise the return of his work. Questioned on this subject, the settler invariably answers : "I have no money to buy inputs". However, the inputs are heavily subsidized and credit, like the *BIMAS* type, works rather well. In fact, the settler's answer should be interpreted : "I have no money to put into upland food-cropping". In other centers of Transmigration, the arrival of irrigation brought about an immediate, massive recourse to inputs judged too expensive the previous season. Irrigation lowers considerably risks linked to cultivation. Applying high doses of inputs to upland crops is not too expensive. It is simply too risky.

Already called "lazy" and "stingy", the peasant is "irrational", too. How else can one characterize this anti-economic behavior, this shameless wasting of bark, this overtapping of rubber trees, this bad management of capital generously offered by the government ?

Far from being irrational, the peasant's behavior grows out of a different rationality. Optimum income for invested capital is a capitalist entrepreneur's goal. This is not a peasant's objective (Mendras, 1976 : 39-54). For the peasant, the "correct" management of the capital offered by the government is that which lets him attain his priority goals, in the following order :

- family subsistence
- children's education
- improving housing conditions
- raising the standard of living.

Providing for one's family is obviously priority number one of every head of a family. It is certainly not by choice that he turns to off-farm work and neglects weeding his food crops. Hope of a future harvest does not appease hunger. In emergencies - serious illness, hospital stays - selling productive capital is often the only way out.

Peasants consider education as the best means of assuring their children's future. Parents are ready to make any sacrifice so that their offspring have access to secondary, if not higher learning. Their most sincere wish is for their children to enter the civil service.

Improving housing conditions entails building a modern house, a permanent, immense bungalow : brick, cement and tiles. Tinted window-panes and neoclassical colonnades cannot be confused with ordinary decorative elements. Like the carved friezes representing scenes of the *ramayana*, they testify to their owner's social status.

Productive investment comes in last. It can be seen mainly in extending landed property and plantations, but also in beginning commercial activities and in buying means of transportation.

But whatever the priority may be, the Javanese or Balinese peasant, confronted with an alternative, always chooses the solution that betters his social status. It is not the economic difficulties that push the Javanese to join the Transmigration. Becoming

landowners is their principal motivation. As in all agrarian societies, the Javanese peasants' social status depends on his landed property and real estate (Koentjaraningrat, 1985 :187-190). Becoming an agricultural worker on a plantation in Sumatra offers little interest. He might as well remain a day-laborer in Java, near his family. Opportunities are not lacking. This infatuation with landed property is seen again in the numerous land purchases made by Batumarta transmigrants, even though all still possessed land reserves.

The wish to see their children become civil servants cannot be explained by economic motivations, when one is aware of the present-day salaries in the civil service. But the prestige of old *priyayi* (the same term used to designate high ranking civil servant and aristocrat) still surrounds modern civil servants.

The 1,865 US \$ per family, invested by the State in rubber tree bark were basically reinvested in social status by the transmigrants : extending land domain, habitat, luxury social expenses, and to a lesser degree, children's education.

Without this initial gift, the transmigrants never could have invested in rubber tree culture. To be convinced of this, one has only to visit the many upland food crops Transmigration centers opened in Sumatra or Kalimantan for about twenty years. Thanks to this gift, six years were enough to make the wildest dreams of thousands of families come true. They needed only six years to become interested in rubber cultivation, to learn techniques and to metamorphose into planters. Today, the area of rubber plantations has more than doubled because of the peasants' own investment. Batumarta has become an important center of latex production, and of grafted planting material.

In all the Transmigration projects of the NES type, postdating Batumarta, plantation companies have set up particularly coercive frameworks to avoid overtapping the rubber trees. The gift has been replaced by a credit reimbursed by harvest. The adopted tapping frequency corresponds perfectly to the standards presently in use in the large estates managed like capitalist enterprises. For the peasants, little is left of the monthly income of 75,000 Rp per hectare after deducting credit reimbursement, inputs and management costs (to be compared to the average 200,000 Rp income per hectare in Batumarta, but without credit reimbursement or fees).

To be certain of getting their money back, plantation companies jealously guard their monopoly of the commercialization of rubber. Naturally, peasants want to sell at the most advantageous price while avoiding the deductions over which they have no control. This climate of suspicion frequently degenerates into plantation companies' excessive displays of authority. These excesses seem to us to be extremely detrimental to peace-keeping in the countryside.

The plantation companies follow the logic of capitalist enterprise. So transmigrants are not considered peasants, but simply agricultural workers. And, what is more, workers who are asked to reimburse productive investment and management costs. The situation is far from being acceptable to migrants. They are deprived of all

liberty to organize their work and have no control of certain expenses, billed automatically by the company. Have they only the basic freedom of every agricultural worker - that of looking elsewhere for more advantageous conditions ? Owners of a plantation that they do not really control, their flight would be too penalizing.

Settlers of Batumarta greet foreign visitors with open arms. They invite you to visit their new house, question you about the evolution of the price of rubber and speak to you about their children at university. At your departure, they thank you for what you did for them and you dare not admit that you did nothing.

The settlers of the NES projects greet you reservedly. They hesitate to speak and worry about your connections with the plantation company. Once assured of your independence, they manifest their concern for the future. At your departure, they ask you to do something for them and you dare not admit that you can do nothing.

### Conclusion

Batumarta has probably roused as much hope as deception. The project's designers, in particular, have seen almost none of their expectations fulfilled. Is it because of bitterness that some have come to the conclusion of the project's failure ? It is obvious that peasants refused to let themselves be trapped in the mold prepared by experts. To correct this, was it necessary to harden the mold ? Would not it have been better to remodel it with a view of peasants' desires ?

To us, it seems particularly prejudicial that the social objectives of Transmigration have been suppressed in favor of simply supplying cheap manpower to plantation companies. Whether it is rubber-, coffee-, or cocoa-production, the peasants have well proved their aptitude, even their superiority over big capitalist enterprises. The State has no interest whatsoever in favoring transformation of peasants into agricultural workers. What it earns in economic profit, it will lose in social stability.

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