

INSTITUTE OF SOCIAL STUDIES

Working Paper Series No. 234

AGROINDUSTRY AND CONTRACT FARMERS IN UPLAND WEST JAVA

Ben White

November 1996

Comments are welcome and should be addressed to the author:
c/o Publications Office - Institute of Social Studies - P.O. Box 29776
2502LT The Hague - The Netherlands

The Institute of Social Studies is Europe's longest-established centre of higher education and research in development studies. Post-graduate teaching programmes range from six-week diploma courses to the PhD programme. Research at the ISS is fundamental in the sense of laying a scientific basis for the formulation of appropriate development policies. The academic work of the Institute is disseminated in the form of books, journal articles, teaching texts, monographs and working papers. The Working Paper series provides a forum for work in progress which seeks to elicit comments and generate discussion. The series includes the research of staff and visiting fellows, and outstanding research papers by graduate students.

For a list of available Working Papers and how to order them see the back of this Working Paper.

For further information contact:

Publications Office - **Institute of Social Studies** - P.O. Box 29776
2502LT The Hague - The Netherlands - FAX: +31 70 4260799
e-mail [#publication_dept@iss.nl](mailto:publication_dept@iss.nl) (Attn: Publications Assistant)

AGROINDUSTRY AND CONTRACT FARMERS IN UPLAND WEST JAVA

BEN WHITE

Abstract

This study examines the experience of contract farmers in the hilly southern region of West Java, using illustrations from two types of upland contracting schemes. The nucleus in one case (smallholder dairy farming) is a cooperative, and in the second (smallholder hybrid coconuts) a large nationalized plantation corporation. In both cases contract farming communities deviate markedly from the neo-populist vision of homogeneous, modernizing family farms; differentiation is quite marked, and wage labour common. In both cases the institutional framework surrounding contract farmers is in serious need of democratization; the problem is not one of formal structures in need of revision but of actual function and substance of relationships, which reflect the nature and exercise of power in rural society.

Ben White, Institute of Social Studies, PO Box 29776, NL-2502 LT The Hague, The Netherlands. This paper is based partly on results of research carried out in the framework of the collaborative project 'Rural Productivity and the Non-Farm Sector in West Java, Indonesia' (1987-1991) by the Institute of Social Studies, The Hague; the Centre for Development Studies, Bogor Agricultural University and the Centre for Environmental Studies, Bandung Institute of Technology and financed by the Netherlands Ministry of Development Cooperation (Section for Research and Technology). Earlier versions of the paper were presented at the conference on "Agrarian Transformation in the Indonesian Uplands", Dalhousie University, May 1995 and the 8th Annual Workshop, European Social Science Java Network, Nijmegen, June 1995. Thanks for helpful comments to Henry Bernstein, Tania Li and an anonymous reader for the ISS Working Papers series.

Contents

Introduction	1
Contract farming and agrarian transitions	3
Indonesia and West Java: the agrarian and policy context	8
Smallholder dairy farming: the cooperative embrace	14
Hybrid coconuts on contract: the Cisokan Nucleus Estate	23
Conclusions: smallholders, contracting and local powers	38
References	40

INTRODUCTION

Plasma. 1712. 1. Form, mould, shape (rare) ... 3. *Phys.* The colourless coagulable liquid part of blood, lymph or milk, in which the corpuscles (or in milk, the oil-globules) float (Shorter Oxford English Dictionary).

Historical studies of agrarian change in Java have concentrated mainly on the impact of colonial systems for the production of export crops, and their interaction with a peasant "subsistence" sector; sugarcane seems to have captured the main attention of the agrarian historians, with upland crops being relatively neglected. From the early 1970s onwards, however, research has tended to concentrate more on "green revolution" studies in the many regions of irrigated rice production in which there is no significant involvement of peasants in export or commercial production of other crops.

Changing policies and production relations in the rice sector are of course important, paddy being still the largest single branch of agricultural production, and the one which involves the most people as farmers and labourers, as well as being Indonesia's most politically sensitive crop (cf. Hüsken & White, 1989). Besides this, however, a balanced picture of contemporary agrarian change in Java requires a broader range of research focuses, with more attention to changing agrarian relations in upland and forest regions (as in the pioneering studies of Peluso [1992] and Hefner [1990]), and -- in both lowland and upland regions -- the old (rehabilitated) and new branches of commercial agro-production for export and/or urban markets. Although we have heard much of Java's success in "green revolution" paddy production, the export and commercial non-staple agro-production sector is at present growing much faster than the major staple food crops; this is where the bulk of agrarian investment and capital formation will take place, and where national and international agribusiness interests, assisted by government, are looking for profitable investment opportunities.

The development of these various new forms of agro-commodity production (and the intensification of some old ones) has been accompanied by the official promotion (and in some cases, the autonomous emergence) of new organizational forms in production, processing and distribution. Much of this production is no longer organized along classical

plantation lines but through schemes which link smallholders by contract to a larger agribusiness core which exercises varying forms of control (and varying degrees of coercion) over the production process. These forms of production are of course not new -- contracted export-crop cultivation by peasants, whether forced or "free", was a historical forerunner of plantations in many cases, and was the basis of coffee, indigo, sugarcane and tobacco production under the Cultivation System (Elson, 1994) -- but they are growing in importance in Indonesia (WIM, 1994; Bachriadi, 1995) and Southeast Asia (Glover & Teck Ghee, 1992) as in many other world regions (Glover & Kusterer, 1990; Little & Watts eds, 1994). These developments have profound implications for questions of economic opportunity and welfare, and equally for the structure of rural society itself: " the dispersion of contract farming marks ... a watershed in the transformation of rural life and agrarian systems in the Third World in general" (Watts, 1994: 24). This aspect of agro-industrial development has been relatively neglected in research in Asia: while some recent studies have focused on the economic aspects of contract farming systems (for example, Glover & Teck Ghee, 1992) very few have attempted to integrate analysis of the social, cultural, political and economic aspects of contract farming and the specific forms of social change which it implies, in contrast to work on this topic in Sub-Saharan Africa (Little & Watts eds, 1994).

This paper examines the experience of contract farming in upland West Java, using illustrations from two types of upland "outgrower" production, each of which has a different history, a different kind of nucleus and a different type of agro-product. The nucleus in one case (smallholder dairy farming) is a cooperative, and in the second (smallholder hybrid coconuts) a large, nationalized plantation corporation. In the first case, contracted dairy farming was introduced in an unreformed agrarian context with marked inequalities in access to land; in the second, plots of equal size were allocated to participant farmers, thus in theory providing the basis for a more homogeneous community of small-scale commercial farmers. Before turning to cases, I will first consider some general issues on the role of contract farming in agrarian transitions, and also provide a brief introduction to the national and regional context of these West Java cases.

CONTRACT FARMING AND AGRARIAN TRANSITIONS

Contract farming is a particular way of linking commercial agro-production and agro-industry in which primary production (of annual or tree crops, livestock, dairy, poultry, eggs, fish, shrimps etc.) is not concentrated in large capitalist (or socialist!) production units but remains in the hands of "smallholders", linked institutionally through contracts to a larger "nucleus" enterprise which handles one or more of the upstream and downstream activities such as input supply, output processing and marketing. As has been noted by several authors, if plantation agriculture is the agrarian analogue of a large factory, contract farming "bears a striking resemblance to family-based sub-contracting enterprises in non-agricultural sectors" such as the garment industry (Wilson 1986: 470). These parallels with industrial sub-contracting, and some of their implications, are drawn out further by Watts:

The deepening of contract production in agriculture bears striking resemblances to so-called neofordism or 'flexible accumulation' in sectors of industrial capitalism with a growing reliance on multiple outsourcing through industrial subcontracts [...] Under contract in centralized systems, peasants work as *de facto* piece workers often labouring more intensively (i.e. longer hours) and extensively (i.e. using children and other non-paid household labour) to increase output or quality (Watts, 1992: 95)

The general theoretical importance of contract farming systems can be traced back to the formative period of debate on paths of agrarian transition in Europe (see especially the works of Lenin [1960; 1976], Kautsky [1988] and Chayanov [1966; 1991] and the possibilities of a path of agrarian transition and modernization based not on large, wage-labour based capitalist farm enterprises but on "small" (household-labour based) farm units linked vertically to larger, more capitalized enterprises (whether private or cooperative) which attend to the "agribusiness" part of modern agro-production. In this way, economies of scale -- which, the argument goes, are more operative on the upstream/downstream side than in primary agro-production itself -- can be captured at the points where they are needed. Arguments on the persistence of modernized forms of "family farm", their essential characteristics, and their status in overall capitalist (or socialist) settings, in both Europe, Africa, the Americas and Asia have continued to the present, particularly in the pages of the *Journal of Peasant Studies* (see for example, Bernstein [1979]; Bray [1983]; Chevalier [1983]; Clapp [1988]; Friedmann [1978; 1980]; Smith [1984]; Morvaridi [1995]).

Another stream of literature, more policy-oriented (i.e. less explicitly theoretical) but essentially covering many parallel issues, has focussed specifically on policies and strategies for the promotion of developmental forms of commercial agro-production for export and/or urban markets. This has reflected the interest of many large-scale (transnational) agribusiness concerns, and also the main international financing agencies for commercial agricultural development¹ in promoting "outgrower", "nucleus-smallholder" arrangements for the production of a variety of export crops. This has included in some cases the breaking-up of large plantation units and their transformation into outgrower schemes. There is a wide range of schools of thought on the pros and cons of such schemes and their ability to provide a path away from rural poverty through rural employment and income generation; not surprisingly, it is a field of agricultural policy in which opinions tend to be strongly held and firmly expressed. Glover (1984) for example contrasts the "Harvard Business School" approach to contract-farming and outgrower schemes (highly favourable) with the "Food First" approach (highly unfavourable). A good example of the first is Williams and Karen's *Agribusiness and the Small-Scale Farmer* (1985), a study commissioned by the Bureau of Private Enterprise of the United States Agency for International Development; the authors' general conviction that "for-profit companies ... of whatever size or origin, are the most dynamic mechanism for economic growth and social development", when translated to the agrarian sector, leads them to conclude that

agribusiness has found a fit in practically every social structure, every stage of human development, and where the industry has prospered, the people involved have begun to prosper, [...] agro-industrial enterprises with a satellite farming procurement system, sometimes called 'nucleus estates', have a unique capability to transfer technology very rapidly and to generate widespread participation by local people (Williams and Karen, 1985: 1,8)²

¹ Among them the World Bank, Asian Development Bank, the British-based Commonwealth Development Corporation CDC and the Dutch *Financieringsmaatschappij voor Ontwikkelingslanden* FMO.

² There is no standard terminology for the different types of contract farming arrangements. In this study "contract farming" is used as a generic term covering all types of farm production on contract (other authors sometimes use "satellite farming" as the generic term, reserving "contract farming" for private-sector contracting schemes, cf. Glover, 1992: 3); "outgrower scheme" refers to government contracting schemes in which public enterprises purchase crops from farmers; "nucleus estate smallholder" (NES)

On the other side, some authors argue that the interest of large-scale capital and international agencies in "small peasant" (family-farm) forms of production represents an attempt to subjugate them to capital in a form which allows the surplus profit from agricultural modernization to be captured not as profits for direct producers but as profits for the "core", and transforms peasants into a class of virtual "development peons" (Payer, 1980). Watts, in a series of publications since the late 1980s has explored the "disguised proletarian" character of contract farming: "peasants produce under contract in varying positions of unfreedom and accordingly constitute a distinct class that may be seen as a fraction of an emerging global proletariat" (1994: 71, cf. also Watts 1990, 1992). This view echoes Chayanov's observation seventy years earlier that "new ways in which capitalism penetrates agriculture ... convert the farmers into a labour force working with other people's means of production" (Chayanov, 1966: 262); it needs however to be combined with awareness of the tendencies to differentiation and wage labour within contract-farming communities, as will be argued further below.

While various types of contract farming can be distinguished, the most important characteristic of all contract-farming relationships is their insulation of small-scale producers from the open market (Wilson, 1986: 48-51). It is in this aspect that the potential advantages, but also the potential disadvantages to smallholders can be seen. By leaving direct production in the hands of smallholders, contracting enterprises avoid many of the risks involved in agricultural production and the problems of fluctuation in demand and supply by passing them on to smallholders (compare the similar classic arguments for subcontracting in manufacturing industry). Under contract farming arrangements (compared to plantation agriculture or large-scale capitalist farming) the farmer "...contracts to sell his [sic] crop, not his labour."³ As a result, by reducing its need for labour, the contracting agency can cut back expenditure on labour management and supervision and avoid potentially

schemes are a sub-type of outgrower schemes, in which the corporate nucleus administers a plantation as well as processing plants, and where contract purchases supplement plantation production.

³ One of the ironies of household-based contract farming systems is that it is often precisely a case of "his" crop and "her" labour. These forms of agro-production have many implications for the involvement and remuneration of women, youth and children.

damaging labour disputes" (Kirk, 1987: 47). By buying produce from "family farms" rather than labour from wage-workers, and thereby shifting all problems of labour recruitment and control onto the producer household the contracting agency may gain access indirectly to the unpaid labour of smallholder household labour (including the labour of women and children), through the Chayanovian capacity for "self-exploitation" of the peasant household.

For smallholders such arrangements do offer some potential advantages compared to production for an "open" market. To some extent they can more reliably forecast their incomes (if the "core" provides price guarantees, and keeps to its side of the agreement); through the link to the "core" they can indirectly capture economies of scale in access to material inputs and support services (but again, only if these economies are passed on to them in the form of input prices lower, and output prices higher than those offered on the open market), and they can gain access to larger markets for their output (Goldsmith, 1985: 1127). Contracting *in itself* does not necessarily spell hardship or doom for smallholders, and in fact, all over the world, contracting of some kind is a necessity for many or most forms of modern commercial agriculture. Certainly growers of non-staple crops destined for distant or export markets will nearly always have entered some kind of advance contract with a buyer, and the buyer will in most cases have included one or more specifications as to production conditions.

The crucial (potential) problem for contracting smallholders in their insulation from "open" markets lies in the division of value added between themselves and the core. In all food commodity chains (or *filières*: Bernstein, 1996) the setting of prices at the various points in the production, processing and marketing chain is not a matter of "real" value added or of supply-demand interactions, but reflects more the relative social/political bargaining strength of the parties involved. Contract farming, through institutionalizing monopoly/monopsony relations between farm and agribusiness, can reflect this property of "real" markets (Mackintosh, 1990) in exaggerated ways. It is often argued, for example, that industrial subcontracting structures permit the contracting agency to accumulate on the basis of value added generated by small producers, but not captured by them due to price manipulation.

Smallholder (primary and secondary) cooperatives in theory are an organizational form which permits smallholders (as their members and collective owners) to overcome these

problems. In theory, in cooperative formations it does not matter where the distribution of value-added and profits falls between smallholder and cooperative core, since profits at the core are anyway owned by, and returned directly or indirectly to, its farmer-members. However, as with markets abstract and "real" cooperative practices often diverge sharply, as we will see below in the case studies.

The only thing that binds all contract-farming and outgrower schemes together as an analytical category is the existence of a contract. Here, it is important to bear in mind that "the contract is a representation of a relationship rather than the relationship itself, and the divergence between the two may prove crucial"; this perspective helps us to move beyond narrow, legalistic and mystifying notions of the contract as a bargain freely made by two equal parties as found in neoclassical and agribusiness literature, towards a more useful view of the contract relation as a "social relation of domination" and "an attempt to naturalize an unequal social relation and to represent that inequality as just" (Clapp, 1994: 79, 92f.).

This brings us to a second general point; whatever organizational form of contract farming is chosen, its implementation takes place in specific and concrete social and political environments, in which various actors and groups may exercise sufficient local powers to subvert and manipulate the scheme in their own interests. In short, contract farmers like any other small farmers are potential prey for whatever social-political predators may be present in a particular national or local context; such predators may be located either within or outside the agribusiness core.

So far we have discussed only problems which may arise in the relations between "core", contracting smallholders and various potential predators. The actual structure of production relations in many or most contract-farming formations is more complex than this, and research must also be alert to other sets of relationships below the level of the nucleus-smallholder relation, for example those between smallholders of different scale and power in a differentiated rural society, and also between the so-called "smallholders" and those who work for them (see for example Porter & Phillips-Howard, 1995). In many cases, "smallholdings" in contract farming schemes are not actually "family farms" (family-labour based production units) but small or medium-scale enterprises based mainly on wage labour. In cases where the smallholding is indeed a family-labour based production unit the relations within household units also require study; particularly the internal division of labour,

decision-making and control of earnings between household members based on hierarchies of age and gender. The position of women within contract farming systems, for example, seems to have received little attention to date (exceptions are Carney, 1988 and 1994; Mackintosh, 1989), and also the position of children and youth.

Contract farming, then, is one way in which West Java's (and Indonesia's) upland cultivators⁴ are being "captured" or incorporated into wider economic circuits, often involving a shift from mixed-farming to monocrop cultivation. But just as there is a great variety of paths of transformation in both uplands and lowlands, within the broad category of "contract farming" there is also a great variety of situations and processes at work. As Little notes, the diversity of contract farming is so great that it is more useful to focus on the actual content (rather than the formal structure) of contracting relations in specific cases and the motives and power relations of those involved, rather than looking for blanket conclusions about contract farming as a generic institution (Little, 1994:218f.).

INDONESIA AND WEST JAVA: THE AGRARIAN AND POLICY CONTEXT

During the late 1980s and early 1990s Indonesia experienced healthy economic growth rates in both agriculture and industry. In agriculture, both food and commercial crop production grew steadily; besides that, industrialization was rapid and dramatic, stimulated by various structural adjustment and deregulation measures which accelerated the transition from import-substitution to export-orientation (Hill, 1995). The rather rapid transfer of labour to industry (with a growth of almost three million manufacturing jobs during the 1980s in Java) did not lead to any tightening of the labour market, as might have happened in a smaller population; in the early 1990s neither agricultural nor industrial real wages had shown any significant increase since the mid-1980s and wage levels in Java at the time of our research

⁴ Also some of those in lowland irrigated areas where since 1975 smallholder sugarcane "TRI" (*Tebu Rakyat Intensifikasi*) schemes have largely replaced the system of rental of peasant *sawah* by the sugar factories for sugarcane cultivation using wage labour, which had prevailed for the previous century (see for example Mackie and O'Malley, 1988; Hartveld, 1995).

remained among the lowest in Asia (Manning 1993: 79-82; Jones & Manning 1992: 379-383).

Agro-industrial development, and the forms it may or should take, are matters of considerable importance for Indonesia. There is active government promotion (both through government spending and the encouragement of private and corporate investment) in the development of both old and new agro-products for export and urban markets. Since the mid-1970s a series of Presidential Decisions and other regulations have established institutionalized contract farming or outgrower ("PIR") systems as the preferred -- and in some cases the only permitted -- form of production in many branches of commercial agro-production, including sugar cane, tree crops (such as tea, rubber, oil palm and coconuts), dairy, poultry and egg production and coastal brackish-water shrimp ponds (*tambak*).

The contracted smallholder form (besides reflecting the new orthodoxy of the World Bank, which since 1975 has preferred outgrower schemes over plantations) responds not only to neo-populist ideology and nationalist sentiments (the distaste for large-scale capital in general and foreign capital in particular), but also to democratic rhetoric, holding out the vision of an agrarian society based on small-farm units, using household labour, modernizing, prosperous, homogeneous and democratic, particularly where cooperatives are involved (as they nearly always are, if only by fiat, in Indonesian contracting schemes); in short, a Chayanovian dream. There is also, however, a darker underside to this vision of a sturdy modernizing peasantry, which reflects instead a discourse of control, in both its technical and political aspects. On the technical side, contract farmers (at least in government-promoted schemes) are totally dependent on the nucleus for all inputs, and all production decisions except those relating to labour; on the political side, at least in politically sensitive regions with a history of separatist movements (as in West Irian and Aceh) or leftist movements (as in many plantation regions), where tree-crop nuclear estate schemes are now commonly promoted, there is undoubtedly an agenda for political control. The passive, disembodied and uncreative character of the ideal Indonesian contract farmer is reflected (perhaps accidentally) in the term commonly used in official documents to refer to outgrowers: *petani plasma* ("plasma farmers"), which to English-speaking ears at least

connotes a formless, pliable mass;⁵ a being less active even than the Department of Industry's official symbol for the ideal industrial-sector worker, the black ant (*semut hitam*).

West Java: Jakarta's agrarian hinterland

West Java shares many of the features of other provinces of Java, but with somewhat more accentuated agrarian inequalities. Population densities (760 persons per square km at the 1990 Census) are somewhat lower than in other provinces of Java (although the gap is closing, due to West Java's more rapid population growth); some parts of West Java are among the most densely populated rural districts in the world, but with 80 percent of the population concentrated in the north-coast plain and central-plateau regions, the hilly southern zone is relatively sparsely populated. There are great regional variations in landlessness rates, which may be as low as 20 percent in some upland regions but as high as 80 percent in some coastal-plain regions (Suhendar, 1995).

These patterns have been established in West Java since colonial times. In 1905, according to statistics from the 1905 Declining Welfare Inquiry, already 51% of all West Java's 1.3 million households owned no land. Because of the combination of population pressure and unequal distribution of landownership, the majority of landowners had holdings not large enough to support a household. If we take as a rough guideline the area of 1 bahu (0.7 ha) as the dividing-line between "marginal-farm" and "substantial-farm" households, at the beginning of the 20th century the total of landless and "marginal-farm" households was no less than 85 percent of all households, and only 15 percent could be considered "substantial" peasant households (*Mindere Welvaart Onderzoek*, 1911: IXc, Appendices 1 & 10).

Some eighty years later, just under one half of West Java's 5.3 million rural households had no access to a farm (either owned or rented), another 30 percent could be called "marginal" farm households (with operated holdings of less than 0.5 ha) and only 22 percent had farms of 0.5 ha and above. These figures reflect both absolute population pressure (with only 0.36 ha of land now available per rural household, and average farm size of 0.6 ha for those with access to land), but also inequality in access to land: 55 percent of all agricultural

⁵ see the dictionary definition at the beginning of the paper.

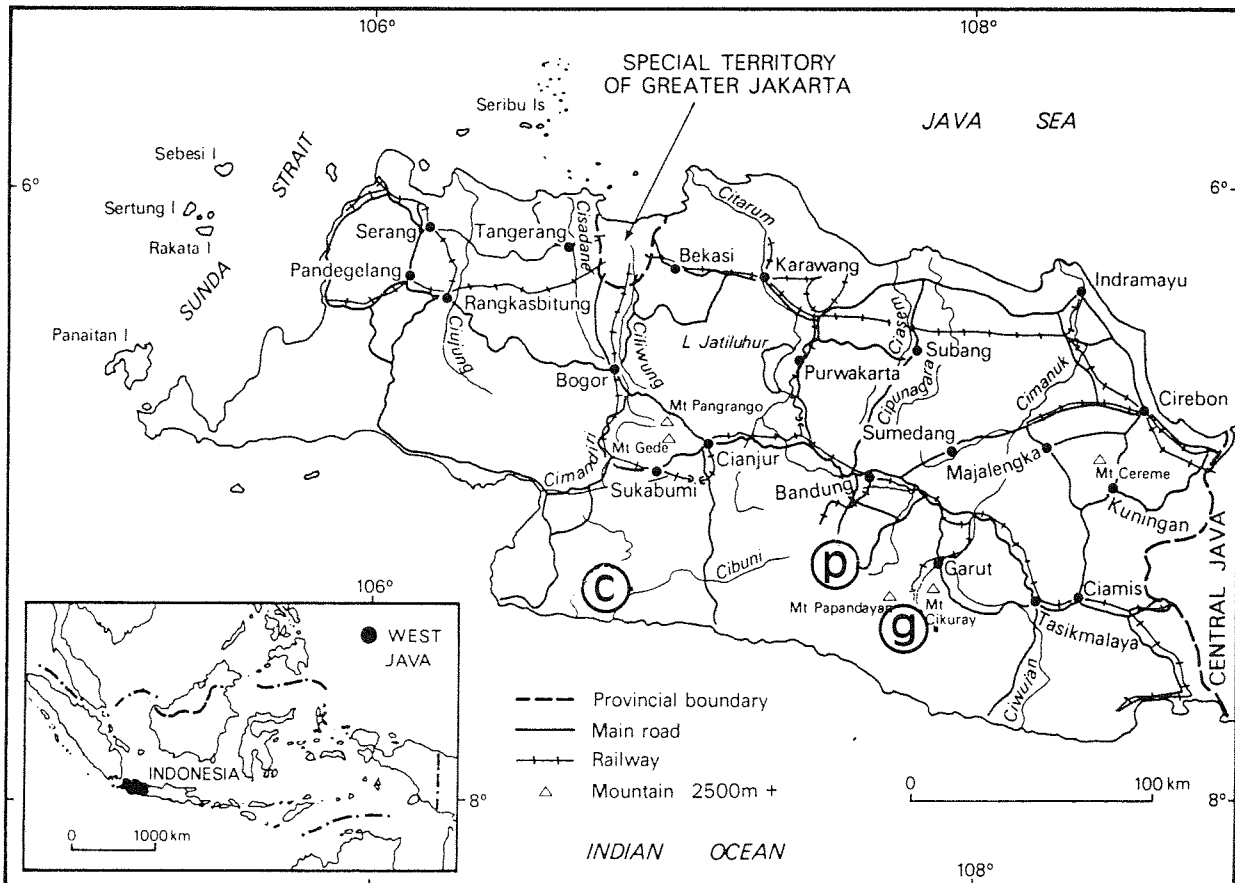
land is farmed by the less than 10 percent of rural households with farms of 1.0 ha and above, with an average holding of 2.1 ha (*Biro Pusat Statistik*, 1986: Tables 1 & 3). Under such conditions, both in the past and at present members of the majority of rural households have been involved in a number of income-earning activities outside the "family farm". These activities include agricultural wage-labour in both the peasant sector and in large-scale plantations; handicrafts and industries, petty trade, etc. (White, 1991).

West Java has a long and complex history of agro-production for export. It has a relatively large percentage of its agricultural land area in large (government and private) estates compared to the rest of Java and also, as recent discussions in the national and local press have documented, a high proportion of so-called "neglected estates" (*perkebunan terlantar*) which are considered not to be fulfilling their economic and social function in terms of productivity, export revenues and employment, so that the search for an appropriate future for West Java's estate lands is a topic of high current policy relevance. At the same time, West Java's location close to the large urban centres of Jakarta and Bandung and to export outlets through Jakarta, makes it a preferred location for investment (both foreign and national) in various forms of commercial agro-production of high-value crops (vegetables, fruits, flowers), livestock and dairy production, poultry/eggs and various kinds of fisheries and shrimps production for export and/or urban markets; many if not most of these dynamic forms of agro-production are based on contract-farming lines.

The hilly southern region of West Java, stretching from Pandeglang and Lebak to the West to Tasikmalaya and Ciamis in the East [see map] is the least irrigated (only 13 percent of total land use) the least densely-populated and the relatively least accessible part of West Java. Much of it was devoted to shifting cultivation until the opening-up of the region to plantation production, mainly rubber and tea, in the early 20th century (Van Doorn & Hendrix, 1983). The national revolution (1945-49), subsequent nationalization of Dutch enterprises (1957-1958) and the fundamentalist Darul Islam rebellion (defeated in 1961) led to widespread collapse of plantation production and the virtual depopulation of much of the region. During the 1960s and 1970s, the nationalized plantation corporations began the

MAP 1

WEST JAVA, SHOWING CASE STUDY LOCATIONS



(p) Pangalengan

(g) Girijaya

(c) Cisoka

rehabilitation of the larger plantations, but many of the smaller ones remained abandoned and were gradually re-occupied by peasants (those who had formerly fled the region, or new immigrants from the West Java's Central plateau and from the Western parts of Central Java) in search of land for mixed dry-land cultivation. The region thus contrasts with much of the rest of Java, in that it has had until the 1980s much of the character of a pioneer settlement region, and access to land has been relatively easy. An important related feature is the relatively insecure status of land tenure; many peasant holdings lie on what is officially classified as state land (*tanah negara*) and while those who occupy it may have "purchased" it from local officials and paid taxes on it (with certificates to show it) they do not have formal ownership title.

Although rehabilitation of the larger plantations was a focus of government intervention and World Bank lending from the late 1960s onwards, it is only since the early 1980s that major attention has been paid to the (re-)incorporation of the peasant sector of this southern zone into more intensive commercial production. This has been stimulated not only by the relative economic backwardness of the region, but also by the desire to establish greater political control in a region which was both the basis of the Darul Islam rebellion and (on and around the plantations) a site of considerable support for the Communist Party (PKI) and its labour-union and peasant affiliates (SARBUPRI and BTI).

Two aspects of this re-incorporation are the stimulation of Nucleus-Estate Smallholder schemes for tree-crop production (*Perkebunan Inti Rakyat Tanaman Perkebunan* or "*PIR-BUN*") under the aegis of the State Plantation Corporations PTP XI and PTP XIII with a major World Bank loan (1980) in the more remote regions bordering on the southern coast, and in the higher-altitude regions of tea and temperate-vegetable production bordering on the Central zone, the rapid expansion of smallholder dairy production, linked to cooperatives and through them to West Java's four large-scale Milk Processing Industries.

SMALLHOLDER DAIRY FARMING: THE COOPERATIVE EMBRACE⁶

The management of cooperative societies is seldom completely in the hands of their members (Mosher, 1965: 155)

Surely the founders of the cooperative movement did not even imagine that members would be forced to participate in cooperative associations (Csaki & Kisler, 1993: 1)

Indonesia is neither a big consumer or producer of milk and dairy products; however, a large proportion of domestic demand is filled by imports. In recent years, and particularly since the mid-1970s, intensive efforts have been made to stimulate domestic dairy farming, mainly by smallholders. These include efforts on both the supply side (various services to producers, some of which will be mentioned below) and the demand side, the latter mainly in the form of an annual increase in the minimum amount of domestic fresh milk which the six main dairy processing industries are required to purchase, at prices normally around twice those of imported milk.

Unlike some other Asian countries, local breeds of cattle and buffalo are not milked; all dairy production is therefore based on imported breeds or their descendants, Friesian Holstein being the most common. Three separate government programmes have imported dairy cattle from Australia and New Zealand. In the ten years 1977-1986, the population of dairy cows rose from 32,000 to 205,000, and the quantity of fresh milk sold to commercial dairy processing factories rose from 1.3 million to 151 million litres, and domestic milk had risen from less than 5 percent to almost one-third of total national consumption. Government regulations recognize three approved forms of dairy development: first, the standard "Nucleus-Estate Smallholder" (*PIR-Persusuan*) form; second, smallholder dairying linked to a cooperative "nucleus" which provides inputs and handles outputs; and third, large-scale private or corporate dairy farms. In the late 1980s only one PIR dairy scheme had been established (in Central Java, and collapsed after a few years; Bachriadi, 1995: 98-120); and although a few large-scale dairy farms could be found, more than 90 percent of Indonesia's

⁶ Unless otherwise indicated information in this section is drawn from Juni Thamrin's case-study (Thamrin, 1992) based on field data collection in 1988-89.

197,000 dairy cattle in 1988 were in the hands of smallholders, nearly all of them in upland and mountain regions.

In regional terms, West Java is Indonesia's main dairy producer, currently providing more than half of Indonesia's national dairy output, with 310 tons of fresh milk daily from 69,000 cows; this number has increased spectacularly in the past decade, from only 6,600 head in 1979. In the late 1980s the dairy cattle population was increasing by 6 percent per year, and fresh milk output by 10 percent per year. Within West Java, production is concentrated in the hilly areas of Bandung district (with over 60 percent of West Java's total dairy output), but there are also significant clusters of production (each with more than 2,000 head of dairy cattle) in the districts of Bogor, Sukabumi, Cianjur, Garut and Kuningan.

The primary dairy cooperative (or dairy unit of a rural multi-purpose cooperative) in theory is the vehicle for smallholders to strengthen their bargaining position through joint sales of milk, joint purchase of inputs and providing the first stage of milk treatment to avoid contamination and spoilage. Smallholder dairy farms deliver fresh milk to collection-points of the cooperative twice a day, where the milk is tested for quality. From these collecting points the milk is delivered to the cooperative. The secondary cooperative (in this case the *Gabungan Koperasi Susu Indonesia*, Federation of Indonesian Dairy Cooperatives) is in theory expected to provide an "umbrella" for the primary cooperatives, for example by lobbying and negotiating milk prices with the milk processing companies, mediating and taking steps to avoid inter-cooperative price wars or conflicts about milk quotas. The GKSI, with its 8 regional commissariats in various provinces, now embraces 182 primary dairy cooperatives. West Java's 40 primary dairy cooperatives are quite heterogeneous; some have their own milk treatment plants, coolers and tanker-trucks, while others have none of these. As a result, there is much variation in milk quality, also in the prices received by farmers.

An estimated 98 percent of milk production goes from the cooperatives to one or other of West Java's four large-scale Milk Processing Industries (*Indomilk*, *Friesche Vlag Indonesia/FI*, *Ultra Jaya/Dafa* and *Tirta Amarta Agung*) each of which is subject to a minimum quota or ratio of domestic to imported milk purchase. The cooperatives are highly dependent on these companies, and often have considerable problems with them, particularly with late payment and the rejection of milk on quality grounds. With imported milk costing only about half as much as domestic milk, not surprisingly there is a market in "Certificates

of Domestic Milk Absorption". In the early 1980s the government instituted a "single import channel" policy, giving a state-owned corporation the monopoly on milk imports for all industries using dairy inputs, in order to prevent widespread cheating on the import quotas. In the case study which follows, however, we will more on the relations between primary producers and cooperatives rather than on those further upstream and downstream.

The research locations

Two locations were chosen for this case study. First, representing the more remote and peripheral areas, with less experience in dairy production, the village of Girijaya in Cikajang sub-district (Garut district: see map), in which dairy production began only in 1973 when 23 dairy cattle were introduced by one of the programmes mentioned above, and is now served by a dairy unit of the local multi-purpose Village Unit Cooperative (KUD); and second, representing the more advanced regions of dairy production, West Java's *prima donna* of dairying in Pangalengan (Bandung district), which has a long history of dairy production since the colonial period, and a large specialized dairy cooperative now serving almost 7,000 dairy farmers.

Girijaya is a village of almost 4000 inhabitants (870 households) with only 377 ha of land. Temperate vegetables, tea (estate and smallholder) and dairy are the main agricultural products. Access to land is extremely unequal, belying the often-held view that patterns of land tenure are relatively undifferentiated in the more remote, upland areas of Java. About 40 percent of households appear to have no land and a further 37 percent only marginal plots of less than 0.25 ha. A minority of 7 households (less than one percent of the total) between them own more than two-fifths of all privately-owned land in the village. In village records, only 16 percent of household heads give their main occupation as "farmer", while 73 percent are recorded as "labourers". Local wage opportunities are mainly in tea estates and vegetable farms (both men and women, but with greater numbers of women), and as *tukang pikul* (shoulder-pole porters carrying loads of vegetables from the steep hillside fields to waiting trucks on the nearest accessible road).

The marginal-farm households with less than 0.25 ha tend to plant relatively low-risk, low-investment crops such as tea, chilies and kidney beans; however, they may be persuaded to grow the more risky temperate vegetables (potatoes, carrots, cabbages) if offered an

advance for input costs by a trader. The larger farm households tend also to plant these vegetables, which have wilder price fluctuations and high input costs but sometimes offer large profits. The largest dairy farmer has ten cows, the smallest only one; the most common number is two. Nearly all the dairy farmers have other sources of income and are derived from the upper or middle strata of this relatively poor village. Although dairy cows are available on credit, a down-payment of Rp 150,000 - 200,000⁷ in cash is required, and it is unlikely that labourer households can afford this when basic agricultural wages are around Rp 1,000 per day for men and Rp 750 for women. Given the still relatively small numbers of cattle, fodder grass is not an important constraint. Dairy farmers normally buy fodder from tea-plantation workers or other landless workers for Rp 500 per *pikul* (shoulder-pole) load of about 50 kg.

One large extended family network based in hamlet S in Girijaya (many of whose members have salaried positions outside the village) controls the local Cooperative with family members in its key positions; another (based in hamlet C) dominates agriculture and agricultural trade. Although actual kinship and marriage ties between these two extended families are quite thin, kinship is often invoked in relations between their individual members, for example when wealthy farmers from C are given priority in access to subsidized credit for purchase of dairy calves by cooperative officials from S.

Pangalengan is a small market town, in the hills some 30 km south of the provincial capital Bandung. Its population is just over 15,000, in 3,458 households. It has the same climatic conditions as Girijaya and more or less the same dominant crops. Patterns of land tenure are similar at the bottom end to those of Girijaya (with about 44 percent landless, and 35 percent with less than 0.25 ha), but somewhat less concentrated at the top; if village land records are to be believed, less than 4 percent of households own about 44 percent of all the land.

Dairy farms and dairy firms have existed in Pangalengan since the late colonial period. The four dairy enterprises remembered from the colonial period (*De Friesche Trep*, *Almanak*, *van der Els* and "Big Man") were destroyed during the Japanese occupation and

⁷ Indicative exchange rates at the time of research (ca. 1989) were: US\$ 1.00 = Rp \pm 1,700. Dutch guilders 1.00 = Rp 800-850.

many of their cows passed into the hands of local peasants, who were interested in them more as a source of manure than of milk. One of these firms, now under the name *Almanak Mas Indah*, survives as one of the few commercially-managed dairy farms in Pangalengan. The largest dairy farm in Pangalengan now has 50 cows, and the smallest only one, but the average is four cows (i.e., more than in Girijaya). Dairying is now really established in Pangalengan, with village-office records showing 30 percent of household heads with dairy farming as their main occupation, only 10 percent with larger (crop) farms, 20 percent in various non-farm (self-employed) occupations, and 40 percent in wage labour on crop farms, dairy farms or the tea estates. With the increase in dairy cattle, grass is becoming a real problem. Most small dairy farms have turned over any farmland they may have to the production of elephant grass, some of those with larger holdings rent out their land for Rp 30,000 per month per *parok* (=400 m²) for planting with elephant grass (which sells for Rp 15-25 per kg); in the dry season when local production is often insufficient, women sometimes join together to rent trucks for a 40 km journey to the slopes of Mt Wayang in search of grass, paying Rp 1,000 for the transport of every 60-80 kg bundle of grass they manage to collect.

In Pangalengan, in contrast to Girijaya, various household or small-scale milk products industries have developed; 18 such industries make a variety of milk-based sweets, crackers and snacks. Basic agricultural wage rates seem to be somewhat higher than in Girijaya: Rp 1,250 - 1,750 for men, and 750 - 1,000 for women, for the same six-hour work period. Another sign of the relatively better labour-demand situation in Pangalengan is the fact that conditions offered by cattle-owners to their "share-croppers" are somewhat better (see below).

In both locations three distinct types of dairy farming unit are found. First, the larger dairy farms (usually with more than ten cows) use virtually exclusively wage labour. For the owner households these dairy enterprises normally represent an investment in diversification (capitalized by surplus from other activities) rather than a shift from one activity to another. These households have easy access to credit and other facilities, a relatively cosmopolitan outlook and are close to local officials and political circuits. Their labourers often live in or next to the house, and are on call 24 hours a day. Secondly, "family" dairy farms (normally with 2 - 6 cows) use mainly family labour (with women and

children providing an estimated 60 percent of all labour inputs). In Pangalengan, many of these family dairy farmers (most commonly with four cows to feed) have turned their small farms completely over from commercial vegetables to elephant grass. One important appeal of dairy cattle compared to vegetable farming is the regularity of incomes, payments for milk from the cooperative being made every two weeks. These households are usually chronically in debt to the cooperatives for the dairy calves and other inputs purchased and (in the case of Pangalengan) for consumer goods. Nevertheless the majority of household heads in this category have other sources of employment as agricultural workers, in petty trade or services; in practice dairy work is carried out mainly by women and children with male household heads limiting their contribution to the morning and evening milking. Finally there is a form of dairy "sharecropping" (*maro*) in which the owner provides the cows and stalls, the sharecropper household the labour and the land (if any); the owners in this case are local government officials and other civil servants, wealthy traders and landowners. The product (and any calves born) are normally divided 50:50; in Pangalengan (but not in Girijaya) the owner also contributes 50 percent of paid-out (non-labour) costs.

Although in the larger, labour-hiring units with four or more cows (one worker looks after 3-4 cows) the net daily income from milk sales is quite comfortably above the cost of hiring labour, the use of family labour (particularly by women and children) is a crucial cost-saving measure for the smaller and "sharecropper" units whose dairy calves have been purchased on credit. The gender and age division of tasks in dairy farming is not particularly strict, the relatively firmest practice being only that children are rarely permitted to do the actual milking, and adult males only rarely deliver milk to the collection-points (a task which, as we will see later, often involves humiliating encounters with the cooperative's quality testers); the great majority of the routine tasks (collecting grass, feeding the animals, cleaning the stalls, milk delivery, purchasing inputs) are performed more often by women and (male or female) children than by adult men, and only one (washing the animals) more often by adult men. The overall balance is certainly one in which most of the work in dairy production is done by women and children, while cows predictably are registered as owned by male heads of household, who also are the members of the cooperative.

Dairy farmers and cooperatives

Dairy farmers in both Pangalengan and Girijaya are firmly in the embrace of the cooperative, on which they are almost completely dependent for the provision of inputs and the marketing of their output. The two cooperatives are quite different in scale. Pangalengan is the location of West Java's star dairy cooperative, the Southern Bandung Dairy Cooperative (*Koperasi Persusuan Bandung Selatan*), one of only two such specialized dairy cooperatives in West Java which covers 14 villages, has almost 7,000 members, 227 staff, 5 veterinary surgeons, its own Milk Treatment Plant, and is housed in much the largest building in town, a large modern multi-story office building. Girijaya's dairy cooperative needs, by contrast, are served by a sub-unit of the local multi-purpose rural cooperative, the KUD (*Koperasi Unit Desa*) Cikajang, with very meagre resources. Despite these differences, however, the farmers in both locations appear to have a similar set of problems with the cooperative.

The cooperatives provide farmers with inputs (dairy calves, feed concentrate, dairy equipment [milk churns etc.] and medicines), all of which can be paid by deductions from the two-weekly payments for fresh milk. Members are not allowed to sell milk outside the cooperative, even though prices are better. Quite rigid controls are exercised; if a particular farmer's recorded output suddenly drops, cooperative officials will investigate the cause. Other (would-be) independent milk buyers are given warnings, and if necessary the local civil guard or sub-district police are brought in, to keep members out of contact with them. Independent input suppliers are also not allowed to operate, unless in collaboration with the cooperative. Although cooperatives in principle should be able to provide inputs to members at lower than private-sector prices (because of the wide range of concessions and subsidized facilities, including credit, which they enjoy) their prices are in fact higher than market prices; one important cause of this being that these items are supplied to the cooperatives by their officials or associates on a private basis, at inflated rates. One apparently trivial but typical example is milk churns in Pangalengan. The cooperative's milk collection-points will not accept milk that is not brought in standard 10-litre churns (*bes*). Farmers are obliged to buy these churns from the Cooperative, a very low-quality tin-plate variety, which has to be replaced after about a year, for which they are charged Rp 24,000, payable by monthly deductions of Rp 2,000 from their milk payments. The cooperative will be able to sell about 8,500 *bes* per year, for Rp 204 million.

In Girijaya in 1989, there had been no distribution of the cooperative surplus (*Sisa Hasil Usaha/SHU*) to members since 1979. At each Annual Members' Meeting (to which ordinary members are not invited, only representatives of Farmers' Groups), it was announced that the SHU would be used to build a fine permanent office, to buy a tanker-truck and other vehicles to enhance the officials' mobility while only the last of these expenditures has actually been made and deductions for each of them are already made in the regular process of milk payments. In Pangalengan there had been some distribution, but members were not told how it was calculated: meanwhile, the "fat content bonus" (a cash supplement above the standard milk price) received by the Cooperative had not been passed on to the members for ten years.

Each cooperative has a Board of Inspectors, headed by (in Pangalengan) the uncle and (in Girijaya) the father-in-law of the cooperative chairman, who are themselves quite closely involved in the business activities of their relatives' cooperative fief. The KPBS Pangalengan officials have gone further than those of Girijaya in transforming the cooperative into a means to create and protect the market for goods traded by themselves. Members are now under considerable pressure to purchase their own subsistence and consumer needs from the Cooperative, paying through deductions from their milk payments. The practice of cooperative sales of items like sugar, kerosene and soap to members is officially encouraged, but as a means of lowering the price to the members. In practice, our informants tell us, these items are higher priced and/or of lower quality than elsewhere. Not only basic goods, but also relatively luxurious items are sold: for example, a type of cooking-oil (Bimoli) costing about three times the type normally used by the members, and imported Nike and Adidas shoes.

Considerable persuasion is apparently applied to members to maintain a regular level of purchases, repaying in twice-monthly installments. When pay-day comes round, many farmers find that they receive no cash at all, but a "red" instead of a "blue" chit (notice of deficit account). In the list of ten activities which the cooperative is formally supposed to undertake, no less than six have become private business avenues for the officials or their relatives: the supply of dairy calves, feed, farm equipment, household basic needs, and other consumer goods, and the transport of fresh milk. Only the purchase and of fresh milk and

its treatment, veterinary services and artificial insemination remain outside their grasp as cooperative activities.

Without wishing to overburden the reader with further examples, the position and role of private milk traders (*bandar susu*) deserves mention. Although the private milk trade is formally prohibited by the cooperative, private traders in both places purchase "sub-standard" milk rejected at the collection points; milk is tested minimally for coagulation and density, and the women and children who carry the milk-churns to the collection-points may often be seen outside the collection-point, pouring milk from one churn to another in the hope that the agitation will lessen the chance of rejection). The cooperative's milk testers are often in collusion with the *bandar susu* who may, for example, buy rejected milk at Rp 100/litre (if it is actually spoiled) and Rp 140/litre if it is not really spoiled, and then sell it back at the end of collection-time, to the same collection-point and bypassing the testing process, for the standard price (around Rp 385/litre in Pangalengan). In Girijaya (where, unlike Pangalengan, the cooperative does not expect members to buy "in-house" subsistence and consumer items) these *bandar susu* also sell consumer goods on credit (at three times the normal cash price) and also offer cash loans, in both cases collecting in daily installments of fresh milk; a loan of Rp 10,000, for example, is repaid by daily installments of 5 litres for one month, i.e. the equivalent of Rp 42,000 at Girijaya prices. The *bandar susu* are also members of the cooperative, and make regular payments to key cooperative and collection-point officials to maintain this lucrative niche. An attempt by 50 farmers in Girijaya to set up their own rotating savings-and-loan associations (*arisan susu*) was disbanded by the cooperative; this was done at the insistence of the local *bandar susu* who were apparently worried that farmers might achieve some economic independence in this activity, and therefore be less dependent on the *bandar*.

The various official and unofficial deductions on the daily income of a small dairy farm household can be considerable, if not devastating, creating serious problems for households whose main source of income is dairy production. Dairy cows, when lactating (roughly two out of three will be lactating at any time) produce between 12 - 15 litres per day. If the cows were obtained on credit, 5 lt per day per cow are deducted in repayment; the feed costs are about Rp 2,000 per day. When installments on consumer items are added to this, there can quite easily be a negative daily balance.

In order to maintain their continued access to the various economic niches offered by the cooperative structure, the higher cooperative officials have managed to create great bureaucratic distance between themselves and ordinary members, in the form of successive layers of administrative staff. From time to time, they may even publicly rebuke these staff at strategic moments (for example when the leadership are to be reelected) thus leaving both staff and cooperative members in some confusion. Lower-level staff, in their relations with farmers, are more often conscious of their position in a hierarchy than of their "service" role; for example, farmers find that the Cooperative's technical (extension) staff are rarely willing to discuss technical problems of production, but devote more time and energy to lecturing the farmers on their (formal and moral) obligations to the cooperative.

HYBRID COCONUTS ON CONTRACT: THE CISOKAN NUCLEUS ESTATE⁸

Frequently the trading machine, concerned about a standard quality in the commodity collected, begins to interfere in the organization of production, too ... and turns its clients into technical executors of its designs and economic plan (Chayanov, 1966: 262)

From upland mixed gardens to contracted monocrop farming

The area now occupied by the PTP XII's Cisokan rubber plantation and adjoining hybrid coconut Nucleus Estate lies somewhat more than 100 km south of Jakarta, in a 30 km stretch of low but often steep coastal ridges running East-West close to the southern coast with altitudes between 0 - 150 metres (see map). Many parts of this area were deserted of people during the last years of the Darul Islam rebellion, and much land abandoned. From the defeat of this rebellion (1961) to the late 1970s people were encouraged to return or settle there, with many coming from the more differentiated and land-hungry parts of West Java and western Central Java, attracted by the easy availability of land for cultivation. Relatively small payments to village officials would secure them plots of what was formally classified

⁸ Except where otherwise stated this section is based on the report of Gunawan et al. (1995) and about 250 pages of field notes of Nunung Sulastri and Titi Setiawati (who carried out the main field research in July and September 1989) and Rimbo Gunawan (who made a brief follow-up visit in August 1994). I follow Gunawan et al. (1995) in giving the project the pseudonym Cisokan.

as state land (generally of around 2 ha) with official permission to cultivate (*Surat Izin Menggarap*), and after regularly paying land taxes and obtaining proof of it from the village (*kikitiir*) or sub-district office (*Tanda Bukti Pembayaran Pajak*), peasants felt relatively secure in their control of this land and the prospect of eventual formal "ownership" at such time in future as the Department of Agrarian Affairs would issue ownership certificates⁹. Some had been paying land taxes for more than 20 years when the project began.

By the late 1970s, a pattern of mixed shifting agriculture and horticulture had developed, with smaller amounts of rainfed *sawah* and grazing land. Main dry-field crops were upland paddy, maize, soya and ground nuts; in home-gardens and mixed-gardens, many kinds of productive tree crops were grown in addition to bamboo stands, hardwoods and the ubiquitous coconut and banana (durian, pineapple, avocado, mango, mangosteen, petai, guava and cashew nuts). Informants characterize this as a time when "money was scarce": crops were more often exchanged than sold, and when traders came at the main harvest times they would often simply exchange rural crops for urban products without the medium of cash.

The main non-farm activities were linked to this pattern of agriculture and local raw materials: small-scale production of coconut oil, *tahu* and *tempe* (fermented soya curd and cake), construction materials (bricks, timber) and furniture, and various items woven from bamboo or pandanus leaves (*bilik*, mats and woven hats), but most importantly the tapping of coconut and aren palm for palm sugar (*gula kelapa / gula aren*). Those with access to trees for tapping would generally produce 4-8 kg of palm sugar per day, sold (in 1989) at Rp 700 /kg on the free market or Rp 500 to a merchant who had previously given credit (*borsom*); tapping of others' trees on a product-sharing basis would still provide a regular daily income somewhat higher than prevailing agricultural wages in either the peasant sector

⁹ State Law no 1 (1958), enacted to handle the land question after nationalization of foreign plantations, specifies that all "*tanah partikelir*" formerly leased on *erfpacht* (*Hak Guna Usaha*) basis to foreign enterprises would have the status of state land, and should be redistributed to peasants. Presidential Decision 32 (1979) on Basic Policies in Granting New Status to Land Originating from Conversion of Western Land Rights, following the provisions of the 1960 Agrarian Law which specified that all land under *erfpacht/HGU* land leases would revert to direct state control at latest by 24 September 1980, states that all such land that has been devoted to village settlement and smallholder cultivation will be assigned to those occupying it (Suhendar, 1994).

or on the nearby plantation. Circular outmigration to Jakarta, Bandung or other urban centres was also common, generally of younger household members, with men going mainly into construction labour and women into domestic service.

Although we know little about the forms and processes of differentiation before the NES project, this was certainly not a homogeneous society of small-scale mixed farmers. In the five villages included in the Cisokan project, a number of villagers (mainly from the first wave of settlers in the mid- and late 1960s) had acquired control of relatively large tracts of state land (though not enormous amounts: 7.0 ha was mentioned as a large holding) and rented out parts of it to others. Many of these and some others were by now relatively wealthy merchants (*tengkulak*) in the trade in agricultural products, often combining this with processing (copra, coconut oil etc.).

In 1980 the World Bank (which had adopted the smallholder-nucleus system as a general policy priority in the mid-1970s) signed an agreement with the Indonesian government for a series of seven 20-year loans to support the development of Nucleus-Estate Smallholder (NES) schemes under the aegis of various existing state plantation corporations. Two of these loans included five hybrid-coconut NES projects in the southern region of West Java, covering a total of almost 50,000 ha (about 20 percent of it reserved for the "nucleus" or *inti* and 80 percent for the "*plasma*") and aiming to involve somewhat over 10,000 households as contract farmers. These contract farmers (the *petani plasma*) were to be assigned a total of 2.0 ha of land: 1.5 ha already cleared and planted with ca. 214 hybrid coconuts for monocrop cultivations, 0.3 of cleared land for establishment of a food crop plot, and 0.2 ha for a house and garden plot, with a house provided -- or, in the case of existing housing, suitably improved -- by the project. On receiving their plots the farmers would begin a 15-year period of repayment of a bank loan booked against their names for approximately Rp 3,600,000 and an additional loan of up to Rp. 1,300,000 for house construction or improvement. The basic format of all these NES projects is the same, and can be summarized in simplified form in four phases, as follows:

1. Staff of the National Land Board (Office of Agrarian Affairs) first map and mark with posts the area of land to be converted to the NES project .
2. (Years 1-3) The PTP clears the land; plants the coconut seedlings in both nucleus and smallholder land; prepares the home-garden (0.2 ha) and food-crop (0.3 ha) plots; builds the necessary storage facilities and processing plants and installs machinery (for copra and coconut oil production); builds the necessary local infrastructure i.e. roads, contract-farmer's housing, school, places of worship, marketplaces and health clinics (for this, working together with district government and the relevant district offices of government departments); assists the various relevant government agencies in preparing procedures for the issuing of land titles, and in collecting data on candidates for participation in the scheme; provides technical guidance for the candidate-farmers (*calon peserta* or "*capes*"), stimulates the formation of farmers' groups (*kelompok tani*, "*poktan*") and (where not yet existent) cooperatives (*KUD*). All work on the nucleus and smallholder plots during these years is carried out by wage labour, with those selected as "*capes*" being given priority for employment.
3. (Years 4-5) At about the time when the young coconut trees should have flowered and begun to bear their first fruit, the PTP allocates the home, food crop and coconut plots to the participant farmers (by lottery organized together with village and local government); assists in completion of the issuing of land titles (which, although formally issued to individual farmers, will be physically kept in the BRI bank until the credit has been repaid in full); supports the KUD's development as the institution which eventually will be responsible for input supplies; calculates the volume of credit required by each farmer; and transfers responsibility for cultivation and credit repayment to the farmers while retaining responsibility for the processing plant, cultivation on the nucleus estate itself and infrastructure. (This is known as the "conversion phase").
4. (Years 6-20) After "conversion" the PTP continues to be responsible for processing and marketing, the nucleus and other infrastructure, assists the KUD with transport of harvested coconuts, and (for the 15 years when farmers are repaying their bank loans) assists the bank in monitoring repayments. After conversion the farmers are formally owners of the land, although as noted above they do not receive their land titles until their credit repayment is completed. The time when farmers should have repaid all their debts (about 20 years after planting) in fact will coincide with a sharp drop in the trees' productivity, necessitating re-planting and a period of 4-5 years' waiting until the new trees bear fruit. This presumably would be made possible by a second loan.

The choice of the crop, and of the NES form of production organization, were based on a number of considerations. The choice of crop relates to Indonesia's coconut-oil crisis of the late 1970s, in which coconut production failed to meet the domestic demand for cooking-oil and (rather than importing from the neighbouring Philippines) the government diverted a part of Indonesia's growing palm-oil production from export to domestic markets. In the early 1980s the government began promoting hybrid coconut production as a means of satisfying domestic demand and thus returning oil-palm to its original role as foreign exchange earner. In fact, the market projections for hybrid coconut oil have proved incorrect, and prices in both export and domestic markets have been weak and fluctuating. Local consumers prefer to use the traditional varieties of coconut (*kelapa dalam*) which are purer-tasting and less oily, and crude coconut oil (CCO) from hybrid coconuts is regarded as inferior to palm-oil by the various factories producing cooking-oil for the domestic market.

The idea to introduce nucleus-estates into this region was seen as a means of opening up this undoubtedly backward and deprived region (through commercialization and the infrastructure of roads etc. linked to it), but the element of political control is also occasionally mentioned in documents (for example Department of Agriculture 1978), besides being frequently raised in conversations by officials at various levels. This helps to explain the choice of Cisokan, which our researchers were told was regarded as a basis of Darul Islam separatism and very difficult to control due to its geographical isolation.

The most controversial of these projects was Cimerak (to the west of our case-study region), in which 2,000 ha of peasant mixed-garden land, including valuable clove and other trees, were appropriated without compensation from farmers who had been cultivating them for up to 30 years, and bulldozed for the planting of monocrop hybrid coconuts. This occurred in the face of intense peasant protest supported by various NGOs including the Bandung Legal Aid Institute (LBH Bandung, 1985) which reached both the provincial and national parliament and continued throughout the 1980s, with considerable attention from the national and regional press. In 1990 the regional newspaper *Pikiran Rakyat* published a series of features on Cimerak, with photos of the ramshackle wooden houses provided by the project and a copy of a farmer's monthly settling of accounts with the nucleus PTP, showing that after various deductions for credit repayment and other purposes this farmer received a monthly income of only Rp 2,831 (in a project whose feasibility study had projected farmer

incomes of more than Rp 150,000 per month) (*Pikiran Rakyat*, 17/10/90). A decade of protest, however, does not seem to have resulted in any redress or improvement for either those excluded from or those included in the project.¹⁰

The Cisokan project, to which we now turn, did not receive any major publicity, although its problems seem to have been no less than those of Cimerak. The project was initiated in 1982 and the first trees planted in 1983. As may be expected in such an extremely top-down project (which draws its staff mainly from a nearby plantation specializing not in coconuts but in rubber, and which requires the coordinated inputs of more than 18 government agencies at national level and 25 at provincial level,¹¹ the project has run into many serious technical problems; although these are not the subject of our study they deserve a brief mention.

The mandatory feasibility study for the project was undertaken only when the project had already been in operation for a year, and after pressure from the World Bank. Before this study was even completed, project officials were under pressure to identify land for planting, as the (hundreds of thousands of) seed coconuts had been delivered before land preparation was completed, and some of them were already sprouting. Land was arbitrarily allocated for coconut planting and for house and food-crop plots by project staff, without proper land mapping and apparently by simply walking from one hill-top to another and planting markers in the ground. After planting, many plots of young hybrid coconut trees were ravaged by wild pigs, and sometimes completely destroyed despite more than one attempt at replanting:

¹⁰ In a curious twist, the involvement of LBH in the Cimerak case resulted in 1990 in a well-publicized delegation of NES farmers to the national parliament in Jakarta, in a truck provided by the PTP, whose leader -- no doubt under various pressures -- announced, to the surprise of some members of the delegation "we don't know anything about the LBH, we have had nothing to do with it, their activities make us nervous, and we just want to go on with our farming in line with the government recommendations" (*Editor*, 29/9/90: 34)

¹¹ At national level, besides the Department of Agriculture, the project requires coordination of various inputs and/or authorizations from the National Planning Agency; The State Secretariat; the Departments of Home Affairs, Forestry, Transmigration, Cooperatives (the latter two have since been merged), Manpower, Industry, Communications, Public Works, Justice, Foreign Affairs, Trade and Finance; the *Bank Rakyat Indonesia* and the Inspectorate of Development Finances (BPKP). At provincial level and below, almost all government agencies are involved.

although these various replantings cost Rp 1.6 billion no funds had been allocated for this purpose, since the report on the damage had been sent only to sub-district level, when decisions on such matters are taken in the central office of the NES Coordination Team in Jakarta. For several years after the young trees had begun to produce (1986), the conditions of the project's access and feeder roads were so bad that they were only passable by tractor (particularly in the rainy season); many thousands of coconuts lay for weeks and even months beside the feeder roads, waiting for collection vehicles which never came, until they sprouted or rotted.¹² Although the first ripe nuts were harvested in 1986, until 1992 there was no coconut oil processing factory in operation. The impassable roads and high transport costs made sale of fresh coconuts relatively unprofitable, the only remaining outlet being the Copra Drying Station at Karanganyar; despite the relatively simple technology and design, the CDS too ran into many technical problems, including several fire outbreaks during night-time drying in 1989. At times mountains of up to a million coconuts waited for processing beside the CDS.

Due to these and other problems, coconut production is far behind the original projections, with the further consequence that farmers will be unable to repay their loans within 15 years according to the schedule based on these projections. More interesting for our purposes are the social and political dynamics underlying the emergence of the contract-farming community, its internal structure and its relations with external forces and the state. Some insight into these dynamics is provided by consideration of various areas of conflict and tension observable during the first years of the project. First we may consider the process of land appropriation for the project, and the subsequent process of selection and exclusion reflected in its reallocation to contract farmers.

¹² At the time of our 1989 field study the main 46 km long access road, totally impassable except by tractor in certain places, could not be repaired according to project officials, because it still had the status of 'material evidence' in the project's court case claiming restitution for non-fulfillment of contract from the road-building contractor. By 1994 the problem still had not been resolved.

Land alienation

There is a major hiatus between local ideas of land possession rights (which does not necessarily mean "traditional", in a society composed mainly of recent in-migrants) and those embodied in the project's policy of appropriation without compensation. The project (perhaps because essentially borrowed from the "pioneer (re) settlement" NES model) assumed that the land was basically "empty" and available state land; anyone occupying it had merely to be persuaded to surrender it to the project, induced if necessary by the prospect of selection as a NES participant and subsequent reallocation of land. For that reason, the project budget did not include any funds for compensation, either for the land or for the valuable trees or buildings on it. Local cultivators, in contrast, felt themselves to be in fairly firm right of occupancy, based not only on customary "pioneer's rights" of those who had cleared land and planted trees on it, but also on their formal rights, backed up by written proof from village government (Letter of Authorization to Cultivate) or sub-district government (certificates of assessment and payment of IPEDA tax); furthermore they felt justified in the expectation of later acquiring ownership title.¹³

There was thus widespread unrest and significant opposition to the alienation of peasant holdings and their clearance for hybrid coconut planting. The local élite was among those who protested: in the five villages, some 20 of the most wealthy villagers opposed the NES from the beginning, not least because they had relatively the most to lose, having gained control of large tracts of state land and rented them out to small farmers. One woman had only recently bought 1.5 ha of land from the village head, paying Rp 800,000 and an additional Rp 60,000 for the proof of purchase letter (*Surat Jual Beli Tanah*) from the village

¹³ That the Agrarian Affairs Department was capable of rapidly issuing ownership titles for land of this type is evidenced by the experience of the occupiers of some 300 ha of land immediately south of the project and adjacent to the sea coast, which a consortium of five Jakarta-based companies led by the "Hari Kader Group" purchased in 1989 for Rp 3.75 million/ha for the development of an export-oriented brackish-water shrimp farm. For the sale to take place, land titles had to be (and were) rapidly issued to the occupants by the Agrarian Affairs department for a fee of Rp 0.2 million/ha. Many of those who sold land in this way are now building the best houses in the local sub-district town, in stark contrast to those whose (much better-quality) land was alienated without compensation for the NES project.

office; village-level certification was no proof against alienation and her land was taken without compensation. After the project was first announced in 1982, it was widely expected that it would be many months or even years before land alienation, and still longer before any land clearance would begin; everyone seems to have been taken by surprise by the very rapid appearance of the land-clearance teams, who encountered physical confrontation; farmers with knives and cutlasses drove project officials off their fields, holding up the land-clearance phase for two months, after which it was continued under military protection. Many of those who opposed land clearance were detained at the sub-district military command and predictably threatened with accusations of communist-party sympathies. Of the first 20 peasants to surrender their land, apparently only two were eventually accepted as NES participants.

Inclusion and exclusion

These confrontations made many local farmers reluctant to enlist as candidate NES participants (*Calon Peserta*); many explained that they were initially afraid of becoming involved in the scheme, recalling how others had previously become involved in the communist party with disastrous consequences. This, plus the fact that several hundred household heads in the five affected villages actually had been declared involved in the communist movement 20 years previously and were thus ineligible for participation,¹⁴ meant that at first the project had considerable difficulties attracting participants.

Initially many local leaders and village officials were persuaded to sign up as participants (although not meeting the formal criteria), after which others followed. Because of the volatile situation and also for the longer-term agenda of security and control, priority in selection was often given to sub-district government officials, local schoolteachers and civil

¹⁴ Although accounts of the formal selection criteria differ and not all were followed in practice, the criteria most often mentioned in project documents and meetings were: age younger than 50 years (or, if older, with children old enough to help); local inhabitant; married; not wealthy (*kehidupannya minim*); politically clean (including one's close relatives: *tidak terlibat organisasi terlarang dan lingkungan bersih*). Additional criteria mentioned and in many cases followed were: having surrendered land to the project, and having regularly worked as wage-labourer at the nucleus during the clearing and planting stage.

servants in various departments, while many of those whose land was appropriated were not selected. This led to a situation in which many "insiders are excluded, and outsiders included" in the project. Some of those who lost land and did not enlist as participants now regret it; restricted now to land outside the project, which is less fertile because it must now be cultivated continuously, they look back with regret to the time when land was easily available, one could still move from one plot to another, and yields of rainfed *sawah* and mixed-gardens were good.

Once the NES participants have been selected, the allocation of NES plots among them (when the trees are about four years old) is supposed to take place by lottery; the "lottery" however systematically allocated the most fertile and conveniently located plots to village and sub-district officials and their wives, officials of the KUD cooperative, field staff of the Family Planning programme and other relatively well-off or well-connected persons, while ordinary participants received the least fertile plots, far from the settlements and on the edge of the forest. They widely agreed, in the joking and punning mode so characteristic of situations where open protest is curbed, that success in the NES project was a matter of "3-D": *duit* (money), *deukeut* (closeness, i.e. connections) and *deuheus* (lit. "to pay a visit to an official or social superior").

The food crop (0.3 ha) and home-garden (0.2 ha) plots and the houses built on them were allocated by project officials, without lottery. Each block of land was simply allocated to a group of farmers who were then supposed to arrange the individual allocations among themselves. Many problems arose from the careless way in which these plots had been surveyed and mapped by staff of the National Land Board. Boundaries were unclear (leading to disputes between NES farmers and "outsiders", as well as between NES farmers whose land titles showed them as owners of the same land); often the land was so steep as to be effectively uncultivable, with very thin layers of humus washed away with the first rain, exposing the limestone underneath. About one-third of a sample of 99 smallholders surveyed in 1989 did not know where their food-crops plots were located or had seen them taken by other farmers; others left their plots uncultivated or used them only for extensive cultivation of upland rice and groundnuts. Some had announced they were willing to abandon any claim to food crop land, so long as their debt could be reduced accordingly, but received no response from the project. NES participants' existing houses (if they came from the area)

were assessed by village and project officials, and if designated below standard the farmer was provided with a new house (and an additional debt of Rp 1.3 million) or a packet of materials and cash for home-improvement (valued at around Rp 0.6 million).

As in so many land (re)allocation schemes of this type throughout the world, women were almost completely excluded from land allocation in their own right, regardless of whatever rights to land they may have exercised before the project. Our researchers did find a small number of women who were participants in their own name, but these were all cases where for some reason the relevant male was not available for participation: one whose father's land had been alienated for the project, one whose husband was too old to be registered himself, others whose husbands had died since the project began, etc. In a region where divorce and re-marriage are as common as they are in West Java, claims of divorced women to land resources acquired in marriage are bound to arise: the project officials' creative solution, when confronted with this problem, was to ask the local Office of Religious Affairs to discourage candidate-NES farmers from divorcing!

Differentiation and labour process

The differentiation of the NES can thus be seen in terms of distinctions and relations between four main groups: the project officials, many of whom also were allocated NES plots (and whose sturdily-built houses and lifestyles everyone envies, contrasting starkly with the ramshackle housing built by contractors at inflated costs for participant farmers);¹⁵ other local officials and civil servants, and members of village élites who registered as NES participants but also retain land outside the project and often many mercantile or other off-farm interests as well, and who recruit farm servants (*pembantu*) to farm the NES plots for them, although this is formally not permitted; thirdly, the "genuine" NES participants who depend for their livelihoods on their NES plots, worked mainly or partly with their own family labour, and on whatever wage-opportunities are available at the nucleus or outside:

¹⁵ These are the people who can afford to spend a Sunday morning at the local fishponds, where for an entry fee of Rp 5,000 one can take away as much fish as one can catch. They are also criticized for the way they boss the farmers around and adopt the attitudes of rural "gentry" (in Sundanese, *juragan*).

and finally those who lost land to the project but are now excluded from it, and who are generally regarded as the poorest group.

As may be expected given this differentiation, the majority of the NES farms deviate considerably from the "family farming" model on which NES project planning is based.¹⁶ A sample survey of 99 households in 1989 found that about 60 percent of all labour inputs on the coconut plots, and 25 percent of those on food crop and homestead plots are hired (nearly all of this is male labour). It is not only the wealthy "armchair" NES farmers who hire labour. A surprising number of "genuine" NES participants, having found themselves unskilled off-farm work in the region,¹⁷ hire labour for work in the coconut groves so as not to lose their off-farm jobs, even though the daily wage given to the coconut labourer may be higher; in these cases, the farm is worked by women and children from the household and (male) wage labour. The practice of exchange labour (*liliuran*), common in the region's upland farming outside the project, is unknown in hybrid coconut farming; groups of 4-6 wage labourers however hire themselves out on contract to NES farmers at harvest time. Such a group can pick and husk 3,000 - 6,000 nuts a day, earning about Rp 2,500 - 5,000 per person. Wage labour opportunities on the coconut farms themselves are mainly restricted to men. The project's two Copra Drying Stations offer work to quite a large number of adult men and women, and boys and girls at relatively attractive piece-rate (around Rp 4,000/day for men, Rp 3,000 for women, Rp 2,500 for boys and Rp 1,250 for girls).¹⁸

Some NES farmers have also effectively opted out of hybrid-coconut farming by the (officially forbidden) practice of selling their unripe coconut crop in advance by pawning their Certificate of Payment. The wealthier farmer, trader or official who takes the certificate in pawn is then responsible for harvesting and husking the nuts, and for paying the 30 percent credit installments in the name of the farmer. Some others (especially those whose plots are frequently ravaged by wild pigs) have opted out completely, abandoning their plots and simply refusing to pay any credit installments.

¹⁶ This aspect is discussed in greater detail by Grijns (1995).

¹⁷ 59 percent of adult men and 42 percent of adult women reported having supplementary off-farm employment (Grijns 1995).

¹⁸ Boys and girls work less than a full day, and can combine this with school attendance.

Insulation from markets

In the past few years the price paid to farmers for hybrid coconuts has fluctuated between Rp 67 and Rp 101 per nut. Price-setting is based on a formula whose main components are the market price of processed coconut oil (and its by-product *bungkil*, an ingredient in livestock feed) and the factory's production costs. The nucleus' profit margins are thus cushioned from price fluctuations, which are passed on to the smallholder. More serious from the farmer's point of view are the many additional deductions made at the time of payment. Besides the automatic 30% deduction for credit and interest installments, these include deductions for fertilizer, mandatory deposit to the KUD, transport fees, and an additional 6.5 percent in fees to various officials. Taken together these deductions meant that when coconut prices were around Rp 75, farmers often received as little as Rp 45.

If price setting is one thing over which farmers have no control, getting or even knowing exactly what they have paid for is another. Although, as we have seen, deductions are made for fertilizer, the amounts distributed through the KUD are often way below the recommended dosage (about 200 kg for the whole farm of around 200 trees). Farmers begin their contract period with debts to the bank of between Rp 3.6 - 5.0 million, (depending on how much was allocated in the form of house construction or rehabilitation), a very large amount: an indication of what this means is that an adult male would have to work full-time for 8 - 10 years at the prevailing local wage rates to pay off the principal, let alone the annual interest payments of 10 percent.¹⁹ Most farmers know the amount of the debt that was initially booked to their name, but not exactly what it was for. After some years of regular deductions they do not know how much still remains to be paid, or how to calculate it; farmers do not receive written receipts for installment payments or statements of the outstanding debt.

The establishment of the local *KUD* cooperative (since 1990) has meant no more than another building-block in the institutional construction separating farmers from the market. All farm inputs and outputs pass through the KUD (with the accompanying increases in cost) on their way between farmer and core. No farmers are represented in the KUD administration, which is staffed mainly by local civil servants and plantation staff.

¹⁹ Based on a daily wage of Rp 1,500 and a 6-day working week.

Another major area of tension and conflict surrounds the project's claim to monopoly of purchase and processing rights of NES produce and the effort to enforce this monopoly, which has at times included banning certain economic activities based not on NES produce at all but on the sale or processing of nuts from the still-numerous stands of "village" (non-hybrid) coconut trees in home-and mixed-gardens in and around the project. Among the various broken promises which NES farmers claim were made to them (besides the promise of asphalt access roads, rural electrification and other infrastructure) was the undertaking at the beginning of the project that NES participants would be allowed to sell their produce on the open market if prices were higher outside, so long as they maintained their credit repayments at the level of 30% of the value of cash sales. In practice, those who sell outside are accused of "theft". This notion of theft is also alien to local notions, as expressed in the typical irony of a participant farmer: "it's confusing, when (since conversion) we are told that we are now the owners of our NES farms, but if a farmer takes a few of the coconuts he grew on it to sell or even to make a bit of coconut oil, he'll be arrested and called a thief -- but he has title to the farm, even if the land title is still retained by the bank".

In the first years of production (1986 onwards), when piles of harvested coconuts often lay rotting or sprouting by farmers' plots because of the project's inability to transport them to the Copra Drying Station, the project gave farmers permission to make their own copra at home. Later, however, this led to problems when farmers who had set up small copra-drying enterprises were accused of "stealing" project coconuts; in 1989, some local entrepreneurs making copra had their copra confiscated and were summoned to the sub-district military command, even though they claimed to have the proofs-of-purchase to show that they were using only "village" coconuts. Sales even of fresh village coconuts were supposed to be made only to the KUD although this had not yet begun its purchasing operations, the making of coconut oil was forbidden, and even the makers of the manual coconut graters (*parutan kelapa*) used in preparation of coconut oil were warned by the sub-district government to take them off the market. Meanwhile, as already noted, the project's own inability to absorb the NES harvests for sale or processing was resulting in large amounts of wasted produce.

By the 1994 rainy season this unsustainable situation had been partly resolved by the stipulation that NES farmers could make their own copra with conventional (village)

technology before selling it through the KUD to the project for processing into oil, the Crude Coconut Oil (CCO) factory having come into operation in 1992. This, however, was to be allowed only in the rainy season while roads were impassable, while in the dry season farmers would still have to sell their fresh nuts to the project's Copra Drying Stations. We see here a good example of the insistence of agribusiness nuclei, noted in the introduction to this paper, on restricting farmer involvement to primary production, retaining all upstream and downstream activities (and the value-added generated by them) for the nucleus.

Given the enormous technical and organizational problems presently faced by this project, one may ask whether it is really working to anyone's benefit except a few project and KUD officials and "armchair" NES farmers. Even if some of these problems are overcome in future, this will not resolve the fundamental contradiction between the interests and aspirations of state and "nucleus" on the one hand, and peasant on the other, in terms of what is hoped to be achieved. The project is driven by a desire to control, to incorporate, to modernize, to remove rural people from backwardness and "subsistence" through the imposition of contracted monocrop cultivation. For many peasants, the project seems more to represent an unwelcome but necessary interlude of forced monocropping, low productivity and *plasma* status; out of this they hope to emerge after 15-20 years with at least more secure ownership rights, not to enter another round of debt for hybrid coconut replanting and contracting but to return to the kinds of mixed, part-commercial farming they had practised previously. This is reflected in the question often put to our researchers:

Is it true that after 15 years I will really be the owner of this land? And does that mean I'll be allowed to sell the land, or to sell my coconuts wherever I want, even to cut down the hybrid coconut trees and grow whatever I like again?

CONCLUSIONS: SMALLHOLDERS, CONTRACTING AND LOCAL POWERS

In neither of the two cases we have examined has the contract-farming project worked out precisely as intended; the gap between the assumptions on which smallholder contracting schemes are based, and the actual conditions that have emerged, is quite large, and while

state regulations and decisions (as in other Indonesian development ventures) have initiated both projects, the process of accumulation set in motion is not entirely within state control.

In the smallholder dairy projects, differentiated communities of dairy farmers produce expensive fresh milk which the milk processing industries purchase only because they are obliged to by government regulations. Although "family" dairy farms exist, they coexist with others based on wage-labour and product-sharing relations, and in "family" farms dairying is largely an activity of women and children while male household heads (the formal owners of the dairying enterprise) have other occupations. In both Girijaya and Pangalengan dairy farmers have major problems with their cooperatives, based in the monopoly/monopsony relationship which the cooperative maintains with them, and the ability of a nepotistic network of officials in key positions to turn the cooperative into a vehicle for their own enrichment, often in collusion with various other external "predators". The cooperative in this case increasingly takes on the character of a "company store", but one with the added feature that the managers' and officials' hands -- as those of some of their friends outside -- are in the till.

In the case of Cisokan, peasants who previously had locally-sanctioned access to upland farms for mixed-cropping find themselves owing large sums of money plus interest, for land which is often less productive than what they had before (and some which is literally worthless), in many cases also for housing which they could have built much better and cheaper themselves. They pay this imposed debt by cultivating a low-value tree monocrop which they would not have chosen to plant, with a weak position in both domestic and export markets, whose prices are fixed in ways they do not understand, but include many sizable deductions for inputs which they do not get and services and institutions which they do not need.

In both projects, profits and enrichment through dairy or hybrid coconut contracting are possible, but mainly for the "armchair" dairy or coconut farmers for whom the activity is an investment rather than a source of day-to-day earnings, whose farms are worked by others in wage or product-sharing relations, and for whom the schemes were not intended. For "real" smallholders it seems that contracting can provide only part of household incomes, and farming is supplemented with external employment of at least one family member, normally adult males. The day-to-day activities of smallholder dairying and coconut farming are

mainly in the hands of adult women and children, who have no formal right of ownership to the smallholding, of membership in the cooperatives through which inputs and outputs are channeled, or of control over the incomes generated. One cause of smallholder impoverishment is the predatory - or in the Cisokan case, more mildly parasitic - activities of cooperative officials.

In both cases, one might say, the institutional framework surrounding contract farmers - particularly, but not only, the cooperative - is in serious need of democratization. The formal structure of rural cooperatives, farmers' groups etc. *is* of course democratic; but given prevailing structures of local power and privilege, institutions which on paper appear to foster "participatory", egalitarian forms of development tend in practice to be dominated by the wealthy and powerful and are subverted to their interests. Independent mass organizations as a possible countervailing force have been banned since the early 1970s and their state-sponsored monolithic substitutes do not offer an alternative;²⁰ "everyday" forms of resistance have their limits. The problem is not one that can be solved by bureaucratic tinkering with the formal design of the institutions and processes involved, since it is a problem not of formal structures but of the actual function and substance of real relationships, which reflect the nature and exercise of power in rural society.

²⁰ At the local level, the state-sponsored "Indonesian Farmers' Harmony Association" *Himpunan Kerukunan Tani Indonesia (HKTI)* - the organization with the official mandate to promote the interests of both peasants and farm workers, which therefore ought to be one of the most important vehicles of rural mobilization - is virtually invisible. Of all the state-sponsored monolithic substitutes for pluralistic interest-organizations (of women, workers, youth etc.) established in the early 1970s, the *HKTI* is one of the least active in Indonesia today. Interestingly, despite the enormous growth in NGO activities in rural areas of Indonesia in the past 10-15 years, they have not generally involved themselves in the support of smallholders in contracting schemes.

REFERENCES

- Bachrianto, D. (1995) *Ketergantungan Petani dan Penetrasi Kapital: Lima Kasus Intensifikasi dengan Pola Contract Farming* (Small-farmer dependency and capital penetration: five cases of intensification based on contract farming). Bandung, Akatiga Foundation.
- Bernstein, H. (1979) 'Concepts for the Analysis of Contemporary Peasantries' *Journal of Peasant Studies* 6, pp. 431-443.
- Bernstein, H. (1996) 'The Political Economy of the Maize *Filière*' *Journal of Peasant Studies* 23, pp. 120-145.
- Bray, F. (1983) 'Patterns of Evolution in Rice-Growing Societies' *Journal of Peasant Studies* 11 no 3, pp. 108-112.
- Carney, J. (1988) 'Struggles over Crop Rights and Labour Within Contract Farming Households in a Gambian Irrigated Rice Project' *Journal of Peasant Studies* 15 no 3, pp. 334-349.
- Carney, J. (1994) 'Contracting a Food Staple in the Gambia' in P. Little & M. Watts (eds) *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, Madison, University of Wisconsin Press, pp. 167-187
- Chayanov, A. (1966) 'Peasant Farm Organization' in D. Thomas, B. Kerblay and R. Smith (eds) *A. V. Chayanov on the Theory of Peasant Economy*, Homewood, Illinois, American Economic Association (orig. 1925), pp. 29-269.
- Chayanov, A. (1991) *The Theory of Peasant Cooperatives*. London, Taurus (orig. 1919).
- Chevalier, J. (1983) 'There is Nothing Simple about Simple Commodity Production' *Journal of Peasant Studies* 10, pp. 153-186.
- Clapp, R. (1988) 'Representing Reciprocity, Reproducing Domination: Ideology and the Labour process in Latin American Contract Farming' *Journal of Peasant Studies* 16 no 1, pp. 5-39.
- Clapp, R. (1994) 'The Moral Economy of the Contract' in P. Little & M. Watts (eds) *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, Madison, University of Wisconsin Press. pp. 78-94.

- Csaki, C. & Y. Kisler (1993) 'Introduction' in C. Csaki & Y. Kisler (eds) *Agricultural Cooperatives in Transition*, Boulder, Westview Press.
- Departemen Pertanian (1978) *Pengembangan Daerah Pegunungan Selatan Jawa Barat dengan Pola Nucleus Estate: Suatu Gagasan Menghadapi Pelita III* (Development of West Java's southern hill region on the Nucleus Estate model: a concept in preparation for the Third Five-Year Plan). Bandung, Department of Agriculture, West Java Regional Office.
- Van Doorn, J. & W. Hendrix (1983) *The Emergence of a Dependent Economy: Consequences of the Opening Up of West Priangan, Java to the Process of Modernization* Rotterdam, Erasmus University, CASP Series no 9.
- Elson, R. (1994) *Village Java under the Cultivation System 1830-1870* Sydney, Allen & Unwin.
- Friedmann, H. (1978) 'World Market, State and Family Farm: Social Bases of Household Production in the Era of Wage Labour' *Comparative Studies in Society and History* 20, pp. 545-586.
- Friedmann, H. (1980) 'Household Production and National Economy: Concepts for the Analysis of Agrarian Formations' *Journal of Peasant Studies* 7, pp. 158-184.
- Glover, D. (1984) 'Contract Farming and Smallholder Outgrower Schemes in Less Developed Countries' *World Development* 12 no 11/12, pp. 1143-1157.
- Glover, D. (1992) 'Introduction' in D. Glover & Lim Teck Ghee (eds) *Contract farming in Southeast Asia: Three Country Studies* Kuala Lumpur, Institut Pengajian Tinggi, University Malaya.
- Glover, D. & Lim Teck Ghee eds (1992) *Contract farming in Southeast Asia: Three Country Studies* Kuala Lumpur, Institut Pengajian Tinggi, University Malaya.
- Glover, D. & K. Kusterer (1990) *Small Farmers, Big Business: Contract Farming and Rural Development* London, Macmillan
- Goldsmith, A. (1985) 'The Private Sector and Rural Development: Can Agribusiness Help the Small Farmer?' *World Development* 13 no 10/11, pp. 1125-1138.
- Graham, E. with I. Floering (1984) *The Modern Plantation in the Third World* London, Croom Helm.

- Grijns, M. (1995) 'From Blueprint to Actual Households: Coconut Farmers in West Java' Paper prepared for the 3rd WIVS/KITLV Conference on Indonesian Women's Studies, "Indonesian Women in the Household and Beyond: Reconstructing the Boundaries". Leiden, 25-29 September (draft).
- Gunawan, R., J. Thamrin & M. Grijns (1995) *Dilema Petani Plasma: Pengalaman PIR-Bun Jawa Barat* (Dilemmas of contact farmers: the experience of tree-crop nucleus estates in West Java) Bandung, Akatiga Foundation.
- Hartveld, A. (1995) 'Transformations of the Sugar Sector in Malang District' in B. Holzner (ed.) *Steps Towards Growth: Rural Industrialization and Socioeconomic Change in East Java* Leiden University, DWSO Press, pp. 219-253.
- Hefner, R. (1990) *The Political Economy of mountain Java: An Interpretive History* Berkeley, University of California Press.
- Hill, H. (1995) 'Indonesia: from "Chronic Dropout" to "Miracle"?' *Journal of International Development* 7 no 5, pp. 775-789.
- Hüsken, F. & B. White (1989) 'Java: Social Differentiation, Food Production and Agrarian Control' in G. Hart, A. Turton & B. White (eds) *Agrarian Transformations: Local Process and the State in Southeast Asia* Berkeley, University of California Press, pp. 235-265.
- Jones, G. & C. Manning (1992) 'Labour Force and Employment During the 1980s' in A. Booth (ed.) *The Oil Boom and After: Indonesian Economic Policy and Performance in the Soeharto Era* Singapore, Oxford University Press, pp. 363-410.
- Kautsky (1988) *The Agrarian Question* London, Zwan. (orig. 1899)
- Kirk, C. (1987) 'Contracting Out: Plantations, Smallholders and Transnational Enterprise' *IDS Bulletin* 18 no 1, pp. 45-51.
- Lenin, V.I. (1960) *The Development of Capitalism in Russia* Vol. 3 of *Collected Works*, London, Lawrence & Wishart.
- Lenin, V.I. (1976) *The Agrarian Question and the 'Critics of Marx'* Moscow, Progress Publishers.
- LBH Bandung (1985) 'The People Plantation Scheme in Cimerak, West Java: Why the People Reject' *Human Rights Forum* 1, Jakarta.

- Little, P. (1994) 'Contract Farming and the Development Question' in P. Little & M. Watts (eds) *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa* Madison, University of Wisconsin Press, pp. 216-247.
- Little, P. & M. Watts (eds) 1994 *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa* Madison, University of Wisconsin Press
- Mackie, J. & W. O'Malley (1988) 'Productivity Decline in the Java Sugar Industry from an Olsonian Perspective' *Comparative Studies in Society and History* 30 no 4, pp. 725-749.
- Mackintosh, M. (1989) *Gender, Class and Rural Transition: Agribusiness and the Food Crisis in Senegal* London, Zed.
- Mackintosh, M. (1990) 'Abstract Markets and Real Needs' in H. Bernstein, B. Crow, M. Mackintosh & C. Martin (eds) *The Food Question* London, Earthscan.
- Manning, C. (1993) 'Examining Both Sides of the Ledger: Employment and Wages During the New Order' in C. Manning & J. Hardjono (eds) *Indonesia Assessment 1993. Labour: Sharing in the Benefits of Growth?* Canberra, Australian National University, Department of Political and Social Change Monograph 20, pp. 61-87.
- Mindere Welvaart Onderzoek (1911) *Onderzoek naar de Mindere Welvaart der Inlandsche Bevolking op Java en Madoera Vol. IX: Overzicht van de Uitkomsten der Gewestelijke Onderzoekingen naar de Economie van de Desa*. Batavia, Kolff.
- Morvaridi, B. (1995) 'Contract Farming and Environmental Risk: The Case of Cyprus' *Journal of Peasant Studies* 23, pp. 30-45.
- Mosher, A. (1965) *Getting Agriculture Moving: Essentials for Development and Modernization* New York, Praeger.
- Payer, C. (1980) 'The World Bank and the Small Farmer' *Monthly Review* 36 no 6, pp. 30-47.
- Peluso, N. (1992) *Rich Forests, Poor People: Resource Control and Resistance in Java*. Berkeley, University of California Press.
- Porter, G. & K. Phillips-Howard (1995) 'Farmers, Labourers and the Company: Exploring Relationships on a Transkei Contract Farming Scheme' *Journal of Development Studies* 32 no 1, pp. 55-73.

- Renkema, D. & A. Irwan (1988) *The Nucleus Oil Palm Estate Smallholder System in Indonesia: Concentrating Control in the Hands of the Nucleus*. The Hague, International NGO Forum on Indonesia, April 1988 (unpublished).
- Smith, C. (1984) 'Forms of Production in Practice: Fresh Approaches to Simple Commodity Production' *Journal of Peasant Studies* 11, pp. 201-221.
- Suhendar, E. (1995) *Ketimpangan Penguasaan Tanah di Jawa Barat* (Inequality in land control in West Java). Bandung, AKATIGA.
- Thamrin, J. (1992) *Organisasi Produksi dan Intervensi Koperasi Persusuan di Jawa Barat* (Production organization and dairy cooperative interventions in West Java). Bandung, ISS/AKATIGA, West Java Rural Nonfarm Sector Research Project Working Paper B-25.
- Watts, M. (1990) 'Peasants under Contract: Agro-Food Complexes in the Third World' in H. Bernstein (ed.) *The Food Question: Profits Versus People?* London, Earthscan.
- Watts, M. (1992) 'Peasants and Flexible Accumulation in the Third World: Producing Under Contract' *Economic & Political Weekly* 25 July 1992, pp. 90-97.
- Watts, M. (1994) 'Life under Contract: Contract Farming, Agrarian Restructuring, and Flexible Accumulation' in P. Little & M. Watts (eds) *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa* Madison, University of Wisconsin Press, pp. 21-77.
- White, B. (1991) 'Economic Diversification and Agrarian Change in Rural Java, 1900-1990' in P. Alexander, P. Boomgaard & B. White (eds) *In the Shadow of Agriculture: Non-Farm Activities in the Javanese Economy, Past and Present* Amsterdam, KIT Press, pp. 41-69.
- WIM (1994) *PIR, Anugerah atau Bencana? Sengketa Agraria antara Negara dan Rakyat pada Proyek PIR* (Nucleus Estates, blessing or calamity? Agrarian conflicts between state and people in NES projects) Medan, Wahana Informasi Masyarakat.
- Williams, S. & R. Karen (1985) *Agribusiness and the Small-Scale Farmer: A Dynamic Partnership for Development* Boulder, Westview Press.
- Wilson, J. (1986) 'The Political Economy of Contract Farming' *Review of Radical Political Economics* 18 no 4, pp. 47-70.