OUTGROWER TIMBER SCHEMES IN KWAZULU-NATAL:

Do they build sustainable livelihoods and what interventions should be made?

R I Cairns (April 2000)

1. INTRODUCTION 11
2. MOTIVATIONS AND REASONS FOR FORESTRY COMPANIES' INVOLVEMENT IN OUTGROWING 13
2.1 Background 13
2.1.1 History of the pulp industry in KwaZulu-Natal 13
2.1.2 History of the wattle industry 14
2.1.3 History of NCT Forestry Co-operative Limited 14
2.2 SAPPI "Project Grow" small grower scheme 15
2.3 SAPPI Project Grow administered by Lima 16
2.4 Mondi "Khulanathi" small grower scheme 16
2.5 SAWGU "*Phezukhomkhono*" small grower support scheme 18
2.6 NCT Forestry Co-operative Limited support for small growers 24
2.7 Development Targets 25
2.8 Government legislation affecting the expansion of small grower schemes 26
2.9 The effects of oversupply on the world market on expansion of the schemes 26
2.10 Summary 27
3. MOTIVATIONS OF GROWERS TO ENTER CONTRACTS 29
3.1 Reasons for growing trees 29
3.2 Reasons for joining the schemes 32
3.2.1 Incentives and disincentives at the household level 32
3.2.2 Incentives and disincentives at the community level 33
4. HOW DO CONTRACTS WORK 35
4.1 Steps to join 35
4.2 Development of the SAPPI Grow / Lima contract 37
4.3 Development of the SAWGU contract 37
4.4 Development of the Khulanathi contract 37
4.5 Analysis of the terms of contract 38
4.5.1 Company motives 38
4.5.2 Distribution of risk 38
4.5.2.1 Size of loan 39
4.5.2.2 Protecting the harvest 39
4.5.2.3 Defaults in repayment 39
4.5.2.4 Budget allocated by the firm for overhead costs 40
4.5.2.5 Guarantees of purchase 40
5. WHAT IS THE ECONOMIC IMPACT OF GROWING TREES FOR THE OUTGROWER 41
5.1 Contribution to overall household income 41
5.2 Competition for household resources 42
5.2.1 Competition with food crops for arable land and labour 42
5.2.2 Effects on water resources 43
5.2.3 Effects on fuel sources 43
5.3 Contribution to household livelihood security 43
5.4 Factors accounting for success or failure in timber growing 44
5.5 Summary – Economic impacts of the schemes at the household level 46
6. THE WIDER ECONOMIC IMPACT OF THE SCHEMES IN THE COMMUNITY 47
6.1 Opportunity costs on other land uses and livelihood activities 47

6.2 Development of small-scale contractors 47
6.2.1 Planting contractors 48
6.2.2 Chainsaw operators 48
6.2.3 Transport contractors 49
6.3 Development of infrastructure 51
6.4 Provision of rural credit 51
7. WHAT IS THE DEVELOPMENT IMPACT AT THE COMMUNITY LEVEL 52
7.1 Gender relations 52
7.1.1 Women and land ownership. 52
7.1.2 Contribution to household livelihood 52
7.1.3 Decision to join the schemes 53
7.1.4 Decisions over earnings 53
7.1.5 Prior knowledge of costs and benefits 54
7.1.6 Changes in labour responsibilities 54
7.1.7 Summary of gender issues 55
7.2 Alternate structures of ownership 55
7.2.1 Grower co-operatives 55
7.2.2 Contractor cooperatives 57
7.2.3 Ownership by Tribal Authorities 58
7.3 Conflict in the community 58
7.3.1 Recorded cases early in the schemes 58
7.3.2 Conflict over state forests 59
7.3.3 Resolution of conflict 60
7.4 Land demand and the development of an elite class 60
8. WHAT HAVE COMPANIES LEARNED FROM THEIR EXPERIENCES OF OUTGROWER SCHEMES 62
8.1 SAPPI Project Grow 62
8.2 Mondi Khulanathi 62
9. CONCLUSIONS 64
9.1 The extent to which schemes build assets required for livelihoods 64
9.2 Vulnerability context 73
9.3 Transforming structures and processes 73
9.3.1 Representation in small-grower associations 73
9.3.2 Membership in large commercial growers associations 74
9.3.3 Membership in co-operatives 74
9.3.3.1 Improving yields through better silvicultural methods 75
9.3.3.2 Reducing harvest and transport costs 75
9.3.3.3 Increasing market price and availability 75
9.3.3.4 Alternatives models for small – grower empowerment 76
9.4 Interventions 76

EXECUTIVE SUMMARY

The objectives of this report are to understand the mechanisms of outgrower schemes at the micro-level, their operation in the context of empowerment and redistribution process, and their potential as a model for socially and environmentally sustainable private sector forestry. The report attempts to add to research on timber outgrowers by: conveying the human stories of farmers themselves (forty growers and non-growers were interviewed); drawing lessons from recently upgraded small-grower support in the timber industry (notably the SAWGU and NCT small-grower support programmes) and assessing the contribution of schemes using the now popular sustainable livelihood framework.

Small-scale timber growers access commercial timber markets in KwaZulu-Natal through three mechanisms. These are: highly structured contractual arrangements (SAPPI, Lima and Mondi); membership in commercial forest owners associations or co-operatives (SAWGU and NCT); or independent sales to various outlets normally via contractors who may or may not give reasonable prices (independent growers). Salient features of the various support schemes are summarized below.

Eucalyptus trees have been planted in the Mbonambi and Sokhulu areas by independent growers since the 1960s. There is evidence that plantings were encouraged by the Tribal Authorities in attempts to resist forced removals after the area was descheduled and excised from KwaZulu by the Apartheid government in the early 1970s.Trees were initially marketed to Waterton Forestry and later to SAPPI, Mondi and CTC. Independent growers initially joined the schemes to get secure markets, and better inputs (some older varieties of eucalyptus are not accepted at the mills). Some also reported that they were old and needed the loans provided by companies to employ other people in their forests. However, since 1999, companies have refused produce from non-registered growers, partly to plan quota allocations in a time of oversupply and partly to combat theft from estate and private commercial forests. This has lead to an influx of independent growers into the schemes.

New growers join the schemes mainly for cash income. Trees also provide a means for female headed households (particularly widows) to secure land holdings under situations of increasing land pressure.

Salient features of the support schemes

	SAPPI (Project Grow) / Lima	Mondi (Khulanathi)	SAWGU (Phezukomkhono)/ NCT (A-Class and N-Class)	COMMENTS
Scheme descriptions	The SAPPI and Mondi outgrower schemes are based on the system of contract farming. Growers are provided loans for the establishment and maintenance of small eucalyptus woodlots. Permissible activities are specified in the contract but in practice only a subset of operations are carried out (e.g. marking, ploughing, fertilizing, weeding and fire protection). The companies provide extension and inputs. In return they expect the harvest from all trees after a growing cycle of 6 years on the coast and 7 years inland. Mills are located at Umkomaas (SAAICOR now owned by SAPPI), Mandini (SAPPI) and Richards Bay (Mondi). The SAPPI scheme is administered by a contract extension agent (Lima) on the Natal South Coast. SAWGU provides loans to small-growers on a similar basis to SAPPI and Mondi. Members are automatically granted shares in tannin extract factories and representatives of grower associations stand on the General and Executive Bodies of the Union. NCT provides support to growers to form co-operatives in order to qualify for A-Class membership. These members can purchase shares, receive higher prices and preferential allocations and have representative rights at share holder meetings.			
Areas of operation	KwaZulu-Natal south coast around the SAAICOR mill at Umkomaas (Lima), North coast around the Mandini mill, Zululand and Maputaland (Project Grow).	Zululand area from Mtunzini to Maputaland, including Nkandla and Nongoma. Servicing the Mondi Mill at Richards Bay	Natal Midlands (Phezukomkhono), wattle areas, Nkandla, Mbonambi and Sokhulu (NCT)	Independent growers are mostly situated in the Sokhulu, Mbonambi areas north of Richards Bay.
Year started (formal relations)	1983 (Project Grow) 1989 (Lima)	1987 (NTE/INR Biyela) 1988 (Khulanathi)	1993 (SAWGU) 1994 (NCT)	

Number of Members (January 2000)	3134 (Project Grow) 4000 (Lima)	2854	600 (Phezukomkhono) out of 2801 (registered with SAWGU) 52 A-Class, including two grower co-operatives (NCT) About 700 N-Class	An unknown number (possibly 1800 of independent growers market through NCT contractors
Number of hectares	9031 (Project Grow) 2996 (Lima)	5904	4500 (SAWGU) 4200 (NCT eucalyptus)	About 3600 hectares is grown by independent growers
Volumes (tons in 1999)	39120 (Project Grow) 17 000 (Lima)	About 40 000	24 000 (SAWGU) 80 000 (NCT eucalyptus)	About 70 000 tons were delivered to SAAICOR and Mondi mill in 1999 by independant growers
Percentage throughput	Project Grow provides about 3% through Mandini Mill Lima provides about 1.5% of the SAAICOR throughput	About 3.2% through the Richards Bay Mill	Provide about 5% bark (SAWGU)	About 4.8 % through Richards Bay Mill
Intensity of the contract	Prefer to leave operations in hands of grower. However, do hold rights to first coppice – thus extending the obligation of the grower.	Have removed clause of rights to coppice. However, may intervene strongly by providing planting and maintenance contractors. This can cause resentment where the terms are not clearly explained.	SAWGU prefers not to advance loans if grower unable to assume entire responsibility for operations. However, loans could be too prescriptive by being made up entirely of inputs rather than cash. (NCT does not give loans)	None of the companies take action if trees are sold elsewhere or used for firewood.
Risk sharing	Size of advance is intermediate. SAPPI has shown commitment to purchase small-grower timber before estate timber in times of	Size of advance can be higher than the other schemes	Fire and life insurance, and fencing material as part of the loan protect SAWGU's investment. NCT does not grant advances to individuals	Companies do show reluctance to act on defaulters.

	oversupply.		but can offer loans to co-operatives.	
Improving yields	SAPPI and Lima still prefer to use seedlings and encourage plantings on steeper sites.	Expensive clones, increased levels of inputs (fertilizer and land preparation) and use of best sites are encouraged.	Yield improvement is through training and farmer days only.	The opportunity cost of planting on arable land may be very high. There is insufficient data to compare Khulanathi with Grow yields (Mondi does not keep yield records of individual growers). Higher levels of inputs may not be cost effective.
Steps taken to reduce costs for small growers	Link growers with reputable long haulage transporters	Link growers with reputable short haulage transporters and providing depots to bulk up for long haulage	Link growers with bark transporters. NCT provide depots for timber transport.	All three companies may have made mistakes in encouraging planting in areas too far from markets, and on steep inaccessable land
Finding highest prices	Nil	Nil	NCT aims to find highest prices for its members. Work on co-operatives is enabling growers to become 'Class A' members and benefit from higher prices	It is not in Mondi or SAPPI's interest to increase prices for raw materials.
Enabling grower access to profitable sectors	Nil	Nil	Enable shares in tannin extract factories. Class A members own shares in the co-operative	Structure of pulp industry does not allow producer shares in processing
Gender issues	Open accounts in growers name to ensure payment to woodlot owner.	Open bank accounts, have introduced an inheritance clause in the contract to protect widows	No special arrangements	All schemes employ male foresters only. No special arrangements for women's issues

Support for Grower associations	Administration and communication purposes	Administration and communication purposes	NCT has supported co-operative development. SAWGU has linked associations into 18 umbrella bodies	Improved capacity of grower associations is vital for long term development impacts of the schemes.
Support for contractor development	Arrange contracts, informal business skills training. Lima encourages growers to form harvesting co-operatives, and provides interest free loans to purchase equipment	Arrange contracts, informal business skills training	NCT encourage Class-A membership through consistent supply and volume. Revolving loan of R100 000.	There are limited opportunities for contracting in the timber industry
Infrastructural development	Lima has built access and in field roads., and depots which stock agricultural and forestry inputs. SAPPI negotiations with DOT for access road funding have been unsuccessful	Local depots and weighbridges have reduced costs for growers	Local depots (fenced) in a number of areas service wattle growers. Weight allocations between individual growers are generally estimated.	Government funding for access roads has been readily available in the sugar industry. The problem lies in location of the Department of Forestry.
Representation and empowerment	Feed back from growers associations only	Feed back from growers associations only	Both SAWGU and NCT give representative membership on executive committees in excess of the proportion volume delivered by small-growers	The associations lack real lobbying power either at company level (prices, quota allocations) or government level (policies affecting small-growers)

The schemes do significantly build on the asset base of rural livelihoods but problems exist (in italics):

(Natural Capital)

- They assist households to acquire new land under sale agreements of state assets;
  Community partnerships with former state forests may be threatened by problems around ownership, responsibility and distribution of benefits. The schemes have struggled with these issues with block plantings in the past;

- They provide a means of securing land rights within the communal tenure system;
  By requiring signatures from Tribal Authorities, the schemes may entrench Tribal Authority power, occasionally to the detriment of grower interests;

- Water resources are protected (under the DWAF permit system)
  DWAF administration of the permit system has been slow to the detriment of growers and contractors;

- Households appear to set aside sufficient arable for food crops;
  There are no overarching land use policies in place to ensure that arable land is used to its highest potential;

- While taking up significant areas previously under grazing, households are increasing substituting trees for cattle as a form of savings;
  Use of grazing land has caused conflict between growers and non-growers;

(Social Capital)

- Loan advances allow very poor households to join as members;
  Highly marginalized households (without land) cannot join the schemes;

- The schemes build capacity of growers associations;
  The SAPPI and Mondi schemes exclude growers from owning shares in the most profitable sector (processing);

(Human Capital)

- Skills are transferred on site (silvicultural) and in informal training days (business skills);
  Business skills training has been informal and ad hoc;

- The schemes enable families to allocate labour effectively between wage and farm employment;
  There are a number of ways in which women are exploited in the schemes, gender sensitive policies are not in place;

- Loan advances enable labour deficient households to hire contracted labour;
  Hired labour and contractors may receive extremely poor wages and operate under unsafe and harsh conditions;

- Contractors are given support in terms of informal training and links to growers;
  Without further wood processing opportunities the schemes do not provide much capacity for spin-off opportunities;

(Physical Capital)

- Infrastructure (some access roads, input supply depots, weigh bridges) has been developed;
  Trees may have been planted in marginal areas, companies have been unsuccessful in acquiring government funding for access roads;

(Financial Capital)

- The schemes provide a significant percentage of rural credit in the areas where they operate;
  Farmers are unable to negotiate the terms of contract (size of loans and prices);

- Trees are seen a form of household savings and informal collateral agreements do exist;
  Many farmers fell early to escape interest accumulation or to meet emergencies, informal collateral agreements tend to be exploitative;

- The schemes provide secure markets.
  It is not in the companies interest to provide highest prices possible

Proposed interventions are:

- The principles underlying DWAF forest permit system and water licensing are undisputed by foresters and likely to have long term benefits on the welfare of small-growers. However, slow implementation has resulted in standstill of operations and severely effected some small-scale contractors. Blanket community permits may resolve the crises. Implementation of the new water licensing proposals must proceed with due regard for consequences in delays.
- More careful consideration of site suitability, distance from mills and condition of access roads should be made by companies. Certain areas where the schemes are operating may not be viable. Special government intervention (funding for access roads) should be considered in severe cases (for example Khangelani outside Mandini), and forestry activities regulated in these area.
- There is a need to protect arable land for high value crops. Overarching policies possibly developing comparative advantages of regions are being considered. Agribusiness investment in new ventures can be encouraged and supported by SDI initiatives. Intercropping in the first two years of forest growth should be supported by all forest companies.
- Comprehensive computer records should be kept of yields, input costs, contracting costs, and net profits of individual growers in each area. SAPPI has a computer system in place. Mondi should follow suit. It would be in growers interests if comprehensive analysis of the distribution of gross profits, under varying input intensity, site characteristics and distances from mills could be made using data from both companies. This would determine the viability of recommendations, such as the practice of promoting trees on best sites.
- Sale of B-Grade state forests within a framework of black empowerment models has provided opportunities for small-growers to acquire more land. There are a range of ownership models within Land Reform policies which could be implemented on large plantations.
- Growers suffer from relatively insecure tenure arrangements, they cannot use their forests for collateral and widows may lose inheritance rights. Gender sensitive clauses covering inheritance should be built into the terms of contract (as in the case of Mondi) and government should assist in to date unsuccessful efforts to upgrade ownership to PTO status.
- All schemes have lowered entrance sizes of woodlots to include rural households with small woodlots. Mondi use of planting contractors also enables households with labour shortages to join the schemes. However, these exists some resentment where growers feel forced to use the services of these contractors. Ongoing communications on the distribution of gross profit and cost of contractors are needed.

- All schemes need to formalize business skills training for growers acquiring lump sums and contractors. The sugar industry may offer facilities for business skills development. NCT's lead of a R100 000 revolving credit facility to contractors could be followed by other companies.
- Contractors and outgrowers may benefit from incorporating their interests in the union servicing the paper and allied industries (SAAPAWU).
- The schemes need to develop gender sensitive policies to cater for the women (approximately 80%f) growers. Employment of women foresters, assisting women to open bank accounts in their own names, women group meetings (prior to planting in new areas) are ways in which this may be achieved.
- External development finance agencies (such as the Land Bank) may be able to offer a wider range of services and benefits. Innovative ideas such as credit unions may also replace loan from companies in the future.
- Development agents on contract to the companies and government (such as Lima) may be better placed to provide growers a wider range of development initiatives such as agricultural supply depots with extension support for other crops and fruit trees, intercropping, labour based road construction, and the development of micro contractors.
- Mondi should consider reducing interest charges by the value of land rental gained by using outgrowers' fields. This would reduce the cycle of debt that may occur for example, where trees are destroyed by fire or yields are poor.
- Informal collateral arrangements could be formalized along specific guidelines that give more protection to the grower. These would include delay in repayment until the forest is mature, regulation of interest rates to acceptable levels.
- Growers should be allowed access to profits in processing along the lines offered by SAWGU. There is evidence that wood prices are suppressed by the monopoly that SAPPI and Mondi hold on the market. Share equity is a way of addressing this situation.
- Most importantly, true empowerment is only likely to occur if grower associations progress beyond their administrative function (conflict resolution and communication), and are incorporated into national forest owners' associations and gain real representative status. Opportunity now exists for representation in the proposed merger of SATGA and FOA. However, to take advantage of this event, ongoing capacity building of grower organizations is needed. Umbrella bodies, which would represent local associations, need to be created. These could possibly incorporate the SAWGU associations would cut across SAPPI, Mondi and NCT structures.

1. INTRODUCTION

Commercial timber markets in KwaZulu-Natal are accessed by small growers through three mechanisms:

- highly structured contractual arrangements with support for production inputs (loans and extension) and assistance in negotiation with harvesting and transport contractors (Mondi "Khulanathi" and SAPPI/ Lima "Project Grow" small grower schemes);
- membership in commercial forest owners associations and processing facilities with some support for production inputs, and incentives to form production or harvesting co-operatives (to meet volume requirements for membership) with some capacity building (SAWGU and NCT); and
- independent sales, normally via (or at the mercy of) small scale transporting contractors who deliver to various outlets (independent growers).

These mechanisms vary in the intensity of relations that develop between the farmer (at community level) and the market (corporate level) and may be loosely evaluated within the broad framework of contract farming theory. This method of farming has long been used in developed countries where it is estimated to account for 15% of agricultural output. The system provides mutual benefits to firms and farmers. The firms are assured of volume through their mills. Contracts allow a degree of control over production quality and quantity while providing access to free land. Responsibility of labour management is delegated to the farmer, and cheap forms of labour, which are not usually accessible (family labour), may be utilized. The system may, (especially in third world countries) present a progressive image of the firm and contribute to the formation of alliances with grassroots political bases who may defend the firms interests. The system permits the maximization of economies of scale at each stage of the production process and enables the firm to draw on specialized expertise of sub-contractors.

In return, farmers benefit from access to an assured market. The firm may open channels to international markets that are usually inaccessible to peasant farmers. Timely and appropriate physical inputs are supplied with specialized extension. The system provides access to credit. Crops may sometimes be used as collateral for long term loans. Spin-off employment opportunities are often created in the local communities (Williams & Karen, 1985; Glover & Kusterer, 1989).

However, outgrower schemes may also perpetuate certain problems which are inherent in this model of rural development. Common problems are:

- outgrowing may facilitate theft from agribusiness core estates since the source of raw materials becomes uncertain (own observations);
- cash crops may divert household resources (labour, land) from staple foods with an inevitable reduction in nutrition (Lele, 1975);
- schemes may promote inappropriate technologies and environmentally unstable farming systems (Feder, 1977);
- peasant farmers are rarely able to negotiate the terms of contract (loan sizes, produce prices) since they are seldom collectively organized;
- schemes may make use of child labour (Clapp, 1988);
- schemes transfer the major investment burden and risks of weather, insects, disease, and fluctuating market prices to the farmer (Levin, 1988);
- agribusiness tends to control the most profitable sector - the processing marketing of agricultural commodities - while restricting the out-grower to the production process (Neocosmos & Testerink, 1985);

- agribusiness often maintains a tight control over supplies and markets as a deliberate strategy to enforce the terms of the contract. The result is that out-growers are bound into a long term dependency on the firm (Clapp, 1988);
- where firms are too interventionist, spin-off employment opportunities to small scale contractors (tractor owners, transporters) are stifled (McIntosh & Vaughan, 1998);
- the gender structure of rural economies may cause severe constraints on out-grower schemes by affecting the control of producers over their labour. Conflicts may arise over who bears the cost of production in terms of additional labour, and who shares in the benefits of this production (Sharp and Spiegel,1990).

Many of these dynamics were reported in early assessments of the schemes (Friedman, 1991; A'Bear et al., 1991) drawing from experience of outgrower sugar schemes (Vaughan, 1992). Attempts were then made to *quantify* the extent of dynamics in grower / non-grower surveys (Cairns, 1993; Cellier, 1994, Othusitse, 1999). Other researchers have evaluated the schemes in terms of employment opportunities (Arnold, 1994), gender issues (Ojwang, 1998), sustainability indicators (Taylor, 1999), land reform (Saville, 1994) , agriculture and development policy (Vaughan, 1996, Karumbidza, 2000), and contribution to livelihoods (McIntosh and Vaughan, 1998).

The objectives of this report are to understand key issues in the evolution of outgrower schemes, their operation in the context of empowerment and redistribution process, and their potential as a model for socially and environmentally sustainable private sector forestry. The macro-economic and national context in which the schemes operate is covered by Jeff Zingle, in Chapter XXX. This chapter deals with the schemes at the community level drawing on interviews held in the Richards Bay and Mandini areas

What can this report add to the debate on outgrower schemes? Firstly it attempts to convey some of the stories of farmers themselves within the context of a tumultuous decade in KwaZulu-Natal rather than within any particular theoretical stance. Secondly, while researchers in the past have inclined to compare the timber schemes with their older counterparts in the sugar industry, this report attempts to draw lessons from recently upgraded small-grower support in the timber industry, notably the SAWGU and NCT small-grower support programmes. Thirdly, it attempts to assess the schemes using a sustainable livelihood framework recently made popular by international development agencies such as the UK Department for International Development (DFID), Oxfam, CARE and the United Nations Development Programme (UNDP).

2. MOTIVATIONS AND REASONS FOR FORESTRY COMPANIES' INVOLVEMENT IN OUTGROWING

2.1 Background

2.1.1 History of the pulp industry in KwaZulu-Natal

The South African mining house, Union Corporation purchased the process to make cellulose from straw[1] in 1936, and set up a public company named "South African Pulp and Paper Industries" (SAPPI) to erect and manage a pulp mill near Johannesburg. The company issued 1 500 000 shares of which one million were taken by the Union Corporation. (The Corporation merged with General Mining in the 1980's to form Gencor).

In 1944, wood replaced straw in the pulp process. In 1951 a mill was built on the Tugela River at Mandini and the production of pulp began in 1954. At this time wood was acquired from private producers. SAPPI bought its first farm in the Ixopo district in 1950. By 1955 the company owned or leased about 10 000 hectares. By 1958 SAPPI owned 50 000 hectares of timber and about 20% of pulpwood came from its own holdings (Hocking, 1987)

By 1966, another mining house, Anglo American Corporation of South Africa, planned to build a pulp mill in Mondi Valley near Creighton and a paper mill on the Umlazi River close to Durban Airport. The South African Government objected to the Creighton site because it formed a catchment area for important water schemes, and eventually only the paper mill (Mondi Paper) was constructed. Mondi approached SAPPI to subcontract news sheet production and this marked the beginning of an uneasy relationship with the Anglo American Group (Hocking, 1987).

In 1974 a paper mill was constructed at Stanger by Reed International using bagasse from sugar cane . This was acquired by SAPPI in 1978. In 1977, SAPPI was reorganized into three operating subsidiaries. These were SAPPI Fine Papers which included the Stanger mill, SAPPI forests which was split into eastern Transvaal, Natal Midlands, and Zululand, and SAPPI Kraft which included the Tugela Mill. In 1981 SAPPI Timber Products was formed to manage the take over of a government sawmill in the Transvaal. This facilitated a market in mining timber for KwaZulu-Natal growers. In the 1980's the weak Rand benefited certain sectors of the pulp industry and in 1985 a new division, SAPPI International, was formed to handle the ever increasing exports (Hocking, 1987). In 1988, SAPPI purchased the SAICCOR Mill at Umkomaas on the KwaZulu-Natal south coast.

The Mondi kraft mill at Richards Bay was built in 1984 and produces 45 000 tons of pulp and linerboard per annum. This volume requires some 4 000 tons a day or 73 000 hectares of plantation dedicated to the mill (assuming 20 MAI per hectare). From 1986 to 1990 and following in SAPPI's footsteps, Mondi purchased more than 25 000 hectares of land (Cellier, 1994). Much of this land was previously under sugar and some tension arose between the two industries. The South African Cane Growers Director pointed out

---

[1] The process of making pulp from vegetable matter developed from a more sinister application. The Italian industrialist Umberto Pomila had pioneered the production of poisonous gas, which was used in trench warfare in World War I, from a process that decomposed table salt into chlorine gas, caustic soda and hydrogen. After the war He used caustic soda to "digest" straw and chlorine gas to further remove unwanted residue. The microscopic fibres at the end of the process constituted pure cellulose, which could be used to make pulp and paper (Hocking, 1987).

that it was difficult to reconcile the high prices paid by the companies for land under sugar with the comparatively low value of timber unless the mills were suppressing the true value of timber. Converting from sugar to timber resulted in a 70% loss in employment. In addition, by not passing on a share of profits made in processing to the primary producer, the mills were able to buy up many private timber farms. 'We do not believe that any government can tolerate a situation which is leading to monopoly concentration of land holdings in so few hands and thus leading to rural unemployment, depopulation and degredation' (Hudson, 1990).

2.1.2 History of the wattle industry

The wattle industry is concerned with the cultivation and processing of Black Wattle (*Acacia mearnsii*). The species is of Australian origin and the first trial sowings in South Africa were conducted on the Van der Plank farm in Camperdown, Natal in 1864. It was initially propagated to serve as shade and shelter for stock. The first practical tanning tests were carried out at Lyle's Tannery, Pietermaritzburg in 1884 which proved the superiority of bark from Black Wattle over the Green, Golden and Silver species grown in Natal. In 1886 a trial shipment to England achieved a total payment of 11 pounds and marked the beginning of the South African export industry of bark. By 1908 about 59 500 hectares were planted to wattle in Natal only. By 1937, about 216 500 hectares were under wattle with the majority (146 500 hectares) situated in Natal (Sherry, 1947). By 2000, the area under Black Wattle has decreased to about 130 000 hectares

While wattle plantations occur in all parts of KwaZulu-Natal under widely varying rainfall and altitude, commercially successful plantations are confined to the cool mist belt region between altitudes of 400m and 1200m where the annual rainfall is in excess of 800mm per annum. Thus, commercial wattle is mainly grown in a belt from south east Mpumulanga through northern KwaZulu-Natal and the Natal Midlands into southern KwaZulu-Natal (www.forestrysa.co.za).

The main application for wattle bark extract is the production of vegetable tanned leather and certain industrial adhesives known for low formaldehyde emissions. Wattle timber has a high basic density of 620 kg/m3 and a pulping yield well over 50%. These qualities make it an excellent pulping species and there is an unmet demand for wattle timber at the dissolving pulp mills located at Umkomaas, Mandini and Richards Bay. About 56% of total production of timber is exported in chip and log form, mainly to Japan and Scandinavian countries where it is one of the preferred hardwood species for Kraft pulping. Other uses include charcoal, building, fencing and firewood (www.forestrysa.co.za).

The Wattle Industry is a partnership between Growers represented by SAWGU and manufacturers represented by SAWEMA. Most growers are also members of the cooperatives responsible for processing the wattle bark and are thus able to benefit from downstream processing. These are the Natal Tanning Extract (NTE) who own an extraction factory in Hermansberg and the Union Co-operative Limited (UCL) with a factory in Dalton.

The bulk of wattle timber produced by SAWGU members is sold through the Central Timber Co-operative and its major shareholder NCT Forestry Co-operative Limited.

2.1.3 History of NCT Forestry Co-operative Limited

The Natal Co-operative Timber Company (NCT), later to be called (NCT Forestry Co-operative Limited) was registered in February 1949. The co-operative was formed by dissatisfied members of the Union Co-operative Limited (UCL) which dealt in wattle bark only and was prohibited under its own regulations to trade in timber. Initially, members of

NCT held 8000 hectares, mainly of wattle. By 2000, members owned more than 200 000 hectares of soft and hardwoods. NCT found an initial local market for wattle timber of 60 000 tons per annum with a masonite factory at Escort. In 1963 the introduction of wattle bark quotas increased the need of utilizing the timber. Several shipments of timber were made to Italy over the following two years and two pack mills were established by NCT at Kranskop and Dalton to market mining timber (Farrow & Ferguson, 1999).

In the late sixties a rift involving timber pricing had developed in the South African Timber Growers Association (SATGA). It was claimed that the large processors used their position as major producers to keep the wood price low (Arnold, 1994; cited in Vaughan, 1996)[2]. The chairman of SATGA, had declared that in the future, private growers would have to protect and promote their interests through their respective co-operatives. This lead the formation of the Central Timber Cooperative (CTC) which was registered in 1970 and consisted of the Natal Timber Cooperative (NCT), the Transvaal Wattle Growers (TWK) and the Natalse Landbou Koöperasie Beperk (NLK). In 1976 the Laeveld Tabak Koöperasie Beperk (LTK) became the fourth member of CTC. In 1981, NLK growers joined NCT after NLK closed its timber division and withdrew from CTC. In 1990, NCT acquired 74% stake in LTK 's interest in CTC. This left NCT and TWK as the two shareholders in CTC.

In 1970, CTC initiated negotiations with a Japanese buyer (Sumitomo Shoji Kaisha Corporation) to supply 250 000 tons of wattle chips per year for a period of ten years. CTC established a ship loading facility at the port of Durban and a chipping plant at Cato Ridge with the capacity to handle 650 000 tons of hardwoods per annum. NCT meanwhile, also continued to export wattle timber on an ad hoc basis until 1979. In the same year the CTC chip plant was moved to Richards Bay and Mondi established its pulp mill in Richards Bay. The favourable supply contract for hardwoods then reduced the need for log exports by NCT.

2.2 SAPPI "Project Grow" small grower scheme

In the early 1950's, SAPPI had begun to issue free seedlings to its employees to plant around their homesteads in adjacent tribal areas as windbreaks and shelter for their livestock. The SAPPI approach was driven by welfarist and environmental concerns. However, by 1964 significant tonnage's began to be realized from these woodlots (Zingle, 2000). As the extent and value of the woodlots increased the importance of a more formalized partnership became evident to both SAPPI and the growers.

Formal support of commercial woodlots in KwaZulu was initiated in 1983 by SAPPI in their areas surrounding their pulp mill at Mandini. The SAPPI "Project Grow" began, and remains today, as a social responsibility programme. Promotion was low-key, relying mainly on word of mouth between growers and their neighbours.

By January 2000, Project Grow had members. These are located in three areas:

Maputaland

- Mbazwana – Manaba, Manzengwenya, Sonto, Vimbukhalo, Mabaso (172 growers and 1099 ha);
- Ngwanase – Manyayiza, Thandizwe, Mahlungulu, Thengani, Mfihlweni, Makhanya, Nyamazane, Zibi, Thembalethu, Phohlo (374 growers and 2319 ha).

Richards Bay

---

[2] The export of wood chips rather than dissolved pulp has raised some concern since benefits are lost in foreign exchange revenue, jobs and fixed investment (Joffe et al., 1995; cited in Vaughan, 1996).

- Hluhluwe - Mduku, Nibela, Mnqobokazi, Mfekayi, Nongoma, Hlabisa (224 growers, 1013 ha)
- Kwambonambi -Sokhulu, Eskhaweni, Mbonambi, Upper Nseleni, Eshowe (536 growers, 1716 ha).

Mandini

- Mandeni - Kranskop, Maphumulo, Ngudwini, Mombeni, Dokodweni, Mhlubulweni, Ndlilinde, Manabe, Ozwatini, Samunga, Khangelani (1828 growers, 2884 ha)

The average plot size is 2.1 hectares in the Mandini and Richards Bay areas but significantly higher (6.25 hectares) in Maputaland. A total of [illegible] hectares has been planted under Project Grow. Over the last ten years, Project Grow members have delivered 138 900 tons to the SAPPI mill at Mandini on the Tugela River. This includes logs from timber exchange agreements (by these agreements Mondi softwoods in Mpumalanga are taken to the Ngodweni Mill in exchange for SAPPI hardwood from Maputaland taken to Richards Bay Mill). In 1999, a total of 39 120 tons were delivered to Mandini Mill from Project Grow members. This contributes about 3% annual throughput for the mill (van Loggerenberg, 2000, *pers. comm*).

2.3 SAPPI Project Grow administered by Lima

Lima Rural Development Foundation was set up in 1989 as a non-government contract extension service. Its first contract was to administer the SAPPI Grow scheme south of Durban to provide timber to the newly acquired SAAICOR Pulp Mill at Umkomaas. The terms of contract for the grower do not differ from the Zululand based scheme. As SAPPI was unsure of the response of potential growers, Lima was appointed on a time basis for the first three years. Thereafter, the contract was on a commission basis for area planted and area serviced. Since 1997 Lima was contracted to harvest woodlots and the organization is paid a commission on tonnage delivered to the mill.

Initially, Lima worked in Emzumbe, Umzinto and Umbumbulu districts. In 1990 Izingolweni was included, Ndwedwe and southern Maphumulo were added in 1995 and the Bizana district of the eastern Cape was added in 1998.

By January 2000, about 4000[3] small growers had planted a total area of 2996 hectares under the scheme. The average woodlot size is 0,8 hectares. In 1999, growers delivered about 17 000 tons to the Umkomaas Mill.

As a rural development agent, Lima has been able to use the timber scheme as a catalyst for other development programmes. These are discussed in Section 5.3. (*Pers. comm*. Stewart, 2000)

2.4 Mondi "Khulanathi" small grower scheme

The Mondi scheme grew out of two independent initiatives. The first was a project which was started by the Institute of Natural Resources (INR) affiliated to the University of Natal, with loan finance from the Natal Tanning Extract (NTE) in the Biyela area 60 km inland from Richards Bay. The INR had defined itself as a catalyst for development rather than a development agent, and had become involved in the Biyela area out of an interest in development systems research. "The land use plan they had developed focused on optimal land use and not necessarily the stepwise meeting of basic needs" (Friedman, 1991). They proposed commercial eucalypt on the steeper slopes in the area because of the appropriate soil and rainfall, proximity of a market, and potential for job creation and

[3] Lima administer the scheme by woodlot rather than grower, accurate grower numbers are not available.

spin-off industries. "Moreover, in line with INR philosophy, it would be an ideal project to get the private forestry sector involved in rural development" (Friedman, 1991).

In 1982/83 season three small areas (total of 6 hectares) of communal land for plantation units were set aside by the Tribal Authority to demonstrate the concept of afforestation. Despite general suspicions among growers as to NTE's motives, the scheme had 102 members and had planted 165 hectares by 1989. In 1990, NTE was consolidated with Mondi and the Biyela growers were incorporated into Khulanathi scheme.

Concurrent to the INR/NTE Biyela scheme, Mondi initiated their "Khulanathi" ("grow with us") scheme at Mfekayi in 1988. Khulanathi "was conceived by Mondi as a commercial venture which would yield additional tons of timber for its Richards Bay pulp mill at a reasonable price to the mill ... Mondi Forests designed and implemented its Khulanathi programme without consultation with the farmers, for its own commercial objectives" (Cellier, 1994: 3, 6). Mondi foresters felt that their job was to promote trees growing and that human and other developments would occur as spin-offs (Vaughan, 1996: 41).

However, while Mondi still considers Khulanathi to be a primarily business venture[4], the company has taken some care to promote and consult with grower associations. They appointed a social forester onto Khulanathi staff in 1991and committed themselves to recommendations made from his doctoral thesis on the programme. In 1992 they commissioned studies by the INR at Mbazwana on environmental and social issues and by the Community Law Centre (CLC) on the development of the small grower contract (Moran, 1992).

Box 2.1 "Mondi completed their Richards Bay pulp mill in 1985, this created a strong demand locally for additional pulpwood. There were no more suitable commercial farms that could be bought for forestry purposes. There were substantial areas of good forestry land in the local tribal areas close to Richards Bay. Many of the local tribes' people were familiar with forestry mainly through employment in the industry and some had embarked on their own small scale forest initiatives mostly with little success. Mondi had the technical forestry expertise and the idea of a commercial woodlot scheme was developed as a strategy to develop this potential. The overhead costs such as administration, management and extension is carried by the company while the operational costs are financed by means of interest (10% simple) bearing loans advanced fo work undertaken by the grower which was recoverable against the final crop. These loans are secured by means of a formal agreement. As the woodlots mature a series of timber depots were developed in each tribal area to provide a local market to buy the timber produced. The overhead cost of the scheme is now covered by the margin on the timber traded". *Overall Khulanathi Manager Mr. H Kewley*

By January 2000, Khulanathi had 2854 members located in the following areas:

[4] It may also be pointed out that Mondi started its outgrower scheme in earnest just before watershed political reforms occurred in South Africa. While this timing is coincidental to Mondi's business objectives, potential political benefits were probably not lost on senior level management. The Mondi Social Forester articulated this point in his thesis: "South Africa is undergoing a process of transformation and profit motivated private companies are being challenged about the role they will play in the new South Africa. Not the least are those industries such as forestry, which are largely land based. As the Pan African Congress' Peter Mayende states 'land is the substance and symbol of ... national self determination'" (Cellier, 1994:6).

Maputaland

- Manguze, Mbazwana, Manzengwenya (157 growers, 326 hectares);

Richards Bay

- Mfekayi, Hlabisa, Sokhulu, Mbonambi, KwaMthehtwa, Ngoye, Biyela, Nkandla, Esikhaweni, Amatikhulu (2697 growers, 5578 hectares)

The average plot size was 1,5 hectares until recently. With the influx of many non-contracted growers, the average plot size is now estimated at 2,0 hectares. By January 2000, a total of 5904 hectares had been planted under the scheme.

Mondi does not keep records of tons delivered by Khulanathi members. Over the last four years, procurement from all small-scale growers has averaged 107 887t/yr. ranging from 82 720 t/yr. in 1999 to 137 441 t/yr. in 1997. This contributes about 7-8% annual throughput at the Richards Bay Kraft mill. The Mondi Woodlots Manager estimates that approximately 40% of this timber are sourced from Khulanathi members and the remainder from independent growers or from Project Grow (Maputaland) members under timber exchange agreements.

In December 1999 and January 2000, heavy rains severely curtailed extraction from the Mondi Forestry estates and commercial growers. Critical shortfall at the Richards Bay mill was made up by Khulanathi growers, prompting thanks from the General Manager of Mondi for their proximity, accessibility and availability (Boake, 2000, *pers. comm.*).

2.5 SAWGU "*Phezukhomkhono*" small grower support scheme

A significant number of small-scale wattle growers were producing bark and timber by 1967 (Table 2.2). Oral accounts suggest that about a third of these woodlots were inherited from fathers and grandfathers (Addo, Lewis & Mander, 2000). These growers were assisted technically and allocated bark quotas through the KwaZulu Department of Agriculture and Forestry. In 1993, growers' associations set up by the KZDAF approached SAWGU for financial support. Subsequent meetings led formal inclusion of small growers in the SAWGU constitution and to a support scheme called *Phezukhomkhono*. The SAWGU constitution defines small growers as those who are "not continuously involved in planting, maintaining and harvesting wattle trees on an annual sustainable basis; and do not have more than 10 hectares of wattle trees" (SAWGU Constitution, 1993). The scheme is similar in some respects to the SAPPI and Mondi schemes[5], but differs significantly in terms of the institutional representation given to growers. Small growers provide about 5% of total annual harvest but occupy 15% representation in the controlling bodies of the Union (General and Executive Committees). They also form part of any SAWGU representation in the Wattle Bark Industry's (WBI) structure. SAWGU has facilitated Small Grower ownership rights in two of the tannin extract factories (Union Co-op Ltd. and NTE Co-op Ltd.) affiliated to SAWGU. With capacity building provided by SAWGU, the outgrowers have created their own representative grower committees falling under an umbrella committee, which administers their concerns.

By 1999, some 600 growers had joined *Phezukhomkhono* and the total registered small-growers had risen from 1964 in 1992 to 2801.

SAWGU records of small grower production are as follows (Feely, 2000, *pers. comm.*):

---

[5] It was designed together with wattle growers by the Services Manager of SAWGU, Mr. John Feely who initiated SAPPI "Grow" in 1983

Table 2.1 SAWGU small – growers

	1967	1992	1997
Area of managed woodlots (hectares)	1 675	3 595	4 760
Number of small growers	915	1 964	2 801
Annual production of bark (tons)	1 675	3 595	4 760
Annual production of timber (tons)	8 375	18 000	24 000

SAWGU estimates that their registered members now own about 90% of all small wattle plantations in KwaZulu-Natal. The remaining 10% of trees are planted too far from the mills or in woodlots that are too badly maintained to be of commercial value.

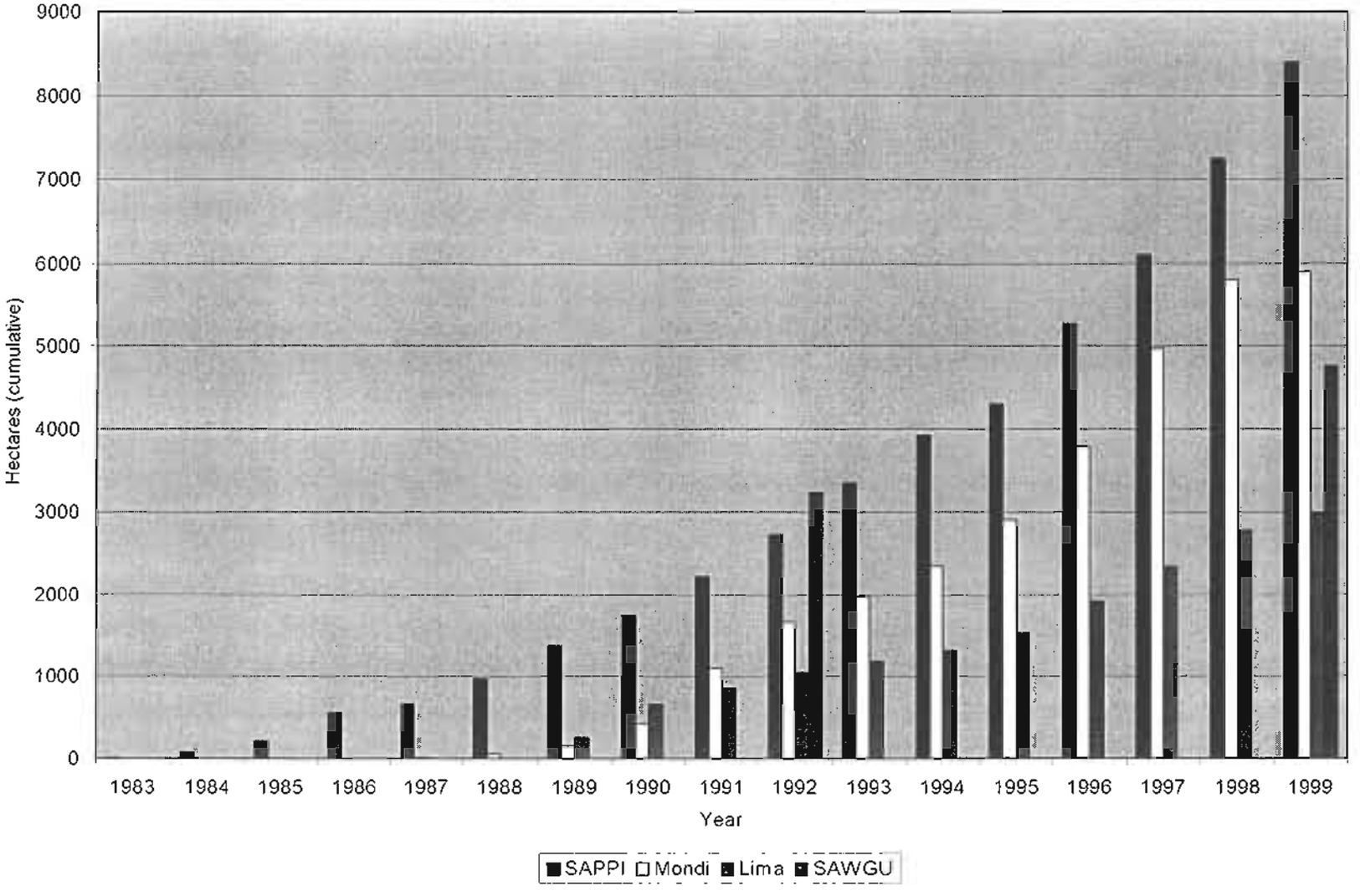

Figure 2.1 Hectares planted per year (cumulative) under small –grower schemes in KwaZulu Natal

Box 2.2 Small grower activity grew as a result of employees of wattle growers in the KwaZulu Midlands practicing on their own lands what they had experienced in their employment. This took place chiefly in the magisterial districts of Melmoth, Nkandla, Maphumulo, Ndwedwe and Umlazi. The main objective was producing poles and lathes for the local building market, and firewood. Wattle bark became an attractive cash generator. They were supported technically and administratively by the former Forestry Department, and subsequently the KwaZulu Department of Forestry and Agriculture (KDFA). This included liaison with the Wattle Bark Industry (WBI) to secure an allocation of Bark Quota to supply to Bark Mills at Hermansburg, Dalton and Pietermaritzburg.

In those early years, there was no outlet for wattle pulpwood. Some of the individuals began operating as contractors, to harvest and transport this bark of thei own and other woodlot owners. The WBI had limited resources in terms of developing this activity, as from the 1960's the Basic Bark Quota (BBQ) system was designed to downsize the whole industry. This was because leather footwear was being replaced by alternative materials. The WBI capacity to interact with many individuals was not available and from the late 70's and early 80's, KDFA performed the function not only of organizing quotas, but also of distributing payments for bark via local magistrates' offices.

From the mid 80's, SAWGU started to become aware that the woodlot activity was not an informal haphazard operation. It was certainly sustainable. Woodlot competitions and field days were held to promote improved silvicultural practice. Th KwaZulu Government importantly established committees of local wattle growers in the early 1990's, usually based on tribal wards. These became the bases on which SAWGU subsequently established it's small grower structure. In 1993 SAWGU amended its Constitution to accommodate small grower representation and participation in all structures...

In 1992 SAWGU undertook the first complete survey of all individual woodlots using official orthophotos to establish individual ownership, area, age and silvicultural status. The tenant of individual ownership is important. In KZN Tribal areas, if an Inkosi or Tribal Authority allocates a piece of land to an individual, that is virtually a permanent arrangement, albeit no formal Title Agreement is generated ... It is on this base that the local schemes of cane growers and timber growers have been established.

In 1993 a group of Small Growers approached SAWGU, requesting financial assistance for planting wattle woodlots. The WBI initiated its Woodlot Planting Assistance Scheme, later named by the growers Phezukhomkhono (PK). (This is the Zulu name of the "Piet My Vrou" bird whose Zulu bird call in early summer is saying "wake up and get busy"). PK commenced in 1994 when SAWGU appointed a Small Growers Extension Forester who besides managing PK, handles all liaison with Small Growers previously carried out by KDAF...SAWGU has recently facilitated for their Small Growers to become full members of the two Extract Manufacturing Co-ops (Union Co-op Ltd. and NTE Co-op Ltd.) so they now enjoy the benefits of full participation in the growing and processing of bark.

John Feely, Services Manager SAWGU, February 2000

2.6 NCT Forestry Co-operative Limited support for small growers

"NCT starts with the grower, we look at his needs and don't try to lock him into a market. We try to create as many markets as possible, then let the grower choose... It is in our interest to find the best prices for our members whereas it is in their [the small grower schemes] interest to find the lowest" (Keyworth, 2000, *pers. comm.*).

The relationship of small growers with NCT has evolved over the years. In the apartheid era NCT provided informal support to wattle growers by purchasing their timber at various depots in the KwaZulu – Natal Midlands through an arrangement with SAWGU. In 1994 NCT began formalize relations with small growers through a share holding scheme.

A-Class shareholders consists of growers who:

- own or have access to through communal tenure arrangements, a minimum of 10 hectares of land;
- have bought shares in NCT at a minimum of R200;
- have demonstrated commitment to the relationship through a two-year probation period in which time they have consistently delivered timber and attended meetings.

A-Class members are given preferential allocations, monthly commitment bonuses (R7/t for eucalypt and R30/t for wattle) and representative rights in NCT shareholder meetings.

There are fifty registered small growers and contractors in this group. The largest three growers among the A-class members have forests of 161 ha (wattle -Vryheid), 120 ha (eucalypt and wattle - Greytown), and 102 ha (Eucalypt – Mbonambi). Apart from individual members there are also 2 grower and 18 contractor co-operatives with A-Class membership.

NCT has supported the development of grower co-operatives through assisting members to construct small depots. In this way growers can bulk up harvests to reduce long haulage costs and provide a sustainable supply. In the Mbonambi area, a co-operative of 101 eucalypt growers has been established. Many members of the co-operative began growing trees in 1960's. Their woodlots average 12 hectares in size, and include a Tribal Authority forest of 46 hectares. One member is already an individual Class-A member. At Nkandla, NCT has helped wattle growers set up a grower / harvester cooperative of 52 members, 25 of whom own small woodlots. The co-operative has started a depot, which enables transportation to Richards Bay (see Box XXX).

NCT has also encouraged small-scale contractors to combine efforts in order to sustain supplies from small-grower woodlots. There is a loan facility of R100 000 for A-Class small-scale contractors

General membership is given to other suppliers. The membership form merely expresses willingness to sell timber through NCT. There are no contractual agreements between the two parties and they may experience difficulties in getting allocations during times of oversupply (Addo *et al.*, 2000). However, allocation requests are computerized and as far as possible booked in advance for these members. They receive a regular newsletter in Zulu and may attend field training days. Some small-grower members have volunteered to do extension in other areas. NCT estimates there are about 1200 members (600 in Zululand) in this category. Preliminary allocation requests (mainly from contractors who service these members) for the year 2000 are shown in Table 2.2.

Table 2.2 Preliminary allocations for small growers (General Members) (Dladla, 2000, *pers. comm.*)

Zone	Area	Wattle (t/yr)	Eucalypt (t/yr)	Pine (t/yr)
1	Southern Natal	3920	1100	1400
2	Umbumbulu	5950	5750	200
3	Harding	1808	2000	200
4	Wartburg	23270	13830	40
5	Greytown	17660	6360	120
6	Vryheid	28100	13400	300
7	Ulundi / Melmoth	600	2050	
8	Zululand	10200	30100	
9	Nelspruit	-	-	-
10	Swaziland	10900	6100	
	Total	102408	80690	2260

NCT markets timber to a variety of outlets. In the Zululand area approximately 80% of timber goes to the CTC wood-chip factory at Richards Bay and most of the remainder to Silvacel.

2.7 Development Targets

Project Grow has the capability to develop 1300 hectares per year. They have budgeted a sustainable harvest of 83 000 tons for the year 2000 and they believe the program will bottom out at a sustainable harvest of 100 000 tons per year. Expansion of Project Grow around the Mandini mill has slowed in recent years. Most of the suitable areas are planted up. The remaining area is steep with poor access roads. Future growth is therefore targeted for the Maputaland area where SAPPI estimates about 10 000 hectares is suitable for forestry.

The Initial Khulanathi target was to develop 500 hectares per year until 5000 hectares had been planted. That target was reached in 1997. Khulanathi now has the capacity to develop 800 hectares per year. Khulanathi has also targeted the Maputaland coastal region as a future growth area. Maputaland has high forestry potential (25t MAI), but is ecologically sensitive. The former KwaZulu government approved plans to develop 5000 hectares of forestry south of Lake Sibayi in locations identified by an Environmental Impact Assessment. This study, commissioned by Mondi, indicated suitable areas for eucalyptus away from rivers, wetlands and indigenous plants used for boat making, crafts and wine-making (Raffia and Lala palm). However, Mondi now fears that their activities in the area will clash with the objectives of the Lubombo SDI which focus on tourism potential of Maputaland. New plantings in the area have been temporary stopped despite many requests from local farmers including a deputation from a prominent local politician.

Lima hopes to achieve an annual planting target of 400 hectares per year for the next ten years within their present areas of operation on the KwaZulu-Natal South Coast.

Phezukhomkhono does not foresee significant growth over the next decade. Access roads are now needed to tap potential of existing wattle woodlots still outside the scheme.

NCT does not assist with planting and maintaining woodlots. NCT believes that membership will steadily be drawn from existing independent small-growers and those exiting the small-grower contractual agreements for a variety of reasons.

2.8 Government legislation affecting the expansion of small grower schemes

Under DWAF regulations small woodlots (less than 10 ha) did not require planting permits. In the past there was a "gentlemen's agreement to regulate distances of plantings from streams and wetlands but foresters reported difficulties in their attempts to persuade growers to observe these practices. However, since the Forestry Act of 1997, small-growers also require permission to plant (though under less rigorous guidelines). SAPPI and SAWGU have been able to negotiate community permits for certain areas, based on details of the catchments, existing afforestation and the potential for new plantings. However, expansion in 1999 was severely curtailed by the need for these permits. In 1999, for example, Khulanathi planted only 100 hectares (about 12% of the previous years achievement) due to difficulties in getting water permits. DWAF eventually inspected and approved Khulanathi small grower sites in November 1999 after a year - long wait.

"We also believe that development cannot be *carte blanche* but the water legislation have been built around a first world scenario. We have been waiting since November 1997 for permits to be approved. Some of it is because of ignorance on our side, but when we bring documents, they ask for more. This appears to be stalling tactics on the side of DWAF. Things are improving. We applied for five community based permits and have been granted two" (SAPPI Forester).

The SAWGU Services Manager reports "the application of various legislation requirements, in particular of Water Affairs, Environmental Affairs and Agriculture is very confusing and not conducive to rural development".

Draft plans for water-use licenses, further threaten to curtail small-grower development. "The playing field is flat but there are no goal posts anymore! "(Mondi Forester). This statement sums up the general frustration with DWAF felt by many foresters.

2.9 The effects of oversupply on the world market on expansion of the schemes

Recent oversupply on the world market for pulp and paper has forced the pulp mills to reduce and regulate intake from growers via means of a monthly quota system. In Mondi's case, quotas for local depots are allocated through the grower committees, with preference given to Khulanathi members. Mondi's attempts to develop these associations have met with partial success. Certain areas operate equitably. In other areas the system is manipulated by Tribal Authorities or powerful local individuals for their own political or economic advantage.

SAPPI has given preference to Project Grow small-grower timber over estate timber at both the Mandini and Umkomaas mills. However, since September 1999, SAPPI has not accepted non-registered timber into their mills.

2.10 Summary

In summary, SAPPI initiated their scheme as a social responsibility programme, Mondi as a business venture. The extension of SAPPI's programme to the South Coast formed anchor funding for Lima to set itself up as a contract based extension and rural development agent.

SAPPI and Mondi's motivations have not changed and the differences are evident in some of the features of their respective schemes. In both cases the schemes offer benefits to the firms in terms of classic contract farming theory (Section 1).

SAWGU and NCT initiatives were a response to the 1994 Government of National Unity Reconstruction and Development Programme (RDP) and aimed to integrate small-scale farmers into their respective organizations. The programs have formalized relationships that grew out of the apartheid era by providing small farmers with representation at executive levels. Benefits to companies are probably more political than economic, yet small growers do contribute significant volumes (about 5%) of wattle bark and timber.

Table 2.3 Summary of estimated number of small-scale eucalyptus growers in KwaZulu-Natal and volumes delivered to various markets (1999)

	Volumes of eucalypt delivered to various markets in 1999 (t/yr.)					Total hectares under eucalypt	Number of eucalypt small-growers
	Umkom-aas Kraft (SAPPI)	Mandini Kraft (SAPPI)	Richards Bay Kraft (Mondi)	CTC Wood-Chip (NCT)	Silvacel Wood-Chip		
Lima (KZN South Coast)	*17 000*					2 996	*4 000*
Project Grow South & Central (direct) North (via exchange)		39 120				9 031	3 134
Independent (South Coast)	*1 000*					*800*	*80*
Khulanathi (all areas)			*33 112*			5 904	2 854
Independent (Central)			*49 632*			*3 600*	*1 200*
NCT A-Class (includes 5 grower / contractors and 1 co-operative of 104 members)				*36 200*		384 *+ 2 100* other areas harvested by contractors	6 *+ 700* indepen-dents
NCT General Class (Central)				*24 080*	*6 020*	*1 800*	*600*
Totals	*18 000*	39 120	82 744	*60 280*	*6 020*	*26 615*	*12 574*

	206 164		

Figures in italics are 'accurate' estimations,
Underlined figures are very rough estimations and may be inaccurate – the following are assumed: Average yield = 100 t/ha (6 year rotation)
Average size of independent woodlot = 3 hectare

3. MOTIVATIONS OF GROWERS TO ENTER CONTRACTS

3.1 Reasons for growing trees

In most of the coastal areas which are near to commercial eucalypt forests, households started growing trees in an informal way, by taking seedlings from under the mature trees and replanting them around their own homes. These trees were used for firewood, building, fencing, shade and other domestic purposes, and occasionally sold to neighbours or inhabitants of nearby thornveld areas who sought the straight eucalypt trunks for building their homes.

Box 3.1 "In 1933 a white man came our area to plant gum trees around the dip tank. The reason was to support the soil where the cattle had worn the grass away. People took seedlings from under these trees and brought them to thei own homes. That is how forests started in our area. We used to sell to each other or to the *Hlanzani* (Tugela thornveld) people who do not have straight trees for building. Before these trees were planted we used to use cattle dung for our fires. (*Project Grow grower, Khangelani area near Mandini*).

Further inland, communal woodlots of wattle and gum were planted in many areas through government initiatives for conservation purposes[6]. In Sokhulu, Mtunzini and Mbazwana large tracts of eucalypt were planted in tribal areas under the auspices of the South African Bantu Trust (SABT). From 1972 the KwaZulu Department of Agriculture and Forestry (KZDAF) also assisted in distribution of subsidized eucalypt seedlings and technical advice from nine extension staff, operating out of a number of nurseries located in tribal areas. Initial community gum plantations proved problematic as no one took responsibility for the trees. By 1982 the KZDAF was preferred to promote smaller privately owned woodlots and they encouraged growers to join the SAPPI small grower scheme when it commenced in 1983, The KZDAF also assisted SAWGU in administration of small wattle growers for some time (Hughes, 2000, *pers. comm.*)

Workers in these and other commercial forests planted trees on their own land allocations, using techniques learnt in their jobs. Along the coastal areas, initial contacts with commercial markets for eucalyptus were probably made in the mid-1960's via felling and transport contractors who were looking to fill procurement quotas (Box 3.4).

At Mbonambi which is now one of the most densely planted areas, woodlot production was given an unexpected boost. According to oral reports, in 1959, the forestry company Waterton attempted to convince the government that eucalyptus trees were necessary in the area in order to stabilize the coastal dunes, or that the government simply wanted the land for its own plantations[7]. Under threat of forced removal, local inhabitants responded

---

6 The first recorded government initiated woodlot for use by black homesteads was established in 1893 near King Williams Town. Driven primarily by environmental concerns, these type of woodlots continued to be promoted by state and parastatal organizations along the eastern seaboard of South Africa. Their functions were to provide firewood and building materials for small towns, or to provide an alternative source of wood near indigenous forests (Gandar, 1994).

7 Verbal accounts differ as to the motives of the government. The Surplus People Project reports that Reserve Four (Mbonambi and Sokhulu) north of Richards Bay was threatened with removal in terms of the 1975 consolidation plan for KwaZulu. The land was descheduled and excised from KwaZulu and it's status under the Group Areas Act had been proclaimed white. Reasons appeared to be "it's proximity to the growth point of Richards Bay, its general situation along a coastline regarded by government and the military as strategically sensitive, and it's favourable agricultural prospects" (AFRA, 1983)

in an ingenuous way. They argued that if they planted trees themselves, there was no reason for them to move. Apparently the government relented and the KZDAF supplied the necessary seedlings. A number of people did leave the area. Those who stayed to plant acquired large holdings. By the early 1960's these farmers were selling their trees to contractors who felled and transported to a nearby weighbridge at Penicuik. Accounts of pioneer growers suggest that they were surprised at the magnitude of profits that could be earned from trees.

Box 3.2 "The Sokhulu and Mbonambi people ... have a commendable record o self help. Encouraged by the evident success of their white neighbours, and indeed in some cases assisted by these neighbours, the tribesmen have established numerous eucalyptus timber lots and small plantations throughout the area ... Much of this has been achieved with the meager cash input from the wage savings of the migrant male worker" (*Letter to the Natal Mercury condemning the proposed removals 4/11/81 cited in AFRA, 1983*)

"I know what it is like to farm in Ntambanana. It's impossible. It is dry, thorn country with not one permanent running stream in the whole area. The soil is shallow unfertile clay and the main river, the Enseleni, consists mostly of polluted pools unfit for humans an animals" (*White farmer who had 'battled for 28 years to make a living there' and eventually left the area 'penniless' describing the proposed relocation site at Ntambanana for Reserve Four people, Natal Witness, 18/11/1981 cited in AFRA, 1983*

By the mid 1960s, at Sokhulu just north of Mbonambi, plantings were strongly encouraged by the local Tribal Authority which also feared that Timber companies would take land that was not utilized. As far as the author is aware, this is the only area where a Tribal Authority played a significant role in promoting trees independently of the SAPPI and Mondi schemes.

Box 3.3 "I started growing trees when I was still a youngster more than thirty years ago. At that time the Inkosi gave land to anyone who wanted to plant trees. He did not want the Timber Companies to see any open space when they flew over in their aeroplanes." (*Project Grow grower, Sokhulu area*)

Threats of expropriation of land also come from within the Tribal Authority system and trees offer a means of securing tenure. Under the communal system of land tenure, a field remains allotted to its original user unless it is unutilized for a considerable period of time. A household's right to unutilized land may become weakened when the male household head dies. This must be understood in the context of the strongly patriarchal settlement patterns that exist in KwaZulu. The husband's family may lay claim on unutilized land. In these situations, trees are a godsend for widows, harassed on the one hand by unsympathetic indunas who wish to reallocate their land, and on the other unable to find household resources to plant every year or maintain more intensive perennial crops such as sugar.

Box 3.4 Mrs M... moved to the Sokhulu area in 1949 to get married. In 1955 people living in her area were threatened by government officials with forced removal allegedly to stabilize dune encroachment from the nearby Richards Bay coastline. "This was just a trick to move us as we knew nothing about this beach sand or of planting trees". The M... family gained permission from the Tribal Authority to contest the removal and eventually an agreemen was reached that community members could stay if they planted trees in the area. "After some time we received a box with a Pietermaritzburg registration. It was just a small-small. It was delivered by the whites that came here before. When we opened it there were the seeds but we didn't know how to plant them". Many neighbours then left but her husband planted more than 50 hectares to trees after being given seed for gum and pine. Most of this land was previously grazing land. Under tribal law this land was then allocated to his household. The family was taught to plant trees by a local farmer who had previously on white farms. By the early 60s it was time to harvest the trees but no-one knew where to take them. The only mill at that time was the SAPPI mill at Mandini. They approached a forester at Eteza Station who was working for Waterton Forests and he agreed to help them. They were surprised to find their trees were valuable. At that time they were paid R8 per load. In the 1970's the Sokhulu magistrate advised people to plant more trees to reclaim the swampy areas. They continued living in the area with no problems until the local Induna died and was replaced by his son. The son had been living i Swaziland and did not know the history of the area. He was apparently jealous of the large land holding that the M. family had. Even so, problems only started after Mr M... died in 1981. Mrs M... believes that the Induna has caused problems for many families but particularly those who are headed by women. He gave away a lot of her land although she still have about 35 hectares. In the early 90s her family was accused of supporting the ANC. This was not true, in fact she had been a strong member of the IFP for 8 years. It was purely an excuse to try to drive her family from the area. In 1993 both her two sons were killed in the violence that swept through the area. Her husband's brother fled to Mandini where he was working, and is still livin there today although she looks after a 5 hectare forest for him. She also had to leave and was helped to return through certain lawyers. Subsequently it was found that these lawyers were commissioned by the ANC but she was not aware of that. The Induna has subsequently attacked her himself but his gun did not fire. This year he set fire to her pine plantation (about 2 hectares). She has taken alternative measures to protect herself (*muti*) but is scared to be alone now. All that is left of her family are her two daughters and seven grand children.

Mrs M... is now a pensioner. Her daughters are unemployed and receive no maintenance income. Her husband's brother sometimes helps out with cash. They plant about two hectares of madumbes in the swamp close to their house together with some vegetables and a half a hectare of maize. Some income is gained from sale of madumbes but most of the money comes from trees. The family does all operations (planting, weeding, felling, stacking and marking) unless their chainsaw is broken. In that case they hire a contractor to fell at R200 per truckload. If they provide their own petrol and oil he charges R150 per load. They pay R260 pe truck (10 tonne) to Mbonambi weigh-bridge. The trees were initially registered as Mr M... but after his death she took ownership. She now takes all decisions over the trees. Money is used for household expenses only. Two chainsaws were bought some time ago. Although she coul probably afford to now buy a second hand tractor it would not help as she has no one to drive it She also buys other peoples forests from time to time and takes charge of transporting them to the depot.

She is considering joining one of the small grower schemes because there are rumours that th local weigh bridge will stop taking non-contracted timber. She first approached Mondi although people say that the loan repayments are very high because of the interest. However, it is rumoured that the Mondi foresters at the weigh bridge are encouraging people to join the SAPPI schemes because they are tired of people defaulting on their loans. The Induna also refused to sign the permit necessary for her to join the scheme. She has therefore approache SAPPI to join as a member.

Recently the area has been heavily planted to trees and the community have noticed that the pans have dried up. The result has been that many livestock have died from lack of water and grazing. (*Independent grower, Mbonambi*)

3.2 Reasons for joining the schemes

3.2.1 Incentives and disincentives at the household level

Quantitative studies of small grower timber schemes suggest that the major reason for (new timber growers) joining the schemes (about 80-90% of respondents) is simply as a means to obtain cash income at harvest. (Cairns, 1993; Cellier, 1994; Othusitse, 1997). A small proportion of farmers join to obtain the annual payments and a handful misunderstand the conditions of contract entirely and join in order to obtain fuel and sell wood to neighbours (Cairns, 1993; Cellier, 1994). Cellier also found about 5% specifically joined the schemes to secure their rights over unutilized land but reported that respondents would not willingly talk about this issue. (Othusitse, 1997) ranked reasons for joining in order of importance as: perceived financial benefits from yields, secure market for timber, ease of management compared with food crops, and reliability of yield. Other reasons were: growers were persuaded by an extension officer or neighbours, their land was not suitable for other crops, and the advance loans assisted in plantings.

Box 3.5 Mrs M...'s husband was interested in planting trees ever since he worked on a farm in Vryheid. He started picking up seedlings and planting around th home long before the SAPPI scheme, but in a very haphazard way. He died in 1973. The SAPPI forester introduced the scheme at a Tribal Authority meeting and Mrs. M. introduced herself to him at a school meeting. She joined to try to earn money for he family, they had no other source of income. The SAPPI forester's main point was the should not use land where they plant food. They should use steep areas only. Mrs. M... was the first to plant in the Ingodweni area. She started an association of six other women. They had to get forms signed by the Inkosi and he agreed but stresse they must only plant on their own property. Their association boomed. Only women were allowed to join because they do not trust men with money. Her first planting was 25 000 plants and the second was 37 000 plants (about 3 hectares in all). They believe that many contractors are dishonest. Truck drivers are generally suspected o off-loading small-grower timber on the way to the depot. The association planned to get their own transport for their timber, but violence in 1993 disturbed their plans. Mrs M...'s house was burnt down in 1996 along with six others. This may have been because of jealousy (she has bought all her furniture, a stove and a fridge from profits), but there is a long faction fight in the area. Her son has battled to get a job. "I bought him a chain saw and he is harvesting for people right now". (*1st Project Grow grower in Ingodweni area*)

These studies found that the main reason why people did not join was because they required more land (Cairns, 1993; Othusitse, 1997). Other common reasons were that people wanted to see the real profits from trees before they committed themselves, or they thought the growing cycle was too long. Less common reasons for not growing were: fear of cattle damage, preference for other crops (sugar, vegetables, fruit trees), lack of household labour (too busy with other crops or too old to plant), fear of jealousy among neighbours, concern for what would happen to the market if the timber companies no longer needed trees, suspicion of timber companies motives (stealing land), and concern about the inability to change once trees are established. (Cairns, 1993; Othusitse, 1997).

Box 3.6 Mrs M. came to Esikhaweni in 1990 from Matubatuba to live with her husband. He was born in Esikhaweni. They have a small piece of land where they plant maize and madumbes. Mrs. M. works with a group of five other ladies to plant and weed other peoples' forests. They have no land to plant trees themselves. Her husband is no longer working. He used to work for Unitrans. He now fells woodlots. He charges R50 to make a truck load (10 ton). He does not own a chainsaw yet. Th forest owners provide the equipment. (*non-grower and part time contractor, Esikhaweni area*)

Independent growers have more recently joined the schemes for four reasons. Firstly, some believe that the schemes provide access to better inputs including improved varieties of eucalyptus that they are unable to get elsewhere. Secondly, some reported that they were now old and needed to employ others to do the work. The contractors that Mondi provided enabled them to continue maintaining their woodlots. Thirdly, certain varieties of eucalyptus (*E. maculata, E. paniculata*) that were given out by the KDAF are no longer accepted at the mills. Independent growers join to get acceptable varieties. Fourth, and most importantly, quota allocations favour members of the schemes. Independent growers have now joined in an attempt to get a market for their timber.

Box 3.7 "I started growing trees in 1978. Before 1978 it was just grazing land. I used to work for Safcol which was growing trees for the government. I joined Mondi in 1995. We were told that the mill would not accept our trees, Only the special trees from Mondi would be accepted. Mondi did all the work. We were told that is how the system works. I could have done the job myself." *(Khulanathi grower Sokhulu area*)

3.2.2 Incentives and disincentives at the community level

A factor analysis of growers' characteristics among 62 growers from all schemes and 30 non-growers, suggested two broad categories of households who were likely to join the schemes (Cairns, 1993). The first group had large land holdings. This group also tended to be wealthy in traditional ways, having large land holdings with the land and labour resources to produce cash crops such as cotton or sugar in the coastal areas. They usually had relatively larger cattle herds and were likely to have resided for a long time in the area. However, the family normally had no formal source of cash income and there was a large ratio of unemployed adults at home. The household head might have been involved in some local business and he was usually not a pensioner.

The second group of participants were mainly pensioners. Their characteristics included long residence in the area but smaller land holdings than the first group. The head was unlikely to be formally employed or to own a local business but was more likely to be a member of the Tribal Authority.

Non-growers characteristics were correlated most strongly with small land holdings, Other characteristics included a recent move into the area, with non-local formal employment of the household head.

Table 2.1 shows the breakdown of livelihood sources of respondents for this report. Although the number of respondents was very small, the table indicates that households from all vulnerability classes are able to join the schemes. There appears to be no particular leaning toward marginal or vulnerable households among growers. On the other hand, weeding and firebreak contractors and chainsaw operators appear to come from highly vulnerable households, while the transport contractors interviewed all had formal wage earners in their households. All households interviewed grew food crops.

Table 3.1 Sources of livelihoods of respondents

Type of livelihood source	Marginal	Vulnerable sources		Semi vulnerable	Reliable sources
	Agriculture or non-farm petty commodity	Unreliable remittance +agric	Pension or state welfare + agric	Two or more vulnerable sources + agric	Wage labour or reliable remittance
Contracted growers	4	3	5	1	5
Non-contracted growers	0	1	1	1	1
Weeding and firebreak	2	0	0	0	0
Chainsaw contractors	3	0	1	0	0
Transport contractors	0	0	0	0	3
Percentage total	34%	14%	24%	7%	28%

4. HOW DO CONTRACTS WORK

4.1 Steps to join

The following steps describe how growers join the various schemes (Cellier, 1994; Addo *et al.*, 2000; Boake, 2000 *pers. comm.*; van Loggerenberg, 2000, *pers. comm.*; Feely, 2000 *pers. comm.*):

- A potential grower approaches an extension forester to request to join, SAWGU has an application form which must be completed;
- The forester accompanies the farmer to see if the site is suitable in terms of general geographic location, soil, rainfall, slope and size of land, and conservation status of vegetation to be disturbed. Initially, Mondi set a lower limit of 1000 spots (tree plantings) which means the site must be at least 0,6 hectares. By 1992, Mondi had lowered this figure to 500 spots;
- Each farmer must have the approval of the local Induna and the Inkosi before any work can take place. This is mainly to ensure that farmers do not plant on land allocated to other households. The local government Agricultural Officer is also notified. SAWGU applications are screened by a committee consisting of the tanning industry, SAWGU, the local SAWGU association chairperson and committee members. SAWGU assesses applications in terms of reliability of applicant to undertake and complete a forestry project, the relationship with community members and residential status of the applicant in the area.
- Application is then made to DWAF for permission to plant. Blanket community permits based on quartenary catchment information have recently been approved;
- The forester then explains the operations that need to be done on each particular site and the correct timing for each operation A contract is then signed by the grower and the company or in the case of wattle with SAWGU (Appendix XXX);
- The contract makes provision for an advance to be paid by the company to the grower after he or she successfully completes each operation (these operations and the accompanying tariffs are shown in Table 3.1). In the Mondi scheme the grower is free to keep this money, hire local people to do the work, or have the company arrange for a local contractor. SAPPI and SAWGU discourage the use of planting contractors;
- Normally, growers only carry out a subset of operations, which includes marking, ploughing, pitting, planting, fertilizing, weeding and fire protection. Certain fertilizer applications (such as Agrofert) are very expensive and only rarely applied in troublesome areas;
- The money paid out to the grower for each operation is essentially a loan advanced against the value of the final product. SAPPI and Lima provide interest free loans, SAWGU and Mondi charge 8% and 10% simple interest respectively. Amounts advanced are deducted from the final payment, made to the grower at the time of harvest. The companies provide extension free of charge and fertilizer and other chemicals at bulk cost price. SAPPI and Lima provide free seedlings. Mondi promotes the use of clones. These are considerably more expensive, but Mondi believes that the cost is justified through the growth rates that can be achieved. Mondi subsidizes the cost of clones by about R170 per 1000 trees;
- It is also possible for the grower to take an additional annual advance against the final value of the crop.

Table 3.1 Advances paid for work performed

Activity	SAPPI & LIMA	MONDI		SAWGU
		Coastal	Inland	
	(R/1000 spots[8])			(R / ha)
Cost of seedlings	Free	Free if used	Free if used	270.00
Cost of seed				110.00
Fencing wire				250.00
Cost of clones		450.00	450.00	
Burn TUP		60.00		
Land preparation / Bush Clear	102.65	71.88		
Plough x2 disc	203.41	562.50	562.50	
Plough x1 disc	37.60	320.62		
Marking		21.88	171.87	
Pitting	88.44	147.50		
Planting	199.54	53.12	53.12	
Blanking		43.75	43.75	
Manual watering		32.50	32.50	
Chemical hoe		58.12	58.12	
Kill stumps		27.50		
Tractor watering		418.75	418.75	
Fertilizer (including agrofert) (input costs)		1416.00	166.00	370.00
Chemical (input costs)		216.00	129.00	
Fertilizer (planting)	21.69	36.25	36.25	
Fertilizer (4:1:1)		36.25		
Fertilizer (agrofert)		36.25		
Spot weeding		81.25	81.25	
Complete weeding	68.41			
Light weeding / inter row	68.41	81.25	81.25	
Medium weeding	102.62			
Heavy weeding	136.83			
Burning grass		13.75		
Fire protection (annual)	61.11	55.00	75.00	
Coppicing 1st	135.64	40.00		
Coppicing 2nd	135.64	53.12		
Coppicing 3rd		65.00		
Brashing		18.75		
Advance payment (annual)	66.60	73.75	73.75	

[8] Mondi plants at a spacing of 1600 spots per hectare, SAPPI plants at 1754 spots per hectare.

4.2 Development of the SAPPI Grow / Lima contract

The SAPPI Grow contract was developed in 1982 by Mr. John Feely (now of SAWGU), drawing from individuals' experiences in the Cane Growers Association and the Financial Aid Fund (FAF)[9]. Timber was not a widely known crop and there were no small grower associations that could comment on the terms. A pressing issue was to overcome the cash flow problem during the 6-8 year growing period and to this end, the contract introduced the element of maintenance payments and firebreak protection. Advance payments were loosely based on a land rental price[10] (Feely, 2000, *pers. comm.*).

The most significant change in the terms of contract was the introduction of a clause giving SAPPI rights to the first coppice. This was to protect the firm's investment in the case of fire damage – to enable recovery of the loan from the coppice crop (van Loggerenberg, 2000, *pers. comm.*).

SAPPI has made some enquiry's regarding life and fire insurance's on their loans. They have also approached the minister of forestry for assistance with insurance, equipment, vehicles and watchtowers in Project Grow areas. They are awaiting his reply.

4.3 Development of the SAWGU contract

The SAWGU contract was developed by the small growers' manager (also John Feely) and several wattle growers associations which were already existing. Unique elements that emerged through the negotiation process were:

- up to two thirds of the total advance payments may be drawn to purchase barbed wire (poles and labour costs must be provided by the grower);
- since wattle thinnings provide some income, no interim payments are made beyond the first year;
- there is a clause to allow for the early repayment of the loan from deductions from income earned in older woodlots;
- there is provision for group life and fire insurance for growers;
- it is preferred that loans are not given to households who cannot do the work themselves.

Growers also requested assistance in securing title deeds for their woodlots. To date SAWGU has been unsuccessful in cutting through the legal issues around land ownership in communal areas.

4.4 Development of the Khulanathi contract

The Khulanathi contract evolved from a prototype contract between the Natal Tanning Extract (NTE) and small growers in the Biyela area in a project set up by the Institute of Natural Resources (INR). The main policy making body of the project was the Steering Committee, consisting of (all men) from NTE, INR and the KwaZulu Department of Agriculture and Forestry (KDAF). The project proposal was put to a mass meeting attended by aspirant growers and the Biyela Tribal Authority. The broad framework for the contract was discussed at Steering Committee level and thereafter NTE's lawyers

---

9 SAPPI also approached a retired magistrate living in Eshowe (Mr. Niels Otte) who was known and trusted by the rural community to review the contract and promote the scheme.

10 While payments were based on land rental rates, SAPPI always discouraged the concept of rental among growers and the scheme does not promote the services of contractors (particularly large scale) in planting and maintenance

formalized it. The Zulu version was translated from English legalese and was not adequately understood by growers (Khosa, 1990 *pers. comm.*, cited in Friedman, 1991)

The contract came under the scrutiny of the INR and the CLC which were both affiliated to the University of Natal. The CLC and other observers, raised criticism that the contract was drawn up by lawyers who were hired by the company to protect its best interests and that growers had no say in determining the terms of contract (Cellier, 1994: 40). Some specific issues raised by outside observers and growers were:

- Mondi retained first rights to coppice. This clause was disturbing since produce from woodlots then remained legally under control of the mills for more than 20 years, preventing recirculation of raw materials within the community and the possible development of local employment opportunities (Cairns, 1993: 49);
- there was no clause to cover inheritance rights over woodlots (Cellier, 1994: 40);
- advance payments did not adequately cover the cost of hired labour in cases where households were unable to maintain their own forests (Cairns, 1993: 36).

Mondi did not agree with some of the CLC findings, in particular that a negotiated contract was the basis for a working relationship based on trust. They argued that growers were not sufficiently organized to propose a new contract but that their grower committees could provide a forum to discuss changes in the contract. However, the clause on retaining rights to coppice was removed and a clause on inheritance was included following a study by the CLC that was commissioned by Mondi. Instead of allocating more money to operations, Mondi now trains and brokers small-scale local contractors to carry out certain operations at reasonable prices, where family labour is insufficient.

4.5 Analysis of the terms of contract

4.5.1 Company motives

Certain features of the scheme reflect the Social Responsibility objective of SAPPI:

- interest is not charged on loans;
- seedlings are provided free of charge
- the scheme has largely been promoted by word of mouth among grower communities; and
- growers are encouraged to use more marginal lands for trees, leaving arable lands for subsistence crops.

Since the Mondi scheme is driven by business motives the terms of contract lacks the *laissez faire* features evident in SAPPI Grow:

- Mondi promotes higher levels of inputs, especially in the high potential coastal areas (growers are encouraged to purchase high yielding clones although seedlings have been distributed free in some areas, intensive land preparation and higher levels of fertilizer are recommended);
- simple interest is charged on the loans at 10% per annum;
- the schemes have been aggressively marketed through Tribal Authority meetings and extension officers;
- the company prefers to promote trees on best sites - chosen to maximize mean annual increase (MAI).

4.5.2 Distribution of risk

Contract farming theory indicates that while most of the risk of production is delegated to out-growers, and the risk of marketing to the firm, each may share in the other through the terms of contract. Important variables are the size of loans, the budget allocated by the firm for extension overheads, and guarantees of purchase (price and proportion of harvest).

4.5.2.1 Size of loan

The size of the loan indicates the company's willingness to retain a portion of the production risk. The company can lose this money:

- when a grower is unable to recover the value of the loan from harvest - normally this occurs under unforeseen circumstances (death of owner), natural production hazards (drought) or when the crop is inadequately protected (in the case of trees, damage is usually caused by fire or stock rather than disease); and
- when a grower deliberately defaults on repayment.

4.5.2.2 Protecting the harvest

It is in the company's interest to manipulate the proportions of the advances to ensure that adequate attention is paid to firebreaks and weeding. The SAWGU loan actually covers fencing to prevent stock damage, life insurance, and fire insurance.

Table XXX shows the attention given to crop protection by the various schemes.

4.5.2.3 Defaults in repayment

In practice, the companies have not taken action against defaulters because of the legal costs of recovering small amounts of money and the damage to the image of their schemes. They have relied on two mechanisms to recover their loans. Firstly they have a relative monopoly of markets in the region. The only contender is the CTC chipping plant at Richards Bay which has historically sets the price for timber in the region (see Graph XXX). Small growers can access CTC by arranging their own small-scale transport contractors. However, SAPPI and Mondi have recently concentrated extension efforts on organizing cheap and efficient transport to their mills (See section XXX) which significantly outweighs the price advantage at CTC (see section XXX). Secondly, companies rely on perceived benefits to growers to remain in the schemes after harvesting.

Where ownership of forests is not clearly defined (either because of inter-household gender issues, or on block plantings "owned" by Tribal Authorities), these mechanisms do not always work. A significant defaulter has been a case of a Tribal Authority that refused to pay back R200 000 in loan advances after selling their forest to independent contractors. The contractors paid out less than the value of the loan itself (see Box XXX).

Overall, defaulting on loans, either because of crop failure or deliberate non-payment has been small, at about XXX% (see section XXX).

Table XXX shows the relative loans per hectare of the schemes including advances to reduce fire and stock damage.

4.5.2.4 Budget allocated by the firm for overhead costs

The level of extension measured by the overhead costs of the schemes is also an indicator of risk taken on by the company. When growers sell to another market the company loses the margin on the timber traded that contributes to the overhead costs of the schemes. This margin is usually equivalent to the cost of land rental that the company saves by outsourcing production.

Table XXX in section XXX shows the relative overhead budgets (excluding loans) per hectare of the small-grower schemes.

4.5.2.5 Guarantees of purchase

Contract farming theory indicates that firms usually take on the risk of marketing by setting purchase prices and purchase volumes in the contract. In the case of SAPPI and Mondi, the firms appeared to have defaulted on this responsibility.

Purchase Prices

SAPPI specifies that the grower will be paid the price at the "local market price" at the time of felling for the type and quality of the timber delivered. Since the local market price referred to is the Mandini mill price, there is no risk for the firm attached to this clause (unless growers were to contest the definition of the word "local"). The Mondi contract specifies that all timber must be sold by the grower to the Mondi mill and that the mill will purchase at the ruling pulpwood prices.

Purchase volumes

Both contracts imply that the mills will purchase all the timber delivered, but the terms do not obligate the mills to do so.

5. WHAT IS THE ECONOMIC IMPACT OF GROWING TREES FOR THE OUTGROWER

5.1 Contribution to overall household income

Income and expenditure studies in KwaZulu indicate that the majority of rural households have an expenditure of less than R12000 per annum. Using a 'poverty line' of R750 per month, about 44% of rural households have a livelihood insufficient to prevent its members living in poverty (May, 1988). Micro-studies which include income from subsistence agriculture (maize, vegetables, poultry) indicate that average household incomes may be higher, in the region of R18 000 to R29 000 per annum (Ardington, 1995).

The Mondi Woodlots Manager believes that average net profit is about R8 912 per hectare (Table 5.1) but net profits of over R16 000 per hectare are possible (see Box 4.1). As average woodlot sizes are 0.8 hectares (Lima), 1,5 hectares (Mondi), and 2,7 hectares (SAPPI), that average net profits could range from R7 000 to R24 000 per grower. The commercial woodlots could thus contribute R1100 to R4 000 per annum or 12% to 45% of annual household income taken at the 'poverty line'.

Table 5.1 Average financial benefit from woodlots (pers. comm. Boake, 2000)

Assumptions			
Yield (SAPPI average)	133 ton/ha	Indirect Costs	
Local depot price	R140/t	Tractor water	R418
Harvest & short haulage	R45/t	Clones	R450
		Fertilizer	R144
Establishment costs 1st yr			R1012
Direct Costs		Maintenance costs 2nd yr	
Ploughing	R562	Hoe rows	R81
Mark Pit	R22	Advance	R73
Planting	R53	Fire protection	R55
Blanking	R43		R209
Manual water	R33	Maintenance costs 3-5th yr	
Weeding (x2)	R81	Fire protection	R55
Advance	R74	Advance	R73
Fertilizing	R36		R128
Fire protection	R55	Interest over 6 years	
	R959	10% p.a. (simple)	R1415

Calculation of net profit	Per Hectare
Gross profit (Yield x Depot price)	R18 620
Less average costs incurred	
Establishment costs (direct and indirect)	R1971
2nd year costs	R209
3rd – 5th year costs	R128
Interest	R1415
Harvest & Short haulage (Contractor costs x 108t)	R5985
Net profit	R8912

Box 5.1 The Z... family has lived in the Port Durnford area for many years. In 1992 two brothers of Mrs. Z... planted woodlots under the Khulanathi scheme. She then told her husband about the scheme. Her husband was working in Pinetown (near Durban). He wen to see the forester at Esikhaweni who explained the terms of contract. It was easy for them to understand the system because they had grown sugar cane for many years. Since their family lived close to the indigenous coastal forests of Mtunzini their sugar was constantly damaged by wild pigs so they decided to try trees. In 1993 her husband planted 2.1 hectares. A local tractor was hired from a sugar farmer by Mondi to prepare the soil (R2000 to plough and disk for 2 hectares). The husband originally employed his wife, 3 daughters and neighbour's wife to weed the woodlot and paid them R10 per day to work in the land. His daughters later refused to work, since they wanted to be paid directly by Mondi, but his wife and neighbour continued. In 1996 they were awarded Khulanathi Best Grower of the region for the quality of their woodlot and firebreaks.

In 1994 her husband died. The family has still not received pension from his employee because his ID book did not match his name and surname. She is still negotiating with the Department of Home Affairs to issue a new ID from her husband's old reference book (*dompas*). In the mean time his bank account has been frozen.

After her husbands death the forest was registered in her name. She feared that her husband's family would take back a portion of her land. In order to strengthen her claim on the land she planted two new woodlots of 0,8 hectare each in 1997. She used Mondi contractors for everything. The contractors consisted of 10 women who worked for 2 weeks

The first forest (2.1 hectares) was harvested in 1999. The total income from the forest was R52 483 (Mondi records) from 40 truck loads (372 tons). The Mondi loan repayment was R5185 and the contractor cost was about R15 600 to fell and take the load to the Esikhaweni depot (R42/t to fell, stack, mark, and transport about 15 km). She was paid R141 per tonne at the weighbridge. She therefore cleared R32 000 as profit.

She had no such expectation. The largest sum of money she had ever seen was a gift of R500 from her husband. She had been expecting about R1000 from the trees. She is using the money for household maintenance. She has 1 hectare of sugar from which is obtained trailer load per year (poor soil, wild pigs). They also grow some maize and fruit trees. The family has no other income until the husband's death certificate and pension is sorted out. (*Khulanathi grower, Port Durnford*)

5.2 Competition for household resources

5.2.1 Competition with food crops for arable land and labour

Studies elsewhere in Africa find that cash crops divert household resources (land, labour, finances) away from food crops (Lele, 1975). Cairns' (1993 :45) study of 80 growers concluded that in the context of the timber schemes this concern "appears at present to be unfounded. Most houses (77%) plant less than 50% of the total land allocation to trees leaving the remainder for food crops. Trees are normally planted on lands previously used for grazing (60% of the area under trees). Where other crops have been replaced, there were normally rational reasons for doing so". These reasons included: unsuitable soils for food crops, soil erosion on steep slopes, frequent stock damage, susceptibility to drought or very poor yields on land previously planted to food crops. However, the study

concluded "since 54% of households want to expand their woodlots, diminishing food supplies may become a problem in the future."

Ojwang's study seven years later, also concluded "the initial expectation was that contract farming had replaced other agricultural activities but the findings do not confirm this... Most respondents did not regard timber production as interfering with food production or that there was significant competition for land between the two" (Ojwang, 1999: 63, 64). Ojwang's study and interviews for this report confirmed that in the densely planted areas of Sokhulu, Mbonambi, and Port Durnford, women continue to plant sweet potatoes, *madumbes* and other vegetables in communal gardens near to rivers or swamps. In the inland areas, land around the homestead is still allocated to maize and vegetables.

This apparent contradiction of other outgrower studies is probably due to the nature of the cash crop. It is well documented in social forestry theory that trees serve to diversify the subsistence farming system in a rational manner. In this case, eucalyptus may be planted over an extended period during the rainy season, they require weeding for only two years after planting or coppicing and they regenerate after harvest. Furthermore, firebreaks normally require maintenance during periods of low agricultural activity. They provide a viable option for households with little labour capacity, or for households to allocate labour with a comparative disadvantage in wage employment (less educated, mothers with young children), to forestry.

5.2.2 Effects on water resources

Rural households normally draw water from streams or boreholes. Case studies to determine effects of afforestation runoff and ground water, showed the following effects on hydrology (Lorentz & Schultze, 1992; Kienzle & Schultze, 1992):

- There would be significant effects of afforestation on runoff in small stream catchments (case study at Ngodweni) especially in areas where stream flow is already highly variable. Stream flow could dry up entirely in the critical dry winter months under different levels of afforestation and catchment characteristics. Problems could be overcome with the construction of a small earth dam.

- Fifty percent afforestation in the coastal areas (case study at Mfekayi) would lower the general water table by two to five metres. Within the plantations themselves, water table would be lowered by 8 metres with an effect on boreholes within 150 metres.

5.2.3 Effects on fuel sources

Unlike social forestry programmes, the commercial woodlots do not serve a multiple resource function. Eucalyptus is not an effective fuel source and the growers are discouraged by the contract from using their trees for firewood. In the Ndundulu area for example, shortage of fuel was actually worsened by the outgrower scheme because the cultivation of trees narrows the natural resource base (Macdonald and Vaughan, 1995). Although the companies do provide free seedlings for firewood but there appears to be a general reluctance among households to use commercial woodlots for fuel purposes. It is estimated that about one third of households who are members of the schemes gather firewood from distant sources (Cairns, 1993). This situation has contributed in part to a description of the plantation development areas as "a lack of firewood in a sea of trees" (Carrere and Lohmann, 1996 cited in Karumbidza, 2000).

5.3 Contribution to household livelihood security

Livelihoods are derived from a number of sources. At Nkandla for example, these sources are pension (50%), migrants remittances (20%), local employment or businesses (0.5%), informal employment and home industries (13%). Agriculture only contributes about 16% of household income. (Ardington, 1995).

The above figures are misleading if taken to describe an "average" household. In practice "households choose between and combine these activities into a strategy through which they hope to generate an adequate income" (May, 1998). Where there is a mix of sources of income or where the main income is derived from formal wage employment (25% of households in KwaZulu-Natal), livelihoods are less vulnerable. However, many households rely solely on welfare payments (7%) or unreliable remittances (12%) for income. Even more vulnerable are those who have no access to formal sector opportunities, or state welfare and rely solely on agriculture and non-farm petty commodity production (about 1%) (May, 1998).

Although no formal studies have been done to analyze vulnerability of small-grower livelihoods there is some evidence that households with income sources ranging from marginal to secure are all able to join the schemes (Table 2.1). Thus, schemes provide a strategy to diversify unreliable or meager sources of income as well as supplementing income from formal wage employment.

5.4 Factors accounting for success or failure in timber growing

Cairns' (1993) study of 30 households that had harvested trees at Port Durnford and Mandini areas in 1992 showed a median net profit per hectare of R2124 for the entire growing cycle. However certain farmers had achieved profits of up to R10 000/hectare had been achieved. The distribution of gross profit (1992) is shown in Figure 5.1.

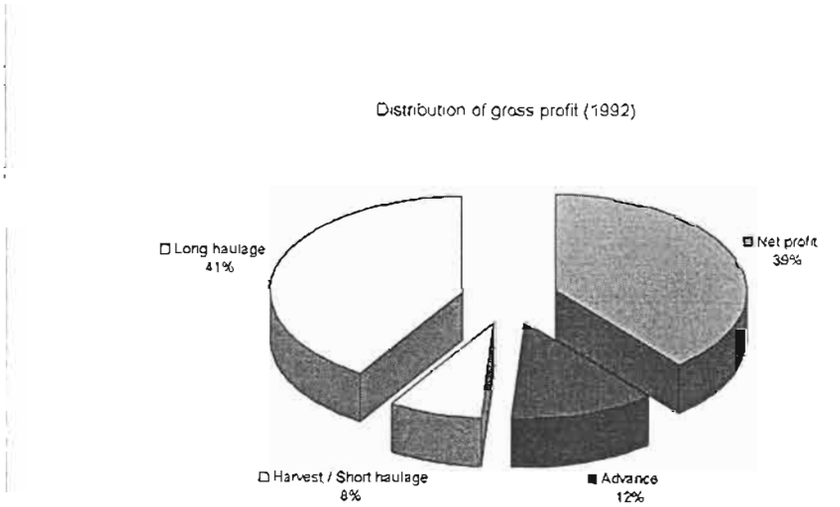

Figure 5.1 Distribution of gross profit (SAPPI GROW, 1992) (Cairns, 1993)

Profits were not as high as expected because:

- schemes have been promoted too far from the mills in certain areas;
- trees were often planted on inaccessible land and promises regarding provisions of access roads to the woodlots by the companies, have been broken;
- expectations of profitability were unreasonably high where foresters themselves were ill informed;
- poor site preparation, fire, drought and livestock damage reduced yields;
- private contractors often charged excessive fees to fell and harvest;
- many farmers felled early due to desperate need of cash – felling one year too early may result in more than a 50% decrease in profits.

A comparison of farmers showed that good management would significantly increase profitability. Regression analysis predicted increases in profitability could be achieved by:

- Increasing site preparation and weeding (50% increase in net profits);
- complete fire and stock protection (13%);
- using the cheapest transport – (13%);
- felling only after 7 years – (22%).

Net profits measured among the first Grow members to harvest in 1992 were considerably less than incomes now reported by the companies and observed in case studies for this report. Timber companies now pay particular attention to arranging long haulage transportation for growers at reasonable rates. Short haulage costs on the other hand may have increased as more marginal woodlots are harvested. Recent estimates of the distribution of income show higher proportional harvest / short haulage costs and lower long haulage costs. Net profit is proportionately lower but higher in real terms as overall yield is considerably higher (Figure 5.2)

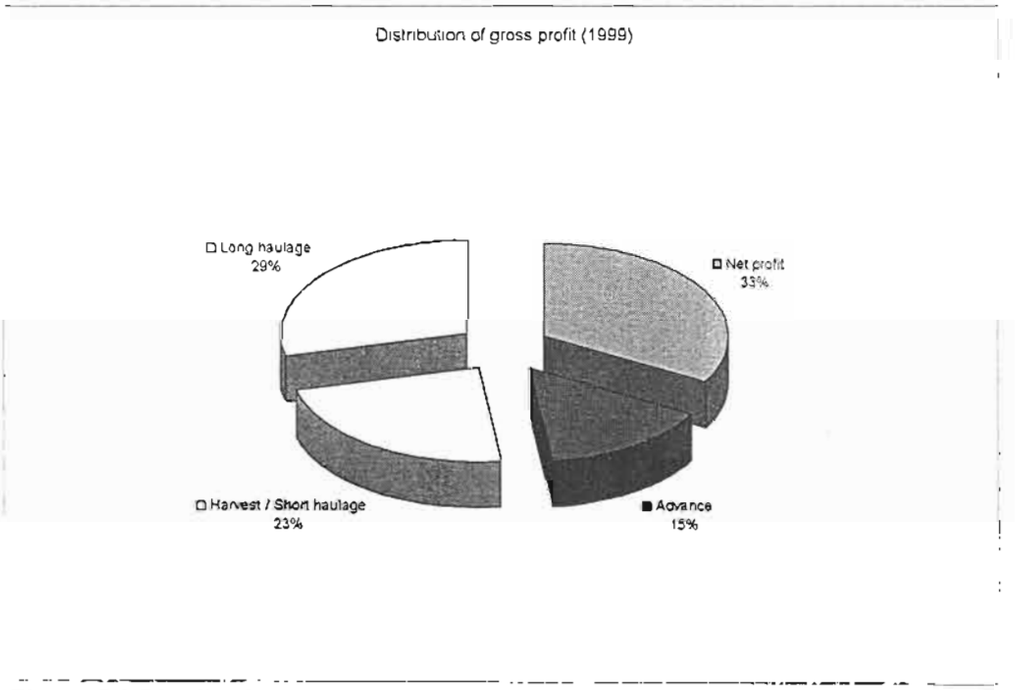

Figure 5.2 Distribution of gross profit (SAPPI GROW, 1999) (van Loggerenberg, *pers. comm.*)

However, where contractors operate outside the normal channels, growers are still inevitably cheated[11].

The practice of felling early remains a major reason for low net incomes from timber. Woodlots double in value in the last two years of growth, yet many households continue to fell at four or five years. Case studies indicate that this practice occurs when cash is needed for some urgent and unforeseen household expense. A number of Khulanathi growers also reported that they became alarmed at the escalating loan (Mondi charges 10% simple interest on advances). They felled early in order to be free of the loan.

The recent case studies reveal that in certain inland areas there is much anxiety over woodlots that were planted on inaccessible slopes. Access roads have never been built, and some growers have taken the decision to wait and hope that a solution will be found, rather than pay heavy labour costs to extract their timber.

5.5 Summary – Economic impacts of the schemes at the household level

The schemes appear able to contribute under poor to average management, from 9% to 33% of the income needed for a household to remain out of abject poverty (R750 per month). Provided they have access to land, extremely poor households are enabled to participate through the loans advanced in the contract, and the schemes offer a means to diversify highly vulnerable livelihoods.

Management practices (site preparation, weeding, fire and stock protection, felling at the correct time) have been shown to vary considerably among growers, significantly affecting yields and net profits. Growers fell too early in order to obtain cash when needed for urgent situations or when they become alarmed at the build up of interest. Company assistance in arranging contractors at reasonable rates significantly improves net profits. There may be a number of small-growers who have been encouraged to plant in areas with insufficient access roads and now face high costs for short haulage.

[11] See Box XXX. SAWGU has also indicated concern over unscrupulous contractors who pay a fraction of the standing value of wattle in the Nkandla area.

6. THE WIDER ECONOMIC IMPACT OF THE SCHEMES IN THE COMMUNITY

6.1 Opportunity costs on other land uses and livelihood activities

Quantitative studies on the small grower timber schemes suggest that households do not replace food crops or cash crops with trees unless there are rational reasons for doing so (section 4.4). Nevertheless, in many of the coastal areas, trees have been planted on arable lands that are suited to the production of other, possibly more profitable crops. This is particularly disturbing considering the prohibitive costs of destumping once saplings are established in the soil. However, without appropriate overarching policies and support, there are no reasonable cash crop alternatives for small-scale farmers apart from the small grower sugar schemes.

There would need to be a comprehensive map of recommended land use systems in KwaZulu-Natal, giving the relative profitability of each system. This would have to be accompanied by active promotion of recommended crops with adequate support for supply inputs and marketing.

Results from one such land-use study indicate that timber is a particularly efficient crop for small-scale farmers in the way it uses domestic resources and substitutes contractor services for lumpy machinery costs[12]. This comparison did not factor in further economic advantages of institutional support and input supply implicit in the contract farming schemes.

6.2 Development of small-scale contractors

The numbers of small contractors that have emerged are relatively small compared with the number of growers. "Small grower timber projects have less potential than sugar cane projects to support linked, income generating activities in contracting and haulage. While contractors have emerged, the nature of the work is too sporadic, and the payment rates set by companies are too low to achieve sustainable employment or economic linkages" (Vaughan 1996:40).

SAPPI and Mondi scheme managers estimate that there are about 60 planting and weeding contractors (in 6 groups), 70 chainsaw operators and 40 short haulage transporters operating among small growers. In addition, SAPPI uses 4 small-scale long haulage transporters.

A Khulanathi forester who is an ex-high schoolteacher with a diploma in resource management gives elementary training in business management skills to growers and contractors but Mondi does not support contractors in any other way. The SAPPI silviculture manager gives regular on-day courses on business skills, budgeting, tasking labour and use of volume tables. The training has been given on a voluntary basis and is not formalized into the scheme.

The likely sale of SAFCOL forests to Mondi will bring benefits to Khulanathi growers and contractors in neighbouring areas. The Nyalazi state forest borders on Mfekayi, the Port Durnford forest on Esikhaweni, and Dukuduku forest on Mbonambi. Bids for these forests

---

[12] In an exercise to measure the Domestic Resource Cost (DRC) of sugar cane, timber, dry beans, and maize in small-holder production in KwaZulu-Natal, timber was found to have the greatest comparative advantage in the efficiency of resource use (Ngqangweni et al, 1998).

have been assessed by DWAF on the basis of skills training and contracting partnerships with local people.

Lima has attempted to maximize farmer involvement both in growing and harvesting. In some cases farmers have set up co-operatives to undertake harvesting in an area. Lima has established 30 micro level contractors who work with bow saws and hand tools. Lima advances R300 for the purchase of equipment which is deducted from gross income with no interest. About 15 small-scale contractors (chainsaw operators) have also been assisted to get loans from Ithala. The scheme makes use of 12 long-haulage local contractors.

6.2.1 Planting contractors

Mondi has set up 6 local planting contractor groups consisting mainly of small groups of women in various areas. They are introduced to prospective growers and contracted to mark, pit, plant and weed land at set rates. Case studies indicate that these women are drawn from extremely poor households (Table 2.1).

Box 6.1 Mrs. S... moved from the Mthethwa to the Port Durnford area with her husband in 1976. They relocated because they both liked the wet areas and good soils. Neither Mrs. S... nor her husband are formally employed. Her husband is crippled but doe not receive a disability grant. She has two daughters, one is at school and the other is married. Her family plant maize, sugarcane, madumbes, and various fruit trees (banana, avocado and mango). They do not have any spare land to plant trees. They plant their sugar on a very small field next to a swamp. They are scared that the water will dry up if they plant trees on this land. In her community people have taken a decision to plant sugarcane whenever an old woodlot is destroyed to try to bring back the swamp lands.

Mrs S... was looking for piece jobs when she met the local Mondi forester. He introduced her to a small team of women who were doing planting for Mondi. The leader of the team had attended training on the various operations with Mondi. The ladies then began workin together. They were taken to the fields by the Mondi tractor in the early morning. At first there were 15 but 5 left when they saw it was very hard work. The remaining team were usually able to mark and plant 1000 spots in a day (working from 7am to 4pm). Weeding and firebreaks took about half a day for each operation. Money was shared equally. The team leader does not take more than the others. (They were thus able to make about R2 to R25 each per day). These piece jobs were her main source of income and she had no other steady work in the month. Since the permit system was introduced there has been n more work for the team. (*Khulanathi planting and weeding contractor, Port Durnford)*

The planting contractors do enable households with limited labour (for example pensioners) to join the schemes. However, field interviews have shown some resentment, and alienation resulting from the use of these contractors.

Box 6.2 "I used to grow my own trees. We joined the scheme when we were told that our trees break the machines in the mills. We cannot harvest at any time now becaus we don't know when this place will open. It happens that it opens for about a week or more. It depends on how many tons Mondi needs." (*Khulanathi grower, Sokhulu area*)

6.2.2 Chainsaw operators

A number of growers reinvest profits from woodlots in buying a chainsaw, but these are probably relatively seldom used. SAPPI and Mondi estimate about 70 chainsaw

operators service the small grower schemes. Some of these have full teams working under them to harvest and clear. It is possible for such a contractor to earn in the region of R6000 per month after petrol, maintenance and labour costs, providing there is sufficient work (see Box 6.2). Chainsaw operators earn about R35 per day.

Box 6.3 Mr. Z... family was originally from St. Lucia but the community was forcefully removed in the 1950's to Nkolokoto. Mr. Z... first wife died leaving 1 boy (now seeking work) and 3 daughters (still schooling at Nkolokoto). Although he has not yet paid *lobola* for his second wife, he has been living with her at Mfekayi since 1995. He has 4 children by his second wife, 1 has died and the other 2 sons and 1 daughter are schooling. He rents a cottage at Nkolokoto at R400 per month for his other children but they are unable to come to Mfekayi as high schools do not accep children from other schools. The food bill for these children is about R500 per mont and R500 for his second wife's family. His wife does grow some food crops but he relies on his business for most of the household income. He would like to grow tree but has no land. He has never approached the T/A for land and thinks that he woul probably not get any because there is not much open space left in the area. He does not think that being a newcomer to the area would count against him.

Mr. Z... used to work for SAPPI but was retrenched in 1993. With his small pension he was able to buy a chainsaw and begin contracting at Mfekayi. He now employs two men and 8 women at R15/day. He has trained these people himself. He is normally able to find work for 6 weeks out of 8 in Mfekayi and charges R25/t for felling. It takes about a week to fell one hectare. Whenever he finishes a job he reports to the weighbridge and the foresters then direct growers to him. At the end o the day after paying labour, petrol and repairs to the chainsaw, he does not earn much.

There is also some piece work on commercial forests. When working in these area he employs local people to help.

There is an association of chainsaw contractors which was formed at the suggestio of Mondi last year. It has helped solve some problems but the main problem is that the weighbridge closes for part of the year. It has happened on one occasion that trees he had felled could not be brought to the weighbridge on time because of delays in transport. These were left to rot in the field and he was not paid for the job Mondi has not solved this type of problem. He suggests that Mondi could help in th following ways:

- Provide short term loans (e.g. to fix the chainsaw if it breaks during a job)
- Help training in business skills management
- Help in technical training (personally he doesn't need this, other contractors do need training but he cannot say anything in case they are insulted)

(Khulanathi chainsaw contractor, Mfekayi)

6.2.3 Transport contractors

Both SAPPI and Mondi recognize the importance of recruiting transport operators at reasonable rates for small growers. In the Kwambonambi area, SAPPI makes use of contractors with15 ton trucks. This size vehicle is still fairly cost efficient for the long haulage to Mandini, especially when coupled with a trailer, but is small enough to be driven into woodlots. Extraction costs are therefore minimized. (SAPPI has adjusted recommended planting spaces to suit the axle length of these trucks). SAPPI used to

have a depot at Kwambonambi. This depot supplied the Mondi mill at Richards Bay under exchange agreements. However, a number of costs were incurred in loading and transporting. The mill no longer accepts single differential trucks (15 tonne or less). They also inspect trucks for roadworthiness and do not accept vehicles in poor condition. This has mitigated against small scale contractors who SAPPI are trying to help. The Kwambonambi depot has therefore been closed. SAPPI pays set rates to contractors. These are:

Clearing and felling:	R30/t
Transporting:	
Hluhluwe	R57/t
Kwambonambi	R30/t
Mtatubatuba	R38/t
Short haulage:	R20/t
Loading:	R5/t
Separate mining timber:	R6/t

In the Khulanathi areas, associations of transporters carry timber to various weigh-bridges using ten ton trucks. Those approved by Mondi are paid a set rate.

Box 6.4 Mr. M... has lived in the Mfekayi area since birth. He has about 9 hectares of sugar and was able to buy a truck in 1990 from profits made from sugar. He also has 0. hectares of trees but believes that sugar is more profitable than timber. He used to get A pool prices (R930/t) but with removal of GATT he now gets R840/t for his cane. In the mean time prices of inputs have escalated. His main income is now from trucking.

In 1993, he began trucking timber to Richards Bay. A year later the depot was closed to single differential trucks and he now delivers to the Mfekayi weighbridge. A meeting of truckers and growers was held in 1996 to decide on fixed tariffs. The meeting was called by growers and instigated by the cane farmers among them who are used to paying per ton and not per load. (Mondi was not involved in this meeting). It was agreed that the price would be set at R22 per ton as a blanket fee for all growers at Mfekayi irrespective of their distance from the weigh-bridge. In the beginning there were 6 truckers who agreed to this price but all the others have fallen away. There are many other transport contractors in th area but they prefer sugar. Reasons are escalating prices of diesel, damage to wheels in forests and damage to load beds from the timber. He is trying to negotiate for a higher price. In 1996 he was able to buy a second truck.

He also does some felling in the SAFCOL forests although most of the work is given to the giants of the timber industry. This work occupies about 2 months a year. For this he employs 9 women at R18.50 per day (peeling and marking), 1 man at R35 per day (cutting) and 3 men at R20 per day (loading). He does not fell locally in order to give small scale contractors a chance. Normally he only employs people with experience in forestry.

He believes that he was able to make the jump to contracting because of his experience i sugar cane. He attended a course in business management at Illovo which enabled him t keep track of income and expenses. Many contractors (especially small-scale chainsaw operators) find that after paying labour expenses, they are left with no profit. Mondi should provide similar courses for people in the timber industry. He also believes that Mondi coul help get reduced prices for diesel that some of the larger contractors enjoy. Mondi should also let single differential trucks transport to their mill from the Mfekayi weighbridge, at present the entire contract is given to a white transporter.
(*Trucking contractor for Khulanathi growers, Mfekayi area*)

6.3 Development of infrastructure

Over the last decade, Mondi built depots in the Sokhulu (1990), Esikhaweni (1993), Mbonambi (1995), and Mfekayi (1998) areas to accept timber from small-growers. The main purpose was to cut long haulage costs by bulking small deliveries to local depots onto 30 ton trucks. In 1999, the Richards Bay mill closed access to trucks smaller than eighteen tonnes. Caterpillar loaders operating at the mill have the capacity to lift 10 tons at a time. Small trucks increased offload times and were often damaged by the equipment..

The decision to close the main depot to small-scale contractors was also a strategy to combat timber theft. An estimated R30 million of timber was stolen in 1998, mostly from large commercial plantations. Timber companies attempted to co-ordinate the use of a timber sourcing document for all transport contractors. For small growers in communal areas, this meant that deliveries would have to be signed by Indunas, verifying the source of timber. Khulanathi management believed that local depots could better handle this function.

Local depots have improved general communications with growers. They have become focus points for notices and grower meetings with foresters and are places from which growers access planting, weeding, chainsaw and transport operators. Water is supplied at the depots and many neighbouring households make use of this facility. Local depots also provide an effective means to enforce quotas.

The SAPPI experience with depots has not been so positive. SAPPI built a depot at Kwambonambi in 1995. "We found it was a disaster. People saw it as a dumping area for underage and poor quality timber and demanded access" (SAPPI Forester). It was closed down in 1998.

SAPPI has stopped purchasing spot timber and is actively encouraging non-contracted growers to join their scheme. This costs nothing, sites are inspected to check on the quality of timber. Certain older varieties are not accepted. Regulations are needed to plan procurement. If non-contracted growers deliver large quantities to the mills it impacts across the board for SAPPI growers.

Lima has constructed seven depots to supply forestry inputs and other agricultural supplies. Up to 1998 Lima was also involved in labour-based construction of access and in-field roads. However, since the Department of Forestry was relocated from Agriculture to Water Affairs, applications for funding for road construction are now made to the Department of Transport (DOT). The DOT has prioritized commuters needs over forestry roads.

6.4 Provision of rural credit

Since 1987, Mondi has paid out R12 322 074 in advances in 13 magisterial areas. This averages at approximately R72 900 per magisterial district per year. In the three areas of most rapid growth (Mfekayi, Sokhulu, and Mbonambi) loan advances average R93 700 per district per year.

SAPPI advances an average of R3000 per grower over the six year cycle. A total of R1,2 mil was paid out in loans in 1999 in the Zululand area and R300 000 in the South Coast area under Lima. In Maputaland which is the present growth point for Project Grow, SAPPI advanced R150 500 to small-growers in 1999 in two magisterial districts. The four main magisterial districts on the South Coast receive about R50 000 each per annum.

7. WHAT IS THE DEVELOPMENT IMPACT AT THE COMMUNITY LEVEL

7.1 Gender relations

The gender structure of rural economies may cause severe constraints on out-grower schemes by affecting the control of producers over their labour. Conflicts are known to arise over who bears the cost of production in terms of additional labour, and who shares in the benefits of this production[13].

7.1.1 Women and land ownership.

Traditional Zulu culture prohibits women from obtaining land allocations directly from the Inkosi. User rights are normally acquired through male members. Single mothers, for instance may be allocated land through their parents or brothers. This limits the freedom that women have in controlling their means of production. Since 1994, government has attempted to change customary law. However, it is still highly unusual for a woman to approach the Inkosi directly for land (Ojwang, 1999: 61,62).

Situations of tension appear to arise within a community and a household on the death of a husband. On the one hand, the case studies illustrate that the schemes do provide an effective means for women to entrench existing land rights for her household in the event of claims by her husbands family or by neighbours (see for example Boxes 2.4 & 4.1).

On the other hand, first born sons are expected to take control over the household, effectively giving them control even over their mother's labour. Traditionally sons were expected to be responsible in their decision making and in particular to care for their mothers. As this ideal is abused, widows increasingly claim control over their resources. This causes tensions in the household. (Mondi has attempted to address this problem through a clause on inheritance in the contract).

7.1.2 Contribution to household livelihood

Contract farming is said to replace other agricultural activities and increase labour requirements thus becoming the major source of livelihood in the family. As women are the providers of labour they are most affected. However, Ojwang (1999) found that none of her respondents considered timber growing as their major source of income. More than 90% of the women derived their regular income from selling subsistence crops that they grow alongside timber. "Most of the respondents did not consider benefits from timber as a source of income given the long period that the timber takes to mature... most families counted on the money for big projects like building new houses or buying cars" (Ojwang, 1999:65). Ojwang also found that women preferred to spend income on their families (school fees, husband's medical expenses, lobola for a son, and building a house) while men spent income on themselves (put in bank account, lobola etc).

Case studies for this report indicate that many families have a range of livelihood strategies and timber may contribute a significant safety net to highly vulnerable households (Table 2.1). Where net incomes from woodlots are high (perhaps over R20 000), trees may be considered major contributors to income after the first harvest.

---

[13] The following discussion draws heavily on Ojwang's (1999) study of gender and contract timber farming among 30 households in the Mfekayi, Sokhulu and Biyela areas.

Box 7.1 Mrs M.. first heard about the scheme from neighbours. Her main interes in trees was to get some cash income. After asking permission from her husband she planted the trees in 1994, using Mondi contractors for all operations. The trees were registered in her name.

In 1999 her daughter got married. Her husband who works for in Durban came home in July and decided to harvest the trees to get money for the wedding. Mondi was contacte to provide contractors but there is always a long waiting list and they could not wait for the transport to arrive. They found their own contractors and paid them as follows:

Area	0.9 ha
Yield	about 93 tons
(Compare about 103 t/ha with 177 t/ha of best grower)	
Felling	R150 / truck load x 10 trucks
Stacking	10 people R10/day for 20 days
Transport	R150 / load
Loaders	R20 / load (on) per truck
	R10 / load (off) per truck

Total contractors	R5300
(Compare Mondi price at R42/tonne = about R4200)	
Mondi loan repayment	R2302
Total income (probably) R13113	
(compare R14 570/ha with R24 761/ha of best grower)	
Take home (probably)	R5511
(compare R6123/ha with R15238 of best grower)	

Mrs M.. does not know how much was earned as her husband took the money. She doe not belong to any association of growers though she believes it could be useful to exchange experiences with others.

She believes the family had no choice but to harvest early as the money was needed urgently. She cannot use the trees as collateral with the banks as she does not have PTO on the land. Her husband is seldom home and has a girlfriend in Durban so does not send much of his earnings home. She has 3 daughters (one now married and two staying at home) and three grandchildren. Her main income comes from a part time job i Empangeni. Her daughters at home are attending school. She has a small plot of maiz which is fenced (about 0.25 hectares) and madumbes (0.1 hectares). (*Khulanathi grower Esikhaweni area*)

7.1.3 Decision to join the schemes

Ojwang (1999: 68) found that of thirty respondents, only two males indicated that decision to plant trees was taken jointly with their wives. "A number of women respondents had no role to play in regard to what amount or which piece of land was to be converted to tree planting, while some thought that it was Mondi's directive for trees to be planted". Ojwang reported significantly more decision making powers among widows and single women as heads of households. These findings were contrary to Cairns (1993:32) who found that 80% of growers stated that their spouse or children (where the spouse was deceased) had been consulted about joining. However, Cairns also reported a reticence to discuss family disputes particularly from the women.

7.1.4 Decisions over earnings

Critics of contract farming point out that men often control benefits from schemes while women provide the labour. For example, Vaughan (1993) notes that women are increasingly unwilling to provide labour for sugar when they do not control the income generated from the cash crop. This is supported elsewhere where women have been shown to withdraw their labour from contract farming (von Bulow and Sorensen, 1993)[14].

Box 7.2 The X.. family has lived in Port Durnford for many years. The family does grow sugar but yields are poor. In 1993 Mrs. X.. saw trees being planted and aske her neighbour to explain the scheme to her. With permission from her husband who works for the Park's Board she planted 0.6 hectares on land that was previously unused She hoped to use the money from the trees to build a block house. Mondi hired a tracto to plough the land and she did the rest of the work. Her family does not generally help her in the fields. She was paid a small amount by Mondi to do weeding, firebreaks and fertilization.

The trees were harvested in 1999. The amount received was R19500 in total for 138 tonnes. She paid R1700 (Mondi loan), R4800 (contractor fees) and took home R13000. As she is not working she is unable to open a bank account so she deposited the mone in her husbands account. Her husband works away from home and thought that the ban had made a mistake. He quickly spent some of this (amount and purpose unspecified). She has bought some blocks but there is probably not enough money left to build the house which she originally wanted. *(Khulanathi grower, Port Durnford).*

"I go for gum, my husband was interested in sugar, therefore we have both but when we look at our income I always laugh at him. He admits it gives very little. It mostly depends on the situation of the family. We have a Christian family and we are united in our decisions. We share our money but the cheques for the trees are always written in my name" *(Project Grow, member and secretary of association,*

Ojwang found that most married women did not make major decisions pertaining to use of finances. However, a few maintained that they share decisions as a couple. Interviews conducted for this report also indicated differing husband - wife relationships. Thus, the extent to which males control income from trees that is earned by females, is uncertain. What is clear from the case studies, is that the schemes offer very little protection for woman who are in abusive relationships.

7.1.5 Prior knowledge of costs and benefits

Ojwang (1999) found that while women's labour was required in the schemes, most married women did not understand the terms of contract or have any idea of the income they could expect at harvest. Their husbands seldom included them in negotiations with the timber companies.

7.1.6 Changes in labour responsibilities

Sharp and Spiegel (1990:528) note that while women may attempt to generate incomes locally, their husbands may object to the ways in which they do this, and the ensuing conflicts between men and women over income frequently leave the latter in extremely dire straits, particularly in areas lacking local resources. Indeed, in these circumstances, disobeying husbands becomes a survival strategy and women have to go to considerable effort to conceal income-earning activities that are not sanctioned by men (May, 1998).

Ojwang found that on the whole women had managed to cope with increased labour requirements. Money is available for various activities, but some families preferred to do the work themselves. The reasons were to earn extra income. Both Ojwang and Cairns (1993) found that loans did not cover the full costs of hiring labour. However, Mondi has recently trained small-scale contractors to do planting and weeding at rates covered by the advances (section 5.2.1).

7.1.7 Summary of gender issues

All extension officers are male while more than half the growers are female. The schemes cannot assist women access new land but are used successfully by female headed households to entrench existing rights over land use. The woodlots do not appear to significantly compete with food crops for household resources (land and labour) and have not particularly locked women into cash crop activities. However, there is evidence that married women are not consulted in the decision to plant trees and have little knowledge of the costs and benefits, yet carry the burden of the labour. Households often share profits in a responsible manner, however, despite the companies' efforts to register forests in the name of the appropriate person there is little that protects women in abusive relationships.

Ojwang concluded that women in female headed households whether widowed or single, have greater decision making powers over their labour and benefits gained from the schemes. She found that gender tensions within the household could be attributed more to unequal power relations legitimized by society than to the schemes themselves. The position of children is also affected by access to benefits of the parents. However, Ojwang and Cellier found priorities were similar for men and women. For instance paying for children's' education was a major priority of both men and women

"The findings suggest a potential struggle by these women to overcome the cultural barriers that confine and bar them from decision making and to establish control over the benefits of their own labour. There is a high level of awareness among women that they are being undermined and disadvantaged" (Ojwang, 1999).

Male researchers who have studied the schemes (Cairns and Cellier) have reported a reticence to talk about gender conflict within grower households while women researchers have been more successful (Friedman, Ojwang) in drawing out the issues. In a similar way, Mondi and SAPPI foresters are aware of problems but the fact that they are all male while more than half of growers in the schemes are female, may hinder communication with growers.

7.2 Alternate structures of ownership

7.2.1 Grower co-operatives

NCT has set up co-operatives in order to cut transport costs and enable small-scale growers to qualify for Class-A membership. One such cooperative operates at Nkandla

(Box 7.3). At present, the value of timber extracted only covers labour costs which appear to be very high even when inaccessibility of woodlots is taken into account. However, the founding objective of the group was to provide employment for youth in the area and the cooperative pays out about R20 000 per month in salaries. Unfortunately this situation is likely to be non-sustainable as new woodlot owners join with profit motives. The example illustrates the need for capacity building and training before this type of structure can operate successfully.

Box 7.3 Mr. M. was retrenched from his work in Johannesburg with Schindler lifts and returned home to Nkandla to start a small trading store. When he came home he was particularly concerned about school leavers who were unable to find work at Nkandla or elsewhere. Many of the youth are beginning to turn to crime. There are many wattle woodlots in the area where he lives and farmers used to send bark to Melmoth, but now the timber is only used for firewood and building. (Transport subsidies from Melmoth to the extraction plant in Hermansberg have fallen away). There are external contractors who clear the woodlots from time to time but the community has never really benefited from these people. Through friendship with a transport contractor working in the Melmoth area he learnt that there was good market for wattle in Richards Bay. After several trips to Richards Bay in which he located the depot and NCT office, he registered with NCT and was visited by the NCT extension officer.

After meeting NCT he called a meeting with his neighbours to discuss setting up a timber cooperative. About 25 forest owners and 27 youth joined the group, there are five members in a management position. The co-operative does not have a legal status but has registered a constitution at the bank. Most of the youth come from families who own trees but do not yet have their own homestead. When the plans were presented to the Inkosi, he also joined the cooperative.

The cooperative has requested an allocation of 11000 tonnes per annum with the NCT depot. In the four months since starting, they have sent 280 tonnes from five woodlots to Richards Bay, but work was curtailed for about two months by heavy rains and the Christmas season. Seven trucks have been booked for the month of March. To date, five woodlots have been cleared. They have been replanted with purchased seedlings and fertilizer has been applied. Off-cuts are left in the woodlots for firewood, fencing and building. Labour is paid at the following rate:

R19/day	strippers
R30/day	clearers, markers, cross-cutters
R50/day	chainsaw operator

Short haulage is done by a local tractor owner at about R180 for 11,4 tonnes (two loads) Transport costs are R45 per ton (long haulage) plus R4,50 per tonne mechanical loading The cooperative uses 40 ton trucks from Alex Carriers. Trees from the individual forest owners are stacked in separate piles. In the absence of a weigh-bridge, individual tonnage is estimated when filling the truck. These are recorded to calculate forest owners proportional shares. All payments and tonnage's are recorded by the secretary who has a std 9 education. The cooperative makes use of Mr. M.'s telephone.

To date earnings have just matched labour and transport costs. The co-operative has no yet earned a profit to pay the five forest owners whose woodlots have been cleared or the management team who are each meant to be paid R500 per month for administration. While these two interest groups are hopeful that profits will soon be realized, their stated concern is to provide employment for the 52 members. In the mean time they are attempting to make their operations more efficient. The major expense is seen to be short haulage. NCT has agreed to purchase a 2nd hand Ford 6110 tractor and trailer at a cost of about R85 000 which the cooperative will pay off in one year.
(*NCT cooperative member, Nkandla*)

7.2.2 Contractor cooperatives

NCT has assisted several groups of contractors to combine efforts in order to meet requirements for preferential prices. The case study (Box 7.4) indicates that neither growers nor contractors necessarily benefit from these arrangements. However, present inefficiencies in operations (such as employing new labour in each ward) do tend to increase employment in the surrounding communities.

Box 7.4 N... Forestry Services was started by three men from the Esikhawen area in November 1999. They are members of the SAPPI Grow scheme and gained experience in forestry from their own eucalypt plantations which are between 7 and 8 hectares in size. The chairman, Mr. N... is also a sugar farmer since retiring from a clerical job. " We joined NCT as timber farmers and contractors and are 2nd category members as we have not yet completed our probation period. Since demand for wattle is high we are able to get our allocation".

They were introduced into the Nkandla area where they are now working, by a local Induna in November last year. People were at first negative and hostile from experiences with previous harvesting contractors. "The induna said to them 'these people have taken the right approach by coming to me first, those other people you never introduced to me.' After that argument nine homesteads approached us with [wattle] forests to sell. But to be honest, we have been captured by these people along the road. It is more viable to use these trees and the transporter agrees quicke to getting involved."

"We ask the owners 'how should we pay you? Most people are ignorant about tonnage. Now some are saying per truck, others just give a blanket amount". Most people ask about R1300 to R1600 per 40 ton truck load. They regard R1900 per loa as the cut off point for most forests in the area. Their cooperative uses Alex Carriers who charge R4,50 per ton to load with a mechanical loader and R45 per ton to transport to Richards Bay. NCT helped them source this transport after their local transporter let them down on several occasions. They use a local tractor owner for short haulage (3 km) from site to depot. He charges R150 per load (about 5 tons). They send about 200 tons a month to Richards Bay. Profits are unknown at this stag

The cooperative hires new labour every time they move to a new *isigodi* (induna's subward). They pay R15 per day to start. If a profit is made the workers earn more. Chainsaw operators earn R35 per day. Mr. N...'s partners are both experienced operators but now they train local people from scratch. They presently have 20 men and women working for them and have moved through three *izigodi* since arriving at Nkandla.*(NCT contractor cooperative, Nkandla*

7.2.3 Ownership by Tribal Authorities

Mondi has found block plantings to be problematic in the past (see section XXX). The problems have been around common issues, namely:

- who takes responsibility of ownership, in particular to protect the forest from fire and stock, and inform the companies of operations;
- how will benefits be disbursed;
- do benefits adequately cover costs to surrounding households of relinquishing to forestry large tracts of grazing land or future land for new households.

Box 7.5 In 1990, Inkosi ... planted 155 hectares to eucalyptus under the Khulanathi scheme. The forest was registered in the name of his Tribal Authority. In 1993 a fire swept through the area but the trees coppiced and recovered well. According to the Mondi forester, people in the area were never interested in weeding or fire protection. In 1999 A.. contractors from Vryheid approached the Inkosi and offered R250 000 for the trees. The Inkosi maintains that Mondi was informed of the sale but the forester had lost interest in the trees since the fire. Mondi denies having been notified. A.. contractors deposited R70 000 into the T/A account and then harvested the trees. Nothing further has been paid. Mondi took decision to write off the R200 000 loan on the forest. A conservative estimate of the standing value of the forest at time of harvest is R2.1 million. (*Account by Tribal Authority Member and Mondi Forester*)

7.3 Conflict in the community

7.3.1 Recorded cases early in the schemes

Given the history and threat of land dispossession in the area surrounding Richards Bay[15], it is unsurprising that many in the communities initially suspected the schemes as being a ploy on behalf of the companies to steal their land. For example in 1992 at Mfekayi, it was rumoured that the community would be forced to leave the area once the land became sufficiently valuable under forestry. Others worried that their land would be redistributed to other community members by the Inkosi (who strongly supported the schemes) if they did not plant trees. Suspicion was strongest in areas like Mfekayi where the schemes had been aggressively marketed, rather than relying on promotion by word of mouth.

In the Ndundulu area, women complained that forests had made the area unsafe as they provided refuge for thugs at night. In this area, an ongoing faction fight led to several woodlots being burnt in acts of revenge in the early 1990's.

[15] The history of land dispossession in the area dates to the annexation of Zululand to Natal in 1897. The boundaries of the 'Native Reserves' were initially established by the Zululand Land Commission of 1902/04 whose purpose was to open up parts of Zululand for white settlement. Boundaries fixed at this time entailed a significant loss of land to white farmers and areas set aside for state forests. Tribal Authorities were established in the 50s and 60s (e.g. Mbonambi in 1959 and Sokhulu in 1968) and grouped under the Amangwe Regional Authority, which in turn became an "area" of the KwaZulu Legislative Assembly in 1972. Under the 1975 consolidation plan for KwaZulu, the area was descheduled and excised from KwaZulu. Over the next ten years, the Tribal Authorities opposed severe threat of forced removal.

Other disputes arose over grazing rights and boundary disputes. In the Mandini area, cattle belonging to non-growers had destroyed trees. Non-growers in turn argued that forests had reduced traditional grazing areas, with the result that their agricultural crops were increasingly destroyed by stock. In some areas, stock owners were forced to herd their cattle all year instead of herding only over the traditional maize growing period. Conflict took the form of intimidation of growers and foresters, verbal disputes and arson. In 1992, it is estimated that 10% of growers had experienced deliberate attempts of arson by non-growers and 26% had experienced stock damage. Approximately one third of reported cases of community conflict had been successfully resolved by Tribal Authority action (Cairns, 1995).

Conflicts have been particularly severe in areas planted to large blocks. In October 1991 in the Nkandla district, most of a 18 hectare block of trees was destroyed by cattle, The community did nothing to prevent this. In this ward, the Inkosi was dying of cancer and had little control over Tribal matters.

In December 1991 a block planting of 273 hectares in the Mbazwana area was destroyed by local youths. Khulanathi investigations into the incident found the main reasons to be:

- Unfair land allocation by the tribal authorities, which was perceived to favour themselves and their associates;
- A fear among the youth that they would have no land for their own households;
- Lack of communication about the scheme;
- A breakdown in the traditional authority structure;
- Prevailing unrest over boundaries of game reserves (Cellier, 1994).

7.3.2 Conflict over state forests

Conflict over trees has not been limited to the small-grower schemes. There are approximately 4000 ha of former KwaZulu state forests surrounding Richards Bay. In October 1994, an area of approximately 2000 ha of forest situated next to Esikhaweni Township, was stripped by timber thieves. Approximately 1000 people from surrounding areas invaded the forest, barricaded roads, cut timber with chain saws and axes and transported logs to the Mondi Mill and CTC using pick up trucks, lorries and tractors. Many of the thieves were armed.

Oral accounts suggest that circumstances surrounding the looting were:

- pre-election promises from the ANC were not fulfilled regarding return of the forest to the original Tribal Authorities;
- the surrounding community whose loyalties were with the ex-KwaZulu government felt that the trees no longer belonged to their government. (pers. comm. Vukuziphati members, 1995)

More than 300 people were arrested and appeared at Mtunzini court on charges of theft in December 1994. The magistrate decided to release offenders on condition that they form an association that could enter into legal contracts with the state to harvest and transport timber.

These people met on 3 March 1995 at Empangeni to form Vukuziphati - an association with 350 members, mostly from J2 section of Esikhaweni. To date, their attempts to enter into legal contracts with Mondi and SAFCOL have failed.

In the mean time the forest was not maintained in any way. DWAF allocated the forest as "C-Grade" and mining rights were given to Richards Bay Minerals (the soil is rich in titanium).

7.3.3 Resolution of conflict

Interviews for this report indicate that community conflict over woodlots has declined in recent years. An Induna at Esikhaweni reports that cases over fire or stock damage are now seldom brought up and that "community members respect each other". A grower at Mfekayi put it this way "People here used to be suspicious. We didn't know anything about trees and were scared that our land would be stolen but we have grown up now".

This has come about in part because Company efforts in building capacity of grower committees have been successful in improving communications and explaining the schemes. For example, Khulanathi foresters believed a serious conflict was developing at Mbonambi in 1993, with consequences far greater than the area lost at Mbazwana, but that it was diffused by timeous grower meetings (Cellier, 1994:145).

However, exogenous factors have also contributed to diffusing community conflict. These are:

- Tribal Authorities are well placed to deal with most cases of boundary disputes and compensation for stock damage;
- Politically instigated violence prevalent in the early 1990's has significantly declined;
- As the first cycle of harvest and payments came about many fears and suspicions were allayed.

7.4 Land demand and the development of an elite class

MacDonald and Vaughan (1995) argue that agribusiness support for commercial crops will not necessarily lead to an increase in the demand for land from those who take up production opportunities. Other factors such as institutional support, adequate infrastructure, and evident returns to labour and investment over the short term influence households' perceptions on the merits of land utilization. Thus, timber outgrower members in the Ndundulu area were found to be similar in their profiles of needs and priorities to households in areas of no cash cropping opportunities, while there was a 100% demand for more land among small sugar cane growers in areas under irrigation.

However, as MacDonald and Vaughan point out, the study sought polarised examples of cane and timber growers. At Ndundulu, growers had not yet harvested their crop, and the area was marginally suited for trees. In areas where growers have harvested there have been substantial increases in the number of new members and in extension in the size of woodlots (van Loggerenberg, Boake, *pers. comm.*).

Although checks do exist through Tribal Authority structures[16] and egalitarian ethics[17] increased demand may lead to agglomeration of land and the development of an elite class of land "owner" to the detriment of poorer households in the future.

---

[16] In the Sokhulu area respondents reported that sale of land rights was strongly discouraged by the Tribal Authority

[17] For example, MacDonald and Vaughan (1995) cite examples where poorer households in a sugar irrigation scheme had been the recipients of small parcels of land.

Box 7.6 "I originally came from Mtethwa ward Reserve No 5 in 1965. At that time I was working for *UmAfrica* as a sub-editor then as a clerk in the Empangeni courthouse from 1966-1972. In 1972 I resigned and started several businesses. From 1966, over weekends, I began planting seedlings collected from neighbouring forests. It took me five years to finish my first forest (2.4 ha). I sold this forest to a white contractor in 1979 at R7.50 per tonne. I got R1800 for those trees, the timber was taken to Waterton mill. In 1980 I applied to SAPPI (Mandini) for a quota and was given 8 railway truck loads. I then began to transport timber from other peoples' woodlots. In 1985 I joined CTC to increas my quota. Prices were also higher for CTC. CTC gave me further quotas and at one stage I was filling twenty trucks per month. I then bought timber from other farmers and used two of my own tractors to transport the timber to the railway siding. I now own five tractors.

At present CTC gives the highest prices (R171/t) but they do not take all my timber. In 1998 I joined the SAPPI Project Grow scheme because Mandini mill no longer gave quotas for forests that were not registered with their scheme.

I now own 32 hectares from 13 woodlots in Sokhulu but at Manzingwenya I have about 40-50 hectares I was given 3 fields by the Tribal Authority and bought another 10 fields. In 1986 I paid R800 for two hectares but last year I bought a forest of 2.4 hectares for R21 000. One man was desperate to get married so he sold his field to me for R13 000 to pay lobola. Another man wanted to build a house. Once a field is sold it cannot be claimed back but I do have a share crop arrangement with one grower. I would like to sel my bottlestore now and concentrate full time on forestry. (*Project Grow member, Sokhulu*)"

8. WHAT HAVE COMPANIES LEARNED FROM THEIR EXPERIENCES OF OUTGROWER SCHEMES

8.1 SAPPI Project Grow

SAPPI Project Grow listed the following lessons learnt over the years:

- It is important to have strong field staff, technical advice should be sound to avoid disappointment at a later stage.
- Good administration can save an enormous amount of money. SAPPI initially made the mistake of paying by cheque. This meant that foresters and growers were travelling huge distances. SAPPI now insists that growers must have bank accounts. Transfers are made electronically.
- SAPPI still does not promote the schemes actively. Project Grow relies on word of mouth and good history to spread.
- SAPPI is experimenting with intercropping legumes in the first two years. Trials in the Tzaneen area have been successful. This would bring some income to growers in the early stages and improve the soil fertility.
- SAPPI has still not got transport side right. Difficulties are compounded by the fact that the volume of timber coming out of Project Grow areas is not enough yet to support a local transporter full time.
- It is important to build up a strong relationship with the grower. Communication should continue especially after the third year when money for weeding ceases. Firebreaks must be maintained and trees should not be felled early. It is essential for the grower to contact SAPPI when felling to make use of approved contractors.
- SAPPI Project Grow has spread itself very thinly. It may have been better to consolidate plantings before starting in new areas.
  (van Loggerenberg, 2000, pers. comm.)

8.2 Mondi Khulanathi

The Khulanathi manager pointed out the following:

- Channels of communication are vital. Companies should limit their geographical spread according to their capacity. Grower committee meetings can be held on a regular basis, but messages are not necessarily passed down due to great distances between members homesteads. Khulanathi now posts notices at all shops, and bottle stores. Local depots have greatly assisted in providing focal points for notice boards, grower meetings, and access to small contractors. Khulanathi foresters also have to visit each grower twice a year and growers are required to sign off these visits.
- Transparency is essential. Foresters cannot and should not try to pull the wool over growers eyes. The allocation system must be explained in terms of world supply. Reasons for cutbacks must be understood by all concerned.
- Management of Khulanathi has changed in emphasis since inception. In the first years foresters concentrated on production (silvicultural extension). Now foresters time is taken up in managing timber supply (quota systems, contractors availability and pricing)
- Administration quickly becomes difficult as new members join. Khulanathi has been unable to convince growers to open bank accounts. For many growers ATM machines are too far away to be of use. Banks have also closed their branches in small towns where transaction costs are high. Mondi now issues

cheques that can be cashed at local shops. Many stores have geared up to cater for this form of payment. (Boake, 2000, *pers. comm.*)