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Changing Ownership and Management of State Forest Plantations

An Overview

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following the International Conference of the same title

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This overview report aims to capture the findings from a review of literature and un-written experience, from a set of seven country case studies, and from the above-mentioned conference. The conference was jointly organised and run by the Department of Water Affairs and Forestry of the South African Government, the UN Food and Agriculture Organisation and the UK Department for International Development. It is anticipated that this overview, together with the case studies, will be published as a book during 2004.

Contents

Executive summary

Introduction – plantations and change

Over the last century the area of forest plantations globally increased from an insignificant area to 187 million hectares. More than 4 million hectares are being added annually. Depending on their design, plantations can provide an array of goods and services and downstream benefits as varied as natural forests, though they cannot substitute for all natural forests' values. Governments have played a major role, as plantation developers and managers and as promoters and subsidisers of private sector plantation investment. The benefits actually sought by Governments and other players have varied with countries' economic, social and environmental states and trends, influenced by competing domestic interests and comparative advantage in production and processing.

Increasingly, governments have been seeking to reduce their own direct involvement in plantation management. Tenure and use rights over the assets of state plantation enterprises are being transferred into private hands, and government agencies are increasingly outsourcing plantation operations and support services.

Motivations for this have varied from one country to another. Some are common – a drive for greater efficiency and profitability, reduced pressure on the public purse. Others are unique to specific circumstances – such as improving rural livelihoods and empowering disadvantaged groups. Different models have been tried; some have worked well in terms of delivering the desired outcomes, others less well. Many factors, in the design of the approach, the handling of the transfer process, and the ongoing management of the outcomes of the process, determine success or failure.

In this draft Overview of the issues we draw from six country case studies – Australia, Chile, China, India, South Africa and the United Kingdom - and from wider experience to identify what changing ownership and management can offer governments and the people they serve. We look at what has worked and what has failed to deliver the objectives of change, and what has created unexpected or unmanageable problems. We attempt to develop some general guidance on good practice in balancing the objectives of the different players to get a solution that works for plantations and people.

Changing drivers of plantation development

Governments' support for, and direct involvement in, plantation development has been responsible for creating the lion's share of the global total - acting by land purchase or lease, profit sharing partnerships with private landowners, or through supportive policy, financial incentives and tax incentives. Objectives for this are usually mixed, and the balance between objectives has changed as societies' needs and values have evolved. We can expect this balance to continue to change as societies evolve.

Government motivations have included:

- *Creating a national strategic reserve of timber* – was important for several countries up until the middle decades of 20th century when the opening up of international trade and recognition of countries' comparative advantages in wood production and processing removed it from most policy agendas.
- *Promoting industrial development* –in addition to supporting local industries, timber was seen by many as a key export, providing valuable foreign exchange.
- *Creating employment and rural livelihoods* – was an early driver in many countries, and whilst diluted in effect by mechanisation in some (e.g. UK and Australia), remains key in others (e.g. India, South Africa and China)
- *Growing sources of energy* – plantations have been developed explicitly as a source of fuelwood in India and China, and as an alternative to fossil fuels in UK

- *Responding to demands for environmental services* – such as flood prevention, biodiversity conservation, landscape enhancement, recreation, protecting soil and water (including demands to limit the water used by plantations in e.g. South Africa and India) and carbon sequestration - have stimulated governments to increase regulation and force plantation managers to reduce the commercial productivity of their assets and improve compliance with environmental management standards.

Private sector motivations have been encouraged by government incentives and supportive tax policies in many countries, but these have not been a precondition for private sector plantation development everywhere. For example, traditional private estates in the UK established plantations for game, timber and private amenity, whilst mine owners in Chile began establishing plantations to supply pit props in the early 1900s. As large, multinational players have entered the arena, investment in plantation development for profit from wood sales or to provide raw material for vertically integrated business has emerged without government support. The trend is most apparent in countries with comparative advantage due to high growth rates and low land and labour costs. In some, private sector motivation is about 'staying in the game' as government or market pressure requires companies to demonstrate responsible stewardship by certifying their performance. Some companies are recognizing new opportunities in emerging markets for environmental services, such as carbon sequestration.

Changing government roles

So, governments have been the pioneers of plantation development. Real or perceived lack of private sector capacity and technical knowledge, a tradition of government responsibility for and power over forests, and centrally-planned governance paradigms have been at the root of government actions to establish and manage plantations.

Forestry departments have acted as moderators of competing demands and continue to do so, through regulation, penalties for damaging impacts, land zoning for forestry, and environmental assessment of plans and operations. They have harnessed other arms of government to support private players with financial incentives and tax regimes. The mix and design of instruments has evolved, with increasing emphasis on payments for public goods and away from direct financial support for timber production.

Governments have developed a variety of institutional models around their investment in state plantations: autonomous agencies; horizontal functional splits between the plantation development and other functions of forestry departments; integration of the plantation function with other functions right down to the local level. Just as objectives have changed, so too has institutional design as the conflicts between state agencies' roles of developer and manager and of moderator have come to the fore.

Today, the trend is firmly away from direct involvement, except where the private sector is manifestly unable to deliver, for example where the high costs and low financial returns from investment weighted towards the production of public goods act to exclude private developers. Even here, some well-crafted financial incentives aim to deliver the goods through the private sector more efficiently, for example through competitive tendering for plantation establishment projects.

Opportunities and concerns in changing ownership and management

New opportunities Transfer of tenure and use rights over state plantation assets and privatising plantation operations and support services offer several opportunities, usually presenting themselves in combination. Some are complementary, others may be contradictory and require trade-offs to be made:

- *Increased economic efficiency and improved aggregate welfare*. This may be realizable: where markets process information on society's demands and costs of production more effectively than

governments; and where private individuals are better at determining production and consumption and less prone to rent seeking. Privatisation may result in more efficient tree-growing and may also be a lever for raising efficiency in the processing sector. For example by increasing effective competition for raw material supplies. However, markets to date have operated less effectively when it comes to public goods and externalities.

- *Controlled budget deficits*. Unprofitable plantation operations contribute to worsening budget deficits with direct implications for resources available to other sectors such as health and education. Changing ownership may bring gains to the public purse, although these may be offset by the costs of ensuring that the new owners comply with forestry regulations and deliver public benefits. Such costs may include additional forest authority staff and payments to the new owners for environmental services.
- *Increased entrepreneurial drive and investment in the forest*. By encouraging private entrepreneurs into forestry, the government opens the door for increased innovation and longer-term growth. Engaging communities as partners can help combat forest degradation and improve forest condition by encouraging more responsible stewardship.
- *Improved forest governance*. Government systems for ensuring accountability are not always effective. Forestry officials may not necessarily manage plantation resources in the national or local interest. Also, where governments' role of developer and moderator are combined in one entity, the commercial interests of the state agency may be put before the interests of private plantation owners competing in the same markets. Privatisation offers a way of divorcing and clarifying governments' roles. It may also offer a route for returning power to local people and promoting a wider and more representative pattern of ownership. Transfers of rights and ownership can change governance relationships for the better, for example by improving communities' capacities to plan and manage businesses and to act inclusively.
- *Poverty reduction and improved rural livelihoods*. Designed in the right way, asset transfers can increase income to rural households and communities and can benefit disadvantaged groups, including women. Benefits may come from higher levels of sustainable production stimulated by ownership of the asset and the products derived from it. However, it is a major challenge to distribute benefits fairly. Accurate assessment of the links between forests, forest enterprise and local livelihoods are important, and transaction rules may be needed specifically to target poor groups and prevent capture of benefits by elites.

Concerns. Perceptions abound that private companies are not accountable to public demands and have no incentive to provide important environmental and social goods and services. The private sector, it is argued, answers only to shareholders and their chief aim is profit. Such concerns present legitimate challenges to processes of transferring ownership and management:

- *Economic concerns*. These stem from the threat of resource "mining", and the loss of valuable timber and non-timber forest assets, as companies seek to recover the costs of their investment in as short a time-period as possible; and the repercussions for downstream processing where governments have supported fledgling industry with cheap logs or guaranteed supply.
- *Social concerns.* New owners may restrict access, for example to communities living in or near plantation areas, impacting on traditional use rights and livelihoods, or conflicting with public recreational and spiritual pursuits. Where government-run plantations have been criticised for inefficiency and low profitability, privatisation is often associated with the reduction in spare capacity and labour redundancies.
- *Environmental concerns* .The threat of plantations being converted to another use can give rise to major concerns where they are valued for landscape, biodiversity and other environmental services. Even where private plantations are maintained, forest survey and management planning may not put as much weight as would local people and NGOs on the value of "non-productive" assets such as biodiversity and ancient monuments. Pressure to drive down costs may lead new owners to cut corners resulting in increased pollution from spillages or unsafe disposal of waste engine and lubricating oil or pesticides.

Of course, reality is far less clear-cut than is often portrayed by either the biggest fans or critics of transfers of plantation ownership. There is no absolute case for private or public control of specific goods and services; the public or private nature of goods and services is not static but depends on the level of institutional sophistication, communications and technology; the dichotomy often presented between public and private is misleading. Lessons learned from experience certainly suggest that unwanted outcomes from privatisation could be avoided through good design and adequate safeguards against negative impacts. Safeguards may be embedded in the governance system or incorporated into contracts for service provision and transfer agreements.

The main transfer options available

Three main types of transfer can be distinguished: outsourcing of services, transfer of use rights and transfer of ownership. Outsourcing is the least dramatic; ownership and overall management control are retained by the state, while particular use and management functions are devolved to private contractors. Transfer of use rights involves a greater devolution of power from the state plantation manager to non-state entities than contracting out. With outsourcing of harvesting or management activities, the private contractor continues to work for the state plantation manager. Where use rights are transferred, private harvesters work for themselves. The ultimate form of privatisation involves a transfer of ownership rights over some or all of the assets that comprise the plantation. The ownership rights of the state often limit the scope of any transfer; the state may own the trees but not the land, or the land and trees but not the rights to take game.

OUTSOURCING SERVICES

Outsourcing of plantation operations such as establishment, felling and extraction, and service functions such as seedling production, vehicle and machinery supply and maintenance, is an effective and efficient way of reducing the costs and increasing the profitability of plantation enterprises. This model tends to be favoured where public benefits are felt to be too important to risk handing outright to private operators (e.g. where a plantation is providing an essential biological corridor between remnant patches of natural forest), but where the state's performance in managing the resource has been sub-standard.

When capacity, skills and competition are lacking, they can be developed quickly through cash payments to support start-up or development of contracting and training organisations, transfers of machinery, or guarantees of work to take new contracting business through the start up period. Out-sourcing of management planning activities may also yield gains but the evidence is weaker. A further step could be to contract out the whole management system for plantations but it is not clear that there would be net gains, in particular where the forest is to be managed for multiple benefits and the management contract becomes complex in an attempt to specify in advance how, for example, production is to be traded against biodiversity over a long period.

TRANSFER OF USE RIGHTS

Governments may favour this model of transfer where they lack the managerial capacity to operate a sophisticated outsourcing system. While they must still monitor compliance with license conditions, the burden is likely to be lower than that for outsourcing. The extra degree of freedom for the beneficiary is at least partly curtailed by the imposition of harvesting conditions. The simplest license will limit the volume of wood extracted, while more complex agreements will set out how and when private operators are permitted to extract their timber products. Otherwise many of the prerequisites necessary for effective outsourcing will still apply. Private sector capacity remains a paramount challenge, as does a minimum level of competition. Use rights transfers also pose a number of unique challenges for governments; these relate to the method of allocating use rights and the design of use rights – in particular their duration and transferability.

TRANSFER OF OWNERSHIP

The key question to ask in relation to this model is "ownership of what?" The common assumption is that we are referring to ownership of land and everything on that land. In practice, however, transfers are often much more circumscribed. Where tree ownership is privatised, rights to the land, underlying minerals, environmental services, non-timber forest products may not be transferred – although local laws may be ambiguous on this point. In practice, the transfer of exclusive rights to all of the assets vested in state agencies is rare.

Key reasons governments may choose to transfer ownership rights include:

- *Efficiency*. A belief that partial rights transfers (e.g. of use or management rights) are less effective in stimulating entrepreneurial drive and improved efficiency amongst private actors
- *Budgetary requirements*. The government's plantation authority may be severely short of cash and unable to continue to perform its responsibilities. Privatisation both transfers its liabilities, and cashes in on its plantation assets.
- *Limited environmental and social concerns*. Full ownership privatisation is likely to be favoured in plantation areas where the public benefits attached to the plantations, and thus public resistance to their transfer, are relatively small.

Key challenges

ENGAGING LOCAL GROUPS IN OWNERSHIP AND MANAGEMENT

For governments concerned with the social impacts of privatisation in rural areas, a key challenge is ensuring local participation in both the process and the final outcome. Small local landholders face a number of hurdles in trying to take part. Common constraints revolve around their lack of technical skills and organisational and financial capacity to get involved often coupled with burdensome regulatory provisions or inappropriate administrative structures and processes. For example, there are real risks that responsibility and authority will be applied to a "community" level that is inappropriate in terms of what is known about effective collective action. Local groups may also have difficulty negotiating fair market prices, finding affordable transport, arranging payments, assuring quality standards and meeting pre-payment requirements.

ENSURING BEST VALUE FOR MONEY

An important factor in weighing value for money is the intrinsic profitability of commercial forestry. If it is lower than the usual rate expected from long term investments, the interest of private sector will be small, and may be only from those wishing to asset-strip, with a quick exit. The Government may have to promise to keep paying subsidies, promises that are usually discounted. The best approach will then be to seek out potential owners with a direct interest in wood production and other plantation products and services. The bidding process can be an effective and efficient means of getting the best deal.

ENFORCING STANDARDS AFTER TRANSFER

Environmental standards in relation to outsourcing can be established and enforced through contracts, but this is not without its problems. Governments generally rely on the broad governance system to enforce environmental standards after transfer of assets. Standards may also be specified in transfer agreements. However, the costs to government of additional monitoring and enforcement can be substantial. Audit by a third party, with the costs borne by the beneficiary may be an efficient alternative, though the transfer price will discount the additional cost.

Safeguards, for example to maintain provision for public access, can be built into title deeds. The transfer price will reflect the cost to the new owner of such restrictions on their rights. It may also be possible to give first option to purchase forests with high nature conservation, recreation, cultural or

heritage values to organisations mandated by their statutes to manage for the public good. Governments may choose to pay for environmental services but the costs can be substantial, especially wherever higher outputs of public goods and services are demanded. Emerging markets for environmental services show some potential for ensuring continued provision of public goods more efficiently than other mechanisms.

MANAGING SOCIAL IMPACTS OF CHANGE

Change aimed at achieving greater efficiency, as with out-sourcing, and transfers of state assets to more efficient owners and managers will be likely to lead to job losses from the sector. Those who have to leave the sector may find employment in other sectors so that, viewed from a perspective of national social welfare, there could be a net gain after taking into account the greater efficiency and profitability of plantations and the recruitment to other profitable enterprises outside forestry, but this will not always be the case. Those who remain in the sector may be faced with poorer conditions of service.

BALANCING TENURE RIGHTS FOR BIDDERS WITH OTHER OBJECTIVES

In partial or total asset transfers, beneficiaries need secure tenure rights. Weak tenure rights will lead to discounting of the price offered, or in the worst case no offers being received. However outright tenure for one may be injustice for another - one of the most challenging aspects of the South African privatisation process has been to secure reasonable tenure security while protecting communities' underlying land and other informal tenure rights.

Making change work

The context within which change is planned is all-important; what works in one context will never quite fit the bill in another. History and power structure, the nature of the plantation asset base, ecological influences and constraints, economic and financial conditions, social-cultural influences and conflicts, institutional norms and precedents all influence the scope and rate of change. The forest governance system is critical; if it does not already have safeguards built in to protect against unwanted outcomes from change, it may have to be adapted before proceeding with privatisation.

BOLSTERING THE FOREST GOVERNANCE FOUNDATIONS

Land and property **tenure** needs to be secure and clear, and access to the courts available on equitable terms. Effective **regulation** is a prerequisite for achieving a healthy balance between private sector investment and public needs. Key attributes of an effective regulatory framework include minimum employment conditions, penalties for damaging environmental impacts and safeguarding valuable wildlife, cultural, heritage or landscape features. Government **institutions** need to be strong, smart and joined-up. Government interventions need to be co-ordinated, even though the functions of institutions may differ. Policy and regulatory functions need to be separated from forest management functions to ensure clarity of responsibility inside and outside the government body.

Financial incentives, where they exist, need to be designed to deliver public policy objectives and avoid perverse outcomes. **Tax breaks** are especially difficult to design for the public good. **Payments** linked to the production of public goods are more transparent and more effective when a balanced mix of outputs is sought. Voluntary **certification** can work for the public good where there is strong market demand, where it is supported by government, where there is consensus on standards, and, where there are many small growers, there are mechanisms in place to enable cost sharing and co-operative marketing.

Emerging **markets for social and environmental services** may secure some public goods but could work against the interests of certain groups. They are not a "silver bullet". Different commodities work in different contexts. Competitiveness is difficult to achieve in nascent markets; Governance is critical.

There are implications for distribution of costs and benefits; the livelihoods of poor communities may be threatened by the market through increased exclusion, lower incomes and a weaker asset base.

SETTING OBJECTIVES FOR CHANGE

- *Sharpen up your argument*. Recognise that other actors have different values, encourage transparency and confidence in presenting them, and negotiate practical objectives.
- *Negotiate a clear definition of "the public interest".* Which goods and services provided by state plantations are threatened and who loses by changing ownership and management?
- *Keep objectives clear and simple*. Potential opponents are more likely to buy into change if the purpose is clear and they can see beneficial outcomes.

SELECTING AND SHAPING THE TRANSFER OPTION

- *Develop criteria based on sustainable development*. Develop amongst actors a set of criteria, based on fundamental elements of sustainable development and in line with national societal priorities, by which decisions about ownership and management transfers can be judged.
- *Do your homework*. Analyse the existing information base and carry out research to examine the options that may deliver the benefits that you want.
- *Plan for an optimum balance of powers*. Aim to transfer all the rights that private sector actors need to achieve optimum sustainability objectives, and to ensure government retains the rights necessary to achieve public policy objectives.
- *Be prepared for trade-offs*. Several aims may sit together but are likely to need reconciliation and compromise, e.g. attracting large-scale investment and encouraging small enterprise development.
- *Recognise the transaction costs involved* – e.g. in terms of the time required of officials in key ministries – are high even if, in the case of sales to the private sector, there is a realisable sale price.

Instruments for ensuring new owners/managers continue to serve the public interest

Obligations written into the transfer agreements

- Continuation of customary rights.
- South African model of retaining ownership in trust for land claimants.
- Best management practice
- Performance indicators
- Certification as evidence of good performance ; other information disclosure requirements
- Equity stakes
- Rental payments/benefit sharing arrangements; performance bonds
- Duration and time-bound commitments

Instruments external to the transaction

- National and local strategic fora (e.g. national forestry programme and local governance fora), and other facilities for stakeholder dialogue
- Land reform, wider privatisation programmes, political decentralisation
- Laws, by-laws, regulation, constitutional guarantees, conventions
- Certification

- Taxation
- Payments for environmental services
- Subsidies for management and operations; reform of 'perverse' subsidies
- Information generation, access, brokerage and management
- Public information/awareness and extension actions
- Millennium Development Goals
- Other sustainable development principles (becoming established in international law): the precautionary principle; polluter pays; user pays; inter-generational equity; intra-generational equity; free, prior and informed consent - of groups to changes such as development plans; and helping (involuntary) risk-bearers to participate in decisions as well as risk-takers (government, investors)

MAKING IT ATTRACTIVE AND ACCESSIBLE TO THE TARGET GROUPS

- *Make sure the resource is in good condition and free from fundamental conflict* – to be of interest to investors and/or communities, resource quality and potential will be a critical determinant, as will the existence of challenges to land use for forestry
- *Ensure transparency of process* – making a transfer process attractive to private sector investors, community groups, and government departments will require clear signals about who will do what, and how they will be held accountable.
- *Build in sufficient security over use rights to encourage investment* – such security is likely to be a function of provisions in a lease or ownership agreement including: duration; the right to assign, sublet and mortgage use rights; the support of the transfer by broader enabling policy and support services derived e.g. from land and institutional reform; and clarity over the ultimate ownership of the land/resource in the case of defined-period leasing.
- *Contract over a long enough period for the security and planning horizons of contractors and tenants*. A guaranteed minimum tenure on entering the lease is crucial, with provision for early termination in the event of a material and un-remedied breach of lease conditions. A key issue is the lessee's confidence in government's ability, and government's confidence, to deal with breaches of the lease's terms or the law.
- *Allow contract transfers* – making the lease assignable/transferable (in whole or in part) to another party makes use rights tradable. An assignable lease has a financial value best protected by practising sound management of the forest. Risks that use-rights may be assigned to another, perhaps a non-target group, to realise quick profit need to be mitigated by requiring government's prior approval of the transfer
- *Package services, assets or use rights in a way that will attract the target groups*. This is best shaped through dialogue between the actors.
- *Address unfavourable investment climates* – e.g. stemming from high taxation, remoteness to markets, expensive finance, over-weighty bureaucracy and adverse labour relations/costs

PREPARING THE TARGET GROUPS

- *Estimate capacity.* Make an assessment of the capacity of private enterprises to engage profitably with the transaction process and to meet their obligations as well as make full use of any rights that are transferred.
- *Promote continuous improvement of management systems*. Encourage enterprises to develop, up-grade and continuously improve their systems for: information generation and management; human resource development; participation; planning and management; finance management; and monitoring

- *Support preparedness in community organisations*. Community organisations often need support in addressing some of the following challenges:
    - ⇨ Generating trust among the actors – and confidence that others will comply with agreements made
    - ⇨ Building on existing forms of community organisation rather than artificially constructed or administratively convenient units
    - ⇨ Avoiding fragmentation with a large number of owners not bound by an umbrella organisation or association
    - ⇨ Ensuring complementarity of plantation and social units - collective action for resource management is more likely to occur when the boundaries of the resource and the boundaries of the social unit managing the resource coincide
    - ⇨ Ensuring adequate financing of community management activities
    - ⇨ Generating sufficient knowledge and expertise about plantation management
    - ⇨ Overcoming conflict within and between community groups
    - ⇨ Managing the long timeframes involved in tree-growing and sometimes the disincentives of seasonality clashes between farming and forestry activities

Tactics for effective management of plantation ownership and management change

Political buy-in

- Employ expertise in policy research, institutional development and good governance
- Strengthen relations between decision-developers and the ultimate decision-takers
- Work with the media

Buy-in by civil society and private business

- Clarify, utilise and build on the complementary skills of the private sector and civil society
- Use issues-based interactions
- Deal with unrealistic expectations

Capacity to manage the process effectively

- Maintain access to technical expertise
- Secure a dedicated budget against a reasonably flexible timetable
- Keep working to build effective capacity for: re-aligned state roles, adequate private sector capacity and competition; contract specifications that are based on quality management standards

Managing the government's post-transaction responsibilities

- Clarify and communicate the powers and duties of the re-aligned regulating/supervisory/monitoring government
- Build motivation to exercise these responsibilities
- Provide ongoing support to enable private enterprise to manage plantations
- Provide ongoing support to community-based plantation management

GETTING THE BEST DEAL

- *Generating and committing to some principles for optimal deals.* Whether transfers are planned to private enterprises or community organisations, commitment to some principles of good deal-making will help produce an effective and equitable result.
- *Competitive bidding*. In the case of transfers to private enterprises, an open market bidding-based approach to the transaction is crucial. Such auctions can allocate forest land use rights to the most efficient producer and can maximise sale price and revenue for the contracting authority. However, it is important to recognise that maximisation of revenue comes at the expense of public policy objectives because they are a cost to bidders. Thus sale price and revenue maximisation may thus not be the highest objective.
- *Spreading the word*. It is vital that clear information about the resource and the proposed transaction process is developed and presented in ways which the target groups can access and digest.
- *Clarity on risks*. Risks and burdens in the transaction will be dealt with by the private sector simply in terms of the price they are willing to pay. The greater the risks the larger the discounting in the price offered for the asset. If the objectives of the transfer and transaction costs of the process are unclear – the price offered will also fall.
- *Recognise that requiring private sector creativity to meet public policy objectives increases risk*. A competitive bidding process does not fully proscribe how investors should manage public policy issues, rather it invites them to use their initiative in responding to them. But it is important not to overburden the transaction with so many public policy objectives that it becomes unattractive to investors. Objectives such as revitalising the plantation resource, investing in processing, maximising local ownership and employment – may all present significant risks to the private sector and will have to be carefully weighed up.
- *Design tender systems for optimised objectives*. The tender systems needs to be designed to enable selection of the bidder whose bid best reflects multiple objectives. This need not be the bid with the highest price. This requires combining qualitative criteria, such as commitments to future investment and opportunities for local participation and economic empowerment along with quantitative criteria such as the price consideration.
- *Evaluate bids against agreed criteria and each other*. Potential investors are invited to compete against each other in response to the agreed criteria by submitting proposals – which might typically include a business plan and an offer price. These are then evaluated against the agreed objectives and each other to identify a preferred investor.

Conclusion

Transferring ownership of plantations can be the right thing to do when it puts power in the hands of those who can use plantations for equitable, efficient and sustainable ends. But transfers can also go astray and be used to concentrate plantation power and privilege in too few hands. Absolute clarity of purpose, dedication of practitioners, specific steps, a phased learning approach and adequate resources, skills and time are all needed to make transfers work.

Acknowledgements

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Acronyms

CONAF	Corporación Nacional Forestal, Chile
COREF	Corporación de Reforestación, Chile
DFID	Department for International Development, United Kingdom
DWAF	Department of Water Affairs and Forestry, South Africa
FAO	Food and Agriculture Organisation of the United Nations
FSC	Forest Stewardship Council
GoI	Government of India
IIED	International Institute for Environment and Development
ISO	International Organisation for Standardisation
JFM	Joint Forest Management
NGO	Non-governmental organisation
NTFP	Non-timber forest product
SNASPE	State Protected Wildlife Areas System, Chile
VPC	Village Protection Committee
WB	World Bank
WTO	World Trade Organisation
WWF	World Wide Fund for Nature

1. Introduction - what this book is about

1.1 Aim of this book

This book aims to improve understanding of the options for ownership and management of state forest plantations, their strengths and weaknesses in different settings, and how to generate the benefits of increased private sector involvement without incurring unacceptable social, economic and environmental costs.

The book is about transfer of ownership, use rights, and powers and responsibilities for plantations from state organisations to other, non-state actors such as private companies and communities. It is not about decentralisation through layers of government to local administrations, which may be done to achieve some of the same purposes (and which frequently amounts only to transfer of responsibilities, not to transfer of power – see Box 1 below 'Working definitions of some key terms').

We have tried to reflect the strength of differing opinion and controversy that can be generated by initiatives to manage transfers of ownership and control of state-owned plantations, and we have strived for a balanced critique of the actual processes and mechanisms involved.

The book has been developed from an overview paper prepared for the International Conference on Changing Ownership and Management of State Forest Plantations held in Cape Town in November 2002, and from seven country case studies (six of which were also prepared for the conference) and a review of literature. The case study countries are Australia (prepared by Jacki Schirmer and Peter Kanowski), Chile (prepared by Eduardo Morales), China (prepared by Xu Jintao and William Hyde), India (prepared by Sushil Saigal), South Africa (prepared by Maude Dlomo and Mike Pitcher), New Zealand (prepared by Jacki Schirmer and Michael Roche), and the United Kingdom (prepared by David Grundy). The case studies have been edited and are reproduced here.

1.2 Why this book is needed

Many people in many countries are grappling with issues linked to changing ownership and management of state-owned plantations, yet there is a paucity of digestible lessons from experience and useful guidance.

The role of the state is changing in all sectors of the economy. Private sector participation in forest ownership, management and operations has been increasing (Landell-Mills and Ford 1999). Substantial areas of forest, including plantations, have been transferred from state to private ownership or use in some form in the last 10 years. A large proportion of state-owned timber harvesting and processing has been sold to private enterprises, and outsourcing of service functions is becoming the norm in many countries. Plantations may be seen as a softer transfer subject because they are perceived to be lacking the environmental and social capital associated with natural forests[1]. Experience shows that transferring ownership and management of plantations to private actors raises many of the same concerns that apply to natural forests, depending on their characteristics and setting.

There are different motivations for changing from state ownership and management of forest plantations, including: political philosophy; restoration of expropriated rights; increased efficiency of resource use; reduction in public spending; enthusiasm for vertical integration and investment in processing; desire to attract foreign investment; stimulation of entrepreneurship to exploit opportunities; and improvement of rural livelihoods. There are also many different models.

Changing ownership and management raises a number of significant concerns, for example: increased corporate control leading to decreased opportunities for community decision making or public input into forest management, loss of traditional rights, redistribution of plantation goods and

[1] In this book the term "natural forests" includes forests of natural origin, whatever degree of disturbance they may have been subjected to.

services leading to some people losing while others gain, and lower outputs and loss of non-marketed but valued services such as landscape beauty and watershed protection services.

The choice of the most appropriate transfer option and of an effective change process is crucial if the these and other concerns are to be dealt with and intractable problems prevented. This book identifies "best bet" practical instruments and processes for achieving increased sustainable private sector participation while guaranteeing the public interest, drawing from experience from around the world. Although it focuses on plantations it has wider application. Many of the lessons are relevant to changing the ownership and management of forests of natural origin, a growing worldwide trend, with particular impact in some areas such as eastern Europe.

Box 1: Working definitions of some key terms

Forest: FAO adopted the following definition for their Global Forest Resources Assessment 2000: "Land under natural forest or plantation with a minimum 10% crown cover, excluding stands of trees established for agricultural production." (FAO 2001a).

Plantation: FAO adopted the following definition for their Global Forest Resources Assessment 2000: "Forest stands established by planting or/and seeding in the process of afforestation or reafforestation. They are either of introduced or indigenous species which meet a minimum area requirement of 0.5 ha tree crown cover of at least 5% of the land cover and total height of the adult trees of at least 5 m." (FAO 2001a).

Private sector: The part of a country's economy owned and operated by private (non-governmental) entities (person, household, community, company) that seek to maximise their own benefits (from forest-related activities).

There are a number of key types of change and transfer of ownership, management and/or control of land and resources (Mayers and Bass, 1999):

- *Decentralisation*: the relocation of administrative functions away from a central location. Decentralisation can be thought of as an overarching term for five different types of power (decision-influencing) transfer - deconcentration, delegation, deregulation, devolution or privatisation.
- *Deconcentration*: spreading authority from the central administration to its agencies closer to the 'grass roots'. A non-definitive transfer of decision-making and executive powers within the administrative or technical structure (e.g. from the Ministry of Interior to a governorship or from the national directorate of a service to the regional directorate). This takes the form of institutional modification from within an administration.
- *Delegation*: a non-definitive transfer of authority from an administrative service to a semi-public or private company.
- *Deregulation*: a transition in which a sector of activity previously regulated by a public authority ceases to be subject to such regulation.
- *Devolution*: a transfer of power from a larger to a smaller jurisdiction; this transfer may be total or partial (e.g. transfer to local communities of decision-making over renewable resources on their village lands).
- *Privatisation*: a type of delegation involving transfer of transfer of rights, functions, obligations and responsibilities from the public sector to private entities, either directly or through parastatal institutions (*corporatisation*).

1.3 Structure of the book

Chapter 2 presents an overview of the contribution that plantations make to sustainable development, the changes in ownership and management that have been taking place, and the conflicts that can arise between increased private sector participation and protection of the public good. Chapter 3 presents experience of plantation development and changing ownership and management from the

seven case studies. Chapter 4 draws lessons from the case study countries on how to reconcile increased private sector experience participation with the public good and presents practical guidance on how to achieved desired outcomes and avoid the possible pitfalls. Chapter 5 draws conclusions on the extent to which the benefits sought from transfers have been achieved, identifies stumbling blocks to successful change processes, and suggests what needs to be done to ensure that initiatives to change ownership and management of state-owned plantations keep improving. Chapters 6 – 12 present the individual case studies. Those readers whose main interest is practical advice on how best to go about transferring ownership and management of state plantations to private actors should read Chapter 4 first.

2. Plantations, livelihoods and poverty

According to FAO's Global Forest Resource Assessment 2000 (FAO 2001a) the total global area of plantations in 2000 was 187 million hectares; an increase from 17.8 million ha in 1980 and 43.6 million ha in 1990. The largest plantation forest resources are found in China (24%) and India (18%). New plantations are being added at the rate of 4.5 million hectares a year, over 90% of the increase being in Asia and South America. In contrast the area of natural forest - 3,682 million hectares - had declined at a rate of 16.1[2] million hectares a year through the 1990's, 1.5 million of these being due to conversion to plantation.

It is important to note that the FAO definition of plantations does not include forests that are of natural origin but which, as a result of intervention, have lost many of the original forest's characteristics and whose non-timber values may be closer to plantations than natural forests. It also needs to be stressed that the FAO definition of plantations covers a wide range, from planting on farms, for example as part of agro-forestry systems, to industrial plantations. This report focuses on the latter type of plantations that have been the focus of privatisation and restructuring efforts in the last 10-20 years.

Objectives for and characteristics of plantations vary: at one of the spectrum a single rotation crop of trees with management emphasis on maximising production; at the other, restoring environmental capital by increasing the permanent forest estate, with plantations a first step towards new forests with many of the characteristics of managed natural forests (Sargent 1992, Emborg and Larsen 1999); examples from across this spectrum can be found in many countries. As we shall see, objectives for plantations can change with time as governments, owners and managers respond to changing civil society needs and aspirations, international trading conditions and other factors.

2.1 Plantation goods and services

Plantations have the potential to produce many of the goods and services that natural forests are able to provide; the potential of plantations to contribute to sustainable development goals is recognised in intergovernmental agreements and programmes of action on forests (UN 1992a, UN 1992b) and by NGOs and private business (Forest Stewardship Council 2000). There are some important exceptions however. In terms of their biodiversity plantations will never be as species- or gene-rich as undisturbed natural forests. The contribution of plantations to landscape beauty is contested and cultural and heritage values of new plantations will not develop for generations, if at all.

Globally FAO estimated that 48% of plantations are for industrial use and 26% for non-industrial use[3] (FAO 2001a). The variety and volume of goods and services that plantations provide depend on their characteristics and setting. Their characteristics are determined by owners' and managers' objectives and management practices, which are influenced by markets, government regulation, fiscal incentives and shareholders. Their setting may make them particularly valuable for conserving soil or for meeting the daily needs of local communities, for recreation, or valuable only for supplying material to wood-using industries.

WOOD

Plantations provide **industrial wood** and pulp fibre but they are also important in some settings for wood for **community and household use** including for local **construction, fuel wood and charcoal**. In some countries plantation-grown wood is being using increasingly as a renewable **alternative to fossil fuels**.

Although plantation forests account for less than 5% forest cover they account for at least 22% of global roundwood supplies to industry. In several countries industrial wood production from plantation

[2] Net decline was 12.5 million hectares a year due to 3.6 million hectares a year natural expansion.
[3] No use was specified for the remaining 26% of the forest plantation area.

forests meets a substantial proportion of industrial roundwood needs; for example New Zealand 99%, Chile 84% (FAO 2001a). Table 2.1 shows the annual volumes of wood harvested from plantations compared to supply from natural forests.

Table 2.1: Contribution of plantations to domestic wood production

	AU	CL	CN	IN	NZ	ZA	UK
Wood production from own forests							
Wood production per capita							
Wood production from plantations							
As a % of total wood production							

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

Source: [insert source]

Forests are particularly important in developing countries for supplying wood for fuel, providing about 15% of their total energy demand (WEC 1999 cited in FAO 2001a). Wood fuel provides about 7% of energy demand for the world as a whole and industrialised countries only 2% (FAO 2001a). Production of wood fuel from plantations alone currently makes only a small contribution to energy requirements, although it is very important in some localities and countries. FAO estimated that plantations supply only 5% of wood fuel, though production is likely to double by 2020 (FAO 2001a). In developing countries about one third of the total wood plantation estate was primarily grown for wood fuel in 1995 (FAO 2001c).

NON-TIMBER FOREST PRODUCTS.

Some plantations are created for a **major NTFP** such as black wattle in South Africa, which produces tannin used in the leather industry. Other plantation trees have important by-products for local livelihoods such as pine resin. Plantations can sometimes provide important NTFPs derived from game or plants growing in association with the planted trees. Some animals and plants are important sources of **food** and **medicine.** In some plantations food crop production is carried out alongside tree production in certain areas or tree growth stages, such as women's ground-nut growing groups in South Africa.

CARBON SEQUESTRATION

When they grow, trees absorb carbon from the atmosphere. Forests thus represent important stores of carbon, accounting for about two-thirds of total terrestrial carbon. They therefore play a critical role in the world's carbon cycle, and are viewed by many as a key component of global efforts to reduce atmospheric carbon blamed for global warming. (Keenan and Grant 2002, Bass *et al* 2000, IPCC 2000). Creating new plantations could play a small but significant role in managing atmospheric carbon levels. The adoption of the Kyoto protocol in 1997 triggered a strong increase in investment in plantations as carbon sinks [although the legal and policy instruments are still debated] (FAO 2001g).

BIODIVERSITY

In addition to housing valuable stocks of genetic diversity in their vegetation, plantations can provide habitats for a wide variety of wildlife. The level and value of biodiversity held in individual plantations

depends on their design and subsequent management. Structural diversity and the variety of tree and shrub species can be engineered to produce niches found in natural forests.

Enhancing biodiversity is one of the main objectives of plantation establishment in some developed countries that can afford to invest in restoring the environmental capital that they have lost as a consequence of their development (Forestry Commission 1998).

VISUAL AND RECREATIONAL LANDSCAPE.

Plantations are used in many countries to improve urban and rural landscapes. Tree planting is often an important component of land reclamation after mining operations, for example former coal mines and gravel quarries in the UK and coastal dune systems in South Africa.. Creating woodland strips along transport corridors reduces the visual impact of major highways. New woodland in and around towns enhances the visual landscape and provides recreational opportunities, contributing to improving the physical and spiritual well being of local people. Woodland for recreation is especially important in developed countries with a high demand for outdoor recreation; for example in 1998 there were over 350 million day leisure visits to UK forests, the majority of which are plantations (Forestry Commission, 2002).

SOIL AND WATER PROTECTION.

Forests are widely credited with a number of soil and water benefits. These include the protection of steep slopes from erosion, reduction in soil salinity, maintenance of water quality, reduction in flash flooding and the protection of dry season stream flows. The protection of these many benefits has been an important driver behind plantation establishment in critical catchment areas[4]. In China the potential of forest plantations to combat soil erosion and poor water quality was one of the drivers behind the central government establishing a *Forest Environmental Benefit Compensation Fund* to pay for forest restoration (Lu Wenming et al 2002). However, plantations are also blamed for the degradation of aquatic environments. In the UK large scale afforestation of some catchments has led to increased acidity of lakes as a result of the trees capturing acid emissions from power stations and factories. Poor plantation design has led to heavy shading of rivers and erosion.

PRESERVATION OF NATURAL FORESTS

It is often argued that plantations reduce logging pressure on natural forests. If plantation development is targeted at the most appropriate ecological zones and if sustainable forest management principles are applied, forest plantations can provide a critical substitute for natural forest raw material supply (FAO 2001a).

2.2 Economy, livelihoods, poverty

CONTRIBUTION TO NATIONAL ECONOMIES

Globally, in absolute and percentage terms, plantations contribute a tiny fraction of **GDP**; but their contribution is significant in countries that have developed large areas of forest plantations and that have comparative advantage due to high growth rates, low costs of land and low unit or gross labour costs[5]. New Zealand's plantation-based forestry industry, for example, has been estimated to contribute 4% of GDP compared to the UK's 0.15%. Favourable policy and silvicultural environments can attract **foreign investment** in plantation development and management, wood processing, and in the non-timber capital of plantations, e.g. carbon. International sales of plantation products can

[4] However, it should be stressed that the scientific evidence for such claims is often lacking. See Landell-Mills and Porras 2002.

[5] Plantation management may be labour intensive but low unit labour costs keep the gross cost per cubic metre low; or it may be labour non-intensive so that even high wage rates do not result in comparatively high unit costs of production.

contribute to export earnings. Box 2 illustrates the contribution the plantations are making in two countries, South Africa and New Zealand, that have pursued aggressive plantation development policies over many decades.

Box 2. Plantations' contribution to two national economies: South Africa and New Zealand

SOUTH AFRICA

South Africa's forest products industries – particularly the pulp and paper component – has grown rapidly. From an effective base rate of zero in the 1940s, the pulp and paper industry now produces around 2.8 million tons of pulp (1.63% global supply), 2 million tons of paper (0.76% of global supply) and 1.3 million tons of sawn timber (0.3% of world production). SA has moved during this period from being a net importer to net exporter. In terms of its contribution to the SA economy with a GDP of approx US$110 billion, the industry generates in excess of US$1 billion which:

- Meets 90% of domestic forest products needs
- Contributes about 1.5% to GDP
- Contributes approximately 5.5% to the manufacturing sector's contribution to GDP
- Provides 4.7% of total export earnings and about 10% of manufactured exports
- Employs approximately 110,000 people.

The latest available information (State of the Forests Report, 2003) indicates that forestry contributes 8.5% (R2 091 million) of agricultural contribution to GDP, and forest products represent 7 % (R9 144 million) of manufacturing GDP. Together, forestry and the associated processing of forest products generate 1.5% of South Africa's GDP. This belies the fact that plantation forestry often operates on poorer sites often not suited to high return agriculture. Despite this, even without considering the value adding processing, forestry returns twice the value per hectare than the average for agriculture (a contribution of 1 571 rand/ha compared to the average of 751 rand/ha). If one adds processing of forest products, forestry contributes 8 441 rand/ha to GDP.

NEW ZEALAND

The contribution of the forest industries – which are predominantly made up of the plantation industry – to the national economy in 2001-02 was estimated at four percent of national GDP (NZFOA 2002). It was estimated that the forestry and first stage processing industries directly employed 24,315 people in February 2001 (NZFOA 2002). Employment opportunities are forecast to increase, and there have been recent shortages in labour supply for forest growing and harvesting (MAF 2002).

Approximately 13 million cubic metres were exported in raw and processed form, bringing in $3.7 billion to the domestic economy (NZFOA 2002).The harvest from plantations in NZ has increased steadily and is forecast to keep increasing, with a predicted annual harvest of 41.9 million cubic metres by 2025, and 52.5 million cubic metres by 2040 (MAF 2002).

The domestic forestry industry has enough plantation resources to absorb $3 billion more in investment in wood processing capacity, based on the assumption that 25-30% of logs are exported. Between 1995 and 2002 approximately $1 billion in planned wood processing investments were announced, leaving a large gap between future available wood resources and domestic processing capacity (MAF 2002).

RURAL LIVELIHOODS

The contribution of forest plantations to local and national economies is far higher than GDP estimates for the sector would show. Livelihoods of rural people are enhanced by **employment** in large-scale plantings or participation in **out-grower schemes** (FAO 2001f)**.** Outgrower schemes are virtually standard in the pulp sector – 60% of pulp-producing companies covered in a global survey source some of their product from out-growers (IIED, 1996). Depending on tenure and access rights, rural people may also be able to benefit from **using or selling timber and non-timber products,** or by

selling plantation based services such as recreation, tourism, carbon or even watershed protection services (Landell-Mills and Porras 2002). Plantation development may also create important **social infrastructure** associated with commercial forestry, including roads, housing and in some cases schools and clinics.

In South Africa plantations provide the basis for a wide range of small scale processing and retailing enterprises, including small-scale sawmilling, furniture manufacturing and fuel wood selling and the commercial growing of indigenous trees for high value medicinal products (Dlomo and Pitcher 2002). The plantation forest and forest products industry employs over 150 000 people in full time wage employment, of which about half work in production forestry and half in wood processing industries. If supporting industries are included, the sector contributes about 600 000 jobs to the economy. Assuming a dependency ratio of 5 (i.e. 5 family members depend on one income earner), then 3 million people (about 7% of South Africa's population) are dependent on the sector. Direct access to forest plantation products (e.g. building materials and fuel wood) and other resources (e.g. grazing) by rural households is important in some countries. Many households in developing countries depend on wood for energy. As much as 20% of South Africa's total energy consumption is derived from biomass, primarily woody biomass from the forest and woodland resource. In the State of Kwa Zulu Natal it is estimated that wood fuel use has an annual value equivalent to provincial electrical use.

Forest products such as small timber, bamboo and grasses are extensively used in India for house construction and manufacturing agricultural implements. The consumption of bamboo alone for house construction was estimated at 1.6 million tonnes a year in the 1980s (GoI 1984). A projected estimate puts the total demand for wood for construction at 11.5 million cum a year (Rao 1978, in Tewari 1995). Tewari (1995) estimated that 2.1 million bullock carts, 50 million yokes, 100 million wooden ploughs and 30 million wooden seeders are constructed each year. Most of this demand is met by local artisans who use local raw materials and traditional skills.

POVERTY

High numbers of rural poor live near plantations in some countries. Plantations may do little for the rural poor through local economies and may take up land more rightly suited to poor people's food production. However, in some rural areas plantations contribute to an effective pattern of local land use and provide some local benefits to the poor where few other economic opportunities are available. Out of 260 million poor people in India over 75% (197 million) reside in rural areas and constitute 27.1% of the rural population (GoI 2002a). 32 million hectares of forest are distributed in approximately 170,000 villages having a total population of about 147 million (FSI 1999). Forest based small scale enterprises based on non-wood forest products provide up to 50% of the income for 20-30% of the rural labour force (GoI 1999).

Evidence from out-grower plantation schemes suggests that significant and relatively equitable benefits can flow to poor people but much investment in local bargaining power is needed before such schemes can demonstrate pathways out of poverty (Mayers and Vermeulen, 2002). In South Africa some 18 000 households are small-scale commercial timber producers, mostly in KwaZulu-Natal province, with a total planted area of around 43 000 ha. (WFSP Baseline study, 2003). Although accounting for less than 3% of the national plantation resource, the economic contribution made by small growers in certain rural communities is significant. With a national poverty line calculated at R1100 per month it is estimated that the outgrower schemes contribute, under average management, from 12% to 45% of the income needed for a household to remain just above this line (the figure for one hectare is 17%)" (IIED, 2000). Three conclusions can be drawn from this. Firstly, such schemes can offer real contributions to rural livelihoods and the reduction of poverty. Secondly, while poverty may be reduced, it is unlikely to be eliminated by such developments. And thirdly, each household would need a minimum of 6 ha to obtain a poverty line income. The potential of outgrower schemes may be limited by land tenure constraints, poor transport infrastructure. In South Africa licensing, and the national priority assigned to water management is an additional limitation.

The contribution of plantations to alleviating rural poverty depends crucially on tenure and access rights, mobility of workforce and the labour demand of the plantation. In Australia the employment created by plantations is likely to be in regional centres rather than small, remote rural communities

that have the highest rates of unemployment and poverty. Some small rural communities have raised concerns that plantations established in their locality do not generate employment in their community, with employment created instead in large regional towns some distance away, and only irregular employment available. The amount and type of employment provided by plantations, whether private or state, varies depending on the type of plantation being established and the level of associated downstream processing. The amount and type of employment (direct and downstream) provided by short rotation eucalypt plantations established for wood chip production is likely to be lower the amount provided by Pinus radiata plantations that are pruned and thinned during their rotation and which are processed domestically into a wide range of products.

2.3 Changing ownership and management – some global patterns

In countries that have developed significant forest plantation resources governments have generally played two roles: plantation developer, either by purchasing land and establishing plantations through state organisations or through joint ventures with landholders; sponsor of private plantation development through favourable policy environments and direct (grants) or indirect (favourable tax regime) support.

FAO's Global Forest Resources Assessment 2000 estimated that globally industrial plantations were 34% publicly owned, and 29% privately owned[6]. Within non-industrial plantations, 41% were publicly owned, 37% privately owned[7]. These figures hide large variations in the distribution of private sector holdings between large, corporate industrial owners and smaller holdings owned by private individuals or community groups.

Private sector participation in forest ownership, management and operations has been increasing. As governments around the world adopt more liberal market policies and are under pressure to reduce budget deficits, they are both loosening their control over private sector activity and are encouraging individuals, communities and firms to provide goods and service traditionally provided by government (Landell-Mills and Ford 1999). Substantial areas of state forest, including plantations, have been transferred from state to private ownership or use in some form in the last 10 years. A large proportion of state-owned timber harvesting and processing has been sold to private enterprises, and outsourcing of service functions is becoming the norm in many countries.

MODELS OF PRIVATE SECTOR INVOLVEMENT

Governments and state forest services have employed several different models of private sector involvement in state-owned forest plantations, often in combination:

- **Outsourcing of services** The state enterprise retains ownership and responsibility for deciding the flow and distribution of goods and services but out-sources management and operational activities including inventory, management planning, silvicultural operations, forest protection functions.
- **Transfer of use rights** to one or more good or service. The state enterprise retains ownership of the land and may retain rights to decide the flow of goods and services. Rights may be transferred under short or long term agreements; to harvesting companies, communities, or households. Often rights are transferred alongside management obligations, which are defined in agreements between the "landlord" and "tenant". Obligations may be to avoid negative impacts and/or to achieve certain outcomes.
- **Transfer of ownership** of the right in perpetuity to use, sell, or transfer to other users. The process may be to the highest bidder or to a preferred beneficiary. The special case of **restitution** transfers "tenure, revenue ownership and management rights to private individuals or bodies corporate by way of handing back productive assets to their former owners" (Indufor and Eco 2001). It has been estimated that restitution will create 3-4 million new private forest holdings in

[6] 37% were classed as "other" or ownership was not specified.
[7] 22% were classed as "other" or ownership was not specified.

the 10 EU applicant countries with an average size of 2-3 hectares. Ensuring the profitability and sustainability of these new small holdings will be a major challenge for applicant countries (European Economic and Social Committee 2002).

Limited consumption rights versus continuous decision-making rights.

There is an important distinction between granting rights to consume specified forest goods and services within extraction limits set by the owner and transferring rights to decide the flow and distribution of goods and services. An example of the first is the permission given to rural households in South Africa to take head loads and truck loads of timber out of the forest to use for fuel or local construction (Dlomo and Pitcher 2002). The users in this example play no part in deciding the objectives of forest management, in planning and implementing harvesting and regeneration operations or in protection and maintenance activities as part of the formal or informal agreement under which they are granted rights. They take on no obligations other than to avoid causing any damage to the forest. The users do not have exclusive rights; the land owner retains ownership of the product until it has been consumed and may use it themselves without infringing the rights of other users. In these cases, there is no change in the ownership and management of the assets held in the forest. Such cases are only considered tangentially in this report.

A privatisation continuum

There is a continuum between the two extremes of unlimited state control over forest resources, forest management and forest utilisation, and unrestricted individual ownership rights. Between these extremes there are varying degrees of leasing and subcontracting (Indufor and Eco 2001). Neither extreme will be achieved fully in reality; most European countries, for example, have chosen to preserve through legal means a mixture of ownership categories with public supervision over forest management and enforcement of laws regulating the forest sector to protect forests against conversion and deterioration in quality and ensure the supply of public goods and services that people demand from forests.

OPPORTUNITIES ASSOCIATED WITH TRANSFERRING OWNERSHIP AND MANAGEMENT

Changes in ownership and management have been driven by different motivations. Increased operational efficiency and profitability of state owned enterprises and reduced public spending are stated motivations in most instances. Increased investment in wood processing by the private sector and a desire for increased export earnings have been significant drivers in a number of countries.

Righting past wrongs has driven the restitution of forests to private owners in Eastern Europe; similar motivations have influenced the change process in South Africa as the country seeks to realign its policies and institutions away from the inequalities and distortions of the Apartheid era and towards a new paradigm in which much is expected of the private sector in serving society's needs.

Poverty reduction and improved rural livelihoods are targets for changing ownership and management in China, India and South Africa. Empowerment of previously disadvantaged groups has been a major influence on the design of divestment options in South Africa.

In some cases privatisation, or moves towards it, has been driven by political philosophy, as in Chile, where it met with no resistance, and in the UK, where it was blocked by concerted opposition from NGOs.

Increased economic efficiency and improved aggregate welfare

Economists point to two major forms of efficiency: allocative and productive efficiency. Productive efficiency refers to the ability of the economic agent to maximise outputs with given inputs. Allocative efficiency refers to the optimal distribution of land/natural resources, labour and physical capital within an economic system. Where resources are correctly allocated and productively employed, welfare will be maximised.

State intervention in the free working of markets is thought to undermine both forms of efficiency and, thus, human welfare. This is because governments fail in a number of ways:

- Firstly, their capacity to collect information on all of society's demands and on all costs of production, and to analyse this information to determine the optimal allocation of resources is limited. Markets process this information automatically – Adam's Smith's "invisible hand".
- Secondly, governments are not unified bodies, but composed of individuals with their own interests and aims. There is no clear reason why this grouping of selected "leaders" should be better placed that private individuals to determine production and consumption.
- Thirdly, and linked to the above, government officials are vulnerable to rent seeking. Where competitive markets are distorted, outcomes are no longer determined by competition, but by opaque decision-making processes that provide opportunities for corruption.

The market optimality argument is a powerful driver for privatisation in the plantation sector. The private sector will usually have greater flexibility, better access to finance, fewer restrictions, more drive, clearer objectives. And it does not just apply to raising efficiency in tree planting. Plantation privatisation may also be a lever for raising efficiency in the processing sector; for example by increasing effective competition for raw material supplies.

Of course, there are exceptions to the market optimality argument. The existence of public goods and externalities, for instance, means that markets fail to operate effectively (Box 3). Private sector efficiency may conflict with public interests such as continued use by local people and protection of wildlife. The challenge is then to weigh up whether government or market failure causes more damage, or whether an intermediate public-private or even community mix can offer a solution.

Controlled budget deficits

Where unprofitable plantation operations act as a drain on government resources they may contribute to worsening budget deficits. Governments' losses in the arena of forest plantations have direct implications for resources available to other sectors such as health and education. Often these trade-offs are not made explicit. They are, nevertheless, very real and significant.

Government budget deficits also have broader implications for welfare throughout the economy, translated through their impacts on interest rates and inflation. Budget deficits can be financed in two ways: by borrowing; and by printing money. Heavy government borrowing can push up national interest rates, with negative implications for private borrowers. Often the first to be hurt by rising interest rates are the poorest. Where authorities choose instead to print money, the damage is done through rising inflation. Again, inflation often hits the most vulnerable hardest by devaluing their savings and reducing the real value of their income (as they tend to be least able to lobby for regular increases).

Gains to the public purse may be offset by the costs of ensuring that the new owners comply with forestry regulations and deliver public benefits that continue to be demanded by society after privatisation. Such costs may include additional forest authority staff and payments to the new owners for environmental services.

Reduced state power and widening ownership

The greater the quantity of resources that states control, the greater their power over their citizens, and the greater their opportunities for corruption. Even where governments are democratically accountable, the state machinery can accumulate power in ways that were never intended, and systems for ensuring accountability are not always effective. Forestry officials that manage millions of dollars worth of plantation assets may not necessarily manage these resource in the national interest, nor in the interests of local people. Privatisation may offer a route for returning power to local people and for promoting a wider and more representative pattern of ownership.

Increased participation by disadvantaged groups

Privatisation may be a useful means for increasing participation in the economy by previously disadvantaged groups: e.g. Black empowerment in South Africa through direct participation in forestry operations, training and skills development, affirmative action in management, and entrepreneurial

opportunities through outsourcing, partnerships, procurement and easier access to financing (Dlomo and Pitcher 2002).

Box 3: Public and Private Benefits - economic distinctions

Forest resources have been owned and controlled by national and state governments because of the belief that many forest goods and services would not be properly produced and allocated under a system of private ownership and market exchanges. Indeed forests produce:

- goods that are well suited for market allocation and private consumption, such as timber;
- services that cannot be rationed by a market system and tend to be considered public goods, such as forest recreation, carbon storage and biodiversity.

Two key concepts help to distinguish between goods that are best suited for market allocation and goods which, due to market failure, are often considered to be public goods:

- Excludability - where an individual can deny the use of any goods or service to another individual
- Subtractability - the amount that the consumption of a product or service subtracts from its sustainable consumption.

Most consumer goods, like timber, can only be consumed once - they are highly subtractable. And, since it is also easy to exclude other individuals from using consumer goods, these goods are thought to be most efficiently allocated by the market.

On the other hand, biodiversity is characterised by low excludability and low subtractability, and is then best treated as public goods, subject to governmental regulation. Since there is little incentive for an individual to invest in the provision of biodiversity, it will tend to be under-provided - or not provided - unless a government or an association accepts the responsibility for the provision for the public's benefit.

However, there is not always a clear-cut case for private or public control of specific goods and services. This is because the public or private nature of goods and services is not static, but depends upon the level of institutional sophistication, communications and technology. It is possible to change excludability and subtractability through a number of measures, e.g. zoning and management agreements. Hence there is potential to transfer what once *had* to be public goods to market provision, with institutional improvements and appropriate safeguards. Moreover, public and private provision are not the only options. Mixed public/ private goods can be very effectively managed under strong common property regimes.

Forest Goods and Services	Excludability	Subtractability	Externalities and Comments
Timber	High	High	Private Goods
Hunting	Medium	Medium	Private – Congestion Effects
Grazing	Medium	High	Mixed public-private
Fuel Wood Collection	Medium	High	Mixed public-private
NTFP Collection	Medium	High	Mixed public-private
Recreation/ amenity Uses	Medium	Medium	Public – Congestion Effects
Carbon Sequestration	Low	Low	Public Goods
Micro-climate Moderation	Low	Low	Public Goods
Watershed Protection	Low	Low	Public Goods
Biodiversity Conservation	Low	Low	Public Goods

Source: Bass and Hearne, 1997

Increased entrepreneurial drive and investment

Privatisation transfers rights and responsibilities from state actors to non-state entities. Where the private sector has traditionally been excluded from plantations, its energy and drive for improvements and technological advance would have been stifled. By encouraging private entrepreneurs back into forestry, the government also opens the door for increased innovation and longer term growth.

Privatisation offers opportunities to attract investment and expertise needed to revitalise assets that are perceived to suffer from chronic under-investment. It is not always the case, however, that past investment by state agencies has suffered from a lack of resources, but instead from an institutional inability to spend the resources efficiently to achieve economic sustainability and growth. Dlomo and Pitcher (2002) highlight this effect, citing the example of the homeland plantations in South Africa.

Removed contradictions between government as regulator and as manager

State management of plantations can conflict with the performance of governments' regulatory role. For example, wittingly or unwittingly, the commercial interests of the state agency may be put before the interests of private plantation owners competing in the same markets. Even where separation between the two roles avoids conflict of interest, the dual responsibility may reduce operational focus and thus operational effectiveness and efficiency. Transfer of plantation management to the private sector may improve operational focus on the regulatory role.

Re-thinking land use

Privatisation debates and negotiation processes may reveal the possibilities of alternative mixes of land use. For example some plantation areas considered in South Africa's privatisation process are now being managed for rehabilitation of natural habitat and other non-plantation uses.

Multiple motivations

Often there are multiple motivations. The driving forces behind New Zealand's corporatisation and subsequent sale of its state forest management enterprise (Clarke 2000, Wijewardana 2000) are a good example. Wood supply from New Zealand's state plantations was forecast to surge during the 1990s; a more commercial operating environment was necessary to maximise returns. This required downstream investments, which were impeded by the government corporation's limited ability to raise capital, the shareholding ministers having to approve any investment intention, and private sector processors' reliance on contractual wood supply arrangements. The second major driver was the Government's policy of clarifying organisational objectives, thereby enabling transparency and accountability. And the third driver, pressure on the government from the environmental movement to ensure more environmentally friendly forestry practices.

2.4 Private profit versus public good

Many fear the impacts of growing private investment in forestry. This concern stems from a belief that private companies are not accountable to public demands and have no incentive to provide important environmental and social goods and services. The private sector, it is argued, answers only to shareholders and their chief aim is profit[8]. The public sector, in contrast, is thought to be more accountable to the population at large (at least where governments are democratically elected). Moreover, because market failure means that private actors will not adequately supply public goods, it is up to the public sector to take the lead in sectors that suffer pervasive externalities. While the

[8] For example West Coast Environmental Law (1999) in Canada speculated that privatisation, or increased corporate control over British Columbia Crown lands would reduce protection of important environmental values. It observed that companies were pushing for privatisation as a means of avoiding public oversight and returning to the days of unrestricted logging. Rather than protecting public lands, it claimed that privatisation would lead to the replacement of mandatory requirements that allowed public access, buffer fish stream, protect against land slide etc by voluntary rules that provided much less protection.

debate is often polarised, reality is far less clear-cut; there is no absolute case for private or public control of specific goods and services.

The public or private nature of goods and services is not static but depends on the level of institutional sophistication, communications and technology (Mayers and Bass 1999). Whereas landscape beauty has traditionally been viewed as a public good, we increasingly see private parks offering unique views for sale. Clean air, also traditionally viewed as a public good, is already being commercialised in some quarters as international agreements under the United Nation's Framework Convention on Climate Change take shape. Even where public goods persist, whether or not the public sector offers a solution depends on its capacity. The costs of market failure must always be weighed against those of government failure.

Furthermore, the dichotomy often presented between public and private is misleading. Mixed public/private goods can be very effectively managed under strong common property regimes. Hence there is potential to transfer what once had to be public goods to market or community systems with institutional improvements and appropriate safeguards (Landell-Mills and Porras 2002).

PUBLIC POLICY VERSUS CIVIL SOCIETY ASPIRATIONS

Changing ownership and management results in shifts in power to determine forest plantations' short and long term futures and to determine flows and distribution of benefits. These shifts may have a number of impacts that will lead to conflicts over the objectives of changing ownership and management between new owners/managers and wider public policy objectives or civil society aspirations. The degree of conflict will depend on the extent to which aspirations diverge, the value of the forest to different actors, and the power balance between the new owners/managers, forest regulatory bodies and civil society, which is itself determined by the governance system.

The governance system within which a change of ownership and management takes place varies greatly across different countries. Central government often has over-arching powers, checked and balanced through intervention by local government, local groups, NGOs and private business, depending on their respective capabilities and how much influence they are allowed or have the capacity to exercise. Conflicts can arise between the government's perception of the public interest, values important to civil society, and values important to owners and users to whom power and rights are transferred.

A country's governance system may limit the options and any substantial change in ownership and management may require substantial change in governance: re-engineering of the legal and institutional framework; decentralisation of administration; capacitation of new owners and managers and of new or changed government institutions.

Hostile public perceptions of transfers of ownership, particularly of privatisation, should not be underestimated. In many countries, people perceive an over-hasty rush to allow protected public resources to be cracked open by the private sector and then fenced off by the market. They see mass privatisation and deregulation as having bred armies of locked-out people, whose services are no longer needed and whose basic needs go unmet. The extent to which these perceptions are valid in the case of state-owned plantations, and the degree of engagement with such concerns, will be critical determinants of the success or failure of processes of transfer of ownership and control.

KEY CONCERNS

Specific conflicts around the issue of transferring ownership and management to private actors are associated with three main sets of concerns. Examples of these are provided below.

Economic concerns

Loss of timber and non-timber forest products. Concerns are often raised that privatisation of government plantations will lead to resource "mining", and the loss of valuable timber and non-timber forest assets as companies seek to recover the costs of their (often minimal) investment in as short a time-period as possible.

Decline in processing capacity. Where the state has acted as the main supplier of raw materials in the forestry sector it has often played a key role in supporting a fledging processing sector. In many cases this support has been in the form of cheap logs, effectively acting as a subsidy to the industry. Where the government considers privatising its plantations, the repercussions for downstream processing could be enormous, and is thus often fiercely resisted by major industry players.

Social concerns

Restricted access. A major concern for communities living in or near plantation areas is that privatisation will impact on traditional use rights and livelihoods, or conflict with public recreational and spiritual pursuits. In some European countries, public access restrictions protect landowners' rights to manage and use their land for their own goals, clearly limiting public opportunities to enjoy forest land (Jenrenaud 2001). In South Africa serious questions have been raised about how the restructuring of government plantations can be carried out whilst preserving the land rights of dispossessed former owners (Clarke 2000, Dlomo and Pitcher 2002).

Job-shedding. Where government-run plantations have been criticised for inefficiency and low profitability, privatisation is often associated with reduction in spare capacity and labour redundancies. The social costs of this process may be significant in forest-dependent communities.

Environmental concerns

Conversion of plantations to another use. If plantation owners see value only in the trees, there are risks that they will choose to replace their relatively longer term riskier investment with shorter rotation alternatives, or simply "cut and run". Where conversion does occur, it is often argued that valuable environmental services are lost. The strength of this argument depends on the characteristics and setting of the plantation. Whether new owners would re-plant and expand plantations was a controversial issue in the New Zealand privatisation (Clarke 2000). In South Africa the privatisation debate has raised the possibility of other land uses better suited to deliver environmental services (Dlomo and Pitcher 2002).

Degradation as a result of overgrazing or neglect. Where privatisation is associated with a downturn in the timber market, not only are there risks that the plantations will be converted to other uses, but also that forest owners will choose not to invest in forest maintenance and protection. Again, plantation degradation is frequently blamed for lost environmental assets.

Destruction of biodiversity, landscape and watershed values. Even where private plantations are maintained, forest survey and management planning may not put as much weight as would local people and NGOs on the value of "non-productive" assets such as (amongst others) biodiversity, ancient monuments, ancient trees and the valuable watershed services delivered to local communities.

Increased pollution. This may be caused by "cutting corners" to reduce costs, e.g. spillage or unsafe disposal of waste engine and lubricating oil.

Many of the above fears are expressed through opposition to transfers. Whether or not it is justified, in some cases this opposition may be strong enough to block government plans, as in the UK (Grundy 2002). In others, concerns go unheeded and store up problems that emerge later. Therefore, when transferring ownership or management of state forest plantations to the private sector, it is critical that governments assess the many economic, social and environmental impacts their policy is likely to have. The transfer process needs to be tailored to minimise the costs and maximise the benefits.

THE CHALLENGE OF BALANCING RISKS AND REWARDS FOR THE PRIVATE SECTOR

As both the "seller" of forest plantations and the regulatory authority, the government is responsible for guaranteeing the public interest in any initiative to privatise plantations. How can governments protect the public interest at the same time as securing the benefits sought from change of ownership and management? A range of instruments is available to governments: regulation; its design of the tenure system (e.g. the procedure for allocation, length of tenure, transferability of rights); financial incentives;

extension; payments and markets for environmental services such as carbon and biodiversity; certification as a complement to or substitute for regulation.

The most effective balance between public and private ownership and management depends on what people want. There are trade-offs. It may not be possible for everyone to win, but if some people feel they are losing, the balance may be wrong. The most equitable balance may not be the most efficient economically. Restitution has created problems in parts of eastern Europe by breaking large enterprises into millions of small holdings. But righting the past wrong of expropriation of private land has been viewed as more important in those countries than economic efficiency in forest management and use.

The key question facing governments is whether they have both the knowledge and capacity to ensure that the private sector makes good on its commitment to do the positive things expected to occur from privatisation, thereby raising welfare, whilst minimising any negative repercussions.

Governments cannot rely only on the imposition of long lists of restrictions on private entities. There is a real risk that government infringements on private enterprise will chip away at incentives to reinvest in forest maintenance, thereby undermining the very public goods and services the laws have been written to protect. A number of examples illustrate this point (Box 4). Private entities must be rewarded for the risks they take on in investing in what remains a long-term and uncertain business. Without prospects of commensurate rewards, no private investment will be forthcoming (Lu Wenming *et al* 2002). While forest conservation for the protection of environmental services may be in the public's interest, for instance, where requirements for conservation undermine a plantation's production potential, few private entities are likely to invest (Cai 1999).

Box 4: Impacts of over-regulation

Indufor and Eco (2001), observed that in western Europe and north America, changing political and economic conditions have led to a situation where individual private owner's rights to determine property management objectives and to exclude others from the use of his forest are being increasingly limited. In order to meet the public's rising demand for public benefits, "social responsibilities" have been defined for private forest owners and imposed through legal and administrative action. Where owners go uncompensated, the chances that they will continue to invest in their forest plots reduce.

In China the imposition of restrictive harvesting quotas in 1986 went hand in hand with efforts to raise private sector participation in tree planting and management. While viewed as the central plank of the State Forestry Administration's system of control, the quota system is criticised for being excessively rigid and undermining private motivation (Lu Wenming et al 2002). Jintao and Hyde (2002) observe that government regulations on timber harvest levels and shipments remain a key deterrent to timber markets development in some regions.

Phoung (2000) emphasises similar problems in Vietnam where farmers still have to follow the instructions of the state management agencies in respect of species selection and business decisions.

Before moving forward with transfers – whether this is of ownership, use rights or management responsibilities – public authorities need to determine whether society's minimum requirements for public goods derived from plantations are compatible with private investment. If the two are deemed compatible, governments need to ensure that the private sector actually delivers the positive things expected from privatisation. The government's success depends on it finding a sustainable balance between stakeholders' needs. Where change concerns rights to determine the flow and distribution of goods and services, through transfer of ownership or conclusion of long term lease agreements, balancing acts need to be performed at two stages:

- *During plantation transfer:* the balances attempted specifically to achieve optimum outcomes when transfers are made; for example restrictions or privileges built into transaction documents;

- *After plantation transfer:* the balances attempted on a day-to-day basis to make it work. These are rooted in existing system of institutions, laws, regulations and incentives that enforce or encourage responsible plantation development and management i.e. the forest governance system (Mayers *et al* 2002).

3. Changing demands and roles in the seven countries studied

In this chapter we look at the case study countries' experience of plantation development, private sector involvement in plantation resources created by the state, and the governance framework within which private actors operate. The countries were selected for the diverse experiences they offer. They represent the full range of political, social, environmental and economic states and trends, the value of forests to national economies and local livelihoods, motivations, and privatisation models. The context for changing ownership and management in each of the countries is profiled in (Table 3.1).

Table 3.1: Context for changing ownership and management in the case study countries

	AU	CL	CN	IN	NZ	ZA	UK
Social and economic context							
Developing economy		✓	✓	✓		✓	
Post-industrial economy	✓				✓		✓
Large number/high proportion of rural poor			✓	✓		✓	
Value of forests to national economies and livelihoods							
Relative to timber, high values placed on recreation, wildlife and visual landscape values of forests	✓				✓		✓
Significant contribution to the national economy (>1% of GDP)		✓			✓	✓	
Main motivations for restructuring							
Philosophy of regulated market economy	✓	✓	✓		✓	✓	✓
Reduction in public debt	✓				✓	✓	✓
Increased profitability/efficiency of the sector	✓	✓	✓		✓	✓	✓
Increased investment in downstream processing	✓				✓	✓	
Empowerment of disadvantaged groups				✓		✓	
Privatisation models							
Transfer of the entire stock of state forests to private "for-profit" companies	✓	✓			✓	✓	
Limited asset sales	✓						✓
Transfer of use rights to individuals, households and private "for-profit" companies	✓		✓	✓	✓	✓	✓
Out-sourcing of service provision to for-profit companies	✓		✓		✓	✓	✓
Out-sourcing of service provision to communities and households			✓	✓			
Out-sourcing of service provision to not-for-profit agencies						✓	

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

3.1 Drivers of plantation development

The seven case study countries have a total of 86 million ha of plantation (46% of world total) constituting 20.6% of the countries' total forest estate (Table 3.2). Two countries, India and China,

have 90% of the total (77.7 million ha). The proportion of the countries' total forest estate comprised of plantations ranges from 0.9% in Australia to 67.9% in the UK.

Plantation development has occurred mainly with government support, either through direct involvement in plantation establishment and management, or as a result of government-inspired or government funded incentives for establishment by the private sector. There are exceptions, notably the continuing expansion of plantations in New Zealand by private actors in spite of all subsidies having been removed; also the early years of plantation development in Chile and small scale plantings in the UK in the 19th century.

Table 3.2: Forest and plantation areas at 2000 (millions of hectares)

	AU	CN	CL	IN	NZ	ZA	UK	World
Forest plantation	1.4	45.1	2.0	32.6	1.5	1.5	1.9	186.7
- % of total forest	*0.9*	*27.6*	*12.9*	*50.9*	*19*	*16.8*	*67.9*	*4.8*
Natural forest	153.1	118.4	13.5	31.5	6.4	7.4	0.9	3,682.7
- % of total forest	*99.1*	*72.4*	*87.1*	*49.1*	*81.0*	*83.1*	*32.1*	*95.2*
Total forest	154.5	163.5	15.5	64.1	7.9	8.9	2.8	3,869.5

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

Source: FAO 2001a.

GOVERNMENT MOTIVATIONS

Few countries can claim to have based their policies on the development of plantations over the years on concerted and systematic processes of gauging public opinion. However it is useful to examine the objectives, stated and derived from practice, of plantation development in terms of their apparent driving forces and sources of demand. Usually there have been multiple motivations, which gave state plantation agencies every reason to press on, but caused problems when no priorities were attached or no guidance given on how to balance often competing objectives. India's forestry policy of 1952 listed several "paramount needs" of the country that were to provide the fundamental basis for forest management. Everything from environmental services to industrial raw material and from rural subsistence requirements to revenue for the government was included in the list. Although it was obvious that not all these objectives could be met simultaneously, there were no guidelines as to how choices were to made between these competing claims on the forests (Vira 1995 cited in Saigal 2003).

Ensuring timber supply

Creating a strategic reserve of timber for **national security** in the event of war preventing imports was the main reason for the UK government establishing the Forestry Commission in 1919 and giving it the task of creating a strategic reserve of timber. That objective remained part of successive governments' policies until the 1950s when it was dropped after it had become redundant as a result of the proliferation of nuclear weapons and the likelihood that a future war would render such strategic reserves meaningless. Compensating for **declining indigenous forest resources** has featured in South Africa's, New Zealand's, Chile's and India's forestry policies. South Africa's first plantations were established in the former British-governed Cape Colony as an alternative to the fast disappearing small area of natural forests, and expensive imported timber. With a growing economy, the Boer War, and a rapidly expanding mining industry there was an increasing demand for construction timber. India's government began to establish plantations in the 1840s to compensate for the removal of valuable timber species from natural forests.

Box 5. . Australia: a mixed economy commonwealth of states

1880 - 1967: Experimental plantations established in the 1880s with the goal of achieving some degree of self-sufficiency in softwood timber supply that was relatively restricted geographically in comparison to native hardwood timber. Establishment of plantations up to the 1960s was on a relatively small scale, mostly carried out by the state. Planting programmes were interrupted by the two world wars but thereafter planting programmes increased significantly. In the 1960s, around 75% of plantations were owned by state forestry agencies.

1967 - 1980: A period of partnership between the Commonwealth and State governments for significant, principally softwood, plantation expansion aimed at establishing a softwood resource large enough to achieve national self-sufficiency. Under the 'Softwood Forestry Agreements Acts of 1967 and 1972, the State Governments received soft loans from the Commonwealth Government for establishing plantations. Establishment rates increased significantly, from 22,064 hectares in the period 1960-64 to 134, 803 hectares in 1970-74. The clearing of natural forest for this rapid expansion of plantation, predominantly by the public sector, gave impetus to a rise of environmental movement. In 1975, the Standing Committee on Environment and Conservation reviewed the operation of the Softwood Forestry Agreements Acts, and concluded that money should not be loaned for establishment of plantation on native forestland and recommended to increase the use of marginal agricultural land for future plantations. Since the 1970s, the establishment of a commercial tree crop on a portion of a farmer's property (farm forestry) was supported by various forms of grants, low interest loans, development of joint venture or leasing programs, and similar means.

1980 – 1990: In the late 1980s, two proposals were made for a large increase in the plantation estate. Industry organisations called for an increase in plantations to supplement wood supplies from native forests and to provide a suitable base for a strong wood processing sector in Australia. This proposal saw plantations as the source of types of timber which native forests could not supply. Conservation organisations also called for an expansion of the plantation estate, but to substitute for timber from native forests and thus reduce logging pressure on native forests. There was also a move towards a greater proportion of hardwood plantations establishment and a shift towards private-public mixes of establishing plantations. Up until this time prices of timber were administratively determined not necessarily taking into account the actual costs involved in growing the timber.

1990 – to present: Significant changes made to the operational structure of all the state forest agencies. Self-sufficiency in timber supplies moved out of the spotlight as commercial objectives became the dominant use of state plantations. National Competition Policy (NCP) introduced in 1995 aimed at removing unfair advantages of government businesses over competitors in the private sector. The private sector is involved in the State-owned plantation sector either by being contracted to establish, manage and harvest plantations; and purchasing and/ or processing timber produced from State-owned plantations. Consequently, much of the interaction between state and private sectors has been mediated by the price of plantation wood. Price setting systems have changed considerably with commercialisation, corporatisation and privatisation. Prices are now set with more referral to a likely market price. The commercial imperatives and tax arrangements driving recent plantation establishment, and declining terms of trade for agricultural commodities and an ageing farmer population encourage 'whole of farm' planting (industrial in form and scale). A significant shift to private ownership of plantations. By 2002, nearly 30% of Australia's natural forests are privately owned, a further 40% are formally under public ownership, but are held and managed under lease by the private sector. The remaining 30% are publicly owned and managed. The State of Victoria privatises its state plantation enterprise, but none of the other states follow.

Import substitution

Import substitution was one of the Australian government's main objectives of the early phase of plantation development and was a driving force for the development of state plantations up to the late 1970s; considerable funding was provided to establish a plantation resource for that purpose. In the UK, in addition to the national security argument, import substitution became an objective of government policy until the 1970s. It was knocked on the head when the government recognised that the UK did not have a comparative advantage in wood production; it was cheaper to import timber and invest instead in economically more productive activities. The argument has been revived recently under the more respectable guise of reducing pressure on natural forests in other countries.

National economic development

Large-scale timber plantations have traditionally been valued for their potential (though not often realised) contribution to industrial development. This was true of plantations in Europe as early as the 18th century, and more recently in developing countries. Timber was (and continues to be) a critical input into a number of industries from the railway sector, to construction business and paper production. "Trickle down" theories of plantations and industrial development became increasingly prominent in the 1950s and 60s (Sargent and Bass 1992). In addition to supporting local industries, timber has been seen by many as a key export, providing valuable foreign exchange to support growing international trade. As an example, from an effective base of zero in the 1940s, South Africa has developed a plantation estate that produces 1.63% of global pulp supply, 0.76% of global paper supply and 0.3% of global sawn timber supply and contributes $1 billion annually to the economy (1.5% of GDP). New Zealand's and Chile's plantation estates are even more significant in their national economies, contributing respectively 4% and 3% of GDP.

Rural livelihoods

In all of the case study countries at different times **employment** has been an explicit objective. During the 1930s South Africa's plantation programme was aimed at job creation for unemployed whites during the depression years. Later, a 1956 Government Commission into Socio-Economic Development recommended that forestry be used as a **regional economic development** instrument in the areas which were to become the racially-defined "homelands". Implementation of the initiative became the responsibility of the different homeland administrations. 150,000 ha of plantations were established. The New Zealand government used the NZFS to try to deliver social objectives, particularly reducing rural employment as NZ's unemployment figures climbed to politically embarrassing levels (Birchfield and Grant 1993 cited in Schirmer and Roche 2003). In the UK in the 1920s and 30s the Forestry Commission created "forest villages" to house workers recruited to establish plantations in economically depressed rural areas. Various land settlement schemes grew into the FC's 'Forest Workers' Holdings' initiative to integrate forestry with agricultural employment. Employment grew in this pre-mechanisation phase of plantation establishment.

Using plantation development as a vehicle for job creation has stored up problems. In the UK by the late 1960s, employment objectives were in increasing conflict with the job-shedding which was going on over the government's whole estate in response to mechanisation, altered forestry practice, and above all the pressure to show positive financial returns. From this period, the trend was to move from direct employment by the state, to the use of self-employed contractors who tender for work. These contractors often led nomadic lives, typically living in caravans as they chased the work from place to place. Today, the peripatetic nature of this work-force, combined with highly machine-intensive forestry practices and the rarity of local forest ownership, has effectively de-linked forestry from local development (Mayers and Bass, 1999). New Zealand's policy of job creation led to significant overstaffing of the NZFS particularly in many economically depressed rural regions. The NZFS was seen as a "job for life" for many who joined it and considerable institutional barriers existed to dismissing staff (Birchfield and Grant 1993 cited in Schirmer and Roche 2003). South Africa's homeland Governments used their powers to develop plantations as a vehicle for rural job creation resulting in high levels of overstaffing and a lack of commercial focus which have been carried through to the present day.

Claims of rural development benefits from plantation development are contested. In New Zealand some members of rural communities have believed plantations to have had negative impacts on agricultural enterprises and rural social structures (Aldwell 1984, Le Heron and Roche 1985, Roche 1990b, all cited in Schirmer and Roche 2003).

Diversifying the rural economy

Diversification of the rural economy has been a significant driver of government support for plantation development in New Zealand and the United Kingdom. During the 1980s New Zealand's government actively promoted farm forestry development through loan schemes and providing supporting legislation. Since the late 1980s there have been no direct government incentives encouraging farm forestry but since privatisation of the state's plantation estate the large part of new plantation establishment has been small-scale plantations established by farmers, Maori and other groups on rural land, effectively making plantations a significant contributor to diversification of rural enterprises. In the United Kingdom plantations were explicitly stated as being necessary alternatives to agriculture in the late 1980s when agricultural surpluses were seen as an embarrassment in the context of EU-wide policy and continue to be important elements of the rural development policy (Forestry Commission 1998 and 2000).

In Australia, government policy at Federal and State levels is generally to ensure a level playing field for different agricultural enterprises, of which plantations are one. While diversification of the rural economy is not an explicit aim, Federal and State governments have actively funded a wide range of programmes that encourage development of farm forestry – generally defined as landholders actively establishing plantations on a part of their property as part of a mixed agricultural enterprise. The rate of farm forestry is increasing but remains a small part of the total plantation estate with the majority made up of state and corporate or private business plantations. There are also many joint venture and lease plantations in which a farmer/rural landholder provides part of their land and a private company or government agency provides capital and knowledge and establishes and manages the plantation, paying the landholder an annual rent or proportion of the income from the harvested crop (Schirmer and Kanowski 2002).

Energy

Wood was the main source of energy in all the countries studied until fossil fuels were discovered and the technology developed to exploit them. Wood continues to be important in developing countries where supply of alternative sources is insufficient or inaccessible. In China, forests are an essential source of energy for 40% of the rural population. Fuel wood is by the most important product extracted from India's forests. Of the total demand for wood in the country its is estimated that over 80% of the demand is for fuel wood with a substantial proportion met by unsustainable removals from forests and plantations (Saigal et al 2002).

As early as the 1970s India's National Commission on Agriculture (NCA) suggested that plantations should be established on non-forest lands in order to reduce local communities' dependence on state forests, including for their fuel wood needs. It was also hoped that the increased supply of fuel wood from these plantations would reduce the use of cow dung as fuel so that it could be used as manure in the agricultural fields. According to estimates, over 458 million metric tonnes of wet dung were being used annually as fuel. If this was used as manure it would potentially fertilise 91 million hectares and increase food output by 45 million metric tonnes (Srivastava and Pant 1979, in Pant 1979).

In South Africa DWAF is responsible for approximately 100 community woodlots planted for fuel wood and other subsistence products. There are many other such plantations nationwide being managed by Provincial Agriculture departments or by communities themselves. In the UK wood for energy is promoted in regional forestry strategies (Box 6).

Box 6: Wales' National Assembly's policy on energy from wood
"The development of a vibrant renewable-energy sector in Wales is a key target for the National

Assembly, as part of our responsibility to respond to global climate change. Wood has a number of advantages as a fuel, particularly where such wood fuel is an additional product from the management of woodland. We believe the development of wood-fuel technologies can make an important contribution to the production of renewable energy in Wales. The development of facilities to burn wood at appropriate locations where there are constant demands for heat, such as community facilities, hospitals, or industry, can provide both power and background heating. These heat and power plants will contribute to our target of maximizing energy efficiency in Wales:

- We will integrate energy from wood fuel into the Assembly's renewable-energy strategy, ensuring that it is recognised as a key fuel.
- We will work with … partners to develop information and advice for Local Planning Authorities on wood-based renewable energy."

Source: Forestry Commission 2000b

Environmental services

Governments have promoted and paid for plantation development to provide a variety of environmental services. The UK government added **recreation** to its forestry policy objectives in the 1950s in response to increasing demand for countryside access fuelled by increasing leisure time. Enhancement of rural **landscapes** followed soon after and from the 1980s onwards enhancement of derelict post-industrial and urban landscapes with a "boom" in the development of "community forests" to provide attractive and healthy environments for urban and urban fringe communities. Expansion of the UK's planted forest estate is also promoted as enhancing **biodiversity**; a number of previously rare bird and mammal species have prospered in the UK's new forests. There have also been losses due to planting of valuable open ground habitat and conversion of semi-natural forest; present policy and instruments directs plantation establishment away from these habitats.

Plantations are promoted for **land reclamation** purposes, for example stabilisation of dune mining operations in South Africa with *Casuarina* and woodland establishment on the sites of former gravel workings and coal mines in the UK.

Watershed protection is an important element of China's forestry policy. Following the establishment by the central government of the *Forest Environmental Benefit Compensation Fund* to pay for forest restoration local governments have demonstrated their willingness to raise funds for improved land management and forestry to combat soil erosion and reservation siltation by charging water consumers (Lu Wenming et al 2002). There are contra-arguments, however. In South Africa plantation forestry is a taxed 'stream-flow reduction activity'. In the UK large scale afforestation of sensitive catchments has been associated with acidification of lakes, causing reductions in fish populations.

Plantation development for **combating land degradation** has been promoted by government in New Zealand, where it is generally accepted as having being a success (MAF 2002b) and in India where more than half of the country's area (175 million hectares) is subjected to different types of degradation (GoI 1999).

Governments are creating a favourable policy and market environment for the development of plantations for **combating climate change** through carbon sequestration, though not all governments are in favour; China has been amongst those opposing the inclusion of forest-based carbon offsets in the Kyoto Protocol (Lu Wenming et al 2002). Plantation development has the potential to offset only a small proportion of greenhouse gas emissions and its greatest potential probably lies in providing a **renewable energy source** (DETR 2000). The UK government introduced the Non-Fossil Fuels Obligation which requires electricity supply companies to purchase a proportion of their energy demand from renewable energy sources and enables electricity generators to bid to supply the renewable quota. The development of electricity from wood has not been without its problems. The much vaunted Project Arbre at Eggborough in the UK, an 8MW generating plant designed to consume short rotation willow coppice, went into liquidation after it failed to demonstrate its profitability, leaving

40 staff redundant and 50 farmers with no market for willow crops grown under a 16 year contract with the company and grant aided by the government.

Box 7. Chile: an early lesson in total divestment of state plantations

1865 – 1970: First plantations in 1865 when the first foreign exotic eucalyptus were introduced. During 1907 and 1912 a 400 hectares of Radiata pine plantation planted South of Conception is considered to be the first really industrial plantation in Chile. Early plantations developed by private business, mainly to produce mining timber. By 1930, most wood still came from over cutting of native forests. In 1931, the government passed the 'Forestry Law of 1931' that protected native forests and encouraged afforestation by exempting forest land owners from land and inheritance taxes and offering payments to help with the costs of establishment. The State owned Development Agency (CORFO) was created the same year and in 1940 it initiated a large private plantation program based on soft loans. The annual rate of plantation establishment grew and peaked in 1962 at 49,257 hectares. All planting was done privately. Political instability and the progress of the Land Reforms process slowed down the annual rate of planting between 1947 and 1964 as the interest of private investors slumped.

1970 – 1973: During the socialist government of President Allende the COREF (Reforestation Corporation) was created as a fully state funded and administered body responsible for starting a wide afforestation programme on Reformed Lands expropriated from the former owners and now belonging to Agrarian Reform Cooperatives. In 1972, COREF was transformed into the Chile's Forestry Service (CONAF) with a wider mandate to afforest and reforest on a national scale. There were two state owned plantation programmes at the time: one started by COREF on land purchased or leased from private owners with the plantation being wholly owned by the state; and, the Convenios (Reforestation Agreements), in which CONAF held shared the profits with the landowner.

1973 - 1983: The collapse of the socialist government in 1973 and its replacement by the rightist Junta provoked a radical change in the economy. In 1974, the Government passed Decree Law 701, a cornerstone in Chile's recent plantation policy emphasising private sector planting. The government retained control over harvesting activities in native forest stands and plantations. Forest operations may be implemented only after a management plan has been reviewed and approved by CONAF. By 1978, CONAF held 32% of the total area planted in Chile, which marks the peak of the State owned or partially owned plantations. In 1977, the government removed restrictions on foreign investors which opened the door to foreign investment in forestry.

1983-1994: This period was marked by a serious economic recession, which held up privatisation. Unemployment became a serious issue and the government initiated a planting programme in response. Following the recession (1983-85), CONAF stopped its participation in planting and transferred this responsibility to the private sector. In addition, CONAF transferred the 'Convenios' to private entities. The rate of planting during the period 1991 to 1994 fell to an annual average of 120,000 hectares due to high land prices in Chile compared to neighbouring Uruguay and Argentina. In 1994, the planting subsidy of 1974 was renewed, but only for small and medium sized forestland owners. This 'kick-off' incentive amounts to 75% of the net costs of afforestation incurred in lands classified as preferentially suitable for forestry but the owner is compelled to reforest by his own means. The fine for non-compliance with reforestation is more than double the cost of reforestation and its value is inflation adjusted.

Present day: All plantations are fully privately owned and operated. It is unlikely there will be a step back to "nationalizing" forest land or privately owned plantations. This is a constitutional agreement, and unless there were to be a total about turn in the political and constitutional order, which is unlikely, plantations will remain privately owned. It is possible the State could detect a need for the establishment of new national parks or an addition to SNASPE in which case there is a constitutional procedure to expropriate private land and/or resources.

PRIVATE SECTOR MOTIVATIONS

Private sector motivations have been encouraged by government incentives and supportive tax policies in many countries but these have not been a pre-condition for private sector plantation development everywhere. Traditional private estates in the UK established plantations for game, timber and private amenity long before the government gave any support for planting. Mine owners in Chile began establishing plantations to supply pit props in the early 1900s. More recently, as large multinational players have entered the arena, investment in plantations for profit from wood sales or to provide timber for vertically integrated businesses has emerged without government support. The trend is most apparent in countries with comparative advantage in growing timber due to high growth rates and low land and labour costs. In some, private sector motivation is about "staying in the game" as government or market pressure requires companies to demonstrate responsible stewardship by certifying their performance. Some companies are recognising new opportunities in emerging markets for environmental services such as carbon sequestration.

Direct payments by government

All the case study countries have offered payments in the past for plantation development and management. Over time there has been a clear shift in the types of goods and services that governments are seeking to purchase with far greater emphasis now on social and environmental services. South Africa and New Zealand have stopped offering direct payments. Forestry SA (South Africa's national industry organisation) has expressed the view that the private sector is not looking for direct incentives from Government. Where these existed in the past they created distortions in the market, reduced efficiency and a lack of competitiveness, which was not good for the long-term interests of the industry (Dlomo and Pitcher 2002).

In the UK, the **grants** offered to private land owners by the Forestry Commission were traditionally aimed at purchasing hectares of plantation and cubic metres of timber. This focus continued for 60 years until opposition to large scale planting of non-indigenous species become so strong that the Commission introduced requirements into its grant schemes that effectively meant it was paying for environmental and social benefits instead of timber. Planting grants were tailored to promote a much wider range of plantation types: there was more emphasis on broadleaves, small scale woods, community woods offering public access, and re-creation of woods and forests of native species; and correspondingly less on large-scale afforestation of unimproved land with non-native species The concept of "public money for public benefit" caught hold (Grundy, 2002).

Plantation developers in Chile have access to planting and management **subsidies** if the land is classified as preferentially suitable for forestry and the owner is classed a small property owner. Subsidies for large ownerships were removed in 1974. Owners also have generous tax concessions (see below).

Australia has used **grant-loan mixes** from State Governments and State agencies to encourage private planting in the past but are generally not offered currently. One example was the Farm Forestry Agreement Scheme offered by the Victorian Government from 1967, which offered low-interest loans with repayments deferred for the first 13 years for establishment of softwood plantings. The scheme had fairly low uptake – after 15 years, approximately 8,300 hectares had been established, and the scheme had high administration costs. There were also difficulties with repayments when some scheme participants were unable to sell thinnings from their plantations (Hurley 1986 cited in Schirmer and Kanowski 2001).

Tax incentives

Although South Africa provides no direct government payments for plantation development and management, forestry is subject to general income tax provisions, which allow companies to write-off income from other activities against their forestry (or any agricultural) interests. Chile offers generous tax breaks to plantation owners (Morales 2002). Although profits from the logging of plantations are subject to first category income tax, plantations and the land where they are planted (provided it is

classified as being preferentially suitable to forestry) are not computed for inheritance, assignations and donations tax. In the UK all forestry activities were removed from income tax in 1988

GOING TOO FAR WITH TAX BREAKS.

The Australian and UK experience with taxation incentives suggests that they can be a very powerful means of generating significant private sector investment in some forms of plantation forestry. It is also arguable – and a widely-shared view in some plantation regions - that the rapid expansion of plantations which they generated was insufficiently tempered by appropriate land use planning and conflict resolution frameworks (Schirmer and Kanowski 2002). In the UK, opposition to the rapid expansion of plantations by private investors led to government removing the tax breaks that had driven investment for 30 years. The anomaly under which forestry operations qualified for tax relief while income and capital appreciation were almost tax-free was removed by taking forestry out of the income tax system. To compensate for the large reduction this produced in the incentive to plant, the planting grants were increased substantially.

Favourable trade and investment environments

None of the countries studied offered trade incentives targeted on the forest sector. **Liberal trade policies** have helped to stimulate a massive growth in exports in Chile with consequent improvements to balance of trade and the economy. Deregulation of international trade helped make New Zealand internationally competitive. Prior to the structural adjustment programme implemented by the Labour and subsequent National governments from 1984 a large number of export incentives and import controls were in place. (Roche 1990b, Birchfield and Grant 1993). Since 1984 most of them have been removed. Various international trade liberalisation trade processes aim to reduce international barriers to trade including GATT, NAFTA, WTO and APEC (Walker et al 2000, Turner et al 2001). The impact has been to open New Zealand wood processors and log sellers to international markets. Deregulation (through deregulation of the ports and removal of trade barriers such as import tariffs) was successful because it was accompanied by a range of domestic reform measures that enabled a more internationally competitive forest sector to develop.

Australia's eucalypt plantations are often funded by international investors attracted by the **low sovereign risk** and good growing conditions, although many are not committed for sale to particular international customers/investors. Ongoing debate about the optimal level of value adding that can/should occur for export.

New Zealand's government created a favourable investment environment by establishing a *Forestry Right* to **enable joint ventures** to take place between investors/capital providers and landholders. The *Forestry Rights Registration Act 1993* provides for a *profit a prendre* Forestry Right, which is a right granted to the landholder, other person or entity to establish, maintain or harvest a crop of trees along with ancillary rights of access and works needed to undertake plantation activities (Forestry Joint Venture Working Group 1991).

Markets for forest environmental services

Market and payment mechanisms have emerged, or are showing signs of emerging around them, some plantations. Landell-Mills and Porras (2002) reviewed 287 case studies of emerging markets for forest environmental services. The following paragraphs draw from their study.

MARKETS FOR CARBON SEQUESTRATION

Payments for carbon sequestration can help to finance continued provision of public forest goods and services. When carbon credits are tied to forest management standards they can help enforce continued provision. Markets are developing rapidly, though evidence that small growers in developing countries face serious constraints in accessing market opportunities is cause for concern. The potential use of the forestry-based offset market is still very dependent on policy decisions and on how they will be accounted for (FAO 2001g).

Box 8. Development of the carbon market in Australia

There have been a number of agreements in which carbon rights have been registered over areas of plantations. For example, SFNSW has an agreement with Tokyo Electric Power Company (TEPCO) for the establishment of plantations – up to 40,000 hectares over 10 years – for which TEPCO will own both the trees and the carbon rights (SFNSW 2002). Similarly, Western Australia's FPC has an agreement with British Petroleum in which plantations are established to offset carbon emissions (FPC 2001). While many in the forests sector believe there is considerable potential for future markets to develop in which carbon rights for plantations are traded, this has yet to eventuate – despite some pioneering attempts by the Sydney Futures Exchange (SFNSW 1999).

Several states are preparing for the emergence of environmental services markets by enacting relevant legislation: for example, in May 2001, the Victorian government enacted carbon property rights legislation, which also supports investment in environmental plantings for purposes such as habitat expansion, mitigating salinity and land protection (NRE 2002). Some government agencies have also sought to develop investment structures which would capture these environmental services markets in support of tree growing, particularly in lower rainfall zones (*eg* Salvin 2001).

From Schirmer and Kanowski, 2002

MARKETS FOR WATERSHED PROTECTION

Watershed services benefit groups of individuals and are characterised by threshold effects. Co-operation in demand and supply is therefore key. Market development depends on strengthening co-operative and hierarchical arrangements to allow beneficiaries to formulate group payment strategies and to tackle the difficulties of excluding non-payers from watershed services.

It is not clear whether the market provides a preferable mechanism to tried and tested regulatory systems. The lack of attention to equity impacts of emerging payment schemes raises a number of concerns.

Box 9. Payments for watershed protection in China

Unilever's "Clean Water and Green Mountains for China" initiative

Unilever – a major multinational producer of consumer durables – estimates that world wide it consumes 0.1% of total water extracts for use each year. In recognition of its major role as a water user it runs a "Water Care" programme which aims to *"ensure that [Unilever's] activities and those of [their] suppliers, customers and consumers achieve a sustainable balance … so assuring the ability of future generations to access sufficient quantities of clean water."*

As part of its programme Unilever manages a number of local level initiatives. In June 2000 it launched its "Clean Water and Green Mountains for China" initiative. The initiative represents a long term commitment by the company to pay US$845,000 a year towards reforestation and soil and water conservation efforts in water stress areas of China. In its first year Unilever planted 500,000 trees. In 2001 tree planting was expected to reach 1 million trees.

Xingguo County, Jiangxi Province

In 1980 soil erosion affected 85% of Xingguo County, an area of 190,000 hectares. As 96% of the forestlands in the area have been contracted out under the Household Responsbility System, households have been given support to plant and manage trees for soil conservation. Over 50% of the amount to date has come from household and private sources. Private industry is forced to contribute through fees. The metallurgic industry pays 0.5% of sales revenue, the chemical endustry 3% of sales, coal enterprises US$0.01 per tonne output and hydropower companies US$0.0001 per kilowatt ouput. The result of this investment is dramatic. By 1999 the area affected by serious soil erosion had dropped by almost 80%, to 41,000 hectares.

From Lu Wenming et al 2002

Box 10. China: from centrally planned economy to vigorous rural enterprise

1950 – 1978: China nationalised all forestry enterprises and confiscated feudal forestland in the mountainous area for redistribution to farmers in 1950, shortly after the communist government assumed power. Thus two systems of ownership were established: state-owned forestland under the management of the State-owned Forest Enterprises (SOFEs) and individually owned mountain forestland. In 1953, a new national policy of collectivisation began. In 1958 the era of cooperatives and people's communes in mountains and forest areas began, and private forests were eliminated. A quarter century of poor economic performance and decline in the forest based industries followed. This was reinforced during the Great Leap Forward and the Cultural Revolution during which forests were cleared for fuel for backyard steel production and forestland was converted to agriculture use.

1978-1984: Local forest and agriculture collectives managed collective forests until 1978 when China began its transition towards a 'social market economy' with the introduction of rural reforms. The reforms promoted economic efficiency by introducing greater opportunity for private activity and expanding the role of markets. The initial period of reform (1978-84) was characterised by de-collectivisation and relaxation of the Unified Procurement Pricing System for agriculture products. Agricultural households regained land use rights and they were eventually able to sell most of the production at market prices. The 'three fix' policy for forestry at the time relied upon stabilising the rights and ownerships of forests and mountains; identifying boundaries of household plots; and establishing a forest production responsibility system. Since then various forms of non-state forest enterprises have emerged from the household based forest system. Even though the role of individual households increased, the central government maintained an active role in afforestation and reforestation. The largest increase in state silviculture investment occurred in 1979, when the central government set up Three North Forest Protection Project (The Green Great Wall).

1985 onwards: The second reforms of economy focused on the industrial and financial sector in the urban areas and the development of non-agricultural enterprises in rural areas. Managers' responsibility for state owned enterprises (SOEs) greatly increased and in 1990, the government permitted the sale of some SOEs and others to go out of business. In rural areas, smaller private enterprises developed (TVEs) and these now run 90% of China's paper-mills. In 1993, auctions of wasteland started and the liberalisation of the Unified Procurement Pricing System for timber continued. Together with general economic growth and liberalisation of foreign trade these had an important effect on forestry. In aggregate, the area in collective forestlands increased by 40% between 1984 and 1998. The area in state lands managed by the SOFEs increased by 20% over the same period. Reforms of the SOFEs have gradually replaced the centralised and planned system with a more decentralised and market-oriented system that relies to a much larger extent on private sector investment and enthusiasm.

Present day: Private enterprises now account for about 33% of GDP, a share that is almost comparable to the 37% contributed by state-owned enterprises. About 60% of China's total forestland belongs to the collectives and individual households now manage about 80% of that. The central government's share of all investment in the forest industry had declined with industrial reform and the 'hardening' of budgets for all state-owned enterprises. But its share of silviculture investment has increased, especially since 1997. In 1998 and 1999 government silviculture investment increased sharply, while government investment in logging, wood processing and other activities of the SOFEs actually declined.

MARKETS FOR LANDSCAPE BEAUTY

The market for landscape beauty remains relatively immature. Constraints to market development are well established and shifts in power balances are difficult to make. As long as tour operators resist paying, land stewards' opportunities for being rewarded for the services they provide lie in establishing themselves as marketing enterprises. To do this they need skills administer and manage complex international businesses. In the plantation sector markets have been effective in purchasing tree planting as part of major industrial or residential developments or urban improvement initiatives in joint ventures between private companies and non-for-profit forest management organisations such as the Woodland Trust and Community Forest initiatives in the UK. They are unlikely to emerge as drivers of large scale plantation development.

MARKETS FOR BIODIVERSITY CONSERVATION:

It is not easy to commercialise the diversity of nature. Services provide by biodiversity are numerous and most are intangible. Services are rarely consumed by a clearly identifiable clientele and it is difficult to portion out the services to different buyers. In spite of these problems, governments, international NGOs and private companies are paying for biodiversity conservation driven by growing public awareness of biodiversity benefits and threats of loss. Individual and community land stewards have become increasingly pro-active sellers of their services.

But the payments for biodiversity services remain nascent. There are significant transaction costs associated with setting up and implementing trades. There are also implications for distribution of costs and benefits. Early indications are that the livelihoods of poor communities may be threatened by the market through increased exclusion, lower incomes and a weaker asset base.

3.2 Governance of sustainable plantation development and management

Plantations have many benefits but they also have potential negative social and environmental impacts (some of which we have already highlighted) and which governments will want to avoid or mitigate, though in the past they have often ignored or been slow to react to problems caused by their own policies and actions. Social impacts include

- Displacement of rural people
- Access to products and services reduced or eliminated
- Changed power structures in communities

Environmental impacts include:

- Reduction in stream flow and water yield from catchments.
- Soil erosion due to poor road layouts and drainage lines
- Biodiversity loss where plantations are created on valuable open ground habitats or following conversion of natural woodland
- Reduction in landscape quality as a result of poor plantation design.

Examples of the social and environment impacts that have occurred or have been anticipated in the case study countries are presented in Box 11 and Box 12 respectively.

Mayers et al (2002) observe that the attainment of sustainable forest management depends critically on the extent and quality of enabling policy, legal and institutional conditions. Together these conditions influence how a society organises itself to develop and manage forest wealth, to produce forest goods and services and to consume them. Weak forestry institutions cannot enforce legislation. Weakened social norms mean that forest abuse is unpunished by other stakeholders. These observations apply as much to attaining sustainable plantation development as they do to attaining sustainable management of natural forests. Building blocks of an effective forest governance framework include public policy, the system of tenure and use rights, the design and functioning of

forestry related institutions, and the mix of legislation and other instruments for delivering policy goals. We look at each of these in turn in the next paragraphs.

Box 11. Social impacts of plantations: Displacement and exclusion of Black communities in South Africa

The key forestry policy objective developed by the South African government, particularly from the 1930s onwards, was one of plantation expansion. Generally sites were selected according to conventional silvicultural considerations. However, much of the establishment took place in the wider political context of "separate development" for blacks and whites which resulted in the formation of the so-called "homelands". Forestry was one of the many land uses used by the apartheid government as a context for relocating large numbers of people from their traditional areas of occupation to the newly formed homelands. The instruments available to the government of the day for expanding plantations were racially discriminatory. Applicable land legislation would have enabled the "reservation" of communally owned land by the state for forestry purposes. This resulted in widespread dispossession of land. The form of governance under the apartheid regime was centralist and top-down. This same approach was adopted within the homelands by the various puppet governments which were installed by Pretoria. There was no culture and history of consultation. Decisions taken centrally were enforced locally. For this reason there is a significant body of resentment against plantations in certain areas to this day.

Once the plantations were established, the form of governance within the forest service continued to be exclusionary and top-down. Local people did not participate in management and were not consulted for the purposes of decision making. They may (formally and informally) enjoyed some access and use rights for forest products such as fuel wood and building materials and some compartments were set aside to produce poles for the community, but this was at the discretion of forest managers and was unevenly applied across the country. The culture within government, down to the level of forest guard, was hierarchical and to some extent remains so. This culture is not unique to ZA and its apartheid history but is commonly found in post-colonial forestry services world-wide.

There was no participation by black people in the economic development of the plantations and the processing industries which grew up around them. All the so-called "evergreen" long-term timber supply contracts were with white-owned companies, who more or less enjoyed exclusive access to a cheap resource produced on communal land for which the community were not compensated.

Black people were employed in the plantations but usually under white managers. To this day the Government has a huge excess of low-skilled black staff and a shortage of black managers and supervisors. This pattern reflects a lack of human resource development for black staff within the forest service. Despite the best of intentions, this mismatch of skills has not been successfully addressed since the end of apartheid in 1994.

Several small (mostly coloured-owned) "bushmillers" (mobile sawmillers) emerged to harvest and utilise the timber which the large contract holders could not use. These small millers were however never given any security of supply and rarely developed into anything more than the survivalist operations which we see today.

Source: Dlomo and Pitcher 2002

Box 12. Environmental impacts of plantations: experience from Australia, India and New Zealand

Australia: Establishment of largely mono-cultural stands of exotic species is seen as having some positive and some negative environmental impacts depending on the locality and management of the plantation. Positive impacts may include reducing the risk of dryland salinity, reducing soil erosion or otherwise rehabilitating land. Negative impacts include concerns about biodiversity loss (especially where plantation establishment occurs on natural or semi-natural habitat), levels of water use, impacts

on landscape (Schirmer and Kanowski 2002).

India: The social forestry programme of the 1980s resulted in the conversion of large areas of natural forest to plantation. Large scale plantation of Chir pine (Pinus roxburgii) in the Himalayas has been blamed for depletion of soils and streams, suppression of undergrowth, destruction of indigenous oak ecosystems, and displacing local biodiversity on which local people depended for their livelihoods (Sinha 2002, in Damodaran, n.d.).

New Zealand: Concern about sustainability of indigenous forest logging and conversion of indigenous forest plantations was expressed by a growing environmental movement during the country's second planting boom. The types of concern were exemplified by the opposition to the "Beech Scheme" in which a proposal to convert some beech forests to exotic plantations as part of a broader scheme of logging indigenous beech forests was strongly protested, with a 340,000 signature petition opposing the scheme presented to Parliament in 1975. The scheme was eventually rejected (Schirmer and Roche 2003).

Box 13. India: joint forest management - a lesson from natural forests.

1840 – 1911: The first forest plantation in India was a teak plantation established in 1840 to compensate for the removal of teak timber from natural forests. Regular planting, mainly teak, started in 1865 in central and Southern provinces. Eucalyptus was introduced in 1858.

1911 – 1979: In 1911, the 'taungya' system was introduced and creation of other native species plantations was accelerated. Plantations did not cover an extensive area until after 1950, when large-scale industrial plantations were started. The major constraint on private lands were the ceilings laws set in 1972 as one element of land reforms which were to alleviate poverty and lead to growth with distributing equity. The permissible land holdings are very small, which restrict corporate sector from playing any meaningful role in plantations development. The industrial plantations were mainly raised on state forestland after clear felling of the native forests, which were perceived to be 'low value'. This trend continued up to the Fifth Five year plan (1974-79).

1980s: The 1980 Forest (Conservation) Act ended all corporate sector activity on state forestlands. The report of the National Commission on Agriculture (NCA) in led to increase in large-scale replacement of mixed natural forest of low commercial value with fast growing commercially important plantation species to enhance productivity and employment generation. State owned Forest Development Corporations (FDCs) created to establish, manage and harvesting plantations on business principles and attract finance from institutional and other sources. Annual planting rate increased to about 1.0 million hectares during 1980-85. Local communities' dependence on the forest was viewed as a major cause of forest destruction and major obstacle for production forestry. This led to the birth of the social forestry programme under which a large number of plantations were raised. Plantation forestry received further impetus when the National Wastelands Development Board was established in 1985. FDCs' activities, especially attempts at clear felling of natural forests to raise monoculture of commercial plantations, met with stiff resistance from local communities.

Late 1980s: The policy climate started becoming hostile towards the FDCs. The Central Board of Forestry recommended a ban on felling in natural forest in 1986, followed by the new National Forestry Policy and amendments to the Forest Conservation Act in 1988.

1990s: Forest fringe communities started to play an important role in management of forests through the government's Joint Forest Management (JFM) programme, under which FD and the communities share responsibilities and benefits. By 2002 over 18% of the state forestlands are under JFM.

The corporate private sector has been lobbying for several years to be leased areas of 'degraded' state forest reserve to raise commercial plantations. This has been fiercely resisted by NGOs who point out that such degraded lands are crucial to the livelihoods of some 100 million people in India. They further point out that industry should invest in striking up deals with farmers and could greatly increased raw material supplies though such farm forestry. Whilst these arguments have reached stalemate, interest has also grown in leasing to, or joint managing with, to the private sector the existing commercial plantations managed by the FDCs on state lands (some 1.24 million ha in total). Debate on this is evolving.

SENDING THE RIGHT SIGNALS THROUGH CLEAR PUBLIC POLICY GOALS

Clear signals are important for private actors and government promoters and regulators. The case study countries have taken different approaches. Some have policies on plantation development that explicitly address the negative impacts while promoting the benefits of plantations. Those that have decided to leave plantation development to the market have nevertheless addressed potential negative impacts through regulatory instruments. The following examples illustrate the variety of approaches.

Australia. In general tree planting for commercial plantations and tree planting for environmental rehabilitation have been separated in government policy, though this is now changing in response to the imperative of commercially viable land use systems to address salinity - e.g. oil mallee eucalypts in Western Australia. Commercial plantation policy is addressed primarily by the *2020 Vision for Plantation Forestry* launched in 1997 in which the Federal and State Governments and forest industries set a goal of trebling Australia's 1997 plantation estate by the year 2020. As part of the *Vision* there is commitment to removing impediments to developing plantations and providing a conducive investment environment. Commercial plantations have not figured prominently in sustainable development strategies, which focus primarily on non-commercial re-vegetation strategies, although are in general promoted by Federal and State governments as a useful example of developing sustainable and profitable rural industries.

Chile's forest plantations policy has a strong economic focus. It is aimed at the formation of a sizeable forest resource base to enable the expansion of export orientated industry and to contribute to the country's economic growth. The development of the sector is never-the-less controlled by a various regulations designed to avoid or mitigate negative impacts.

India. Key elements of India's National Forest Policy (GoI 1988) are presented in Box 14. The Policy places great emphasis on increasing tree cover in the country. It is stated that the national goal should be to have a minimum of one-third of the total land area of the country under forest or tree cover. However, it is envisaged that most of the new plantations would be created in degraded forest and non-forest lands. It is clarified that natural forests should not be made available to industries for undertaking plantations. The National Forestry Action Programme (NFAP) mentions the need for a Plantation Master Plan for the country. This plan would cover the following areas: an inventory of the existing plantations; general prescriptions and guidelines for managing existing plantations and rehabilitation wherever required; suggestions regarding creation of new forest plantations indicating locations, species etc.

Box 14. Clear signals in India's forest policy

– at least from one key part of it (from Saigal, 2002)

India pursued a policy of creating large scale industrial plantations on state forest lands and social forestry plantations on non-forest land from 1976. The policy failed to deliver and met with stiff opposition. A new forest policy was issued in 1988 which signalled a radical new direction. It stated that conservation and local communities' needs should be the major objectives of forest management and that industrial plantations should not be encouraged on state forest lands:

"The principal aim of Forest Policy must be to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all life forms, human, animal and plant. The derivation of direct economic benefit (emphasis added) must be subordinated to this principal aim" (GoI 1988).

"The life of tribals and other poor living within and near forests revolves around forests. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements of fuelwood, fodder, minor forest produce and construction timber should be the first charge (emphasis added) on forest produce" (GoI 1988).

"As far as possible, a forest based industry should raise the raw material needed for meeting its own requirements, preferably by establishment of direct relationship between the factory and the individuals who can grow the raw material ... the practice of supply of forest produce to industry at concessional prices should cease. Industry should be encouraged to use alternative raw materials. Import of wood and wood products should be liberalised." (GoI 1988).

"Natural forests serve as a gene pool resource and help to maintain ecological balance. Such forests will not, therefore, be made available to industries for undertaking plantation and for any other activities" (GoI 1988).

"No such programme (plantation), however, should entail clear-felling of adequately stocked natural forests. Nor should exotic species be introduced, through public or private sources, unless long term scientific trials undertaken by specialists in ecology, forestry and agriculture have established that they are suitable and have no adverse impact on native vegetation and environment" (GoI 1988).

South Africa. The drive for inclusion and equality that followed the 1994 elections required far reaching changes in the policy and legislative framework for forestry (Box 15). The White Paper of 1996 (DWAF 1996) and Forestry Act of 1998 (DWAF 1998) contain clear statements of intent with regard to, among other things, access to and ownership of forest land and engagement with stakeholders by government and provide the powers necessary to make change happen.

Box 15. South Africa's enabling policy and legislative framework

Significant changes have taken place in terms of the policy and legislative framework for forestry since the end of apartheid. Democratic principles are built into government policy along with an explicit policy intent to address the injustices of the past. A new Forest Act and White Paper provide an enabling environment for the sustainable management and development of forests and for the government forestry service to engage with all stakeholders in a participatory and empowering way. The Act created a framework for privatisation of State Forests. Specifically the Forest Act provides for public access to all State forests for cultural, recreational and spiritual purposes and exempts local communities from requiring a licence to harvest forest products for domestic use. These provisions remain in place even after privatisation.

It takes time, however, for the culture of an organisation to catch up with its own policies. There are still many examples of management approaches on the ground remaining much as they were 30 years ago. However, participatory approaches are filtering through the government forest service. This has resulted in the Directorate of Participatory Forest Management which is set to take forward all aspects of community participation in the forest sector and which will work closely with the office responsible for restructuring and privatisation. The privatisation process is one in which the government has attempted to put its democratic principles into practice. Although there is a long way to go, and many detractors believe that more empowerment could be achieved, the process has been heralded widely as a successful example of how government can act in a transparent, participatory and empowering manner.

The Act also requires the Minister to develop criteria, indicators and standards (C, I and S) for sustainable management of all forests. There is an ongoing consultative process to develop the C,I and S for different forest types. Those that will apply to commercial forestry plantations are close to finalisation. The process has received widespread support from the private sector which is not altogether surprising when South Africa boasts that 85% of its plantation area is already certified, the highest of any country in the world.

Source: Dlomo and Pitcher 2002.

United Kingdom. The UK's forestry policy has changed in scope and emphasis many times since embarking on its programme of re-afforestation in 1919. The clarity of the objective of creating a

strategic reserve of timber with the powers and money to deliver enabled the Forestry Commission quickly to develop a sizeable plantation estate. The broadening of the Commission's mandate to include recreation, landscape and later the entire spectrum of forestry benefits presented as multi-purpose forestry was more of a strategy by the Commission to stay in business than considered policy of the government to address people's needs and aspirations. As the Commission became "all things to all men" it became more difficult for its staff to balance its many competing objectives, establish a clear vision and to determine how well the organisation was performing. Devolution of forestry policy to the new Scottish and Welsh governments in 1997 coupled with devolved control over the Commission's delivery of policy was an opportunity for fresh thinking and clearer direction towards locally important objectives. The vision developed by the Scottish government is set out in Box 16.

Box 16. Scotland's vision and guiding principles for forest development and management

"The Scottish Forestry Strategy is the Scottish Executive's framework for taking forestry forward, through the first part of the new century and beyond. The **vision** is that Scotland will be renowned as a land of fine trees, woods and forests which strengthen the economy, which enrich the natural environment and which people enjoy and value. High-quality trees, woods and forests can help make Scotland a better place for people to live and work in and to visit. Increasing confidence in the future of forestry will encourage investment that will benefit current and future generations. Scottish forestry can do this by:

• promoting sustainable economic growth, taking advantage of Scotland's competitive advantages in terms of resources and infrastructure;

• enhancing the environment and heritage, enriching and extending important woodland habitats and creating attractive landscapes in both town and country;

• helping to create a more inclusive society, offering opportunities for employment - particularly in rural areas - and for enjoyment, as well as providing "lungs" for cities and towns.

A number of **principles** form the basis for the development of this Strategy and its implementation. The overarching principle for the Strategy is sustainability. Scottish forestry must contribute positively to sustainable development and meet internationally recognised standards of sustainable forest management.

The next principle is integration. Scotland's woods and forests do not exist in a vacuum. Forestry should fit well with other rural activities in Scotland, such as agriculture, conservation, deer management, fishing, recreation and tourism. The overall objective should be sustainable rural development, rather than the promotion of individual activities in isolation from one another. Integration needs to build on the success of current partnership projects, working together to tackle complex and difficult issues.

Forests and woodlands should contribute to the well-being of the people of Scotland. This is the principle that they should contribute positive value. This contribution may be in social terms, in economic terms or in environmental terms - and there should be benefits that clearly exceed costs. Although they can be difficult to measure, it is important that the value of non-market outputs is recognised.

Forestry should earn community support. Forests should be managed in ways that enjoy broad public support. "Community" here includes the local people most directly affected, communities of interest (for example, ornithologists and archaeologists), and the wider Scottish community. Complete agreement may not always be possible, but there should be mechanisms for participation, for sharing and explaining views, and for working towards consensus.

Forestry should reflect the rich diversity and local distinctiveness of the land, forests and people of Scotland. It is important to protect, manage and enhance the rich and varied range of woodland habitats and species, recognising that different types of forest will provide different benefits and suit different places.

Source: Forestry Commission 2000

TENURE AND USE RIGHTS

Tenure and use rights determine access to and distribution of the benefits that flow from plantations. Governments can play a decisive role in ensuring continuing access to traditional rights and equitable distribution of benefits. Mayers *et al* (2002) propose essential ingredients for good governance in relation to tenure and use rights.

Clear and defensible rights. Land and property tenure needs to be secure, clear, documented and non-discriminatory against forestry There need to be clear, equitable and legally defensible rights in place: rights to manage the forest resource (based on free and informed consent of others with legal and customary rights); rights to extract resources from public forests given in return for full economic compensation, including externalities. In addition, stakeholders need to be aware of their rights and the avenues open to them to contest them (Lindsay, 2000)

Rights need to be exclusive. Holders need to be able to exclude or control the access of outsiders to the resource over which they have rights. There must be certainty about the boundaries of the resource to which the rights apply and about who is entitled to claim membership in the group (Lindsay 2000).

New law may be needed to back up rights. Examples from India and elsewhere testify to frequent confusion about the way in which benefits are to be shared, leading to false expectations and possible disillusionment. Vietnam has made new laws to support a policy of allocating forestland to rural households and allowing these households to share in benefits from forest management and protection. The laws provide for the long term allocation of forestland to households and individuals for silvicultural production including natural and planted forests and nurseries. Land use rights allocated to households or individuals may be exchanged, transferred, leased, inherited or mortgaged. The laws specify the criteria of forest land allocation and forest users' rights and obligations, and assigns administrative responsibilities and defines offences and penalties. (Phoung 2000).

Box 17. New Zealand: Corporatisation, commercialisation and privatisation

1870s to 1920. Pre-1897 tree planting on a small scale undertaken by private landowners, mostly without assistance in spite of availability of grants under the 1871 *Forest Trees Planting Encouragement Act*. Forestry branch of the Lands Department established in 1897 in response to increasing concerns about diminishing native forest resource and potential future timber famine. 13,000ha established by 1920. Responsibility for forest development and management transferred in 1919 from Lands Department to a newly established State Forest Service (later the New Zealand Forest Service) to avoid conflicts between agricultural development policy (which involved conversion of native forest to agriculture) and policy on forests. Private sector estate increased to 24,000ha by 1919

1920s-1930s. NZFS gains full administrative and legal independence with the passing of the *State Forests Act* 1921-22. Inventory of indigenous forests estimated they would be cleared by 1965-70. Government adopts strategy in 1924 of increasing area of state plantations from 5,000 ha to 120,000 ha by 1935. Planting stopped after the target was exceeded in the late 1930s. Private sector planting led by *"bond companies"* taking advantage of favourable tax regimes for dividends and land put under trees. The companies sold bonds entitling the owner to an acre of land on which the companies established trees and maintained them for a period of time. Questionable business practices led to Commission of Enquiry in 1934 which ended the bond-selling era.

1940s-1960s. New afforestation continues but at a much slower rate. NZFS develops own sawmilling capacity and a joint venture integrated sawmill and pulp and paper plant, heavily subsidised by direct financial assistance and log supply at below market price.

1960s-1984. Second planting boom driven by government targets for state and private sector afforestation. Annual targets progressively increased from 5,600ha in 1960, to 16,000ha in 1964-65 to 43,800ha in 1981, of which approximately 16,000ha to be by the state, 17,200 by large private growers, 10,500 by small

private growers. Targets driven by a perceived need for enough plantations to meet future domestic demand and the desire to help a strong forest products export industry. Other objectives were also significant. 1976 saw changes to the NZFS's objectives to include *"policies and directives to undertake afforestation in regions requiring economic development, employment provision, utilisation of low productivity lands and respect of planting targets and environmental objectives."* Private planting largely carried out by processors developing their own raw material sources. Revision of the taxation system in 1965 allowing companies to deduct establishment and maintenance costs from current incomes contributed to expansion of private sector planting.

1984 to 1990: Labour Government elected with a policy of deregulation and privatisation. The Government rejected the 1981 planting target, the Treasury arguing that planting levels should be determined by the *"overall economic climate and individual investors making their own planting decisions"*. Many incentives for planting were stopped; tax deductibility was revoked. In 1985 the Government announced the separation of the NZFS commercial and non-commercial functions. In 1987 the non-commercial functions of the NZFS were transferred to the Department of Conservation (DOC) which took over responsibility for indigenous forests and the Ministry of Forestry (MoF - subsequently the Ministry of Agriculture and Forests. A limited liability company, the New Zealand Forestry Corporation (NZFC), was established to manage all commercial forestry operations. The social and environmental objectives of the former NZFS became the responsibility of the DoC and MoF. In 1988 the Government announced that the NZFC would be privatised. Sale of the corporation's assets began in 1990. Following the removal of incentives for plantation development the private sector invested in NZFC assets rather than establishing new plantations.

1990s to present. Third planting boom, up to 85% undertaken by small investors rather than large companies., driven partly by the reintroduction in 1991 of tax deductibility and increases in international log prices in 1993. Government continues to be directly involved in managing 2% of the national estate (for a variety of reasons) and is actively involved in expansion of the estate in only one area - the East Coast Forestry Project – which has specific social and environmental objectives that are considered to justify government support.

STRONG, SMART, JOINED-UP GOVERNMENT - AND OTHER KEY INSTITUTIONAL ROLES

Effectiveness of policy development and delivery is determined by a host of connections within and between institutions. Poor connections lead to bad policy, conflicting messages, fuzzy accountability, weak enforcement of regulations and inconsistent decisions in relation to licensing and grant aid.

Coordination among government agencies. While government roles may vary between cases, what is critical is that interventions are coordinated. Where a government agency's mandates are overlapping and unlinked, its ability to ensure a desired balance between market forces and public requirements will be impinged. Under the Australian federal system, poor coordination between the three levels of government – national, state, and local – is particularly problematic (Schirmer and Kanowski, 2002).

Separating government's management and regulatory roles. Policy development and regulation, and management of production processes and service delivery do not sit well together; they require completely different approaches and skills and often come into conflict. Separation of government functions and business functions is a well established trend in all sectors where governments have played a business role. In some cases the result is privatisation (e.g. electricity generation and supply, water supply, telecommunications). Where governments see a continuing benefit from state management of an asset (public highways) or service (health), they establish management entities separated from the central government organs that have policy and regulatory responsibility for the sector. The same trend is evident in the forestry sector. In the UK, this was part of the "settlement" when the government rejected wholesale privatisation (Grundy 2002).

Complementarity of central and local government powers. Where central and local government share powers over forest development and management, conflicting objectives and instruments may emerge unless their respective roles are clearly defined and accepted. Problems are likely to be most acute in large countries where it is difficult to achieve effective oversight of forest utilisation. China, for example, operates a complex and extensive hierarchy from State level to Township through the intermediate administrative levels of Province, Prefecture and County. The State Forestry Administration supervises the implementation of central government laws and policies but does not

have the authority to enforce these laws and policies directly; its regulatory and monitoring roles have to be implemented through lower level authorities, who have had to intensify their supervision of management standards as responsibility for forest utilisation and management has been decentralised to non-governmental actors. Central control over the national annual allowable cut system, illegal logging and preventing the conversion of forests to agriculture has sometimes been strained by changes made at a local level, especially with respect to forestry taxation and tenure systems (Lu Wenming et al 2002).

Civil society roles and joint government-civil society roles. Participatory approaches to policy development and implementation are a help, not a hindrance. By engaging with NGOs, private business and local communities, governments can identify with greater clarity the issues that policy needs to address and the instruments that will best suit their purpose. Conflict between government goals and civil society aspirations arise where government does not listen and respond. Participatory approaches facilitate "buy-in" and can lever in much needed financial support. The partnership approach adopted by the UK's state forest management enterprise has brought £20 million of external funding for investment in social and environmental plantation services over the last 10 years (Box 18).

Box 18. Levering in funding through partnerships: examples from the UK's Forest Enterprise.

Regeneration of former coal mining areas

During 1992, 12 of Nottinghamshire's coal mines were closed with the loss of over 36,000 jobs. At that time, Forest Enterprise was trying to expand its land holding around urban areas but high land prices and a small budget prevented this. Forest Enterprise forged a partnership with the local authority to restore 7 of the closed mines' spoil heaps to 760 hectares of community woodland and levered in funding from the European Union's Structural Funds and British Coal. The total cost of the development was £1.3 million. Forest Enterprise' contribution was less than £0.1 million.

Community Forests

Learning from its success with the Nottinghamshire partnership Forest Enterprise set out to develop a partnership and funding package to allow it to play an enhanced role in the national Community Forests Initiative – a programme of twelve community forests aimed at improving urban and peri-urban environments and outdoor recreation and learning opportunities. By 2002, Forest Enterprise in conjunction with 3 Community Forests – Thames Chase, Red Rose and The Mersey had levered in £11.4 million with £3.2 million of its own money in a partnership with the Treasury's Capital Modernisation Fund, regional development agencies, local authorities and non-governmental organizations.

Source: Garforth and Dudley 2003.

Partnerships between companies and communities – as mechanisms for governance. Company-community deals offer an additional pathway to effective forest governance. Depending on the terms of the deal, partnerships can be good for forests as well as for community livelihoods and for the profitability and standing of the company. (Mayers and Vermeulen 2002).

LAWS AND REGULATIONS: BUILDING BLOCKS OF EFFECTIVE GOVERNANCE

Developing regulatory regimes and incentive structures to ensure that plantations have minimum negative impact while not unduly impeding investment seems necessary. All of the case study countries regulate private plantation development and management, though to varying degrees. Key regulatory themes identified in the six case studies reviewed for this report are set out in Table 3.3 below. Specific examples of regulations are set out in the next paragraphs.

Table 3.3. Regulation in the case study countries.							
Regulatory provision	AU	CL	CN	IN	NZ	ZA	UK
Mandatory environmental assessment of plans or operations	✓[9]						✓
Approval of management plan required before activities carried out	✓[10]	✓	✓				
Licensing of plantation operations	✓[11]		✓		✓		✓
Penalties for damaging environmental impacts	✓	✓		?	✓	✓	✓
Minimum health and safety safeguards for forest workforce and forest users	✓	?		?	✓	✓	✓
Minimum employment conditions	✓	?		?	✓	✓	✓
Equal opportunities to employment	✓	?		?		✓	✓
Safeguarding valuable wildlife, cultural, heritage and landscape areas and features	✓	✓		?	✓	✓	✓
Maintaining customary rights	✓				✓		✓
Establish rights of access in perpetuity	✓[12]				✓[13]		✓
Establish rights of use in perpetuity	✓[14]				✓[15]	✓	
Key: AU Australia, CL Chile, CN China, IN India, NZ New Zealand, ZA South Africa, UK United Kingdom							

Zoning land use. New Zealand's *Resource Management Act 1991* gives powers to Regional and District Councils to prepare, respectively, Regional and District Plans. Regional Plans prescribe rules applying to activities that have effects on soil, air and water. District Plans identify key resource management issues and set objectives and targets for the district. District Councils have powers to control the use of land for particular purposes. Land uses may be classed as permitted, controlled, discretionary, non-complying, prohibited in particular zones. Where forestry is classed as discretionary or non-complying, plantation managers have to apply for a resource consent before they may carry out plantation activities. Where forestry is classed as controlled, the District Council may impose conditions.

Approval of management plan required before activities are carried out. The UK requires applications for felling licenses to be accompanied by a management plan. The plan may be simple or complex depending on the size and sensitivity of the forest and the potential impact of the proposed felling.

Mandatory environmental assessment of plans or operations. The UK is required by the EU Environmental Assessment Directive to operate a consent procedure for proposed plantations that are likely to have a significant environmental impact. Applications for consent must be supported by an environmental assessment.

Licensing of plantation operations. The creation of new plantations in parts of South Africa that are subject to water deficits is subject to a licensing system. The UK requires forest owners to apply for a licence to fell trees, except for small volumes.

[9] Varies by State and size and location of plantation
[10] Varies between States and by activity; different activities have different requirements for approval.
[11] Licences may be required in some States; NSW regulates harvesting through environmental protection licences.
[12] Varies by State.
[13] Only for the duration of the Crown Forestry Licence
[14] Varies by State.
[15] Only for the duration of the Crown Forestry Licence

Safeguarding customary rights. South Africa's 1998 Forest Law grants the public access to all State forests for cultural, recreational and spiritual purposes and exempts local communities from requiring a licence to harvest forest products for domestic use. These provisions remain in place even after privatisation.

TYING GOVERNMENT SUPPORT TO SUSTAINABLE MANAGEMENT PRACTICES

Government financial assistance programmes for plantation development, whether through direct grants or favourable tax regime, provide pathways for avoiding or mitigating damaging social and environmental impacts.

Chile's subsidies come obligations, with severe penalties for non-compliance. Plantation managers must;

- submit a technical study of the land and its consequent classification proposal
- present a management plan for the properties to CONAF within one year of the date of the certificate approving the classification as preferentially suitable for forestry; any felling or logging operation that takes place in lands preferentially suited for forestry may be done only after approval of the management plan by CONAF.
- Restock felled areas or plant an equivalent area elsewhere.

The favourable tax regime that drove most of the UK's private plantation development from the 1950s to the 1980s came with no environmental or social strings attached. Under a "gentlemen's agreement" between the Forestry Commission and the private forestry sector, private developers followed an approvals procedure linked to direct grant aid, the value of which was far less than the value of the tax relief on cost of establishing the plantation. An enormous area was established by afforestation companies on behalf of cash-rich clients seeking to minimise their income tax payments. The system was bitterly criticised by NGOs and many local authorities for driving the establishment of badly located and poorly designed plantations. Criticism grew after two companies established large plantations without going through the approvals procedure. The system was eventually abolished in 1988.

PROMOTING VOLUNTARY AGREEMENTS - SELF-REGULATION

There are many examples of voluntary codes of practice, though it is not clear how effective they are without some pressure for, and an effective system of, independent verification. In New Zealand, for example, ENGOs have negotiated a series of accords and agreements with the forestry industry, some of which affect plantation management (Salmon 1993). In addition forestry groups have developed forestry codes of practice. The NZ Forest Accord signed in 1991 between representative industry groups and ENGOs views plantations as a way of producing wood products while protecting native forests. The Accord identifies land where it is inappropriate to establish plantations, ensuring in particular that plantations do not replace regenerating or mature indigenous forests (Walker et al 2000). In 1995 the plantation industry and ENGOs signed the Principles for Commercial Plantation Forest Management in NZ. The agreement is complementary to the Accord and aims to promote understanding between the signatory parties with a view to achieving environmental excellence in plantation forest management. The Logging Industry Research Organisation's NZ Forest Code of Practice developed in 1990 and revised in 1993 provides a means of ensuring safe and efficient forest operations that meet the requirements of sound and practical environmental management.

VERIFYING RESPONSIBLE PLANTATION MANAGEMENT - CERTIFICATION

Over the last decade certification has developed rapidly internationally as a means to independently verify the quality of forest management. Certification in one form or another (ISO 14001, FSC, PEFC among others) has been, or is in the process of being, implemented in all of the case study countries. The growth of certification has been driven by pressure on manufacturers and retailers to ensure that forests that supply them are being managed responsibly. In its application as a market instrument certification has caused some improvements in plantation management, but these have occurred in

plantations run by well-resourced enterprises which were already practicing good management (Bass *et al*, 2001).

A recent study of certification's impacts in the UK concluded that, overall, certification is having a positive impact on the standard of forest practice. Although the evidence pointed more to improvements to documentation than practice, forest enterprises recognised tangible progress on the ground in the following areas:

- Management planning and sustainability
- Contractor management and operations
- Health and safety
- Biodiversity conservation and monitoring
- Planning of chemical use
- Silvicultural practices

Whether market driven certification will deliver improvements in plantation management more widely remains to be seen.

Governments are recognising the utility of certification as an instrument for ensuring compliance with standards by plantation managers with whom they have a contractual relationship. Certification can be made a condition of public funding of plantation schemes, or of long term lease agreements on properties in which the government retains a controlling power.

Box 19: South Africa: lessons from a current privatisation

1876 – 1910: First plantation established in 1876 in the former British-governed "Cape Colony". Plantations were established as an alternative to the fast disappearing small area of natural forests, and expensive imported timber. With a growing economy, the Boer War, and a rapidly expanding mining industry there was an increasing demand for construction timber. By 1910 the plantation area of the Cape Colony was 120,000 ha, nearly all of which was under State Control.

1910 to 1950: Following unification in 1910, the Government of the Republic of South Africa, set about creating a national forest estate, initially driven by self-sufficiency and employment creation (for unemployed whites during the 1930s depression years). Sawmilling capacity expanded, primarily under state control. Significant private sector interest in the industry began to develop; the area of private sector plantations and private investment in processing grew rapidly. By 1950 plantation area had reached 693,000 ha, of which over two thirds was in private hands. A system of incentives and guaranteed prices provided ideal conditions for the industry's development.

1950 to 1970: A 1956 Government Commission into Socio-Economic Development recommended that forestry be used as a regional economic development instrument in the areas which were to become the racially-defined "homelands". Implementation of the initiative became the responsibility of the different homeland administrations. 150,000 ha of plantations were established. The homeland Governments used the process as a vehicle for rural job creation resulting in high levels of overstaffing and a lack of commercial focus which have been carried through to the present day. New afforestation by the private sector focussed on supplying the emerging pulp and paper sector. By 1972 South Africa's combined plantation area (including the homelands) had reached 1.025 million ha, of which 75% was in private hands.

1972 to 1994: In 1972, in response to growing concerns over the impact of uncontrolled afforestation on water resources, an Afforestation Permit System (APS) was introduced to restrict afforestation in stressed catchments. Afforestation continued and by 1994 the plantation estate had risen to 1.4 million ha, with nearly all the additional planting coming from the private sector in support of the growing pulp and paper industry, which was encouraged by Government through tax incentives and a General Export Incentive Scheme. All these incentives have since been removed. By the time of South Africa's first democratic election in 1994, the forest industry had emerged in a relatively short time as a major contributor to the national economy, able to compete internationally. Prior to the democratic elections of 1994 a route to privatisation had been envisaged for the RSA's forest assets entailing three distinct steps:

- *Commercialisation* - adoption of private sector accounting practices and other working procedures while retaining the plantation operation within the formal public sector and under the mandate of the national forest authority.
- *Corporatisation* - involving the excision of the commercialised operation and its work force from the formal public service, and their transfer to a specially created, wholly state owned, company - SAFCOL.
- *Privatisation* - through the sale of shares in this corporation to the private sector.

Post-1994 policies in South Africa call for radical changes in the way forests were managed to achieve national

goals. Sale of the land under state plantations was constrained by the national land reform programme and concerns regarding the consequences of transferring full land title. Instead of selling the land, the government decided to offer use rights to it through the mechanism of long-term leases.

In 1998 the government approved an approach to privatise all its plantation assets in a single process. This involved a phased approach in which the assets were placed into three general categories:

- The entire SAFCOL estate (386, 476 hectares) combined with some (70,000 hectares) of the former Homelands plantations so closely associated with particular SAFCOL assets to make their combination logical.
- The balance of the commercially viable plantations remaining under the government's management extending over approximately 70,000 hectares.
- Approximately 120 small scattered plantations, extending over 15,000 hectares producing material not generally sold under commercial contracts but extensively utilised by local people.

Transfers have focused on the first category. The combined assets were divided into seven 'packages', each representing a logical business unit. Investors were invited to bid for a 75% shareholding (of which at least 10% needed to be black owned) in any combination or all of seven specially created companies – 'Special Purpose Vehicles' (SPV) - one for each package established to facilitate the sale of assets through a sale of shares. Minority shareholdings in each SPV are held by government (10%); workers (9%) and the National Empowerment Fund (6%) in order to secure black institutional investment in the forest industry. Investors were not offered title to land, rather the use-rights to it through the mechanism of a long-term lease. This first batch of assets was placed on the market in 1999 and as of 2002 the process is yet to be fully completed.

3.3 Changing roles

Governments have been the pioneers of plantation development, driven by a real or perceived lack of private sector capacity and technical knowledge, a tradition of government responsibility for and power over forests, and centrally-planned governance paradigms. The cost, length of investment and risk deterred the private sector from participating in a substantial way in most countries. Private sector planting had to be purchased with public funds in the form of direct grants or tax breaks.

Governments established state enterprises to acquire for planting through purchase of the freehold or lease, or to enter into partnership agreements with private landholders under profit sharing schemes are other arrangements. In may cases these enterprises were responsible also for promoting, grant aiding and regulating plantation development by the private sector, which stored up problems that later resulted in the separation of functions and in some cases greater private sector involvement in state-owned forests.

With large amounts of public money at their disposal and large areas of cheap land with seemingly little value in any other use, some of these enterprises were able to develop very large holdings (Table 3.4).

Table 3.4: Plantation areas created by state organisations and the private sector

	AU	CL	CN	IN	NZ	ZA	UK
State organisations							
- % of total							
Private sector							
- % of total							
Total							

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

With risks and cost offset by government subsidies a thriving private sector developed alongside state enterprises which bore the costs of developing establishment techniques on often difficult sites. In

countries with favourable growing and trading conditions, governments have been able to reduce and in some cases eliminate subsidies and the private sector has continued to develop (Box 20).

Box 20: South Africa's global private players

Sappi Forest Products owns and manages 490,000 ha of plantations in Southern Africa. In 1998 these plantations supplied 50% of the fibre required to produce 1.8 million tons of pulp. Sappi's South African activities are however only part of its total operations. A series of major acquisitions in the 1980s and 1990s have made Sappi a world player, currently manufacturing 5 million tons of paper and three million tons of pulp in plants on three continents. 85% of its sales and 70% of its US$6 billion assets are outside of South Africa.

Mondi is jointly owned by Anglo American, De Beers and AMIC and manufactures pulp, paper and solid wood products. Mondi manages 440,000 ha of plantation. Some 40% of its production is exported. Since the late 1980s Mondi has been acquiring shares in international companies to develop a global presence.

From Mayers et al 2001

Box 21. UK: from plantation developer to steward of the nation's forests

Pre-1900 - Forests once covered up to 80% of the UK, but conversion to farmland and settlement reduced them to as little as 10% by the 14th century. The decline continued, despite some planting in the 18th and 19th centuries, to less than 5% at the start of the 20th century. Rising demands for wood products were met by imports.

1900-1919 – The UK's dependence on imports was brought into sharp focus by the 1914-18 war. The Forestry Commission was established to create a strategic timber reserve by acquiring and planting land and supporting planting by private landowners. Governments since have continued this programme though aims have changed over time. By 2000, forest cover had increased to 10% of land area, 2.4 million hectares of which 1 million owned and managed by the state, the rest mostly by private "for profit" landowners, a small area by local authorities, community groups and non-governmental organisations. Less than one fifth of the total area was semi-natural, the rest plantations, mostly of non-native species. Even with the partial restoration of forest cover, Britain will continue to be dependent on imports for more than 70% of timber needs.

1919-1950s – Forestry Commission established. Primary objective to create a strategic reserve timber that could be drawn from in the event of war. Powers to acquire and develop land, and to support private sector afforestation with grants. Forestry Commission estate 1.00 million hectares by 1960.

1940s-1960s – Post Second World War concerns for protection of wild spaces, creation of national parks and increasing demands for outdoor recreation. Forestry Commission responds with a paternalistic recreation and social agenda, eg Forest Parks. Forestry Commission estate 1.19 million hectares by 1970.

1960s-1970s – Increasing provision for access and recreation. Impacts of forestry on the visual landscape starting to be recognized. Landscape appraisal and forest visual design becoming standard practice on the FC's estate by 1980. Private sector afforestation takes off, driven by tax incentives and grant-aid. Major forest policy review concludes that government support for forestry is justified only after non-timber benefits are brought into the equation. Forestry Commission estate 1.26 million hectares by 1980.

1980s – Privatisation agenda. Forestry Commission begins disposing of forests and reduces its afforestation programme; private sector becomes the main afforestation agent. Environmental agenda builds as opposition to continued loss of semi-natural woodland and afforestation of ecologically valuable habitats becomes better organized. Forestry Commission publishes the first in

a set of best practice guidelines, but unable to enforce implementation in the private sector. Tax breaks for forestry abolished, support to the private sector continues through grant aid conditional on compliance with best practice. Concept of forest management for multiple benefits becomes firmly established. Forestry Commission estate 1.14 million hectares by 1990.

1990s – Forests' role as an agent for sustainable development begins to emerge. Conflicts between Forestry Commission's support and enforcement functions and its role as manager of the nation's public forests addressed by establishing Forest Enterprise as a separate division. Move to privatisation blocked by concerted opposition from non-governmental organizations; Forest Enterprise established as an agency of the Forestry Commission. Pressure on timber prices forces business efficiency, down-sizing and search for partnerships. Devolution to Scotland and Wales accelerates devolution within Forest Enterprise; programmes developed at regional level in response to the agendas of the devolved administrations. Voluntary certification takes off after initial resistance. All state forests and a substantial area of private forests certified to FSC standards by 2000.

From the 1980s, when Chile's government divested itself of its plantation assets, there as been a massive shift away from direct state participation in plantation development and increased private sector involvement in the plantation estates built up by governments over preceding decades, as contractors, lessees of use rights or as the new owners. The transformation has not been uniform. Australia and the UK, where the plantation developed by the state are still largely in state hands, contrast markedly with New Zealand and Chile where the state's direct commercial involvement in the industry has almost completely stopped; South Africa is rapidly moving to the same position. As private sector participation in plantation ownership, use and management has increase, governments have taken on a number of new roles. These range from business and investment facilitator, business partner, through to environmental and industry regulator.

There have been many different drivers behind government seeking to increasing private sector participation, and governments have pursued different models of participation, ranging from contracting out services, through leasing of use rights, to outright sale.

DRIVERS OF CHANGE

Philosophy of a regulated market economy. There has been a shift in macro-economic policy towards reducing public debt, stronger control over budget deficits, delivering increasing economic efficiency and improved aggregate welfare through the private sector, and reducing state power and widening ownership.

Removing contradictions between government as regulator and as manager. As we observed earlier, governments have seen the advantages of separating regulatory and business functions in all sectors, leading them in some cases to remove the business function to the private sector, in others to separate state agencies. NGOs' criticism of joint roles and their calls for separation of conservation and commercial roles gave added impetus to the breaking up of the New Zealand Forestry Service.

Addressing inequality and empowering disadvantaged groups. South Africa's current privatisation process has, as an explicit objective, affirmative action for the previously disadvantaged. Black companies are favoured over white companies (subject to a series of other criteria).

Table 3.5. Drivers in the case study countries

	AU	CL	CH	IN	NZ	ZA	UK
Philosophy of regulated market economy	✓	✓	✓		✓	✓	✓
Reduction in public debt	✓				✓	✓	✓
Removing contradictions between government as regulator and as manager					✓		

Empowerment of disadvantaged groups				✓		✓	
Increased profitability/efficiency of the sector	✓	✓	✓		✓	✓	✓
Increased investment in downstream processing	✓				✓	✓	
Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom							

Multiple motivations. Governments will usually have several reasons for pursuing increased private sector participation. In New Zealand, corporatisation of the New Zealand State Forest Service's commercial functions was initiated by the Labour government elected in 1984 following a severe economic crisis associated with the flight of foreign capital from the country and liquid reserves falling to a point where the Reserve Bank warned it might collapse (Birchfield and Grant 1993). The new government inherited a sluggish domestic economy, rising foreign debt and high unemployment, and focused on addressing the economic problems facing the country. The structural adjustment programmes undertaken by the new and subsequent governments involved a range of measures including (OECD 1999, Kelsey 2002)

- Deregulating domestic markets and encouraging free trade and investment
- Deregulating the labour market by encouraging individually negotiated employee contracts rather than union negotiations and collective bargaining
- Cutting income taxes and reducing government spending, and
- "Reducing the size, role and power of the state through corporatisation, privatisation, devolution and managerialism" (Kelsey 2002).

Subsequent privatisation of the NZFC was driven by:

- The government's desire to reduce public debt (publicly stated by the government as being the primary motive);
- The ideology of the government at the time;
- Concerns about potential political interference with the NZFC
- Concerns about the NZFC's ability to raise capital
- A perceived need to ensure security of wood supply through processors purchasing plantations
- The inability of the NZFC and Treasury to agree the value of the NZFC's assets.

CHANGE MODELS

Models used by the case study countries to increase private sector involvement in state forest plantations are shown in Table 3.6:

Outsourcing services. Along the spectrum of alternative models for privatisation, outsourcing is the least dramatic. Ownership and overall management control are retained by the state, while particular use and management functions are devolved to private contractors, which may be for-profit companies, communities and households or not-for-profit agencies. In return for their services contractors receive a cash payment to cover their time and expenses, a share of the income or profits generated by the plantation that they have been enlisted to manage, or rights to some of the products of the plantation for their own use or for sale.

Corporatisation. This does not fit neatly on a linear spectrum of increased private sector participation. It is essentially an administrative measure to get public authorities to act more like private companies. It is also often viewed as a first step towards full ownership privatisation. It often involves increased private sector participation through outsourcing in order to reduce costs.

Transfer of rights to use the land for a limited period. This model of involves a greater devolution of power from the state plantation manager to non-state entities than contracting out. With outsourcing of

harvesting or management activities, the private contractor continues to work for the state plantation manager. Where use rights are transferred, private harvesters work for themselves. In most cases, this extra degree of freedom is curtailed by conditions built into the agreement, the complexity of the conditions being determined by the scope of the beneficiary's rights. Where the rights are limited to, for example, harvesting of timber, a simple license may control the volume of wood extracted. Where rights extend to full management control for many years, more complex agreements will lay down silvicultural, environmental and social performance criteria.

Transfer of ownership. The 'ultimate' form of privatisation, and that most commonly associated with the concept, involves a transfer of the state's leasehold or freehold interest in the land and with it the right in perpetuity to use, sell, or transfer that interest to other users. The state gives up all powers to control the activities of the beneficiary except through laws. There are few instances of governments "privatising" their plantation estates in this way; most have opted for a form of use rights transfer.

Table 3.6. Transfer models in the case study countries

	AU	CL	CH	IN	NZ	ZA	UK
Out-sourcing of service provision to for-profit companies	✓		✓		✓	✓	✓
Out-sourcing of service provision to communities and households			✓	✓			
Out-sourcing of service provision to not-for-profit agencies						✓	
Corporatisation/commercialisation of the state's forestry enterprise(s)	✓				✓	✓	✓
Transfer of rights to use the land to individuals, households and private "for-profit" companies for a limited period of time	✓		✓	✓	✓	✓	✓
Transfer of the state's interest in the land as well as use rights to the land/	✓	✓					✓

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

OUTSOURCING SERVICES: GETTING THE PRIVATE SECTOR TO DO THE GOVERNMENT'S WORK

This model tends to be favoured where public benefits are felt to be too important to risk handing to private operators (e.g. where a plantation is providing an essential biological corridor between remnant patches of natural forest), but where there are opportunities to improve on the effectiveness and efficiency of in-house service delivery by state enterprises.

Australia. Many services have been outsourced – e.g. establishment and management – and are now subject to competitive tender processes. Harvesting in most state plantations has traditionally been done by the private sector through contract. Other aspects of management have been outsourced by many agencies in recent decades. Forestry Tasmania has shifted from conducting 70% of its direct operations using its own resources prior to corporatisation, to contracting out around 70% of its direct operations to the private sector. For some agencies, such as Forestry South Australia, contracting these activities to the private sector was standard practice prior to corporatisation. The organisation currently contracts out about 50-70% of planting, site preparation, weed control and silvicultural operations. The Victoria Plantation Corporation also shifted to outsourcing much of the establishment and management operations to contractors, and Hancock Victorian Plantations Pty Ltd has continued this practice since privatisation (Schirmer and Kanowski 2002).

China. State-owned forest enterprises began to contract out silvicultural activities in the 1990s. Silvicultural wages became tied to the amount of work accomplished (for example, the number of

seedlings removed from a nursery or the number of trees planted) rather than the prior system of payment for time involved regardless of output (Y. Zhang 2001). Other experiments for wage payment are also being tried. A second common arrangement involves a contract under which individuals or small teams perform certain tasks in return for a fixed payment. Most contracts stipulate the required product such as required seedling survival rates, although there are many variations. In some cases, the state enterprises provide materials and machinery. In others, the contractors possess their own material and machinery—previously purchased from the state enterprises. In all cases, any profits belong to the contractors who are responsible for organizing the labour and materials, for site preparation and planting, and for tending the site for the first few years. Another arrangement, similar to share-cropping in agriculture, was developed to transfer some state-owned capital equipment to former forest enterprise employees. Individual workers obtain the use rights to the capital and share the income from its use with the forest enterprise. This arrangement was first implemented for vehicles and small sawmills, but has begun to spread to silvicultural and agricultural operations.

India. While current government policy does not encourage corporate private sector involvement on state forest lands, some companies do operate in state forests and plantations, especially for extraction purposes, by becoming agents of state-owned forest corporations. For example, Ballapur Industries Sewa Unit is currently extracting 25,000 tonnes of bamboo a year from government forests in Makangiri District of Orissa by entering into an agreement with the state owned Orissa Forest Development Corporation. Several other companies including JK Corp, Orissa and Ballapur Industries, Ballarshah, Maharashtra are also operating on forest lands in this manner (Saigal et al 2002).

South Africa. In recent years there has been a major trend among plantation companies towards outsourcing of forestry operations. More than 15 000 people are employed by contractors. SAFCOL has been steadily moving towards contracting out all its routine operations since 1993. The move from direct employment to contracting has been accompanied by some job losses as well as a decline in wages and working conditions, resulting in an adverse effect on workers in the short term. The trend does however offer an important avenue for creation of new black-owned enterprises in rural areas.

United Kingdom. Outsourcing of a wide range of services has enabled the UK's state forest management agency Forest Enterprise to substantially reduce costs and increase business efficiency, reducing pressure on budgets and enabling it to sustain investment in recreation and environmental services.

Limits to what can be contracted out

In the cases reviewed state plantation agencies generally use their own staff to plan, manage and audit plantation operations, while outsourcing specific tasks such as mapping, inventory and environmental assessment (Table 3.7).

Table 3.7. Forestry activities outsourced by state plantation enterprises

	AU	CL	CH	IN	NZ	ZA	UK
Inventory		n/a			n/a		✓
Management planning		n/a			n/a		
Establishment and tending	✓	n/a	✓	✓	n/a	✓	✓
Protection/guarding		n/a	✓	✓	n/a		
Harvesting	✓	n/a	✓	✓	n/a	✓	✓
Transport	✓	n/a	✓	✓	n/a	✓	✓

Key: AU – Australia. CL – Chile. CN – China. IN – India. NZ – New Zealand. ZA – South Africa. UK – United Kingdom

In some countries preparation of management plans for state forests is contracted out, for example Poland (Landell-Mills and Ford 1999). However, the power and duty to ensure that management plans are appropriate to state agencies' objectives and comply with relevant laws and regulations lies with the agency. Grundy (2002) observes that contracting out management of plantations in the UK would achieve little as the assets remain in state ownership and the private sector managers are not in general more competent that the state agency. Where the forest is to be managed for multiple benefits the management contract becomes complex in an attempt to specify in advance how, for example, production is to be traded against biodiversity over a long period. This is particularly so for the task of developing an even-aged plantation into a diverse forest, which requires a management plan executed over several decades. In such cases, short term management contracts (say, 5 years) are not long enough to show results; and a very long contract defeats the object of using the private sector to increase competition.

Securing the benefits of outsourcing

Outsourcing may appear a simple means of securing the benefits of private sector participation but effective implementation cannot be taken for granted. Much depends on the capacity of private actors to deliver services of an acceptable standard. If private contractors are to take over harvesting and management functions, there needs to be a minimum existing level of expertise within the sector. In addition to ensuring that the private sector has adequate skills, a key prerequisite is that the sector is reasonably competitive. Where plantation management skills are concentrated with just one or two firms, anti-competitive behaviour in the sector could undermine any potential efficiency gains from contracting out. State plantation agencies can help develop competition by supporting new business start-ups. Competition needs to be strong enough to ensure that the state gets a good deal.

The need for capacity building varies. In the UK, the existence of a substantial state-owned plantation sector helped initially to develop private contracting businesses and provided experienced plantation managers (Grundy 2002). In South Africa a healthy contracting culture existed before transfer of the state plantations, driven essentially by the private sector. Government has not needed to facilitate this, although most of the large contractors are white-run which is a concern to Government who would like to see greater affirmative action in the area (Dlomo and Pitcher 2002). But where private actors have never before been involved in plantation activities due to state dominance, capacity building will be necessary prior to the transfer of any state functions.

Building private sector networks. Recognising the important of private sector capacity development the UK's Forestry Commission sponsored the development of the Forestry Contracting Association and continues to fund the Forestry and Arboriculture Safety and Training Council with the aim of increasing private sector contracting capacity and the development of technical and health and safety best practices.

Facilitating contractor start-ups. This is mostly likely to exist in countries where private plantations have coexisted beside state-owned operations. Australia's state/territories have used a variety of processes to facilitate outsourcing. Many state agencies invest time in provision of training and education services for contractors to ensure contractors are aware of best practice, comply with regulations and are involved in ongoing improvement of skills. In China, state plantation agencies help develop competition by supporting new business start ups, e.g transfers of forest machinery to former state forest enterprise employees in China (Jintao Xu and Hyde 2002). In the UK, workers have been encouraged to set up as contractors through contracts tailored to their capacity or financial circumstances (Grundy 2002). In NZ, the process used by the NZ Forest Service to help wage workers who were being retrenched to set up as contractors to the NZ Forestry Corporation provides a useful example of government helping to support the transition from wage work to outsourcing to help develop a competitive private industry as rapidly as possible. Workers submitted proposals to set up their own contracting businesses and successful applicants were provided with financial and training assistance, allowing them to purchase equipment and also helping to train them in running their own business.

Maintaining standards with outsourcing. Environmental standards in relation to outsourcing can be established and enforced through contracts, but this is not without its problems. Kun (2000) recounts

the programme of transferring management rights of large areas of China's barren lands to individual families to address the shortage of forest lands for fuel wood and other on-farm needs and encourage farmers to afforest and protect barren hills. Results were mixed; in many instances farmers continued to neglect forest areas because they feared a reversal of the policy. In the UK the standards demanded of contractors are clearly specified in Forest Enterprise's quality standards for establishment and harvesting operations.

The state also needs adequate capacity. Even where the state's performance in plantation management has been poor, this does not mean it will have the skills to oversee effective implementation by outsiders. Retraining is essential to ensure smooth transfers of work.

Well designed contract technical specifications. Contracted outputs (hectares planted, cubic metres felled and extracted, number of maps prepared) need to be SMART. Quality standards as well as output quantities need to be clearly specified.

CORPORATISATION – IMPROVING EFFICIENCY AND PROFITABILITY OF STATE ENTERPRISES

Commercialisation and corporatisation are relatively common. In a review of 23 countries experiences with privatisation, IIED found that almost half had completed or initiated some form of corporatisation process (Landell-Mills and Ford 1999). This picture is reflected in the 6 cases reviewed for this report. There are different models of corporatisation – state-owned company, state agency with the status of a legal person, state agency without separate legal identity - and there is different emphasis on delivery of profit and environmental and social services. In Australia, all states with the exception of Victoria and the Australian Capital Territory have corporatised forest authority activities. South Africa corporatised its plantation management through the South African Forestry Corporation (SAFCOL). The UK adopted the corporatisation model as an alternative to privatisation of state-owned forests. Its experience with setting up its state forest management agency Forest Enterprise is outlined in Box 22 below.

Box 22. Stepping back from privatisation to corporatisation in the UK

The UK looked at privatisation in the 1980s and stepped back. Opposition came from forest users, the environmental NGOs, as well as the wood-based industry. There was much concern about the likelihood of loss of access, highly valued in densely-populated areas. Also the Forestry Commission had made much more progress in increasing the biodiversity of plantations. Partly, this was because they were older, and thus easier to diversify at the stage of felling and regeneration through changing species, age-structure and layout. But also, the Forestry Commission had explicitly adopted wildlife and landscape enhancement as targets and was making evident progress, whereas the environmental movement feared that the profit motive would dominate private sector management. It expected it to be easier to apply pressure on a state agency than on a large number of private owners. The wood processing industry preferred the devil it knew, for the reasons set out above. There was therefore a large political opposition to privatisation set against the practical difficulties of a wholesale disposal of the state-owned plantations.

The outcome of the review, and subsequent developments, show the Government achieving some of its broader economic objectives, while maintaining the provision of non-marketed benefits:

- Regulation was separated from forest operations within the FC by setting up separate agencies - the Forestry Authority as regulator and the Forest Enterprise - with clearly distinguished roles and objectives.
- Efficiency was pursued through the setting of financial and economic objectives for Forest Enterprise, the agency charged with managing the state forest estate.
- The programme of rationalisation through sale of plantations costly to manage because of their size and/or location, and not highly valued for other benefits, such as recreation or biodiversity, was extended.

- A new scheme to encourage private owners to provide access was introduced. This complemented the earlier changes in the grants for planting to promote broadleaves, native woodlands, diversification of species, and greater attention to landscape impacts.
- The reorganisation of the Forestry Commission was followed by a review of its structure that led to a reduction in its staff numbers and reduced costs.

Source: Grundy (2002)

In New Zealand corporatisation was a stepping stone to privatisation of the New Zealand Forest Service's estate. The Service's commercial operations were removed to a new state-owned limited liability company, the NZFC, which introduced; changes to labour agreements, log pricing, and business structure. In its first two years of operation the NZFC generated a cash surplus of NZ$53 million compared with a $117 deficit on commercial activities in the final two years of the NZFS (Birchfield and Grant 1993). At the same time the government made a number changes in the market and regulatory environment within which the new corporation began to operate:

- Making log prices competitive prior to and during corporatisation;
- Deregulation of the transport industry, which significantly reduced the costs of transporting logs and processed wood products.
- Deregulation of the ports, which also reduced costs and the amount of time to export logs and wood products
- Deregulation of the labour market, enabling flexible contracts which reduced labour costs and allowed more flexible working hours;
- Deregulation of the financial market, enabling easier access to finance for many business including some plantation businesses, particularly processors needing to restructure and become more competitive.

Corporatisation, accompanied by the adoption of commercial business practice, has proved to be a relatively painless way of securing increased effectiveness and efficiency in state plantation management, reducing state organisations' call on public funds. Employees have mixed feelings about it, some seeing it as an opportunity (especially those in senior management positions), others seeing it as threat because it might be a step towards privatisation and an even greater focus on efficiency and profit, or they anticipate job shedding as part of the corporatisation process. NGOs have generally welcomed corporatisation (subject to sufficient safeguards) as a way of clearly (or more clearly) separating government's regulatory and management functions.

TRANSFER OF USE RIGHTS – WIDENING ACCESS TO FOREST GOODS AND SERVICES

Governments that have opted to transfer use rights have done so for a variety of reasons. It is an obvious means of increasing access to use rights as a pathway for improving rural livelihoods or to reduce inequalities in the distribution of forest goods and services. It is also being used to engage communities in forest protection. It might be chosen where state enterprises lack the managerial capacity to operate a sophisticated outsourcing system; while they must still monitor compliance with license conditions, the burden is likely to be lower than that for outsourcing. There may be reasons for the state needing to retain ultimate control through continued ownership of the resource, for example to protect particular forest values.

Governments do not have a completely free hand. Their options are constrained by their rights over the assets in and under their plantations. In the course of developing their estates governments have acquired an array of different rights, from ownership in perpetuity of all the land's biological and physical assets to rights that are limited to growing trees and to the activities necessary for this purpose (Table 3.8).

Table 3.8. An array of state ownership rights over plantation assets	
Asset	**State's ownership of the asset**
Trees	❑ Exclusive rights to trees growing on the land. ❑ Rights subject to a profit sharing agreement with the landholder.
Land	❑ Exclusive and unrestricted use of the land. ❑ Exclusive use of the land, but use restricted by clauses in freehold title or lease. ❑ Shared rights to use the land ❑ Ownership rights subject to land claims.
Plants and animals	❑ Exclusive rights to all species. ❑ Exclusive rights only to certain species. ❑ No exclusive rights. ❑ Rights vested with another owner. ❑ Rights are public.
Water	❑ Exclusive rights to use rivers and lakes in the plantation. ❑ Shared rights. ❑ Rights vested with another owner. ❑ Rights are public.
Minerals	❑ Exclusive rights to minerals. ❑ Shared rights to minerals. ❑ No rights to minerals.
Access	❑ Exclusive right to determine who may and may not have access to the forest. ❑ Joint rights to have and grant access ❑ Rights limited to employees of the state enterprise for the purpose of forest management. ❑ Public have statutory right of access on foot.

Australia – ownership and management largely retained in state hands

Australia's states and territories have generally chosen to retain state control over the management and exploitation of plantations. Their decisions largely reflect the concerns of many Australians about the potentially adverse effects of privatisation more generally, the regional economic and thus the political significance of the established plantation forests and the processing industries dependent on them, and the political difficulties inherent in selling State land on a large scale, particularly to non-Australian investors (Schirmer and Kanowski 2002). The only case of full privatisation of a State-owned plantation resource in Australia has been the sale of the Victorian Plantation Corporation (VPC) to Hancock Victorian Plantations Pty Ltd (HVP), a subsidiary of the US-based Hancock Timber Resource Group in 1998. The VPC was sold during this period (Walker and Walker 2000), although the State Forest land base was formally transferred on a 99 year lease rather than as freehold.

The VPC privatisation was achieved in four stages:

- The establishment of the VPC in 1993, under which the plantation business was treated as a sole entity and on a commercial basis rather than as a government department that had multi-facets and competing budgetary obligations;
- The commercialisation of long standing wood supply agreements, most of which were enshrined in Acts of Parliament;
- Surveying of plantation lands vested in the VPC by accurate delineation; and
- International offer for sale which was managed by the Victorian Treasury and international consultants.

The VPC was sold as a business entity rather than as a share float as has been the case with some other privatisations in the country. This option was chosen because it was anticipated that it would generate the greatest return to the vendor (the State), and because it was thought that it would foster retention of the whole estate under single ownership. It largely achieve the latter intention, but the former contention can not be tested.

China - granting long term use rights to households

With the extension of the agriculture sector's household responsibility system to forestry in the early 1980s, China has seen a rapid and significant shift in forest use rights from collectives and, more recently, state-owned forest enterprises to individual households. Rights transfers have gone furthest in the southern collective regions. By 1986 an estimated 69% of forest land in 8 provinces had been handed to households for use and management (Lu Wenming *et al* 2002). Use rights have also been transferred by state-owned forest enterprises, most often to employees. Land is frequently offered as a substitute for salaries and pensions, as well as for severance pay for workers who have been dismissed. These payments are called "salary land," "pension land," and "employment land," respectively (CAFU 1997, Lu Wenming *et al* 2002). The transfers have generated a number of benefits:

- Increased labour and capital input in forestry by rural households
- New employment opportunities
- Diversification in the income base of rural households
- Improved watershed protection and soil fertility

India - granting rights to community groups under Joint Forest Management

India's Joint Forest Management (JFM) programme could be considered out-sourcing rather than a transfer if use rights. Under JFM community groups protect and manage forest patches adjoining villages. By March 2003 over 63,000 JFM groups were protecting and managing over 14 million hectares of state forests including many plantation areas. The communities are generally given a share in income from the forest or plantation , For example, community groups protecting cashew plantations in West Bengal are entitled to 25% of the profits from the sale of cashew. Reported benefits of JFM include (Khare et al 2000):

- Restoration of degraded forests
- Increase in the availability of fodder grass
- Sharing of pole harvests
- Sharing of the income from forest products.

JFM has provided many village communities with greater legitimate access to an important livelihood resource. Several JFM groups have been able to create village funds, enabling them to undertake ither development activities. However, over-emphasis on commercial timber production has put a question mark against JFM's ability to deliver its original social and environmental objectives unless changes are made in the institutional and benefit sharing arrangements (Khare et al 2000, Saigal et al 2002). The challenges faced by JFM are outlined in Box 23.

Box 23. Joint Forest Management – work in progress in transferring forests to communities in India

In India Joint Forest Management (JFM) has had many positive impacts (Saigal 2002) but many challenges still remain. In most states, JFM is still dependent on donor funded projects and its long-term viability is yet to be established. In most states, JFM programmes have been established on the basis of mere administrative orders that can be changed or withdrawn by the FDs at any time. There is no tenurial security for the participating communities. The share of communities in the

revenue from forests is still low in many states and there are restrictions on collection and sale of several commercially valuable NTFP. A key challenge is the right link between *Panchayati Raj Institutions* (PRIs) and Forest Protection Committees (PC)s. There is considerable confusion over the role PRIs should play in JFM. One suggestion is the FPCs should work under PRIs but many fear that it will destroy the FPCs as PRIs are often highly politicised and large bodies, which are not suited for JFM.

Khare *et al* (2000) observe that arguments rage about who is paying for and who is benefiting from JFM, and whether good forestry is being practiced. They conclude that JFM is a policy with feeble roots. The main JFM policy statement can in theory be withdrawn at any time in the absence of greater legal recognition. Many of the initial state JFM orders were pushed through by *ad hoc* initiatives taken by interested individuals without any open debate or discussions. As a result, many JFM orders continue to be ridden with serious contradictions. Some state JFM orders have been issued under pressure from donor agencies who started demanding inclusion of JFM as an important component of large externally aided forestry projects.

They note four institutional challenges:

- Policy ahead of capacity; aspirations shared by only a few, government institutions have different political compulsions and different pressures on their budgets from central government.
- Village organisations in most states have no autonomous status and can be dissolved by the forest department
- Transfer of decision-making authority to local users implies a corresponding reduction in power of the forestry department, which continues to be resisted by forestry bureaucrats.
- Radical changes in forestry department organisation, culture and skills are required.

New Zealand - leading the way in granting long term, exclusive rights

Following the decision to privatise the New Zealand Forestry Corporation (NZFC) after its corporatisation the government faced three further decisions:

- *Whether to sell the assets or the business.* The government decided to sell NZFC's assets rather than sell NZFC as a going concern. Birchfield and Grant (1993) give the reasons: "there was little or no logic to the Corporation's portfolio of forests and processing activities and it would take a considerable time to rationalise the business to the point of it being a credible contender for public listing. Now that sizeable cash surpluses were establishing a value [for NZFC's assets] it [was] more logical to sell the forests to the highest bidders". In addition there was uncertainty as to whether the NZ market was in a position to absorb a float the size of the NZFC. Finally the uncertainty arising from the existence of Maori land claims for much of the land on which State plantations were established meant that selling the NZFC as a going concern would likely result in a court action.
- *Whether to sell both the land and the trees or only the trees.* Selling the land was unlikely to be acceptable because of ongoing Maori claims and strong public resistance to foreign ownership of land. The decision was therefore made to sell the trees but not the land by selling cutting and management rights in the form of long term leases called Crown Forestry Licences (CFL).
- *How to sell the assets.* NZFC organised and was the sales agent for the plantation sales. NZFC's role created some concern amongst some members of the NZ forestry industry who believed NZFC had motivation to delay sales having just invested considerable effort in creating and profitably running the NZFC. The NZFC estate was split into 90 parcels, each an appropriate unit for forest management, ranging in size from 51ha to 132,112ha, in theory allowing maximum flexibility by allowing small and large organisations to bid. Each unit had a CFL assigned to it with individual terms and conditions of sale. CFLs were designed to be as close to freehold land with rent as possible to minimise the constraints in CFL holders. Identifying rights over parcels took a long time but essential in order avoid future problems. Rights were written into the CFLs as covenants, e.g. vehicular access rights, conservation requirements, grazing rights. All CFLs

contained a "wander at will" clause allowing pedestrian access unless safety or other reasons precluded it. This wander at will clause was annulled if the land was transferred to Maori or other private landowners. All CFLs could be terminated in the event of the land being transferred to Maori owners. Once a termination was given the land would be returned as the trees were harvested. Some CFLs had an initial fixed term before termination notice could be given to allow for adequate infrastructure to be developed or for other conditions to be sorted out – e.g. for long term contracts to expire.

The transfers raised a number of issues. First, the provisions put in place until such time as the land underlying the plantation was transferred from the Crown to Maori owners, which included the rights to give access through plantation roads, would also transfer to Maori; i.e. access rights over the roads were not guaranteed to the CFL holder once ownership of the land transferred. Lack of such a guarantee is currently creating concern surrounding claims over the 22 CFLs granted over the Central North Island plantations (Neilson 2003).

Another issue was whether CFL holders should be required in perpetuity to replant the land after harvesting. In the initial round of sales in 1990 no replanting conditions were imposed. By the time of the 1992 round a condition was imposed that the land must be replanted or converted to another sustainable use that had to be approved by government, to reassure a range of groups that replanting might not occur (Clarke 1999).

The question of processing also became a consideration. In the 1990-91 sales bidders were not required to guarantee to maintain or expand domestic processing. In 1992 bidders were required to honour 5-year supply agreements with existing clients and in 1996 bidders were required to demonstrate their intention to add value to the resource within NZ (Clarke 1999).

South Africa – building on New Zealand's experience, but for a different mix of objectives

The starting point for South Africa's privatisation of plantation management and exploitation was the policy of withdrawal by the state from direct involvement in commercial forestry plantations. Instead the government would create the conditions and policies necessary for others to manage forests in the national interest and regulate their actions (Mayers et al 2001). The policy mirrors a wider national programme of economic reform and liberalisation in post-apartheid South Africa, which is driving privatisation initiatives across several sectors. These include transport, manufacturing industries (including defence), telecoms and public sector infrastructure development and management (including roads and hospitals). Privatising forests is therefore seen politically as one of several such processes taking place within this context of economic reform. In common with New Zealand the basis around which forestry privatisation has been formed has included:

- A belief that privatisation offers opportunities to attract investment and expertise needed to revitalise assets which are perceived to suffer from chronic under-investment. The reality, particularly in terms of the homeland plantations, is that they have not suffered from a lack of resources, but rather an institutional inability to spend the resources efficiently to achieve economic sustainability and growth.
- A fiscal imperative to reduce the burden on the state of subsidising inefficient (relative to the private sector), or even loss-making government plantations. Whilst SAFCOL was able to make an operational profit within two years of its creation, it is argued that there are many efficiency gains still to be achieved. The Homeland plantations, however have historically been managed at a significant loss to the state; and
- A recognition that continuing to manage plantations potentially conflicts with the performance of government's regulatory role. Whilst there can be an institutional separation between regulation and operation within the state, the reality is that the institutional importance of one function over another is determined by budgetary allocation and organisational structure. If Government's forestry functions are weighted heavily in favour of its operational responsibilities, there is a tendency to see "small" regulation and policy-making functions as "add-ons" to the organisation, rather than its core.

In addition to these commonly occurring privatisation objectives, the South African government was also aware that privatisation offered a unique opportunity to achieve a number of its other White Paper policy objectives in a meaningful way. These included the need to:

- Achieve a wider more representative pattern of ownership in the forest sector, particularly amongst South Africa's historically excluded groups.
- Consolidate forest resources often artificially split along former Homeland boundaries, a separation which resulted in inefficiencies and distortions in resource use to the detriment of the industry's rational development.
- Improve efficiency in processing industries by increasing effective competition for raw material supplies. South Africa's sawmilling industry has been characterised by long-term structural inefficiencies resulting in large part from the distorting influence of government as a major forest owner.
- Formally recognise the land, access and use rights of rural communities, many of whom were dispossessed of these rights when these plantations were established.
- Facilitate black empowerment through direct participation in forestry operations, training and skills development, affirmative action in management, and entrepreneurial opportunities through outsourcing, partnerships, procurement and easier access to financing.

The opportunities surrounding exclusion and black empowerment shaped South Africa's privatisation in a fundamentally different way from that of New Zealand. Conditions built into the bidding process ensured a minimum degree of involvement by black entrepreneurs.

United Kingdom - limited success with transferring rights to communities

In the UK the programme of limited asset sales that began in the 1980s sparked interest among rural communities in purchasing state forests but progress has been much slower than in some of the other countries studies, in particular China, India and South Africa. Forest Enterprise found it difficult to reconcile communities' aspirations with the commercial management of the estate and a culture of "ownership" and control over the resource . The problem was compounded by lack of understanding of what communities wanted, some communities having unrealistic expectations, and a lack of the skills needed for engaging with communities. The problem was highlighted at the Scottish village of Laggan where there was uncertainty over the future of the local forest, which had been a candidate for disposal. Forest Enterprise had withdrawn employment from the area in the past and was increasingly using contractors. Lack of local contact and the fears over disposal triggered the community to try to acquire the forest. After protracted and complex negotiations over a number of years forest management partnership between the community and Forest Enterprise was established in 1997. As a result of the experience gained from cases like Laggan, Forest Enterprise has made a radical change to its approach to local communities that want to be involved in the management of Forestry Commission forests but genuine transfers of use rights have occurred on only a small scale so far. Action on forests in the UK contrasts markedly with the imaginative policy of the Scottish government of supporting land purchases by crofting and other rural communities (Garforth and Dudley 2003).

TOTAL DIVESTMENT OF THE STATE'S INTERESTS – A RARE CHOICE

The transfer of exclusive rights to all of the assets vested in state agencies is rare. Of the case studies considered in this report only Chile is the only one to have transferred all the state's plantation assets to the private sector, in some cases to the landowners with whom the state agencies had entered into partnerships, in other cases to private corporations that had no previous rights to the land. Driven by the liberal market philosophy of the government of the time, no outcomes were sought other than to transfer all commercial activity to the private sector.

- Key reasons governments may choose to transfer ownership rights include:
  - ⇨ *Efficiency*. A belief that partial rights transfers (e.g. of use or management rights) are less effective in stimulating entrepreneurial drive and improved efficiency amongst private actors (see discussion on efficiency in section 2.3 above).

- ⇨ *Budgetary requirements.* The government's plantation authority may be severely short of cash and unable to continue to perform its responsibilities. Privatisation both transfers its liabilities, and cashes in on its plantation assets.
- ⇨ *Limited environmental and social concerns*. Full ownership privatisation is likely to be favoured in plantation areas where the public benefits attached to the plantations, and thus public resistance to their transfer, are relatively small.

CHALLENGES OF USE RIGHTS TRANSFERS

Use rights transfers pose a number of unique challenges for governments, varying in degree with the nature of the rights concerned and the context (political, social, economic and environmental) within which the transfers are made:

- ❑ Getting target groups, and especially communities, to engage in ownership and management in such a way as to attain the benefits of transfer (see India's experience with Joint Forest Management in Box 23 above).
- ❑ Ensuring best value for money, in terms of cash, labour or other payments made in return for the acquired rights, and continuing subsidies that might be necessary.
- ❑ Getting the new rights holders to achieve and maintain satisfactory standards of management.
- ❑ Managing job shedding and other social impacts of change.
- ❑ Balancing the rights of the beneficiaries of transfers with the needs and expectations of other stakeholders.
- ❑ Overcoming resistance in state enterprises stemming from fears of power and job losses.

In Chapter 4 we draw from the experience of the case study countries and wider literature to suggest ways of approaching these challenges and offer for guidance "best bet" practical instruments and processes for achieving successful transfers.

4. Balancing acts - reconciling public policy and transfer of ownership and management

Increasing private sector participation in state forest plantations can bring many benefits. In its simplest form – outsourcing – state plantation enterprises can reduce costs and increase profitability, bringing savings to hard pressed budgets or enabling increased expenditure on supplying the public goods and services that plantations can provide. Outsourcing can help develop capacity, preparing private actors for taking on the responsibilities that accompany rights to develop and exploit plantation resources. This is the point at which substantial benefits begin to flow to the state (through the realisation of capital assets) and to rural people (through new livelihood pathways). For this reason we focus in this chapter exclusively on the transfer of ownership and management from the state to private actors.

4.1 Opportunities demonstrated by experience

The experience of the case study countries shows us that transferring rights to exploit plantation assets offers a variety of opportunities. Some of them might be considered generally applicable, although their impact will depend on local contexts. Others are context specific, occurring only in particular circumstances related to political or social history.

Demonstration of political philosophy. Plantation privatisation, or moves towards it, may been driven largely by political philosophy, un-tailored to the specifics of the task at hand, as in Chile under the rightist governments of the 1970s and the UK under the Thatcher government of the 1980s. This may work on its own terms but does little for either plantations or the people who need them. Where the governance framework allows stakeholders an effective voice, "privatisation for privatisation's" sake is likely to fail unless real benefits can be demonstrated.

Increased operational efficiency and profitability of asset use leading to gains to the national economy. Although the higher entrepreneurial drive of the private sector can be expected to exploit plantation assets more efficiently than state organisations, evidence for this from the case studies is limited. In New Zealand's case, although some commentators believe privatisation has led to increased efficiency and competitiveness, particularly in global markets, others believe that it is not possible to separate the impacts of market, labour, port and transport deregulation from the impacts of corporatisation and privatisation. Others have questioned whether corporatisation and privatisation could have achieved improved economic outcomes without the associated economic restructuring (Easton 1994 cited in Hall 1997, Hall 1997, Clarke 1999). The NZFC, which was only sold in 1996, operated as a state-owned enterprise for almost six years and was generally considered a very successful commercial plantation company. There is also evidence from New Zealand of short-term decreases in economic performance due to privatisation and associated changes (Grebner and Amacher 2000).

Increased investment in wood processing. Here too the evidence is limited. The private sector has shown its willingness in the past to invest in processing capacity without the added security of wood supply that might come with ownership of long term exploitation rights. New capacity is being developed in Australia and the United Kingdom, where control over much of the raw material supply remains in state hands. New Zealand has experienced increased investment in domestic processing since privatisation. Clarke (1999) found that 'All new forest owners have invested, or intend to invest, in value-added processing. … Of the $NZ 1600 million of intended investments in the period 1990 to 2005, 90 percent is attributable to the purchasers of state forest assets.' Hall (1997) attributes much of this to the success of privatisation in attracting foreign investment capital into New Zealand. Some question whether investment in processing may in fact have been curtailed as capital had to be tied up in buying trees, leaving less available to invest in processing facilities. This raises the question of whether using a different model, such as selling the cutting rights, might have resulted in more processing investment; using a cutting rights model would no doubt have raised its own set of issues (Schirmer and Roche 2003).

Healthier state budgets. Opportunities to reduce improve governments' reduce public spending depend on the nature of the rights and responsibilities that are transferred. If a state-run enterprise is genuinely inefficient, transferring the enterprise's activities to private actors as part of a use rights agreement will result in savings that should be reflected in the price paid for those rights. We can distinguish two types of inefficiency. First the scope or volume of the activities carried out by the enterprise may be wider or higher than is necessary to achieve the government's objectives. Such a situation can arise where a state enterprise has freedom to "set its own agenda"; so, while delivering on the objectives given to it, the enterprise engages in "fringe" activities. The second type of inefficiency occurs when unit costs of activities are inflated, perhaps because of high labour inputs. and the extent of the government's post-transaction responsibilities. Based on the experience of the countries studied it seems likely that both types of inefficiency can be fully addressed through corporatisation (to focus the enterprise on the activities that matter) and outsourcing (to bring down unit costs). Net savings to the public purse will be affected by the continuing, possibly increased, investment that the government will have to make in ensuring that private actors deliver the outcomes that are built into transfer agreements and/or comply with forestry related laws.

Redirected state roles. Transfer of exploitation rights together with management responsibility can be a key element in reforming the role of the state. By removing themselves from any commercial interest in plantations, state organisations can concentrate on the "core business" of government, creating an environment that enables private actors to deliver public policy objectives. Resources freed up in this way can be used to increase investment in other roles such as systems of practical regulation, extension, research, and monitoring and evaluation. However, redirecting the role of the state can be achieved to a substantial degree by separating commercial and strictly government functions within a government framework, as for example in Australia and the UK, and in New Zealand where the separation was made several years before the decision was taken to "sell off" the state owned plantations. Eastern European countries that have taken steps to restructure state forestry institutions have also generally followed the path of separation within government, adopting different models of state-owned forestry enterprise.

Poverty reduction and improved rural livelihoods. China's experience of granting long term use rights to land for forestry shows that substantial gains can be made if the transfer is well designed and is based on a solid understanding of the links between forests, forest enterprise and local livelihoods. India's experience with JFM, while promising much, demonstrates the importance of transferring rights sufficient to translate into livelihood benefits and establishing institutional systems capable of pushing through the objective. Establishing transaction rules that target poor groups and prevent capture by elite groups will be particularly important where social and economic power structures work against transfer processes, as in South Africa. The evidence from the case studies suggests that the opportunities are greatest in developing countries but this might be simply because developed countries have not been imaginative or determined enough in using transfers as a mechanism for improving rural livelihoods.

Empowerment of disadvantaged groups. South Africa is the only country to have aimed transfers explicitly at empowerment of disadvantaged groups. While it is still too early to gauge success, experience there can teach us useful lessons on how to shape the process if this is the objective.

Righting past wrongs. In specific contexts transfers can redress cases of past land and resource appropriations by the state that are now deemed to have been illegitimate, as in Eastern European countries. Elsewhere, as in South Africa, forest transfers have been taking place within a wider programme of land and social reform.

These last three opportunities present the greatest challenges to the designers of transfer processes because they require targeting of specific groups who are likely to lack the capacity to exploit their new rights and exercise the responsibilities that come with them, and more careful management of trade-offs, for example between offering secure tenure rights for bidders versus protecting underlying land ownership and informal tenure rights. The political imperative may be so strong that trade-offs might be ignored. We have seen this with the restitution of forest lands in countries of the former Soviet bloc where little attention appears to have been paid to ensuring that the forests involved would continue to be managed responsibly.

4.2 Key challenges

ENGAGING LOCAL GROUPS IN OWNERSHIP AND MANAGEMENT

Dilemmas in local participation. For governments concerned with the social impacts of privatisation in rural areas, a key challenge is ensuring local participation in both the process and the final outcome. Small local landholders, however, face a number of hurdles in trying to take part. Common constraints revolve around their lack of capacity to get involved (e.g. often requirements for management plans are complex and alien to what communities are used to), and the lack of political will to truly devolve responsibilities (Matose 1997 cited in Lindsay 2000).

'Myth' of community. A key question is how state law can ensure recognition of local authority over resources. One approach is to designate on a uniform basis a local body that would have control over a pre-defined area e.g. a village council. Another approach is to provide for the recognition of different groups formed around different functions and objectives. For instance in Nepal the forest law refers to user groups that will have land turned over to them - these are essentially self-defining groups and neither their membership nor the area they manage have anything to do with local government boundaries. The central problem with both approaches is that of "locating the community". Even within single villages there are overlapping and often conflicting ideas of community, often bearing little resemblance to what outsiders see or want to see (Lindsay 2000).

Recognition of legitimate and motivated groups. Flexibility is required in regard to how state law handles the recognition of local groups. The law should not try to squeeze existing local institutions, which have roots in local values and practices, into forms that are too complex and alien to the local situation and then standardise that form across many different social settings. The result could be to create institutions that have little legitimacy among their members (Lindsay 2000). Fisher (2000) concludes that natural communities are a better basis for collective action than artificially constructed or administratively convenient units (because people are less likely to breach agreements when doing so will interfere with existing social arrangements). He argues that collective action around resource management is more likely to occur when the boundaries of the resource and the boundaries of the social unit managing the forest coincide. Where communities are defined in terms of the formal political and administrative structure there are real risks that responsibility and authority will be applied to a "community" level that is inappropriate in terms of what is known about effective collective action.

Secure tenure instruments are essential but not sufficient. Rights on their own are not enough: they must be supported by the capability to claim and defend them. In the case of devolution to communities, this is likely to mean defence against more powerful actors. Clear constitutional guarantees, as well as specific supportive legislation and regulations are necessary, but are still not sufficient on their own. Poor people need to be aware of their rights and to be able to access effective routes to recourse. Devolution of forest use and management rights requires effort to establish the effectiveness, legitimacy and accountability of local institutions. Management of budgets, costs and benefits should be devolved along with responsibilities. Local institutions need sufficient autonomy to act on, modify and enforce local rules. In addition, as well as setting guidelines for the protection of legitimate public interests, regional or national laws should define rules by which communities interact with outsiders and provide basic protection for individuals and disadvantaged groups against the abuse of local power (Mayers and Vermeulen, 2002b).

Disadvantages of some formal political structures. There is a tendency for bureaucracies to focus on formal political structures because this makes it easier to identify representatives, a clear legal basis exists, and it is procedurally simple. But there are major disadvantages (Fisher 2000):

- The formal political system is often adversarial whereas resource management requires consensus
- The representatives do not represent all interests so there is likely to be limited adherence to decisions;
- Formal political systems tend not to coincide with "natural" user groups;
- Collective action is inhibited if relationships are not "embedded".

Conflicts between arms of government. The picture can be even further confused where different parts of government recognise different local level groupings In Nepal, the Forest User Group (FUG) system has been quite successful in transferring responsibilities to local levels. The Forest Act gives authority to the Department of Forestry to hand over forestland to a FUG which then becomes the overall decision maker and manager of the designated forest area. But the Decentralisation Act provides Village Development Committees (VDCs) with the authority and responsibility to form user committees, which then decide how to manage the resources within the identified VDC boundary. Due to overlaps in both acts, conflicts between FUGs and VDCs and between the respective government departments that back them up have been increasing (Singh, 2000; Upreti and Shrestha, 2000).

Blending strengths of local government and peoples' organisations. Effective decentralisation or devolution, therefore, requires devolved decision making and devolved power and authority. The process needs to informed by an understanding of the social basis of collective action and needs to be consistent. Authorities need to think of ways to combine the concerns of local governments with those of other non-formal groups (Fisher 2000). Lai *et al* (2000) also observe that strong peoples' organisations are the keys to successful community-based forest management and notes some problems from experience in Indonesia:

- Peoples' organisations often lack the organisational and technical capacity to properly manage commercial aspects related to community-based forest management agreements.
- Many communities lack working capital and have little or no previous financial management experience.
- Peoples' organisations have difficulty negotiating fair market prices, finding affordable transport, arranging payments, assuring quality standards and meeting pre-payment requirements.
- Government field offices are usually unable to provide all the assistance needed by forest communities, especially with regard to co-operative business management.

Box 24. South Africa: local enterprise is motivated, but needs support

Experience from South Africa is that communities and small enterprises can organise themselves quickly when the benefits have been presented to them clearly, but they will need short term assistance in the form of access to experts such as lawyers and transaction advisers, or for business management training. For long-term sustainability and human resources development, institutional support can be provided by a well-established private sector partner within the consortium. Sound institutional arrangements and provision for institutional development and support (once community-based legal entities have been established) are key to ensuring that they play a developmental role and that trustees remain accountable to their members on management and the distribution of benefits. (Dlomo and Pitcher 2002).

ENSURING BEST VALUE FOR MONEY

Administrative allocation versus auctions. Auctions are generally recognised as maximising revenue from the sale of land use rights. They can also counter problems of inefficient administrative land allocation and associated forest fragmentation by allocating use rights to the highest (and implcility, though not always, the most efficient bidder (Lu Wenming et al 2002). Box 25 summarises experience of auctioning use rights in Lushan County in China.

Box 25. Experience of auctions in China
Lushan County has been a local leader in introducing auctions for forestry rights in Sichuan Province. As in other counties the early years of decollectivisation involved the administrative allocation of forest land to local households. In general recipients paid a flat annual rent or a share of the profits. In the early 1990s auctions were increasingly used to allocate land. Auctions involved collectives calling for bids from potential buyers in the form of up-front payment or annual rentals. Use rights to about 5,000 ha of land has been auctioned between 1993-1998. Fifty per cent of the land was allocated for 10-40 years. Longer term rights of between 70-100 years were also allocated but only in about 2% of cases and concentrated in remote mountainous area. Since being allocated, a healthy trade for forest land rights has evolved. Sellers include cooperatives, town governments and local forest farms. Buyers include farmers, non-farming individuals, co-operatives and private companies.
Source: Lu Wenming et al 2002

Recurring needs for subsidies. An important factor in weighing value for money is the intrinsic profitability of commercial forestry. If it is lower than the usual rate expected from long term investments, the interest of private sector will be small, and may be only from those wishing to asset-strip, with a quick exit. The Government may have to promise to keep paying subsidies, promises that are usually discounted. The best approach will then be to seek out potential owners with a direct interest in wood production and other plantation products and services. (Grundy 2002)

Bid price not the sole criterion. South Africa has used the bidding process to enable the government to select the preferred bidder whose bid best reflects its multiple objectives. This need not be the bid with the highest price. Bidders were presented with Government's objectives and were required to submit bids against a set of qualitative and quantitative criteria. Whilst the range of bid criteria potentially makes for a complex bid evaluation, the approach represented an efficient market based means of striking a balance between public and private sector objectives. (Dlomo and Pitcher 2002)

ENFORCING STANDARDS AFTER TRANSFER

Maintaining standards with outsourcing. Environmental standards in relation to outsourcing can be established and enforced through contracts, but this is not without its problems. Kun (2000) recounts the programme of transferring management rights of large areas of China's barren lands to individual families to address the shortage of forest lands for fuel wood and other on-farm needs and encourage farmers to afforest and protect barren hills. Results were mixed; in many instances farmers continued to neglect forest areas because they feared a reversal of the policy.

To include or not to include blocks of natural forest? One specific environmental issue that remains unsatisfactorily concluded in South Africa is the management arrangements for blocks of indigenous forests, which are closely associated with the plantations. At the time of determining the lease area it was decided to excise out any block of indigenous forest that was large enough to be considered its own management unit. All other smaller areas were left in the lease to be the responsibility of the tenant. It would appear that the criteria used at the time might have resulted in a number of indigenous forest areas being excised out of the leases which should have been left in. Negotiations are now taking place with tenants and prospective tenants to either have these areas put back into the leases or to manage them on contract through side agreements to the leases (Dlomo and Pitcher 2002).

Improving environmental values is costly. With the exception of South Africa, the countries studied have relied on the broad governance system to enforce environmental standards after transfer of assets. The UK experience is that a system of controls on felling, planting and replanting, with grants to compensate for low returns and/or negative impacts on profitability, can ensure that private forests are managed responsibly and without environmental damage (Grundy 2002). However, the costs of this type of system are substantial. Merely maintaining the level of non-market services may not be good enough. The aim may be, as in the UK, for increased biodiversity and social services. While a

system of controls, grants and consultation can ensure responsible forest management, moving private owners to the next stage – an imaginative development of plantations to increase public benefits – is more problematic.

Using certification as a proxy for government monitoring. The new owners of South African former state plantations are required to achieve certification against approved standards within two years of commencement of the lease. National standards for sustainable forest management, required under the National Forests Act, are in the process of being developed. Certification is accepted as a neat, cheap option for government which is likely to give as good an impression of performance management against sustainability criteria as anything Government could set up for such a purpose. There is however a growing discomfort around Forest Stewardship Council (FSC) in particular. FSC are seen to be constantly "raising the bar", or "moving the goalposts". It is very unlikely, for example, that any small scale operator on a Category B plantation could get FSC certification in terms of how this is currently perceived. What is therefore needed in SA is a more tailor-made solution to deal with the smaller-scale, less well-resourced plantations and their managers (Dlomo and Pitcher 2002).

Using organisational statutes as a proxy for government monitoring. In the UK, concerns about loss of public benefits led the government to introduce arrangements to give first option to purchase forests with high nature conservation, recreation, cultural or heritage values to organisations mandated by their statutes to manage for the public good. Under these arrangements sales have been made to NGOs, government nature conservation agencies and local authorities. The option of building safeguards into the title deeds was rejected because it was not certain that a requirement to, for example, to maintain provision for public access, could be enforced.

MANAGING SOCIAL IMPACTS OF CHANGE

Jobs shed in one sector may lead to opportunities in another. Change aimed at achieving greater efficiency, as with out-sourcing, and transfers of state assets to more efficient owners and managers will be likely to lead to job losses from the sector. Those who have to leave the sector may find employment in other sectors so that, viewed from a perspective of national social welfare, there could be a net gain after taking into account the greater efficiency and profitability of plantations and the recruitment to other profitable enterprises outside forestry, but this will not always be the case. Those who remain in sector may be faced with poorer conditions of service.

Potential impacts on employment. Job losses are inevitable when responsibility for plantation exploitation and management is transferred from over-staffed state enterprises to private actors, although the impact of transfer may be lessened when the state enterprise has been through a process of corporatisation and commercialisation. The threat of job losses can lead to resistance strong enough to delay or even block transfers. Some of the actions that governments can take to mitigate the impacts of transfers on employment are illustrated by South Africa's experience (Box 26), though as Dlomo and Pitcher (2002) observe, there is still much to do to manage the short-term negative impact of asset transfers in spite of these safeguards. Additional long-term support is needed to assist redundant workers to maintain their activities sustainably into the future. The problems have been exacerbated by the fact that most of the workers who have left government employment during the privatisation were old, low-skilled and close to retirement. They were offered retraining options and business skills training within the framework of a "social plan" with a very limited budget which was not implemented very imaginatively. Most workers therefore did not get a great deal out of it.

Box 26. Managing potential impacts on employment: lessons from South Africa

South Africa employed the following mechanisms to mitigate the impacts of transfers of Category A plantations (those of immediate high commercial value) on employees of the state plantation agency:

- A condition of the transaction, captured in the sale of business agreement is that all SAFCOL workers will be transferred across to the new employer on existing terms and conditions of employment.

- An industry norm number of DWAF workers will also transfer across with any former homeland plantation, and they will be taken on at SAFCOL wage rates and terms and conditions of employment. Any DWAF worker transferring will receive a transfer package to compensate for the difference in salary between what they currently earn in DWAF and the SAFCOL rate. This compensation is calculated over three years and paid as a lump sum at the time of transfer. A variation on this model is expected for the Category B plantations (those of lower commercial value).
- Employee Share Ownership Plans (ESOPS) to ensure that employees have a real stake in the plantations are also promoted in the restructuring. Noting that both workers and management contribute to the success of the enterprise an attempt is being made to ensure that employees, and not just management, will have an equal opportunity to acquire shares. No ESOP has yet been established.
- There will be a moratorium on retrenchment of transferred workers by the new company for three years (again captured in the sale of business agreement).
- Bidders were required to present human resource development plans that addressed affirmative action and effective human resources development planning. This was a criteria used in bid selection.
- Any DWAF worker who could not be transferred was either re-deployed to a Category B plantation (thereby making the over-staffing there even worse) or they left the public service via a voluntary severance instrument, retirement or early retirement (standard in the public service). A new Public Service Framework Agreement (2002) now allows for employer-initiated retrenchment in the public service; this was not available at the time, and it is likely that this will be implemented in terms of the Category B privatisation.
- Any worker leaving the public service voluntarily or otherwise is eligible to participate in a Social Plan. This is currently delivered in the form of a package of training and counselling services to help workers deal financially and psychologically with unemployment and also re-train for re-employment or self-employment. Most workers to date have elected skills that are suitable for self-employment at a micro or household level.

Source: Dlomo and Pitcher (2002)

BALANCING TENURE RIGHTS FOR BIDDERS WITH OTHER OBJECTIVES

Weak tenure = low value. In partial or total asset transfers, beneficiaries need secure tenure rights. Weak tenure rights will lead to discounting of the price offered, or in the worst case no offers being received.

But outright tenure for one = injustice for another. One of the most challenging aspects of the South African privatisation process has been to secure reasonable tenure security while protecting communities' underlying land and other informal tenure rights. The solution was to lease the land rather than sell it and to construct the lease to provide the lessee with security of use rights to the land and ownership of the plantation for seventy years. The lessee pays a market rent which is held in a trust fund. When the underlying landowner is identified any accumulated payments and ongoing rent will be transferred directly to the land owner. The tenant gets full undisturbed possession of the land subject to the requirements of the Forest Act to allow public access for cultural, spiritual and recreational purposes (Dlomo and Pitcher 2002).

OVERCOMING THE RESISTANCE OF GOVERNMENT ACTORS

Transfer initiatives require cultural change within state institutions. Resistance within state institutions has slowed transfers of ownership and use rights to private actors and restricted the range of rights that have been transferred. Resistance may occur for various reasons: transfer subjects may

represent a major source of government income (Lu Wenming et al 2001); they confer power on state forest management enterprises; and they provide secure and attractive employment for enterprise staff. Even where state agencies embrace transfer processes, their own agendas may severely limit the benefits. In India's JFM programme, the imbalance in power and control structured into the forest department and local community institutional relationships is more geared to extending the department's control over the community than to nurture self-governing resource management by the villagers. The arrangement essentially uses the community as an instrument for achieving the forestry department's interpretation of forestry policy objectives (Khare et al 2000).

Cultural change needs to be driven through all levels of the organisation. Statements of intent, policies and guidance issued from the centre will have no impact unless accompanied by training to get buy-in from the forest managers at the "front line" and to provide them with the skills they need to engage with transfer beneficiaries (Hobley 2002).

4.3 "Best bet" practical instruments and processes

In this section we provide guidance on how to prepare for and manage transfers drawing from the experience of the case study countries. We have set out the guidance under four broad headings:

- Option selection and design
- Process and change management
- Instruments for ensuring that new owners and managers continue to serve the public interest
- Managing the government's post-transaction responsibilities

The guidance is aimed at those who can influence decision-making about transfers of ownership and management control for state owned plantations. Such agents may be in government, the private sector or civil society. They may have explicit powers for key decisions, or they may have the potential to be effective managers or to improve processes but need guidance to help build their capabilities. Whoever they happen to be, they should keep at the front of their minds two crucial points when considering and especially when applying the guidance:

Context is all-important. No pronouncements about what to do in one context will quite fit the bill in another; there are no magic bullets, no one-size fits all. However, a 'checklist' approach to possible actions, options and ideas on how to proceed - based on experience in contexts where some progress has been made - can stimulate further ideas, learning and the tailoring of ways forward specific to context.

Freedom of choice is a rarity. Key contextual factors that will shape what can be done with state-owned plantations include: history and power structure (including, frequently a resulting lack of power to do anything much at all); nature of the plantation asset base; ecological influences and constraints; economic and financial conditions; social-cultural influences and conflicts; institutional norms and precedents; and the scope and rate of change in all of the above.

OPTION SELECTION AND DESIGN

How can the 'right' objectives be agreed?

Sharpen up your argument. Actors in the drama – whether they be government policy makers, company bosses, local groups or NGOs - need to be clear about their own particular reasons for wanting to change ownership and management.

Recognise that other actors have different values. Each set of reasons may represent a different set of scales for weighing costs and benefits.

Encourage transparency amongst actors. Clarity of actors' positions can help create transparency in the weighing of costs and benefits.

Negotiate practical objectives. Negotiation with key actors is critical in clarifying positions on contested issues, identifying some common objectives, and focusing on practical ways forward which can attract buy-in from those handed new rights and responsibilities for ownership and management.

Arriving at a clear definition of "the public interest". The negotiation process should pay particular attention to identifying the public interest in state-owned plantations by asking which goods and services provided by state plantations are threatened by changing ownership and management, and who loses if the goods and services are no longer provided, or if people have to pay for them in future

Keep objectives clear and simple. Potential opponents are more likely to buy into change if the purpose is clear and they can see beneficial outcomes.

Select the model best suited to purpose. Increased operational efficiency/profitability can be achieved by outsourcing, without incurring the political costs of asset sales and threatened public goods and services. But if you want to encourage small scale enterprise, far-sighted management and/or concerted investment - major incentives such as transfer of ownership or secure and tradable use rights are essential

Design the transfer to suit its purpose

Check that the "design mix" will deliver your objectives. Key drivers behind China's decollectivisation have included the desire to raise rural welfare and the need to improve forest land efficiency. To achieve the former, lands have often been allocated on a per capita basis. This approach has not allowed for discrepancies in household productivity and provides little incentive for more efficient producers to specialise in timber production. Moreover the small size and scattered nature of forest plots is frequently uneconomic. The introduction of forest rights transfers, promotion of shareholding co-operatives and re-allocation of lands that were not being used by their new owners have helped to address this problem (Lu Wenming et al 2002).

Develop criteria. Develop and promote amongst other actors a set of criteria, based on fundamental elements of sustainable development and in line with national societal priorities, by which decisions about ownership and management transfers can be judged.

Do your homework. Analyse the existing information base and carry out research to examine the options that may deliver the benefits that you want. Ensuring that this analysis is guided by sustainable development criteria, identify the powers, rights and responsibilities that need to be transferred and those that need to be retained by government to achieve your aims.

Plan for an optimum balance of powers in line with sustainable development. Aim to transfer all the rights that private sector actors need to achieve optimum sustainability objectives, and to ensure government retains the rights necessary to achieve public policy objectives – and enter the negotiation process by clearly making your case for this.

Be prepared for trade-offs. Several aims may sit together but are likely to need reconciliation and compromise, e.g. attracting large-scale investment and encouraging small enterprise development.

Recognise the transaction costs involved – e.g. in terms of the time required of officials in key ministries – are high even if, in the case of sales to the private sector, there is a realisable sale price. E.g. in South Africa, the costs of plantation privatisation, when compared against the much greater financial value of other larger privatisations occurring at the same time, appeared disproportionately high and were thus competing for the time and attention of busy officials. In such circumstances there is a danger of a politically easy route to forest privatisation being adopted at the expense of longer term and more difficult issues being resolved. However, in the South Africa case, government did realise that forestry privatisation's success should be measured not solely on price and acknowledged its relative importance when linked to land reform and social objectives.

Make it attractive and accessible to your target groups

Make sure the resource is in good condition and free from fundamental conflict. To be of interest to investors and/or communities, resource quality and potential will be a critical determinant, as will the existence of challenges to land use for forestry (e.g. in South Africa, several plantation areas originally

offered for sale under lease have now been withdrawn and are in the process of conversion to other land uses).

Ensure transparency of process. Private sector investors, community groups, and indeed other government departments, often nurture mistrust of government based on past experience of opaque decision-making processes. Making a transfer process attractive to these actors will require clear signals about who will do what, and how they will be held accountable.

Build in sufficient security over use rights to encourage investment. Such security is likely to be a function of provisions in a lease or ownership agreement including: duration; the right to assign, sublet and mortgage use rights; the support of the transfer by broader enabling policy and support services derived e.g. from land and institutional reform; and clarity over the ultimate ownership of the land/resource in the case of defined-period leasing.

Contract over a long enough period for the security and planning horizons of contractors and tenants. For example: in South Africa it was agreed following negotiation that the lease is of indefinite duration, but providing for 35 years notice of termination by either party at any point after the lease's 35th anniversary. This effectively provides a guaranteed minimum tenure of 70 years on entering the lease, with provision for early termination in the event of a material and un-remedied breach of lease conditions. In this example a key issue is the lessee's confidence in government's ability, and government's confidence to deal with breaches of the lease's terms or the law.

Allow contract transfers. Making the lease assignable/transferable (in whole or in part) to another party makes use rights tradable. An assignable lease has a financial value best protected by practising sound management of the forest. Risks that use-rights may be assigned to another, perhaps a non-target group, to realise quick profit need to be mitigated by requiring government's prior approval of the transfer

Ensure balanced benefit sharing. Private actors will not invest if they do not get a sufficient share of the benefits that accrue from their labour and capital. Households offered land use rights in China were required to produce a given quota for the collective at a set a set price or fee. Any excess production could be sold on the free market and this was the main incentive for increased productivity. Since the allocated land tended to be barren and required significant up-front investment, the deals on offer were often unattractive (Lu Wenming et al 2002).

Balance risks and rewards. The allocation of forest use rights involves the transfer of management and harvesting risks. Risks are particularly high for forestry due to the long time period involved in production. In the early years of China's transfers of by collectives, the terms failed to reflect the new allocation of risk and were often heavily weighted against private operators. The small size of plots, short period of tenure and poor quality of land undermined incentives for households to take on risks associated with forest production (Lu Wenming et al 2002).

Package services, assets or use rights in a way that will attract the target groups. This is best shaped through dialogue between the actors. For example, in South Africa government carried out various forms of valuation and business analysis to shape the asset 'packages' offered for privatisation, yet these were contested and modified later when negotiations on the transaction began. Earlier 'market research' consultation with potential buyers might have made this more efficient.

Ensure clarity of rights and obligations of all parties. Where rights and benefits of households have not been well defined, farmers have often not been convinced that allocation programmes will last, and hesitate to invest capital and labour (Phoung 2000). Transfer process may need to address insecure tenure associated with unsettled boundary disputes. Under China's system of collective forest management tenure disputes were rare. With the introduction and extension of contracting out, disputes have re-emerged as people seek control over higher quality land. Such disputes are blamed for causing deforestation in several areas (Lu Wenming et al 2002).

Address unfavourable investment climates. Even where transfers are made attractive in every other respect they may still fail if they are set within an unfavourable investment climate. Problems can stem from high taxation, remoteness to markets, expensive finance, the burden of regulation and government bureaucracy and adverse labour relations or costs.

Make sure that your target groups are ready

Estimate capacity. Make an assessment of the capacity of private enterprises to engage profitably with the transaction process and to meet their obligations as well as make full use of any rights that are transferred.

Promote continuous improvement of management systems. Encourage enterprises or other organisations with potential to take up new responsibilities for plantations to make and implement active internal plans for developing, up-grading and continuously improving their systems for: information generation and management; human resource development; participation; planning and management; finance management; and monitoring

Support preparedness in community organisations. In the case of community organisations which are to be granted rights under programmes of transfer of state-owned plantations, their capabilities may appear to be of no concern to the granting body. However, unprepared community organisations may lead to social division and/or destruction and fragmentation of the plantation resource. Community organisations should consider some of the following challenges (Marghescu, 2001; Fisher, 2000; Mayers and Vermeulen, 2002):

- Generating a high degree of trust among the actors, who must be confident that others will comply with agreements made
- Building on existing forms of community organisation is usually a better basis for collective action than artificially constructed or administratively convenient units (because people are less likely to breach agreements when doing so will interfere with existing social arrangements)
- Avoiding fragmentation with a large number of owners not bound by an umbrella organisation or association
- Ensuring complementarity of plantation and social units - collective action for resource management is more likely to occur when the boundaries of the resource and the boundaries of the social unit managing the resource coincide
- Ensuring adequate financing of community management activities
- Generating sufficient knowledge and expertise about plantation management
- Overcoming conflict within and between community groups
- Managing the long timeframes involved in tree-growing – separating the benefits from the costs – and sometimes the disincentives of seasonality clashes between farming and forestry activities

Box 27 offers some attributes of both plantations and community organisations which make them amenable to successful programmes of plantation transfer.

Box 27. Attributes of plantation resources and communities that will favour successful transfer of state owned plantations to community-based organisations - a checklist

Plantation resource attributes – natural capital

- Clear and defensible boundaries
- Manageable scale – in spatial terms
- Relative scarcity and/or substantial value
- Relative proximity to communities
- Predictability and ease of monitoring
- Seasonality in tune with livelihoods
- Ease of utilisation

'Community' attributes – social, human, financial and physical capital

- Ability to claim and secure tenure

- Small-scale - in social terms
- Demand for, and dependence on, plantation assets
- Stakeholder identification and group demarcation
- Community/group institutions built on existing motivation (not administrative convenience)
- Representativeness and legitimacy
- Adaptability and resilience
- Effective rules, mutual obligations and sanctions
- Negotiated goals
- Conflict-resolution capability
- Equity in distribution of benefits
- Ability to negotiate with neighbours
- Political space to build community-government relationships
- Confidence to coordinate local operations of external institutions
- Versatile leadership
- Numeracy and literacy
- Strategy and systems for developing and maintaining finance and infrastructure

Source: adapted from Roe *et al* (2000), and the case studies in this project.

Getting the best deal

Generating and committing to some principles for optimal deals. Whether transfers are planned to private enterprises or community organisations, commitment to some principles of good deal-making will help produce an effective and equitable result. One possible set of principles is presented in Box 28.

Competitive bidding. In the case of transfers to private enterprises, an open market bidding-based approach to the transaction is crucial. Such auctions can allocate forest land use rights to the most efficient producer and can maximise sale price and revenue for the contracting authority. However, it is important to recognise that maximisation of revenue comes at the expense of public policy objectives because they are a cost to bidders. Thus sale price and revenue maximisation may thus not be the highest objective.

Spreading the word. It is vital that clear information about the resource and the proposed transaction process is developed and presented in ways which the target groups can access and digest.

Clarity on risks. Risks and burdens in the transaction will be dealt with by the private sector simply in terms of the price they are willing to pay. The greater the risks the larger the discounting in the price offered for the asset. If the objectives of the transfer and transaction costs of the process are unclear – the price offered will also fall.

Recognise that requiring private sector creativity to meet public policy objectives increases risk. A competitive bidding process does not fully proscribe how investors should manage public policy issues, rather it invites them to use their initiative in responding to them. But it is important not to overburden the transaction with so many public policy objectives that it becomes unattractive to investors. Objectives such as revitalising the plantation resource, investing in processing, maximising local ownership and employment – may all present significant risks to the private sector and will have to be carefully weighed up.

Design the tender system for optimised objectives. The tender system needs to be designed to enable selection of the bidder whose bid best reflects multiple objectives. This need not be the bid with the highest price. This requires combining qualitative criteria, such as commitments to future investment and opportunities for local participation and economic empowerment along with quantitative criteria such as the price consideration.

Evaluate bids against agreed criteria and each other. Potential investors are invited to compete against each other in response to the agreed criteria by submitting proposals – which might typically include a business plan and an offer price. These are then evaluated against the agreed objectives and each other to identify a preferred investor.

Box 28. Possible principles for good plantation transfer deals

- *Mutual respect* of each protagonist's legitimate aims
- *Fair negotiation process* where protagonists can engage and make informed, transparent and free decisions
- *Learning approach* – allowing room for disagreement and experimentation
- *Realistic prospects of benefits* – requires work to accurately predict and secure the mix and allocation of short-, medium- and long-term benefits
- *Long-term commitment* – to transfers as sustainable development ventures (e.g. overcoming short term risk aversion caused by rises and falls in pulp markets) – since both trees and trust take a long time to develop
- *Risk management* – accurate calculation, allocation and management of risks in terms of public policy, forest production, price and market fluctuation, social and environmental terms
- *Sound business systems* – practical business development principles at the core, not exploitative relationships
- *Sound livelihoods analysis* – relationships focused on increasing capital assets of the poor, securing local rights and responsibilities, developing the capacities and comparative advantage of local institutions, and incorporating flexible and dynamic implementation paths
- *Contribution to broader development strategies* and programmes of community empowerment, and integration or 'nesting' of plantation transfers within wider national and local land use and development frameworks
- *Independent scrutiny and evaluation* of plantation transfer proposals and monitoring of progress

Source: adapted from Mayers and Vermeulen (2002) and the case studies in this project

PROCESS AND CHANGE MANAGEMENT

Political buy-in

Employ expertise in policy research, institutional development and good governance. Knowledge and expertise, objectively and impartially given, can help clear the vision of partially sighted supporters and potential opponents of change and lay the opportunities and challenges of change open so they can be negotiated.

Strengthen relations between decision-developers and the ultimate decision-takers. Governments and forest authorities are often unwilling to transfer ownership and management. Forest authorities often do not trust communities, for example, to make the right decisions (Fisher 2000). A transfer of decision-making authority to local users implies a corresponding reduction in power of the forestry

department, which may be understandably resisted by forestry bureaucrats (Khare *et al* 2000). Because of this, particularly in "major privatisations", political interventions are required to break deadlocks; these require identification and careful relationship-building with political and civil servant champions.

Work with the media. The media will work for you to get the positive messages of change across if they are convinced of the arguments, but against you if they sense that the case is weak or that there may be ulterior or hidden motives. Be selective; use the medium that is most effective at reaching your target groups and the newspapers and radio and television channels that follow policies of objective broadcasting rather than those that might simply be looking for a story which they will spin for maximum impact.

Buy-in by civil society and private business

Clarify, utilise and build on the complementary skills of the private sector and civil society. The private sector may be particularly strong on: management and technical skills; equipment; dissemination and distribution capacity; contacts and sphere of influence; innovation; financial resources/rigour; and fact action. Civil society may be a rich source of other resources, such as: on-the-ground know-how; development experience and knowledge; people skills; imaginative, low-cost responses to challenges; social mobilisation and public advocacy skills; and associated credibility.

Use issues-based interactions. Bring people to the negotiating table with focused discussions on key issues, not broad vague agendas. Groundwork can then be done effectively to accommodate all relevant stakeholders, secure buy-in and identify possible risks up-front.

Deal with unrealistic expectations. Ensure that key staff have a realistic picture of the scope of the transfer. Maximise regular face-to-face contact with key protagonists. Ensure continuity of approaches and stability of staff in key positions. Try to solve problems while they are still small.

Capacity to manage the process effectively

Get access to technical expertise - in a number of core areas such as forestry management, wood processing, finance, legal and project management and process management expertise.

Secure a dedicated budget against a reasonably flexible timetable. The costs of plantation transfers need to be carefully planned for, and will include the cost of: communicating and providing access to information; raising expectations; specialist skills; a wide range of transactions; and stakeholder involvement. Timeframes are also critical – transfer processes require time and flexibility to build trust and momentum, but need to be short enough to prevent information becoming out of date and energy dissipated.

ENSURING THAT NEW OWNERS/MANAGERS CONTINUE TO SERVE THE PUBLIC INTEREST

Conditions of the transaction

The transaction offers opportunities to safeguard against many of the social and environmental losses that people fear may occur following privatisation and to deliver specific objectives. Restrictions built into transfers are never free; the beneficiary of the transfer will pass the cost back to the government in the form of a lower purchase price or rental payment.

Specifying minimum equity stakes can ensure that target groups are brought in and safeguard against transfer to a single set of interest that may not serve all of the government's objectives as effectively as a joint venture.

Restricting rights to the land can be an effective way of protecting the interests of claimants at the same time as transferring to the new "owners" to ensure a good prices for the government and continuing commitment to responsible management; for example South Africa and New Zealand..

Obligations written into lease agreements can protect customary rights but they may be difficult to enforce where the freehold transfers unless they are protected by law. In contexts where regulation does not enforce good management practice, performance indicators and management standards

backed by government or independent audit can protect against damaging environmental and social impacts. Obligations to disclose the results of audits, for example in the form of annual social and environmental responsibility reports help ensure commitment and transparency.

Performance bonds and rights of resumption to the government secure beneficiaries' commitment to complying with the conditions of transfer agreements.

Instruments external to the transaction

Check the forestry governance framework for gaps. The governance framework (see section 3.2) is key to ensuring that private actors do the things that are required and expected of them. Facilitate national and local strategic fora (e.g. national forestry programme and local governance fora), and other facilities for stakeholder dialogue and to build consensus around forestry goals and forest practice standards. Check that financial incentives (tax relief, direct payments) are pulling managers in the desired direction.

Provide ongoing support to community-based plantation management:

- Convene multi-stakeholder dialogue at national and state level – to transform stale debates and to keep promoting experimentation at local level
- Introduce further democratic processes into forestry departments - training in facilitated frameworks, coherent human resources development policy, formal leeway for front-line staff for experimentation, new forms of reporting, planning, participatory monitoring; curriculum development and staff placement with other departments.
- Upgrade policy monitoring and analysis capacity
- Remove legal hurdles to community rights over forest resources
- Provide clear policy signals to the forest-based private sector to engage with local groups and enterprises and to encourage companies to forge direct links with farmers
- Develop programmes to help tackle intra-community inequity

Use the power of the market to drive up forest practice standards. Certification can force improvements in forest management (Garforth and Thornber 2003). A requirement for certification from export markets, particularly Europe and North America, has stimulated South African producers to keep management standards high. (Dlomo and Pitcher 2002). In Chile, forest owners accept and are willing to undergo performance-based certification; customers, particularly wood chip customers in Japan are pressing for some kind of certification.

But recognise that certification will not work in all situations. Certification is likely to be most effective where:

- There is strong market demand, even though there may be no "green premium"
- It is supported by government, in particular state forest agencies
- There is consensus on standards (which is often hard won)
- In the case of many small growers, there are mechanisms in place to enable cost sharing and co-operative marketing.

No escaping the need for solid practical regulation. In a context of increased reliance on private sector actors, it might be thought that the emphasis is likely to be on less regulation and greater use of voluntary standards and market instruments including payments for environmental and social services (Mayers *et al* 2002).There is no evidence from the case study countries of weaker regulation with more liberal economic philosophies. Rather, regulation appears to be a critical prerequisite for achieving a healthy balance between private sector investment and public needs.

- *Chile*, the most liberal and the first to privatise its state plantations, requires plantation managers to get government approval of a management plan before they carry out activities. There are severe penalties for non-compliance (Morales, 2002).

- In the *UK*, forest owners, including plantation owners in England, Scotland and Wales are required to apply for a licence for permission to fell more than small quantities of timber. The Forestry Commission has powers to impose conditions with the licence and operates a presumption that all felled stands should be regenerated except where removal of the plantation may result in environmental gains.
- As *China* has shifted growing areas of collective forests to private households and household groups, its ability to achieve forest management standards directly has been severely weakened. In response, the State Forestry Administration has worked hard to develop new forest management standards centred on a system of harvesting certificates. It is also actively considering a system of mandatory forest management certification (see discussion on certification below) (Lu Wenming *et al* 2002).
- *India.* The Forest (Conservation) Act 1980 strengthened the central government's control over forests and regulated change in the land use as well as transfer of ownership. Two new clauses added to the Act in 1988 have affected the private sector's involvement in forests and in several types of plantation (eg rubber, palms, oil bearing plants) on state forest lands. According to sub-clause 2(iii) any forest land or portion thereof may not be assigned by way of lease or otherwise to any private person or to any authority, corporation, agency or any other organisation not managed or controlled by the government without the prior approval of the central government. Sub-clause 2(iv) prohibits clearing of naturally grown trees on forest land for the purpose of using it for afforestation.

MANAGING THE GOVERNMENT'S POST-TRANSACTION RESPONSIBILITIES

Powers and duties of "regulator/supervisory body" need to be clearly defined, appropriate to purpose, understood inside and outside the body and accepted by users. Powers should not be so great as to allow the supervisory body to prevent private actors making the fullest possible use of their new rights, but should be sufficient to ensure that rights are exercised responsibly.

Motivation and capacity in the supervisory body. Ensure that the culture of the supervisory body is supportive of increased private sector participation. Prepare staff for their new "enabling" role through organisational change and training programmes.

5. Conclusions and ways forward

In this final chapter we draw conclusions on the extent to which the benefits that governments and other players seek from changing ownership and management of state plantations have been achieved in the countries studied, drawing also from wider experience. We identify the stumbling blocks to successful change processes and suggest how this synthesis of lessons from experience and guidance can be applied in future transfers. Finally we suggest what needs to be done to ensure that initiatives to change ownership and management of state-owned plantations keep improving.

5.1 Changing ownership and management – are there real benefits?

EFFICIENCY AND PROFITABILITY OF ENTERPRISE

Profitability can rise – with some kick-start investment. Privatisation of management activities and operations by out-sourcing services can reduce costs and increase profitability of state plantation enterprises, substantially in some cases. Gains are achieved when service providers have the capacity and technical competence to deliver the required outputs and when there is sufficient competition. State enterprises need to be prepared to incur costs to achieve these two conditions. Costs may take different forms: cash payments to support start-up or development of contracting and training organisations; transfers of machinery; guarantees of work to take new contracting business through the start up period.

Out-sourcing is efficient - for operations and support services in particular. With few exceptions out-sourcing has been focused on plantation operations, supply of materials and support services – establishment, felling and extraction, seedling production, vehicle and machinery supply and maintenance – the capacity and skills for which can be developed quickly. Out-sourcing of management planning activities may also yield gains but the evidence is weaker. The private sector certainly can develop the skills for e.g. inventory, environmental assessment, ecological landscape design; the factors that drive costs of private sector plantation operations below in-house provision are just as likely to work here.

But there are exceptions. The design of the forest restitution process in EU accession countries, geared as it has been to returning forest assets to their former owners or their successors, will probably not yield any efficiency gains Indufor and Eco (2001). The small size of the holdings, the lack of interest or capacity and skills to engage in forest management all serve to reduce efficiency and profitability.

INVESTMENT AND INNOVATION

Unleashed creativity brings substantial economic returns. Entrepreneurial drive encouraged by the transfer of some or all of the assets represented by plantations has increased the financial return on the assets. Clarke (2000) concludes that the New Zealand privatisation has been a positive influence, though it cannot claim all the credit. In China, small township and village enterprises (TVEs) have developed, many associated with plantation management. TVEs have become the fastest growing component of China's economy. Ninety percent of China's papermills are now TVEs, and they have grown more rapidly than the state-owned paper mills (Xu 1999).

Transaction processes can develop new levels of trust and strategic thinking. South African sawmillers are finding the industry "interesting" again after several years of downbeat performance. (Dlomo and Pitcher 2002). By moving away from a conflict-ridden set of relationships between government and private sawmillers to an integrated one where trees are grown to meet the specifications of improved technology, companies are really starting to think bigger scale and global. If these expectations are achieved then the process will have laid a foundation that could have a significant impact on the SA economy and contribute local economic development in the areas where forests occur. The homeland

forests of South Africa could easily increase productivity by 50%, feeding increased processing capacity and job opportunities.

Privatisation can stimulate investment in processing. Chile has a thriving wood processing industry based entirely on privately owned plantations. Clarke (2000) concludes that privatisation has facilitated on-shore processing in New Zealand and that fears that privatisation would encourage log exports have proved unfounded. The South African government's 2003 budget speech had this to say about the privatisation process:"*The restructuring is already bearing fruit. We were delighted to learn that Mondi South Africa is investing R2 billion to expand its mill in Richards Bay by some 40%. The project will export pulp worth an additional R500 million per year. Approximately R800 million of the investment will be spent in South Africa, with obvious spin-offs for local businesses and their employees and Mondi has undertaken to use the project to expand procurement from black-owned businesses and its training of historically disadvantaged South Africans. Madam speaker, much of the timber needed will come from Siyaqhubekha Forests the empowerment company that successfully bid to take over management of the forests around Richards Bay. We should celebrate these developments that the restructuring has unlocked as well as Mondi's commitment to investment in South Africa."*

But conditions have to be just right…Investment in wood processing is not necessarily linked to forest ownership. There is an increasing trend for large wood processors to divest their plantation assets, so the argument that processors need security of wood supply by owning their plantations (eg in NZ in the 1980s as part of the justification for privatisation) does not appear to be holding up. Recent divestments include the 2001 sale by Paperlinx of their plantation estate to HVP for $152 million and Fletcher Challenge in NZ announcing their intention to divest themselves of their plantation assets. However, there are other examples of processors expanding their plantation assets, eg Gunn in AU. In general there is no clear argument that owning plantations increases security of wood supply and hence encourages investment in wood processing b the companies owning the plantations (Schirmer and Roche 2003). The New Zealand case study suggests that privatisation has been successful to some extent in encouraging investment, but many believe that tying up capital in purchasing trees limited the capacity to fund investment in downstream processing. Other options, ie corporatisation, may enable more rapid investment in downstream processing than outright sale of plantation assets (Schirmer and Roche 2003). Large scale privatisation did not suit the UK's wood processors, who were concerned about losing the security of wood supply tied up in long term agreements with the Forestry Commission, or NGOs concerned about the impact on access and other plantation public services. The idea that the Commission was managing its estate for the nation was too deeply rooted for the government to be able to force through privatisation of more than a small proportion of the Commission's forests.

PUBLIC SPENDING

Outsourcing is an effective way of reducing public spending. Efficiency gains from out-sourcing lead directly to reductions in public expenditure. Savings come mainly from reductions in the labour costs, private enterprise having higher levels of productivity per employee.

Gains from asset transfers can be achieved is some circumstances. Net reductions in public spending from asset transfers are most likely to be achieved where the objectives of the state enterprise are focused on exploitation of the asset for profit and demand for public goods and services is low and where the new owners are geared up for management. China in the 1990s, seven million workers moved out of the state sector after the government permitted the sale of some state-owned enterprises and subsequently permitted managers to release redundant labour (Hyde *et al*. 2002). South Africa looks very likely to achieve its objective of unburdening itself from the financial liability of loss-making operations (Dlomo and Pitcher 2002).

But asset transfers are not always an effective mechanism. EU accession countries, on the other hand, are faced with serious difficulties dealing with the additional economic problems forest restitution is likely to result in (Indufor and Eco 2001). The costs of addressing lack of capacity and skills in the private sector, the additional regulatory burden, are countering any reductions in public spending. In

the UK, the additional public spending required to deliver the public goods and services demanded from forests has put any move towards large scale privatisation of state plantations on indefinite hold.

TRADE BALANCE

Assets transfers can stimulate exports and reduce imports. Countries with comparative advantage in wood production and manufacture of forest products and a confident private sector can increase domestic production of higher value products for domestic and export markets. Chile has seen steady growth in the volume and value of forest exports since all state plantations were transferred to the private sector in the 1980s. The share of forest products in export value also increased steadily, reaching a high of almost 15% in 1995.

POVERTY AND LIVELIHOODS

Asset transfers can increase income to rural households and communities. In India JFM has increased the income and livelihood opportunities for many participating communities. They have benefited from employment generated under JFM projects though micro-planning, sales of NTFPs, share in the final harvest, etc. For example, 21.58 million person days of employment were generated in just 6 states in 2000-01 (GoI 2002b). In just 4 states, FPCs received around Rs 65.59 million through benefit sharing mechanisms during 2000-01 (GoI 2002b). In West Bengal, though the sharing percentage is the lowest in the country (25%), each FPC is estimated to have received around Rs 70,000 as its share of timber revenue (Palit 2001). Further, JFM has helped many FPCs to build up substantial levels of community funds, which are used for local development activities. At the end of 2000-01, total community funds under JFM were Rs 557.09 million in seven states (GoI 2002b).

But the contribution is not always clear. In China rural incomes grew more then six-fold in twenty years, but agricultural and reforms and the development of smaller TVEs were the primary sources. Forest income was a supplement to greater household income from other sources (Xu and Hyde 2002).

And benefits may not be distributed fairly. Households at all levels may benefit but better-off households are likely to obtain the greatest proportional benefits (Ruiz-Perez et al. 2002 cited in Xu and Hyde 2002).

Transfers can stimulate higher levels of sustainable production. In Harda Division of Madhya Pradesh, irrigation facilities developed under JFM have increased the crop yield by two to five times. In Gujarat, better availability of grass and tree fodder after the initiation of JFM has led to increase in milk production in several villages. For example, in Nisana village (Vyara Division), it has gone up from 40,000 to 200,000 litres per year. In some states, FPCs have started earning through sale of produce from their forest patches. In four states, FPCs received Rs. 62.59 million through benefit sharing under JFM during 2001-02. Income from NTFP is generally more than the share in timber revenue. (Saigal 2002)

Disadvantaged groups can benefit. Women in several FPCs in West Bengal are able to earn between Rs 4,500 and 6,000 annually through sale of *sal* leaf plates. (Saigal 2002). Transfers to companies with black shareholders and to rural black communities will contribute to addressing the injustices of the past. (Dlomo and Pitcher 2002).

GOVERNANCE

Transfers can change attitudes and relationships for the better. One of the most significant impacts of the JFM programme has been the change in attitudes of local communities and forest officials towards each other and forests. For instance, members of Botha FPC in Buldhana, Maharashtra, even postponed a wedding in the village in order to fight a forest fire. This was unthinkable in the pre-JFM days. In several FPCs, traditional forest protection practices have been revived, for example kesar chhanta (sacred groves) in Rajasthan (Saigal 2002). There is also greater acceptance of participatory approaches among forest protection officials. The large number of training and orientation exercises carried out in different states have also contributed to positive change in attitude. The magnitude of

the effort can be gauged from just one state, Andhra Pradesh, where 20,9087 JFM-related training programmes have been carried out in recent years (Mukherjee 2001). In South Africa privatisation deals require private sector managers to create good relationships with surrounding communities. Not only is this an essential criteria which is assessed for certification purposes, but it is regarded as "just good practice" in many areas. The risk of fire is too great for managers not to invest in working with the communities to build trust. Providing access to the forests for household goods and services will contribute towards this relationship building.

And enhance social capital. The institutional capacity created to manage income streams to new community owners in South Africa will provide a useful platform upon which other local economic development initiatives can be managed. (Dlomo and Pitcher 2002). The UK's limited experience of transferring ownership and management to rural communities points to greater community cohesion and inclination and capacity to act co-operatively (Haggith, personal communication, citing the examples of Laggan and Culag Community Woodland near Lochinver).

Transfers can stimulate greater involvement of other stakeholders. While the JFM programme has created greater space for community participation in forest management it has also led to greater involvement of other stakeholders such as NGOs and *panchayats* and helped to bring greater transparency to the sector. Information from 6 states reveals that 1,061 NGOs are actively participating in JFM. In some state such as Madhya Pradesh and Uttar Pradesh, Forest Department officials and NGOs are working together at the field level in the form of *Spearhead TeamsI* (GoI 2002b).

… and promote leadership and awareness. The discussions between Forest Department officials and NGO staff members, exposure visits and training programmes have catalyzed the development of leadership in villages. Better information flow has made people more aware about various government policies as well as their rights. This has had a positive impact beyond the forest sector.

ECOLOGICAL PROCESSES AND ENVIRONMENTAL HEALTH

Engaging communities as partners helps combat forest degradation and improve forest condition. There is evidence that JFM has improved the condition of India's forests. In the past few years the overall forest cover has increase by 3,896 sq km and dense forest cover by 10,098 sq km, much of it attribute to the success of JFM (FSI 1999). In areas under JFM incidents of illegal felling have declined sharply. It has been reported that in Rajasthan, unlike in the past, people did not resort to felling in JFM areas even during droughts (Ghose 2001). JFM has helped to reduce the area under illegal encroachment as well as the rate of fresh encroachments. For example, in Andhra Pradesh, nearly 12% of the encroached forest land (38,158 hectares) has reportedly been vacated since the JFM programme was initiated (Mukherjee 2001).

And standards can rise under the management of private corporations. South Africa's lease agreements require private sector managers to have their forests certified in terms of an internationally recognised certification agency. Many of the former homeland forests had become severely degraded and were deteriorating up until the point of transfer. Since transfer these forests have been integrated into the certification programmes of the private companies and significant improvements have been made. Streams have been cleared, invasive plants removed, catchment management has improved generally.

5.2 Stumbling blocks

SOME OUTCOMES ARE HARD WON

The experience of countries that have entered the arena of changing ownership and management has been generally positive. But some outcomes are harder won than others. Efficiency, profitability and public spending gains from outsourcing are the most transparently dramatic gains that can be attributed entirely to change. Net reductions in public spending and national welfare gains from

transfer of use rights or ownership are more difficult to demonstrate if the transaction costs and the additional costs of monitoring and enforcement are taken into account.

Most difficult to achieve have been the livelihood outcomes sought from transfers to rural communities. Problems of community technical and financial capacity and human capital, lack of clarity and security over tenure, and the barriers erected by government institutions continue to work against success. All of these problems can be overcome given imagination and determination. The experience of Joint Forest Management in India, of village and household entrepreneurship in China and the expectations of successful transfers to rural South African communities are cause for optimism. Countries such as the UK that have had less success could learn a lot from their experience.

OTHER OUTCOMES ARE NOT WANTED

We should expect unwanted outcomes, some which we can anticipate and attempt to avoid or mitigate, and others that we had not expected. The evidence is that change can be effected without significant negative effects provided that the potential impacts of change are assessed and avoidance or mitigation measures taken within the transfer process or in the broader governance framework within which transfers take place.

Impact on jobs. Efficiency gains invariably mean job losses, but they can usually be anticipated and mitigation measure taken, as in South Africa. Clarke (2000) concludes that in New Zealand the impact is unclear, but given the low labour intensity of forestry in NZ it is more of a perceived than a real issue. The trend of increasing mechanisation in plantation operations in the residual state sector will anyway force job losses. Changing ownership and management may offer options for reducing labour forces that are more equitable than occasional bouts of job shedding.

Loss of forest cover linked to restitution has not occurred in most ECA countries (Indufor and Eco 2001). South Africa, on the other hand, expects a reduction of forest area in the short to medium term as government pulls out of non-viable operations. The future of DWAF's Category B plantations is of particular concern, though this is less to do with loss of plantation area and more to do with job losses.

Quality of management may deteriorate where new owners and managers do not have the capacity or sufficient financial incentive. Indufor and Eco (2001 observe that neglect of forest management and a general backlog of necessary tending operations in the private forest may turn out to be more of a problem than over-harvesting. This is an inevitable consequence of the policy of returning expropriated forests to private owners with no capacity or motivation in small lots. The problem could have been addressed by preparing the new owners for their rights and responsibilities and holding back from restitution until the conditions for success were met.

5.3 Ways forward

HOW TO USE THIS SYNTHESIS OF LESSONS FROM EXPERIENCE AND GUIDANCE

Actors in existing transfer processes and potential new ones should enter the arena with their eyes open, with this book as a source of ideas, and with commitment to help the process meet some basic requirements:

- Appropriate stakeholder engagement methods
- Agreed principles for the transfer
- A proper understanding of all the stakeholders
- Catalysts for the process
- Specific activities and steps
- A phased and 'learning' approach – with room to experiment, fail, succeed and adapt
- Adequate resources, skills and time

- Demonstrable results and benefits, especially some 'early wins' to bring people on board and build momentum

Policy makers need to clearly define the goals of privatisation and design the form of privatisation to meet these goals. Different levels and modes of privatisation will meet different goals. For example, corporatisation my be the best option if wanting to encourage downstream investment in processing rather than tying up capital in trees. Both corporatisation and privatisation and achieve significant efficiency gains with the NZ short lived experience demonstrating a rapid gain in economic efficiency. In other words, outright sale is not the only option that can achieve the goals often aimed for in privatisation. In addition, corporatisation which improves efficiency and profits can work usefully to increase the value of the asset for subsequent sale.

Privatisation does not happen at a stroke; it may take years for the state to divest itself of its stock of transferable plantations. Momentum needs to be maintained and the process kept under review so that opportunities can be taken to improve on the returns to the state and the beneficiaries and avoid unwanted outcomes.

MAKING SURE THAT INITIATIVES TO CHANGE OWNERSHIP AND MANAGEMENT OF STATE-OWNED PLANTATIONS KEEP IMPROVING

Plantation transfer is not about trees; it is about people and power. Transfers of ownership can be the right thing when they put power in the hands of those who can use plantations for equitable, efficient and sustainable ends, and they can be the doable thing when there is absolute clarity of purpose and dedication of practitioners. But transfers can also go astray and be used to concentrate plantation power and privilege in too few hands. Those seeking sustainable solutions need to use all the tactics they can muster to spread sound knowledge and shape the political process such that it finds these solutions.

Evaluation methodologies need to be developed and implemented to provide a consistent approach to assessing the success of existing privatisation. Assessments need to be against a range of criteria (social, economic, environmental) and include assessment of the adequacy of regulation of plantations post-privatisation. Criteria and indicator, and certification frameworks may offer the best monitoring evaluation frameworks.