

THE REGULATION OF WATER-USE IMPACTS OF FORESTRY IN SOUTH AFRICA: APPRAISAL OF THE DEVELOPMENT OF POLICY AND GOVERNANCE

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INTRODUCTION

- In this paper we examine key aspects of the regulation of plantation forests in South Africa
- and describe and assess the system of governance developed to institute the regulatory regime
- against the policy requirements it is intended to serve



OUTLINE

- Introduction and background
- The context: water, biodiversity and forestry and development in South Africa
 - Water and plantation forests
 - Plantation forests and biodiversity
 - Plantation forests and South Africa's development imperatives
- Water and the management of water use
- Governance arrangements for regulating plantation forests
 - Governance
 - Outcomes of the arrangements
 - Further considerations: governance at the strategic level
- Assessment and conclusion
 - South Africa
 - Sub-Saharan Africa



In SA, timber comes from plantations in the finest landscapes



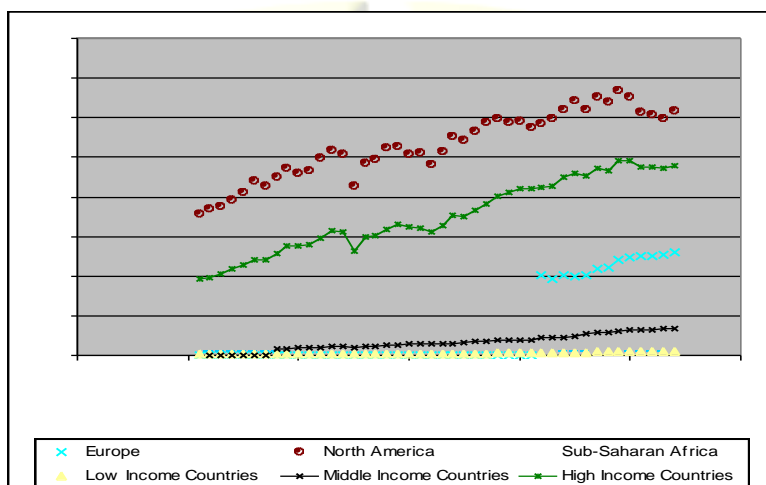


Introduction and background

- about 1.4 m ha of plantation forest in SA, delivering about 18 mm³/yr
- but controversial, conflict-ridden
- However:
 - most of these forests are well managed; over 80% FSC compliant
 - the only significant renewable resource for the lumber, paper and board products to satisfy development needs
 - In SA, 42 kg/person/yr of paper and board consumed reflects development gap - cf 60 "sustainable" (IIED), 100 probably needed (cf Israel)
 - resolution of the joint aspects of forestry and water policy is important, urgent for South Africa's sustainable development, development goals



Paper and board consumption as an indicator of development (www.swivel.com ex World Factbook and WRI Earthtrends)





Water, biodiversity, and forestry in South Africa

- Water and plantation forests:
 - SA a water-scarce country:
 - renewable” water per person 1,154 m³ (Israel 276; France 3,439)
 - of “available” water (i.e. assured yield):
 - 62% is used in irrigated agriculture
 - 3% to plantation forests (consumptive use)
- SA has highly biodiverse ecosystems
 - many of the most important best for plantation forestry.
 - afforestation replaces natural grasslands, & other indigenous vegetation, thus reducing biodiversity
 - so plantations redlined, etc (e.g. CBD-NEMBA-NBSAP)



Forestry and development in South Africa

- Forest sector:
 - “the overall goal of government is to promote a thriving forest sector, to be utilized for the lasting benefit of the nation, and developed and managed to protect the environment”
- Asgi-SA - national development strategy:
 - overarching goal of halving poverty between 2004 and 2014,
 - key themes of economic growth and development, and improving the quality of life
 - forest and forest products sector key component in Asgi-SA
 - sector and industrial strategy
 - and infrastructure development, housing goals
 - Paper & board underpinning QOL



Forestry and employment in SA

- Key requirement of Asgi-SA is accelerated employment creation
- SA since 90's has lost export competitiveness, & de-industrialised relative to e.g. Argentina
- Manufacturing sector recovery and growth vital for jobs
- Forestry and forest products key in this, especially in rural industry



Timber shortage and the options

- SA short now, bottleneck to infrastructure, housing, mining etc
- Estimated need for timber 2030 requires the equivalent of an additional 700,000ha of plantations
- Options difficult:
 - Substitution: unlikely
 - Switching to imports & export substitution: global shortfalls in supply, price, de-industrialisation & job losses
 - Improvements in yields: attractive; but already factored into projections
 - New plantations: recent appraisal of all official studies indicates additional 200,000ha perhaps 575,000ha



Water and the management of water use: general

- The water policy and its instrument, the National Water Act now the main focus for regulating plantation forests
- Policy intent (National Water Resource Strategy):
 - “The National Water Policy (1997) and the National Water Act (1998) are founded on Government’s vision of a transformed society in South Africa, in which every person has the opportunity to lead a dignified and healthy life and to participate in productive economic activity.”
 - achieving “the equitable allocation and beneficial use of water in the public interest”
 - Sustainable use: “striking a balance between water availability and legitimate water requirements, and by implementing measures to protect water resources.”



Beneficial use of water

- The Strategy for Water Allocation Reform states that beneficial use in the public interest includes:
 - economic growth and social development,
 - job creation,
 - equitable access to water for productive purposes,
 - social stability,
 - investor confidence,
 - protection of aquatic ecosystems,
 - efficient and non-wasteful water use, and
 - a balance between the water using sectors.
- By law, these must apply in the approval as well as the refusal of a licence (see below)



Relevant provisions in NWA

- water uses (several kinds) to be licensed;
- licence provides a temporary, five-year (renewable for 40 years in the case of plantation forests), right
- is employed to allocate use rights (equity and efficiency)
- classifies plantation forestry as a use called stream flow reduction activity
 - since it involves the consumptive use before water reaches the manageable and allocatable fraction of the resource.
- provides for water pricing as an incentive for efficient use,
- as well as water conservation and water demand management
- allows the trading of water-use licences.
- decentralisation of governance to statutory catchment management agencies and, at a local level, water user associations
- provides for a Water Tribunal, for appeals against official decisions



Governance arrangements for regulating plantation forests

- Administered through Licence Assessment Advisory Committee for stream flow reduction activities
- Which are destined as WUAs in Catchment Management Agencies
- Manage process leading to decisions into statutes:
 - National Water Act
 - Conservation of Agricultural Resources Act
 - National Environmental Management Act (Environmental Impact Assessments)
- 50-step process, onerous



Performance of the governance arrangements

- Recent analysis of 495 applications for 5 yr from 2000 to 2004 in KwaZulu-Natal and the Eastern Cape:
- Estimated costs to applicants were about R20,000, total cost would have been about R10 million (plus taxpayer, R100,000 per case)
- For KwaZulu-Natal, about 30% of applications have been approved, total 7,000ha - a prospective investment of about R30 million (about US\$4 million)
- In the Eastern Cape, 44% had been approved.
- There are among these applications that have not been resolved after four years.
- Overall, the annual rate of afforestation in South Africa has declined; in 2007 the net afforested area declined by about 3,000ha,
- Since 1990 just 6,000ha net.



Assessment and conclusion

- Thus far, this system of governance has not served the country's goals
- This is not the policy intent
- Increased timber supply urgent and necessary for development, expansion is possible, a strong market for forest products exists and grows
- Governance systems should serve its intent - how?
 - Get rid of asymmetry, achieve balance required by law
 - Rational use of valid information
 - Effective representation of interests



Finally, looking beyond SA

- Africa's MDGs will demand increased per capita consumption of forest products - 15-fold increase?
- May need 10m - 20 ha additional plantation area, to protect native forests
- What can we learn of SA's history that would help toward sustainability?
- Certification seems to work, but planning and regulation has fallen short in SA?
 - excessive burden?
 - lack of common understanding or scientific information?
 - lack of balance of interests?



Final considerations

- Can we improve the combination of policy instruments, institutions, and governance?
 - What of market-based instruments?
- Are we ready for a different future?
 - What of bio-energy and energy forests?
 - See the New Zealand Lignocellulosic Bioethanol Initiative, and Bioenergy Options for New Zealand

