



**agriculture,
forestry & fisheries**

Department:
Agriculture, forestry & fisheries
REPUBLIC OF SOUTH AFRICA



FAO



NFP Facility

Integration of Climate Change into the National Forest Programmes

South Africa Workshop

Johannesburg, 22-23 April 2010

Workshop Report

1. Background

The Department of Environmental Affairs (DEA) is responsible for climate change facilitation and coordination in the country. The department has a mandate to liaise with various priority sectors including forestry, in driving the implementation of climate change policy. The Department of Agriculture, Forestry and Fisheries (DAFF) Forestry Branch is the forestry sector leader. DAFF has a mandate to develop and monitor the implementation of policies, strategies and plans in the sector. Forestry policies such as the White Paper on Sustainable Forest Development (1996) include plantation forests, indigenous/natural forests and woodlands/savanna forests in their definition of forests. This implies that the department has the ultimate responsibility to develop policies in all three aspects and consider the economic, social, political and environmental implications. Climate change is one of the important areas where the department is responding to the call by DEA to develop a forestry sector plan on mitigation and adaptation.

Forests in South Africa have an important role to play in addressing the effects of climate change. They provide great opportunities for adaptation by increasing both resilience and providing favourable options for people and ecosystems. They also have significant mitigation potential, particularly as carbon sinks. Current policy and legislation in forestry were not developed with climate change considerations in mind. It is now important for the department to integrate climate change into existing forestry policies as well as to develop a climate change mitigation and adaptation strategy. The workshop was intended to support this effort. DAFF has been requested to prepare a Forestry Climate Change Sector Plan. This will guide DAFF's work in climate change, and will also serve as the basis for inclusion of forestry aspects into the South Africa's national climate change policy.

FAO's partnership with South Africa in organizing the workshop is linked to a larger programme. FAO's Forestry Department and the National Forest Programme (NFP) Facility, a multi-country and multi-donor partnership whose Secretariat is housed at FAO Headquarters, initiated a joint effort in 2009 to assist countries integrate climate change into their forestry sector. The focus is at policy level. It concerns the identification of needs to adjust existing policies, legislation, institutional frameworks and governance arrangements, through national forest programme processes, to address the emerging challenges and opportunities posed by climate change. In the first phase, FAO is partnering with five countries to convene multi-stakeholder workshops to discuss climate change and forestry issues. In the second phase, draft guidelines for incorporating climate change into the forestry sector at policy level will be developed through an expert consultation process, drawing on the experience and outcomes of the national workshops. In the third phase, the guidelines will be tested in the participating and/or other countries, finalized, translated into other languages, and disseminated. Subsequent to this, FAO will offer assistance to countries in facilitating the use of the guidelines and the process of forest policy, legislative and institutional adjustment reform. In a separate effort, FAO is working with the International Tropical Timber Organization to develop guidelines for incorporating climate change adaptation and mitigation actions in forest management planning and practices. FAO hopes that these two sets of guidelines – at policy and at field management level – will be useful to countries in their efforts to address forest and climate change issues.

2. Objectives

The objectives of the workshop were:

- To raise awareness and exchange views among stakeholders on climate change and forestry issues in South Africa,
- To provide input into South Africa's Forestry Climate Change Sector Plan, and
- To generate information that will contribute to the development of international guidelines on integrating climate change issues into the forestry sector at policy level.

3. Workshop agenda and participants

The workshop agenda is provided in Annex 1.

Forty-one participants attended the workshop. These consisted of representatives from government departments such as the Department of Agriculture, Forestry and Fisheries (DAFF), the Department of Environmental Affairs (DEA), the Department of Trade and Industry (DTI), Local Municipalities; research institutions such as Council of Science and Industry Research (CSIR), industry such as Forestry South Africa (FSA), Independent Consultants, etc. The list of participants is found in Annex 2.

4. Workshop proceedings and results

4.1 Presentations

The opening presentation on "Forestry and Climate Change: Global Perspective" was presented by **Ms Susan Braatz**. The presentation first looked at the role of forests in the global carbon cycle. The role of forestry in mitigation was highlighted, from the perspective of forest management options and forest products management. An overview of political realities was presented, noting that mitigation needs to happen in both industrialized and developing countries, but that financial and technical support would be needed to enable the latter.

The outcomes of the Copenhagen meetings of the United Nations Framework Convention on Climate Change (UNFCCC) in December 2009 were highlighted, in particular those related to the forestry sector. Specific mention of forests in the Copenhagen Accord was indicative of the importance attached to reducing emissions from deforestation and forest degradation and other forest mitigation potentials in developing countries (REDD+). Issues still under negotiation in UNFCCC, including on REDD+ and on land use, land use change and forestry (LULUCF) were presented. Key points on how best forestry could respond to the international policy developments was provided. An overview of on the work of UN-REDD was given. This presentation helped to inform delegates on the general status of negotiations, possible outcomes, agreements and implications thereof. The answered and unanswered questions and challenges in global engagements and the complexities associated with needs and expectations of industrialized and developing countries were highlighted.

Mr. Michael Chihambakwe explained the concept of National Forest Programmes (NFP). His presentation titled "The Concept of National Forest Programmes" introduced the concept and emphasized that it must be embedded in the country's efforts towards sustainable development (hence mobilizing the contribution of forests and forestry). Mr. Chihambakwe explained that a National Forestry Programme is a country specific process, a multi-stakeholder dialogue and a framework for sustainable forest management (SFM), and further emphasized what it is not.

The presentation also provided a guide for the formulation of an NFP, by looking at clustering of NFP principles, the phases and the elements in NFP formulation. The

presentation concluded by looking at challenges ahead, highlighting how to put it into practice, long term focus, quality standards and monitoring.

Mr Nkoniseni Ramavhona, in a presentation titled “Climate Change Adaptation Sector Plan”, outlined South Africa’s policy framework on climate change adaptation. This has been adopted by Parliament as the country’s broad policy direction. The plan consists of six themes: (i) Greenhouse gas (GHG) emission reductions and limits (ii) Build on, strengthen and/or scale up current initiatives (iii) Implementing the “Business Unusual” Call for Action (iv) Preparing for the future (v) Vulnerability and Adaptation and (vi) Alignment, Coordination and Cooperation. The activities of the National Adaptation unit were presented with specific deliverables identified.

The national adaptation framework provides guidance for the development of a national policy and of sector implementation plans. This ensures alignment of sector plans with a national policy. The presentation outlined the purpose of the framework, implementation and key policy milestones. Highlighted amongst these is the key policy direction on understanding, implementation and monitoring of adaptation, Identification of implementation tools and mechanisms and international cooperation. The presentation concluded by addressing the question of whereto from here. It listed ongoing activities and due dates.

Ms Wadzi Mandivenyi, in a presentation titled “Biodiversity and Climate Change Policy Framework: Response Principles and Philosophy” broadly outlined the response of the Biodiversity sector to the Climate Change Policy Framework. The presentation dealt with the role of the Department of Environmental Affairs (DEA) in terms of the development of the Terrestrial and Marine Biodiversity sector strategy and action plan. A key observation that was highlighted during the presentation is that, loss of diversity, ecosystem degradation, and climate change impacts on: Development and security issues, inter-generational equity issues, climate change, development challenges and hence the main goal is to preserve ecosystem/ecological integrity.

The presentation went on to articulate the most common response measures designed to integrate climate change into planning and mitigate other threats. These ranged from reducing loss and degradation of natural ecosystems to prioritization of adaptation strategies that deliver multiple benefits, facilitate resilience and promote cost effectiveness. In closing, the need for integration and an intersectoral approach was emphasized.

Further issues for discussion during this workshop were raised through a presentation titled “Integrating Climate Change Issues into National Forest Programmes” by **Dr Mandla Msibi**. This presentation looked the definition of climate change and noted that both natural variability and human activities contribute to climate change. It outlined briefly the impacts of climate change – with special focus of the South African forestry sector. It clarified that mitigation actions focused on stabilizing concentrations of GHGs in the atmosphere and that adaptation actions responded to risks and impacts of climate change. The presentation further dealt with the possible impacts of climate change on the South African forest sector and listed possible options for mitigation. In South Africa there are predominantly three types of forests, the indigenous, woodlands and plantations. Hence different approaches are used to manage these different types of forests. The issue of how to minimize GHGs both in the long term and short term was addressed though looking at two possible options for mitigation – where it was highlighted that to do this properly one needs to bring in other sectors, and more importantly when it comes to plantations, then water availability plays a critical role.

Forestry mitigation and adaptation can complement each other. A point was raised that, no matter how effective mitigation activities were, there will be a need to deal with the impacts of climate change at least on the short term. Some adaptation options were

identified and the list of South African organizations involved in developing the necessary knowledge were given. The presentation concluded by emphasizing the need to bring mitigation and adaptation into the national forestry programmes and policies, and forestry into mitigation and adaptation.

Dr Brian Mantlana's presentation was on the "Forestry Chapter in the Second National Communication". This is a document produced to fulfil South Africa's reporting obligations to the United Nations Framework Convention on Climate Change (UNFCCC). It serves as a powerful tool for bringing climate change concerns to the attention of policy makers at the national level and for highlighting and disseminating climate change concerns to a wider national audience. Additionally it is used to help countries align national development interests and priorities to the overall goals of UNFCCC. The presentation gave insight into the development of this document and listed all the organizations involved, and the specialists who are part of the drafting team. The production schedule with due dates was presented, and the other products that will compliment the Second National Communication. These are: (a) the summary for policy makers and (b) the popular document.

Mr. Mantlana's presentation also flashed a few points on the forestry and climate change situation in South Africa. These included the following: (i) South Africa's forests are likely to remain constant in area and increase slightly in productivity. (ii) the forest estate and its productivity will decrease markedly while stress and pest or disease attacks are likely to increase (iii) Fires are likely to increase in frequency and intensity due to an increase in dry spells and temperature and (iv) Climate change will exacerbate declines in river runoff due to water use by commercial plantations, agriculture, woody invasive alien species, and urban and industrial land use.

4.2 Breakaway group discussions

The objective of the group work was to identify key issues, gaps and priority needs, as well as required responses and action at forest policy level (including policy, legislation, institutional frameworks and governance arrangements). The goal was to generate information that would be relevant to the Forestry Climate Change Sector Plan. The questions were aligned with the proposed contents of the policy framework so that the responses would be useful in the drafting of the framework document.

There were three breakaway groups, as indicated below with the chairs and the scribes:

- Adaptation
 - Chair: Dr. Emma Archer
 - Scribe: Dr. Ronald Heath
- Mitigation
 - Chair: Dr. Steven Ngubane
 - Scribe: Dr. Mandla Msibi
- Cross-cutting issues:
 - Chair: Mr. Motsamai Nkosi
 - Scribe: Mr. Solly Mabasa

The questions and outcomes of the discussions of the three breakaway groups are provided in Annexes 3, 4 and 5.

4.3 Conclusions and recommendations

The reports of the outcomes of the breakaway sessions and subsequent discussions produced a number of useful conclusions and recommendations. Various needs of the country for addressing forest and climate change were highlighted, and valuable views and recommendations were put forward that will be useful in the preparation of the National Policy Framework for Forestry and Climate Change Response. The key conclusions and recommendations were generated:

- The forestry sector makes an important contribution to climate change adaptation (and mitigation) in the country, and should be adequately reflected in the National Climate Change Adaptation Framework
- Given the contribution of the forestry sector to the achievement of national development strategies, adaptation measures will be important for ensuring that these contributions are not diminished through climate change.
- Greater emphasis should be put on analyzing adaptation needs from a livelihoods perspective and focusing adaptation actions on those that can have the greatest effect on poverty alleviation.
- It is difficult to distinguish the impacts of human-induced climate change from other negative impacts, both natural and human-induced, on forests and woodlands, but we know enough about the threats of climate change to adopt a “no-regrets” strategy and to initiate precautionary action.
- Implementing sustainable forest management and best practices in ecosystem management will increase ecosystem resilience. Applying existing knowledge is a first step that can be taken immediately, later to be supplemented by actions in direct response to actual and predicted climate change impact.
- Strong institutional and human capacity is available in South Africa and should be tapped to address forest and climate change needs. However, increased financial resources need to be devoted and increased expertise in climate change needs to be built in order to effectively address the new climate-related needs.
- It is important that a climate change unit exist in DAFF and that there are climate change focal points in the other DAFF directorates to augment action and facilitate coordination.
- Long-term, well targeted and sustained funding should be committed to support forest and climate change activities and its use should be subject to regular reviews.
- Climate change should be integrated into existing forest policies, institutions, research programmes, expanding or adjusting programmes as necessary; there is no need to set up parallel policies and structures.
- There is a wealth of data and knowledge available in the country, however, research data are often scattered and not easily accessible. Relevant research data should be audited and harvested, a knowledge management system developed to safeguard institutional memory, and research networks and collaborative research and development (R&D) programmes should be strengthened.
- Long term research results should be gathered, and long term research plots and experiments should be maintained and enhanced.
- Forest monitoring systems will need to be upgraded and expanded in order to provide for the collection of needed data for planning and evaluating adaptation and mitigation programmes.
- The definition of forests chosen by South Africa for the purpose of monitoring and reporting to UNFCCC has important implications. There is a need to consider this question, both in light of existing policies, data collection as well as

the potential benefits from REDD+, NAMA and CDM mechanisms under UNFCCC.

- Public awareness of forests and climate change issues is limited. Communications programmes should be launched to increase public awareness and understanding of the issues.
- The discontinuation of forestry extension services should be reassessed in light of the new needs related to climate change.
- Intra and interdepartmental collaborative mechanisms need to be strengthened in order to facilitate exchange of information and coordinated action.

5. Assessment of the results and the next steps

Summary of key findings and views on the way forward were presented by Mr. Fred Kruger. A summary is included in Annex 6.

The steps for the preparation of the National Policy Framework for Forestry and Climate Change Response were presented by Ms. Sebueng Chipeta and were discussed, including preparation of a draft, circulation among governmental and non-governmental stakeholders for comment. The target date for finalizing the draft is July 2010.

The report of the workshop will be drafted, internally reviewed and then circulated for comment by workshop participants by the end of the following week (ie. 30 April).

6. Evaluation of the workshop

The workshop was evaluated using a chart rating system. The chart was divided into four areas where participants rated each one by marking with a cross, rating 5 for excellent, down to 1 for poor. The table below shows an analysis of the results.

Rating	Food Facilities &	Meeting expectations	Logistics & Admin. arrangements	Facilitation & Level of interaction
5	6	6	6	11
4	8	4	6	3
3	2	2	2	0
2	1	2	0	0
1	0	0	0	0

The results show that most participants rated the workshop as excellent or very good in all four aspects.



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NFP Facility

Workshop Programme

FAO Workshop on Integration of Climate Change into National Forest Programmes (NFPs)

Programme Director: Mrs Sebueng Chipeta

DAY 1 (22/04/2010)

TIME	SUBJECT	RESPONSIBILITY
OPENING SESSSION		
8:30-09:00	REGISTRATION	
09:00-09:30	<ul style="list-style-type: none"> • Introduction of participants & presenters • Welcoming & Opening remarks • Workshop Objectives 	<p>Participants</p> <p>Mrs Sebueng Chipeta, Forestry Regulation & Oversight</p> <p>Mrs Rosebud Kurwijila FAO Representaive for Southern Africa</p>
TECHNICAL SESSION		
09:30-11:00	<ul style="list-style-type: none"> • Forestry & Climate Change - Global Perspective • Overview of NFPs • National Climate Change Policy framework • Questions & Discussion 	<p>Ms. Susan Braatz, FAO Rome</p> <p>Mr. Michael Chihambakwe, NFP Facility Coach</p> <p>Mr Nkoniseni Ramavhona, DEA: CC Adaptation</p> <p>Participants</p>
COFFEE BREAK (30min)		
11:30-13:00		

	<ul style="list-style-type: none"> • Biodiversity & Climate Change – national perspective • Forest and Climate Change issues in SA-National Assessment Report • Forest and Climate Change issues in SA • Questions & Discussion 	<p>Ms Wadzi Mandivenyi, DEA: Biodiversity & Conservation</p> <p>Dr. Mandla Msibi, National Consultant</p> <p>Dr Fred Kruger</p> <p>Participants</p>
LUNCH BREAK(1hour)		
WORKING GROUP SESSION		
14:00-17:30 Coffee break	Breakaway group discussions	Participants
BREAK		
18:30-22:00	Cocktail Dinner	Participants

Programme Director: Ms P Dingile

DAY 2 (23/04/2010)

TIME	SUBJECT	RESPONSIBILITY
WAY FORWARD SESSION		
8:30-11:00	Breakaway group presentation of results followed by discussion	Participants
COFFEE BREAK (20min)		
11:20-12:30 Coffee break incl.	Assessment of results and the way forward – Identification of key issues and gaps to be addressed and discussion of the way forward	Mr. Fred Kruger
CLOSING SESSION		
12:30-12:40	Evaluation of workshop	FAO/NFP Facility
12:40-13:00	Closing Remarks	Ms. Sebueng Chipeta, Chief Director

Participants list



agriculture, forestry & fisheries

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NFP Facility

NAME	ORGANISATION	CONTACT NUMBER	EMAIL ADDRESS
PRESENTERS			
1. Mrs Rosebud Kurwijila	FAO Representative for Southern Africa		Rosebud.kurwijila@fao.org
2. Ms. Susan Braatz	FAO Rome		Susan.braatz@fao.org
3. Mr. Michael Chihambakwe	NFP Facility Coach	0123548529/0795295088	Michael.chihambakwe@fao.org
4. Mr Nkoniseni Ramavhona	DEA: Climate Change Adaptation	0123103177/0712421077	nramavhona@deat.gov.za
5. Ms Wadzi Mandivenyi	DEA: Biodiversity & Conservation	0123103395	Wmandivenyi@deat.gov.za
6. Dr. Mandla Msibi	Consultant	0832436305	Mandla@ssrm.co.za
7. Dr Fred Kruger	Consultant	0826037610	fkruger@global.co.za
8. Dr Brian Mantlana	SANBI	0847744131	B.Mantlana@sanbi.org
9. Ms. Sebueng Chipeta	DAFF: Regulations and Oversight	0123367490/0828715715	chipetas@dwaf.gov.za
PARTICIPANTS			
10. Ms Phindiwe Dingile	DAFF: Forestry Development	0123368750/0823254355	Dingilep1@dwaf.gov.za
11. Mr. Motsamai Nkosi	DAFF: Forest Policy & Strategy	0828034346	MotsamaiM@daff.gov.za
12. Ms Sibongile Mavimbela	DAFF: Forest Policy & Strategy	0123366724/0729913534	SibongileMav@daff.gov.za

13. Dr Ronald Heath	DAFF: Forest Policy & Strategy	0123366981/0836116 966	heathr@dwaf.gov.za
14. Mr Solly Mabasa	DAFF: Forest Policy & Strategy	0828063527	mashanguM@daff.gov.za
15. Mr Churchill Mkwalo	DAFF: Forest Policy & Strategy	0825420041	mkwaloc@daff.gov.za
16. Ms Violet Bokaba	DAFF: Forest Policy & Strategy	012 336 7720	VioletBo@daff.gov.za
17. Ms Sarisha Ramanand	DEA: Climate Change Mitigation	0123103849	Sramanand@deat.gov.za
18. Mr Matiga Motsepe	DAFF: Agri. Climate Change Unit	0123196768	MatigaM@nda.agric.za
19. Mr Derrick Makhubele	Department of Trade and Industry	0123941557	Dmakhubela@thedti.gov.za
20. Mr Moses Khangale	DAFF: Forestry Regulations (Fires)	0123367384	khangaleM@dwaf.gov.za
21. Mr Theo Van der Merwe	DAFF: Forestry Regions	0123367669/0828082 729	vandermerwet@dwaf.gov.za
22. Mr Izak van der Merwe	DAFF: FTIS	0123367731/0849102 604	1dq@dwaf.gov.za
23. Dr Sylvester Mpandeli	DEA: Climate Change Adaptation	0123103585/0832604 946	SMpandeli@deat.gov.za
24. Dr Emma Archer	CSIR	0113580171	earcher@csir.co.za
25. Ms Claire Davis	CSIR	0113580079	cdavis@csir.co.za
26. Mr Steven Ngubana	Forestry South Africa	0333460344	steven@forestrysouthafrica.co.za
27. Mr Johan Bester	DAFF: FTIS	0123368171	1cg@dwaf.gov.za
28. Mr Asanda Njobeni	DAFF: Fisheries	0214023409	anjjobeni@deat.gov.za
29. Ms Lindokuhle Ngubane	Ilembe District Municipality	032437900/08337585 23	Lindo.Ngubane@ilembe.gov.za
30. Mr Charlie Ngcilithana	DAFF: Commercial Forestry	0436045437/0846052 851	gcilitn@dwaf.gov.za
31. Mr M W Rozani	DAFF: KZN Office	0828096432	rozanimw@dwaf.gov.za
32. Mr Henni Gwanya	DAFF: EC Office	0828089586	gwanyah@dwaf.gov.za
33. Shapi Shacinda	Reuters	0726978900	
34. Ms Seneo Madikiza	DAFF: Agri. Climate Change Unit	0793101234	seneo@daff.gov.za
35. Mr Ikalafeng Kgakatsi	DAFF: Disaster Management	0828866303	dadrma@daff.gov.za
36. Mr David Makate	DAFF: Disaster Management	0833850044	DavidM@daff.gov.za

37. Mr Zola Sithole	DAFF: Forestry Development	0826009443	sitholez@dwa.gov.za
38. Mr Mbulelo Kelly	DAFF: FTIS	0832292428	kellym@dwaf.gov.za
39. Mr Rony Moremi	DAFF	0733470391	rincertm@daff.gov.za
40. Mr Fanie Mahlangu	DAFF	0722060335	FanieM@daff.gov.za
41. Mr Percy Sepaela	DAFF: Communications	0782868029	PercyS@daff.gov.za

RESULTS OF THE BREAKAWAY GROUP ON ADAPTATION

Q1: Vulnerability and impact assessments

- (i) What is the status of climate change vulnerability and impact assessments for forest ecosystems and forest-dependent communities?
- Very little isolated studies has provided a base line data (Knysna study – Seydack & Midgeley)
 - No long term analyses available to provide real time data (only setting base line now)
 - Lack of data available regarding reliance on plantation forestry by small communities
- (ii) Is there evidence of impacts of climate change on forests and forest-dependent communities, and is there knowledge of the drivers of the impacts?
- Evidence of change / impact is available, but now direct / clear link available to climate change
 - Data is available but seemingly not being utilized
- (iii) What is needed and who should be involved in carrying out vulnerability and impact assessments?
- Standardised protocol for undertaking assessments
 - Establishment of working groups / collaborative R&D programmes made up of existing R&D institutions (use what we have got); communities; FPA's, SAEON other relevant stakeholders and a **coordinating body**
 - Long term committed funding
 - Long term strategies and priorities

Q2: Adaptation measures

- (i) Have necessary adaptation measures in the forestry sector been identified?
- Which list has been established but “**necessary adaptation measures**” has not been identified
- (ii) What actions should be taken on the short and long term?
- Short term:*
- Working with communities to diversify livelihood base
 - Supporting ecosystem based adaptation
 - Integration of climate change in forest curricula
 - Multi objective landscape-level planning
 - Identifying key strategic areas
 - Establishing quantified base lines (long term / permanent monitoring plots / datasets)
 - Performing regressions with currently available data (impact of extreme events)

Long term:

- Multi objective landscape-level planning
- Integration of climate change in forest curricula
- Maintaining quantified base lines (long term / permanent monitoring plots / datasets)
- Supporting ecosystem based adaptation
- Long term secured funding
- Multiple / alternative species production systems

Q3: Implications for communities and other sectors

- (i) What are the potential positive and negative spin-off effects of forestry adaptation measures on local communities and on other sectors?

Positives:

- Assisting sustainability of communities
- Possible water conservation
- Securing bio-diversity
- Environmental sustainability
- Reducing loss to fires and other extreme events
- **Could** expand distribution of plantation forestry

Negative:

- **Could** restrict distribution / expansion of plantation forestry
- Might need to search for new markets and distribution areas (i.e. saw mills and pulp mills)
- Possible re-skilling of rural communities due to possible change in land use
- Cost implications

NOTE:

Certain adaptation measures need to be carefully unpacked to investigate possible unanticipated effects

- (ii) What safeguards could be taken to minimize the negative impacts of adaptation measures?

- Unpacked adaptation measures to investigate possible unanticipated effects
- Establishing collaborative projects (multi institutional projects)
- Improve interdepartmental coordination

Q4: Integration into policy

- (i) What changes will be needed, and if so what, to existing forestry policies and strategies to enable implementation of needed adaptation measures?

- Build climate change into existing policies
- Support for existing strategies (“Working for” programmes and NFP)
- Better enforcement and implementation of current strategies in identified areas of risk
- Informed policy compilation (therefore a need for R&D and effective science communication)

Q5: Monitoring and evaluation

- (i) Are current forest assessment systems adequate for monitoring climate change impacts on forests and outcomes of adaptation measures?
- No!
- (ii) If not, what is needed to develop them?
- Standardised protocol for undertaking assessments
 - Establishment of working groups / collaborative R&D programmes made up of existing R&D institutions (use what we have got); communities; FPA's, SAEON other relevant stakeholders and a **coordinating body**
 - Long term committed funding
 - Long term strategies and priorities
 - "Data audit"
 - Data harvesting
 - Securing support for existing long term monitoring stations (PSP's)
 - Including climate change into Principles, Criteria and Indicators and Standards

Q6: Research

- (i) What research has been done and what more is needed to support forestry adaptation programmes?

Been done:

- a. Insufficient number of isolated studies has performed that provides base line data

Needed:

- Establishment of working groups / collaborative R&D programmes made up of existing R&D institutions (use what we have got); communities; FPA's, SAEON other relevant stakeholders and a **coordinating body**
- Long term committed funding
- Establishing and maintaining quantified base lines (long term / permanent monitoring plots / datasets)

Q7: Technology

- (i) What technologies are needed to facilitate forestry adaptation measures in the country?
- Capturing / "data basing" of available data on a national level
 - Space based technologies for monitoring and assessment
 - Integrated modeling systems
 - Controlled growth and testing facilities
 - Genetic resource database
- (ii) What investments are needed to develop or secure these technologies?
- Institutional and human capacity
 - Long term funding
 - International collaboration

- Support of technologies with basic ground work
- (iii) What barriers to technology transfer for adoption exist and how can they be overcome?

Challenges in skills and HCD:

- Primary and secondary schooling
- Access to information and technology (poor science communication leading to lack of public awareness)
 - Language boundaries
 - Cultural barriers
- Bureaucracy
- Political buy-in

Q8: Finance

- (i) What are the financial needs for implementing adaptation?

- Identify areas requiring funding and avoid duplication
- Long term, sustainable, combined funding
- Subject funding to regular review

Areas for funding:

- (ii) What sources of financing exist for adaptation measures?

- Adaptation fund (UNFCCC)
- Global Environmental Fund
- “Working for” programmes
- Government funding (limited)
- Private sector
- Clean Development Mechanism / voluntary carbon markets
- Copenhagen Green Fund

- (iii) What mechanisms need to be in place to secure internal financing or to access external sources of funds to support national adaptation programmes?

- Multi stakeholder working group chaired by a governmental body
- Levy on CDM projects

RESULTS OF THE BREAKAWAY GROUP ON MITIGATION

Note: Mitigation options in forestry could include reducing deforestation, reducing forest degradation, conserving forest carbon stocks, sustainably managing production forests, afforestation, reforestation and forest restoration.

Q1: Assessment of mitigation options

(i) What mitigation options in the forestry sector exist, and which ones have the highest mitigation potential?

1. Indigenous Forest Types:

- Reducing emissions from deforestation (Not a big issue for SA) and forest degradation (Sizeable and important) (REDD+)
- Reduce forestry degradation - protect all forest types (have many types of forests as possible in protected areas, this will minimize degradation)
- Encourage Participative forestry management programmes
- LULUCF – e.g. to develop a reforestation programme
- PCI&S, FSC. EIA,

2. Woodlands

- Reduce deforestation
- Reduce degradation
- Rehabilitation (Working for woodlands) and reforestation.
- Manage fires (as they emit Nitrous Oxide)
- Same as above)

3. Plantations

- Afforestation (CDM mechanism), 10 000 ha /year
- Rehabilitation of category B and C (not for ecological integrity, but to restore productive capacity – and it will have carbon spin-off)
- Sustainably managing production forests.
- Reforestation
- Management of fires (as a tool)
- Agroforestry

(ii) What are the economic, social and environmental considerations that must be given in developing these mitigation options?

1. Indigenous Forest Types

- Forestry product harvesting
- Institutional considerations
- Develop the supply capacity to reduce the pressure from indigenous forests.
- Incentives to raise awareness, through supporting projects. Create space for the community to participate.
- Gene banking (e.g. Medicinal plants nurseries).
- Woodlots.

2. Woodlands

- (iii) Working for woodlands (economic benefits, and improvement of the environment)
- (iv) Rehabilitation – environmental benefits (ie prevention of soil erosion).
- (v) Hence job creation and international funding

4. Plantations

- Afforestation of commercial plantations - should not happen on sensitive habitat
- Job creating
- Capacity building / empowerment
- Contributing to the timber market
- Land tenure / awareness raising / stakeholder engagement.

Q2: Implications for communities and other sectors

(i) What are the potential positive and negative spin-off effects of forestry mitigation measures on local communities and on other sectors?

1. Indigenous

- Community use. Medicinal use and bark harvesting (there could be some negatives). There is the scientific application, economic and social consideration – especially when considering why some initiatives failed.

2. Woodlands.

- Different uses downstream. There are high value woods, e.g. Kiaat etc. Especially those that are fast growing. Significant opportunities can be created.
- Communities might be negatively affected if already there are using the area as grazing land – and then you start rehabilitation.

3. Plantations

- For fire management: it protects the carbon stock and the productive stand of trees
- Prevention of soil erosion (where the soil is unstable)
- Fires (Negative), possibility of loss of habitat.

(ii) What safeguards could be taken to minimize the negative impacts of mitigation measures?

1. Indigenous

- Invasive plants in woodlots (Proper management of woodlots)
- Bark harvesting (needs regulation)
- Proper yield regulation
- Violence / resistance when forestry is reclaimed. (Proper community engagement)
- PFM (and who does what?)
(Subject for Research: why has it not worked in the past – PFM)

2. Woodlands

- Timber harvesting need to be controlled for sustained benefit
- Research: Rules for carbon accounting.

3. Plantations

- There is an assessment prevents afforestation on sensitive habitats
- Water licensing process
- EIA
- The Greens, i.e. monoculture which may encourage pests.

Q3: Integration into policy

(i) What changes will be needed, and if so what, to existing forestry policies and strategies to enable implementation of mitigation options?

1. Indigenous

- Involve the communities, train them to protect and do the measurement every five years. (Get funding from extended public works programme)
- Incentives. Identify the relevant projects.
- Some of the policies are already in place, but need to be operationalised.

2. Woodlands

- Woodlands are not as protected as natural forests. They cover wide areas etc.
- Reporting and monitoring. The strategy needs to be tweaked, to include issues around REDD. (operationalize)
- Set targets for each of the vegetation types. Each of the types needs to be protected.

3. Plantations

- Couple afforestation with public awareness programme
- Black wattle only invades under special circumstances (there is a myth)
- Water: if you can make carbon gains, then the policy needs to be considered.
- Approaches to veld management
- Review of policy

- (ii) What changes to forest policy and legislation would be needed to ensure equitable benefit sharing (including sharing of financial benefits from forest carbon projects)?

1. Indigenous

- Financial incentives
- Channel money to development projects (the Bakwena Community).

2. Woodlands

Similar to above

3. Plantations

- Capacity building, to improve access to public knowledge. "Public knowledge considerations.

Q4: Monitoring and evaluation

- (i) Are current forest assessment systems adequate for monitoring forest carbon, and, if not, how can they be improved?
- We still need to develop assessment systems for the other forests (Indigenous and Woodlands). We need an assessment of the actual carbon gains, and be able to compare forest types. Develop new assessment technologies (satellite based). E.g. Lidar. Remote sensing.
- (ii) What would be needed to assess positive and negative effects of mitigation measures on local communities and other sectors?
- Tools like social surveys, etc. (household survey, poverty assessment, livelihood assessments).
 - Other sectors: Water, energy, tourism, etc – information from STAT-SA

Q5: Research

- (i) What research has been done and what more is needed to support forestry mitigation programmes?
- *Forestry growth and productivity*
 - *Water use, forest, biodiversity and economics (indigenous and plantations)*
 - *Species specific equations (for measuring carbon balance)*
 - *Climate change monitoring*

- *Rural livelihoods*
- *Risk profiling, risk mapping, vulnerability analysis*
- *Community based natural resource management*
- *Sampling design*

*Underlined, means it is needed.

Q6: Technology

- (i) What technologies are needed to facilitate forestry mitigation measures in the country?
- (vi) *Remote sensing, including LIDER*
 - (vii) *Early warning systems (fire danger)*
 - (viii) *Fire monitoring system*
 - (ix) *Accounting methodologies*
 - (x) *Other satellite-based system*
 - (xi) *Technologies for the propagation of alternative plantation systems*
- (ii) What investments are needed to develop or secure these technologies?
- *Capacity building*
 - *Archiving and filing system*
- (iii) What barriers to technology transfer for mitigation exist and how can they be overcome?
- *Archiving and filing systems*
 - *Expensive technology*
 - *Look at in-house technologies*
 - *MOU's and other bilateral*
 - *Language and communication*

Q7: Finance

- (i) What are the financial needs for implementing mitigation?
- *Capacity building and HRM*
 - *Technology*
 - *Information Archiving*
 - *Knowledge bank*
- (ii) What sources of financing exist for mitigation measures?
- *GEF RAF5 – Business planning and Strategies*
 - *Carbon Markets*
 - *CDM*
 - *REDD*
 - *Bilateral Trades*
- (iii) What mechanisms need to be in place to secure internal financing or to access external sources of funds to support national mitigation programmes?
- *Sectoral Strategies*
 - *National Policies*
 - *Funding from Green Economy strategy*

RESULTS OF THE BREAKAWAY GROUP ON CROSS-CUTTING ISSUES

Q1: Capacity building

- (i) What are the major needs to develop further human capacities in the forestry sector to address climate change adaptation and mitigation needs?
 - Task Team to drive the Climate Change process as an Interim solution for information dissemination and coordination of internal training.
 - There is a need for fully fledged or dedicated unit and personnel for Climate Change that will deal with awareness raising internally and externally; and other climate change activities.
 - Different units within Forestry should also have climate change focal points.

- (ii) What programmes and activities should be implemented to develop capacities?
 - Climate change course to be developed
 - Refresher courses
 - Workshop
 - Information sharing sessions
 - Learnership programmes
 - Extension services

- (iii) What needs to be done to include climate change into school and university curricula?
 - Investigation on development of curriculum development process – Legal framework.
 - Promote the inclusion climate change curriculum in schools – Career days.
 - Initiating competitions on climate change.
 - Seek political buy-in.
 - Developed MoU with DoE (Basic Education and Higher Learning)

- (iv) What is needed to empower local communities to participate in the planning and execution of climate change activities?
 - Participatory rural approach/ PFM
 - Influence inclusion of Forestry/Climate Change on IDPs
 - Existing Forestry structures – FPAs,
 - Initiating practical CC projects at a local level – Woodlands rehabilitation, planting trees projects

Q2: Public awareness

- (i) What is the current level of public awareness on climate change issues in general and in forestry aspects in particular?
 - It is very low to non-existent.

- (ii) What programmes should be developed to raise public awareness on the role of forests on climate change mitigation and adaptation?
 - Promotional materials, media, workshops, awareness campaigns, reader friendly posters and billboards e.t.c

Q3: Stakeholder consultation and participation

- (i) Who are the major stakeholders?
 - Traditional leaders, Communities and Local Municipalities, DoE, Institutions of Higher Learning, DEA, Forestry Industry, NGOs, Labour
- ii) What steps should be taken to ensure that they are adequately consulted and engaged in decision making and implementation of forests and climate change programmes?
 - Use of indigenous knowledge while consulting,
 - Participatory Forest Management
 - Local participatory planning – to influence IDPs
 - Ensure consultation with the Traditional leaders

Q4: Equity and transformation

- (i) What measures need to be put in place to ensure national equity and transformation goals are met while carrying out forestry climate change activities?
 - Forestry Transformation Charter – Ownership, skills development, mentorship and transfer programmes.
 - Ensuring Transformation Guidelines are in place to influence forestry climate change activities.

Q5: Institutional arrangements

- (i) What institutions need to be involved in the development and implementation of a national forestry strategy on climate change? What are their relative roles and responsibilities?
 - DoE and Institution of Higher learning – Guidance on Curricula development, Implementation of the Curricula
 - DEA – provide leadership (policy development and legal framework) and weather services
 - Sector Education and Training authority – Training and skills development
 - Forestry Industry- mentorship and skills development
 - Provincial and Local Government Authorities – IDPs and PGDS
 - StatsSA – providing data
 - Labour – ensure labour issues are incorporated in the Sector Plan
 - DWA – advice on Water Resource Management
 - Research Institutions – Providing information on Climate Change
 - NGOs – ensuring accountability and compliance
 - SAQA – Accreditation of curriculum.
- (ii) Are existing mechanisms adequate to ensure intra-departmental and inter-departmental collaboration and coordination and liaison between governmental and non-governmental entities? If not, what would be needed?
 - No – establishment of Multi-stakeholder consultative forum.
- (iii) What support would be needed to reinforce forest research institutions' capacity in climate change?
 - Funding
 - Research coordination

Conclusion : funding and political buy-in cuts across all of these.

Assessment of the results of the workshop and inputs to the National Framework for Forestry and Climate Change Response

The following summary of the results of the workshop deliberations and key points to be included in the National Policy Framework for Forestry and Climate Change Response was provided by Mr. Fred Kruger. He categorized the key areas to be in the Framework, as follows:

- **Business case**, including:
 - forest monitoring and assessment
 - the forestry sector's roles in contributing to the macro-economic situation of the country
 - the forestry sector's roles in improving livelihoods and reducing poverty
 - the forestry sector's roles in providing ecosystem services

- **Information collection and analysis**, including:
 - analysis of potentials to enhance carbon sinks and reduce sources of greenhouse gas emissions from forests and forest products, from which can be derived Nationally Appropriate Mitigation Actions (NAMAs) in South Africa's forestry sector;
 - status of sustainable forest management in South Africa
 - constraints to achieving SFM, to addressing the drivers of forest and woodlands degradation and clearing, and to forestry adaptation and mitigation actions
 - information on sources of financing for forestry adaptation and mitigation from donors, funds and carbon markets

- **Alignment**

The national forest sector response to climate change must be aligned with the following:

 - existing forest sector policies, strategies, plans and legislation
 - a range of other sectors' policies (*i.a.* biodiversity, energy, agriculture, etc.)
 - national development strategies and frameworks (*i.a.* NSRDS, IDP-PED Nexus; DST, etc.)
 - national commitments to international conventions and processes (*i.a.* UNFCCC, UNCCD, CBD and UNFF)

- **Opportunities**
 - Strengthening intersectoral cooperation and coordination and multi-stakeholder processes
 - Attracting additional financial and technology resources

- **Cross-cutting needs**
 - communication and public awareness raising
 - capacity strengthening
 - knowledge management
 - research and development