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A Summary of Key Points from the Roundtable Discussion on the Payments for Ecosystem Services in South Africa

The East & Southern Africa Katoomba Group
in collaboration with
The Department of Water Affairs and Forestry (DWAF)
Working for Water
Working for Wetlands
WWF-South Africa Program Office
University of Pretoria
&
Jabenzi

Water Affairs and Forestry
Environmental Affairs and Tourism
Agriculture

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BACKGROUND

Presented by Alice Ruhweza, East and Southern Africa Katoomba Group Coordinator

Ms. Ruhweza informed the meeting that the East and Southern African Katoomba Group (E&SAKG) has been collaborating with participating countries[1] to assess:

- Existing payment for ecosystem service (PES)[2] deals that could be expanded or replicated in other sites within East and Southern African nations, and
- Promising potential sites for broadening and deepening either:
    - Engagement in environmental markets (most notably international carbon markets), and/or
    - Application of the payments for ecosystem services (PES) / payments for watershed services (PWS) in countries across the region.

The purpose of this work is to understand the current "state of play" in terms of existing and potential PES initiatives within the East and Southern Africa region. The end goal is to contribute both to conservation and rural economic development, including poverty alleviation objectives. The South Africa roundtable is a key step in undertaking this PES assessment in this particular country.

PREPARATION

Presented by Dr. Christo Marais, Department of Water Affairs and Forestry, Government of South Africa

Dr. Marais informed the roundtable participants that the assessment in South Africa started in March 2008. Discussion at the roundtable would build on this preparatory work, which has included:

- **Updating of the previous PES inventory**, conducted in 2005, by revisiting all of the projects to provide a record of performance
- **Documenting details of** new, or previously undocumented, **PES deals**
- **Identifying promising PES deal sites** and documenting the rationale for why site potential
- **Applying a value chain analysis to one promising potential PES site**, in order to understand the site-specific dynamics associated with a particular possible PES site

KEY FINDINGS

Presented by Dr. James Blignaut, University of Pretoria, South Africa

Dr. James Blignaut noted that while the inventory writing process fits into a much larger East and Southern Africa Katoomba Group Regional PES Scoping context, and is for a dedicated audience, it

[1] Participating countries are Kenya, Madagascar, Malawi, South Africa, Tanzania and Uganda

[2] As laid out in the Katoomba Group's PES inventory methodology: "Ecosystem services payments include both monetary and non-monetary transactions (such as deals related to shifting property rights) between an individual (or a group of people) who provides services ("sellers") and an individual (or a group) who pays for maintenance of these services. The key characteristic of these buyer/seller transactions is that the focus is on maintaining a flow of a specified ecological "service," such as retaining clean water, biodiversity, and carbon sequestration capabilities. In order to ensure that the ecological service is indeed maintained—as buyers expect for their money—the transactions require regular, independent verification of sellers' actions and effects on the resources. In sum, the key attributes of ecosystem service payments and markets are that sellers (a) maintain specific ecological structures and functions, and (b) remain accountable to independent verifiers that the "service" being paid for is indeed being delivered."

provided the opportunity to think critically and innovatively about PES in South Africa. He made the following observations:

- **There are no legal impediments to enter into PES in South Africa, but PES does not automatically happen even without this potential obstacle.** Rather, PES requires a deliberate effort to get a positive return on investment given the required effort and high risks involved.

- **Some form of broker/transaction advisor and/or facilitator is essential** to lubricate the institutional inertia.

- **The major challenge in South Africa is** (usually - yet not always) **organising the sellers**.

- **Bundling of services seems to be financially more viable, yet institutionally more complex**.

- **There are currently no functioning (traded) afforestation/reforestation or avoided deforestation projects.**

- **The South Africa landscape is dominated by the Extended Public Works Programs (EPWP) that are poverty-linked and not really market based**. The challenge is to convert the EPWP experience, into functioning PES projects with private transactors.

PROMISING FUTURE PES SITES

Presented by Dr. James Blignaut, University of Pretoria, South Africa

Prof. Blignaut highlighted four potential PES sites as most promising for future work and investment. The criteria for selecting these 4 projects were:

- Degree of Institutional Certainty
- Clearly Identified Market and Market transactors, i.e. buyers, sellers and a transaction mechanism
- Scale and possibility to be replicated elsewhere
- Novelty, yet grounding in rigorous research and evidence

Potetnial Future PES Project # 1:
WWF SAB Water Neutral Project

(Contact: *Dr. Deon Nel, WWF-South Africa*)
The main goal of this project is to harness private sector commitment for the security and wise-management of South Africa's scarce water resources, by reducing water demand and investing in the security of water supply. Industrial and urban use accounts for 3,600 million kilolitres or 30% of total usage in South Africa. In response, the WWF SAB Water Neutral Project is working with the private sector in a 3-step process:

(a) Review water footprints (direct consumption and total value chain) using standardised methodology
(b) Reduce water useage, in collaboration with WWF, through implementing a water reduction strategy
(c) Replenish through investing in water security projects that can offset the 'water deficit'

Potetnial Future PES Project # 2:

Maloti Drakensburg Transfrontier Restoration and Land Use Management Project

(Contact: *Mr. Myles Mander, Future Works*)
An Ecosystem Services Assessment was recently carried out on The Maloti Drakensburg Thukela and Uzimvubu Basins. Results of the assessment show that effective grassland and watershed management can make a significant impact on ecosystem services such as: (1 & 2) reductions in soil erosion and sedimentation of water infrastructure, as well as (3) improving productivity, and (4) increasing carbon sequestration. For example, with only 4 million m^3 water surplus in the Upper Thukela Basin, the 12 million m^3 additional water implies a 320% increase in allocatable water for the lower Thukela basin – with a surplus of 38 million m^3. The additional water represents a 23% increase in allocatable water with a price tag of only R3.8 million. In the Uzimvubu Basin, results show increased winter base flows by 3.9 million and 4.9m^3 per year reduction in sediment loads to rivers and associated water infrastructure, such as rivers, small dams and weirs.

The South Africa Water Pricing Strategy has set mechanisms to charge water users for management of water supply infrastructure assets – including natural assets. There are institutions and institutional linkages to implement water quality/quantity trading schemes, such as DWAF-WFW and Kwazulu Natal Wildlife Agency. The challenge will be the integration of other key role players in implementation – for example conservation agencies, communities, tribal authorities, commercial and subsistence farmers and water utilities to mention a few.

This institutional challenge is well worth overcoming, however, as watershed management may be one of the cheapest and socially equitable water augmentation options available to South Africa. In the design phase, it is worth considering that catchment management becomes increasingly feasible when more than one of the services is traded. Therefore, South Africa may consider bundling the services. If this approach proves successful, then this opportunity could equally apply to other mountain communities in high rainfall regions in southern Africa.

Potential Future PES Project # 3:
Baviaanskloof Nature Reserve

*(*Contact: *Dr. Hugo Van Zyl, C.A.P.E***)**
The Baviaanskloof Wilderness Area lies approximately 120 km west of Port Elizabeth in the Eastern Cape Province, South Africa and comprises of approximately 270 000 ha. of unspoiled, rugged mountainous terrain. Because of its amazing biodiversity it has been short-listed for World Heritage Site status. The area, which covers a total distance of 203 km, offers a wide range of eco-recreational opportunities as well as a unique wilderness experience.

CAPE Action for People and the Environment (C.A.P.E) together with partners are planning an ecosystem assessment of the reserve to assess feasibility of markets and payments for ecosystem services. *The project is still in its very early stages – therefore there is no progress to report at this time*.

Potential Future PES Project # 4:
Blue Ridge Mines and Working for Water Initiative

*(*Contact: *Dr. Christo Marais)*
The Blue Ridge project is situated on the Steelpoort cacthment, approximately 30 kilometres Southeast of the twon Groblersdal in the Limpopo Province, on the eastern limb of the Bushveld Complex, South Africa. Mining work started at Blue Ridge in 2001 and has since then carried out extensive exploration of the area including drilling 92 boreholes with 155 deflections.

Like every other mine, Blue Ridge Mine requires a lot of water. Given the acute water shortages in South Africa, Blue Ridge has agreed to enter to into a public-private partnership with the Department for Water Affairs /Working for Water aimed at supporting WfW efforts to clear invasive alien trees and increase water supply upstream of the mine. Blue Ridge will contribute towards the costs of removing the invasive alien trees (currently estimated to be around US$ 9-10 million). Invasive alien trees account for about 3,600 kilolitres of South Africa's water use.

What makes this initiative unique is that it is the first agreement of its kind. *The project is still in the very early stages – therefore there is no progress to report at this time*

DISCUSSION

How can PES build or add value to the existing ecosystem service-related investments, most notably the Expanded Public Works Programmes (EPWP)?

- **Adapt the EPWP rules of engagement for ecosystem services market**. For example, develop the necessary legal agreements, especially long term supply agreements and add economic incentives to current ongoing management.

- **Design with the reality in mind that incentives for prevention are cheaper than restoration**. Therefore, develop a system to provide for bids for maintenance with social equity criteria in order to achieve economies of scale.

- **Contract people in long term management of land / watershed**. Organise the people/communities as suppliers/sellers of ecosystem services- with proper packaging and marketing.

- **Implement water reallocation**. There are possible incentives for PES with the allocation of water rights as provided for under the Water Rights strategy

- **Put in place a PES Agency / Brokerage to facilitate implementation**. –
- **Build Broader Awareness in Society of PES, Values and Commercial Opportunities**
- **Carbon can add value to South Africa's EPWP – modifying them from Government poverty driven programmes to market based approaches**
- **PES projects must be linked to Integrated Development Plans (IDP's) of local authorities**. However WFW struggles with local authorities as implementing agents. There is a need to address this. It will be more appropriate to use a hybrid by linking local authorities with an implementing agent. A "purer" form of PES will therefore be possible, with land users and contractors being directly involved in the market. Conservation agencies and tribal authorities are good examples of such implementing agents or intermediaries.

- **More information on the possibilities of PES for water quality is needed.** It is necessary to draw a link between land use, waterweeds, purification needs, water infrastructure efficiency (pumps etc.) to quantify the value of water quality.

- **Need to address issues of property rights**. In communal areas, who gets paid?
- **More information is needed on the impact of wetlands on purification, flood mitigation and base flows**.

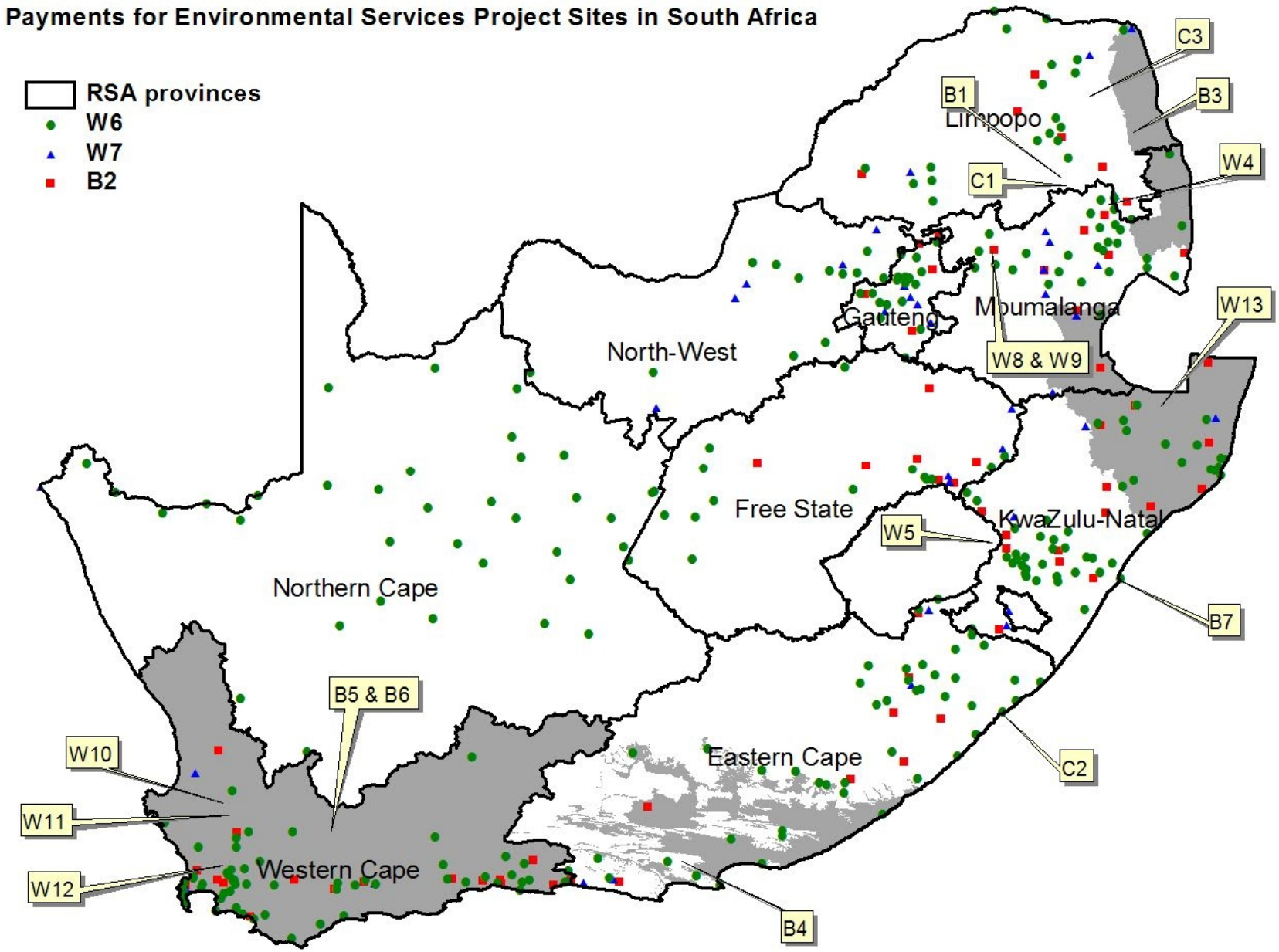
- **There is a need to consolidate existing research on PES to understand what lessions can be used in PES design**.

NEXT STEPS

It was agreed thar the South Africa National Katoomba Group should continue to meet regularly to discuss the above issues and how they can be tackeld. They would also draw on regional and global Katoomba expertise.

ANNEX 1: LIST OF PARTICIPANTS

	NAME	INSTITUTION	EMAIL ADDRESS
1	Dr. Christo Marais	Department of Water Affairs and Forestry,Working for Water, Wetlands and Fire	chris@dwaf.gov.za
2	Dr. Guy Preston	Department of Water Affairs and Forestry,Working for Water, Wetlands and Fire	guy@dwaf.gov.za
3	Dr. Hugo Van Zyl	Cape Action for People and the Environment	hugovz@mweb.co.za
4	Dr. Myles Mander	Future Works	myles@futureworks.org.za
5	Prof. James Blignaut	University of Pretoria, Jabenzi, Beatus	james@jabenzi.org.za
6	Ms. Dudu Soginga	Working for Water Limpopo	
7	Prof. Theo Kleynhans	Stellenbosch University	
8	Mr. Myles Mander	Future Works	
9	Dr. Deon Nel	WWF Water Neutral Project	dnel@wwf.org.za
10	Dr. Edwin Muchapondwa	University of Cape Town	Edwin.Muchapondwa@uct.ac.za
11	Mr. John. Dini	SANBI-Pretoria	Dini@sanbi.org;
12	Ms. Mandisa Mangqwalaza	Department of Water Affairs and Forestry,Working for Water, Wetlands and Fire	mangqam@dwaf.gov.za;;
13	Mr. W.M. Andrews	Water Research Council	andrews@wrc.org.za;
14	Mr. Steve McKean	KwaZulu Natal Wildlife	Steve@kznwildlife.com
15	Dr. Nigel Asquith	Natura, Bolivia	nigel@ecofondor.org
16	Ms. Alice Ruhweza	East and Southern Africa Katoomba Group	aruhweza@forest-trends.org aruhweza@hotmail.com


Payments for Environmental Services Project Sites in South Africa
RSA provinces
W6
W7
B2
C3
B1
B3
Limpopo
W4
C1
Gauteng
Mpumalanga
W13
North-West
W8 & W9
Free State
KwaZulu-Natal
W5
Northern Cape
B7
B5 & B6
W10
Eastern Cape
C2
W11
Western Cape
W12
B4

1. Maloti-Drakensberg: W5
2. Baviaanskloof: B4
3. WWF-SA Breweries: W12
4. Blue Ridge Mine: W8 & W9